



Prevention of HIV/AIDS among Young People in Bangladesh

Improving Access to Life Skills based Sexual and Reproductive Health Education and Condom Services for Male Youth



National AIDS/STD Programme
Directorate General of Health Services,
Ministry of Health and Family Welfare



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Services for Male Youth**

A Collaborative Project between National AIDS/STD Programme, Ministry of Health & Family Welfare and Save the Children-USA, Funded by Global fund to fight AIDS, Tuberculosis and Malaria

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BCC Materials Developed:

- ◆ Manual - LSE on SRH
- ◆ Poster - Dual protection properties of condom
- ◆ Booklet - Safe sex (ABC)
- ◆ Pamphlet - Condom
- ◆ Pamphlet - Ejaculation (Swapnodosh)
- ◆ Banner - Publicizing program

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Dr. S.M. Mustafa Anower

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FOREWORD

Young people are the centre of the HIV epidemic in terms of vulnerability, transmission and impact. The United Nations General Assembly Special Session on HIV/AIDS (UNGASS) emphasised the importance of ensuring access to life skills education and services necessary to reduce young peoples' vulnerability to HIV infection. Bangladesh participated in the UNGASS and is fully committed to the declarations, which is reflected on the National Strategic Plan for HIV/AIDS. Now the challenge is how can we implement the plans for results. The proven interventions in different countries showed reduction of HIV transmission, but spectacular reductions have occurred among young people. The evidence based learning from other countries can help us to design culturally appropriate prevention program for protecting our young generation from HIV infections.

Bangladesh is a low prevalence country for HIV infection, but we should not be complacent as the low prevalence is not due to low-level risky behaviour. Findings suggest that the young people do not have access to basic sexual and reproductive health (SRH) information, skills in negotiating sexual relationships and condom use. The lack of knowledge and skills, and inaccessibility to condom services compounded the challenge the nation is facing. The findings from operations research designed and conducted by Population Council for assessing the feasibility of improving access to SRH information, skills and condom services among male members of youth club aged 15-24 years demonstrated that it is possible to enhance youth knowledge and skills on SRH issues, and condom use. This research also builds a bridge between National AIDS/STD program and Department of Youth Development, Ministry of Youth and Sports.

I express my sincere thanks to the researchers of Population Council and the study team for their earnest efforts in conducting such an important study. My special thanks goes to Save the Children, USA for providing support as Management Agency in conducting this research.



Dr. Md. Hanif Uddin

Programme Manager
National AIDS/STD Programme
Directorate General of Health Services
Ministry of Health and Family Welfare

FOREWORD

Bangladesh is situated in north-eastern part of South Asia and surrounded by high HIV/AIDS prevalent countries. The current low HIV prevalence in Bangladesh with high-risk behavior is giving us 'a wake-up call' to prepare us for combating HIV/AIDS in the country. The nationally representative HIV/AIDS baseline survey among young people indicates that nearly 22 percent of youth had pre-marital sexual exposure and less than one-third used condoms. Youth also visit commercial sex workers, do not use condoms consistently and suffer from sexually transmitted infections as a consequence. Considering the sheer number of youth aged 15-24 years (23 million) in Bangladesh and their involvement in risky behaviour, GFATM round 2 proposal has focused on well-being of young people.

We know peers are the most common sources of knowledge about sexual matters for young people especially for males. But the information they receive is usually limited and erroneous. The success stories from Cambodia, Senegal, Thailand, Uganda and Zambia tell us that knowledge is not enough for curbing the HIV epidemic. Skills and access to relevant commodities is imperative. Condom is the key to preventing the spread of HIV/AIDS and sexually transmitted infections when used correctly and consistently. The findings from the pilot operations research carried out by Population Council clearly showed that by improving access to life skills education on sexual and reproductive health and improved condom services for male youth by trained youth is effective. The interventions resulted in significant increase in comprehensive knowledge of youth on sexual and reproductive health issues such as sexually transmitted infections, HIV, and condoms for its dual protection role, correct steps of using condoms, and its efficacy and skills. It was also found that ensuring access to sexual and reproductive health information along with easy access to condoms increased safe sex practices among youth.

My heartfelt thanks to research team of Population Council for conducting such an important study. I would like to acknowledge the hard work of Save the Children, USA for their continuous support as a management agency.



Mr. Kelland D. Stevenson
Country Director
Save the Children -USA

FOREWORD

Young people are the key to social transformation and determining the future of human society. Globally there are more than one billion young people, the largest-ever young generation is now approaching adulthood. To achieve the Millennium Development Goals, the unmet needs of youth for sexual and reproductive health (SRH) information and services must be fulfilled. Access to SRH information, skills and commodities enable them to handle their sexual and reproductive lives efficiently. There are encouraging evidence from studies in several countries about the benefit of educating youth on contraception, and STI and HIV prevention. Positive association has been observed between life skills education on SRH along with easy access to commodities and reduction in risky behavior.

The effects of globalization, rapid urbanization and greater opportunities for socialization have heightened the risk of sexually transmitted infections and HIV among young people in Bangladesh. The situation is getting complicated, as the young people do not have adequate access to basic SRH information, skills and access to commodities. Youth are not well informed about safer sex practices. This study was implemented with the aim to increase access to life skills education on SRH for male youth and improve the access to condom for them. The study confirmed that imparting life skills education on SRH changed youth knowledge, attitude and behavior positively and easy access to condoms increased protected sex.

I sincerely thank Population Council for carrying out this important study. I also thank National AIDS/STD Program, Directorate General of Health Services for their support in implementing the study.



Dr. Nizam Uddin Ahmed
Director
HIV/AIDS Program and
South Asia Program Advisor
Save the Children -USA

FOREWORD

In Asia as many as 2.2 million youth aged 15-24 years are HIV infected; of them nearly 65 percent are males. Male youth are not well informed about sexuality, safer sex practices and condoms. They lack proper knowledge about their own or their partners' sexuality that makes them more vulnerable to manage sexual and reproductive health (SRH) problems. Accessibility to SRH information, skills and commodities for youth is a global priority as well as a challenge to achieve the Millennium Development Goals. The life skills SRH education along with condom service intervention package not only cover biological facts but also provide youth with practical information including abstinence and impart skills regarding sexual behaviour, STI prevention and condom use.

Findings suggest that peer influence is an important determinant of early sexual initiation. In Bangladesh peers are the main source of SRH information for male youth. As a result, they involve in risky behaviour either by buying unsafe sex from commercial sex workers or involve himself/herself as a sex worker. The current situation demands urgent provision of access to life skills education on SRH and condom service in the country. In Bangladesh there are approximately 5000 youth clubs under the Department of Youth Development, Ministry of Youth and Sports, and Ministry of Social Welfare. Each club has male and female youth members aged 15-24 years. This operations research confirmed that youth need a private place to discuss SRH issues. These clubs are appropriate platform for imparting SRH information and providing condom services to youth by trained youth. The SRH education significantly increased comprehensive knowledge of youth on STIs, HIV, condoms, and risk of teen pregnancy. The trained youth could transfer skills, and change attitude and behaviour of peers positively. Easy access to condoms increased protected sex. Based on these encouraging findings GFATM phase II has supported scaling up of interventions to a reasonable number of youth clubs for identifying programmatic and operational issues, which will be used for further scale up.

I express my sincere thanks to the researchers of Population Council for their painstaking efforts in designing and conducting such a vital study. My gratitude to National AIDS/STD program, Director General of Health Services for their support in implementing the study.

TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY	1
BACKGROUND	4
STATEMENT OF THE PROBLEM	7
METHODOLOGY	9
Objectives	9
Hypotheses	9
Study design	9
Study sites	9
Variables	13
Data analysis	15
Limitations of the study	15
DESCRIPTION OF ACTIVITIES	16
A. Preparatory Phase	16
B. Intervention Phase	22
C. Evaluation Phase	23
i. Findings from process evaluation	23
Number of youth attended SRH session	23
Quality of LSE session	24
BCC activities	25
Condoms sale	26
ii. Findings from impact evaluation	26
Socio-demographic characteristics of youth	26
Exposure to LSE on SRH	27
Knowledge of STI	28
Knowledge of HIV	32
Knowledge about safe sex	33
Knowledge of contraception	34
Knowledge of dual benefits of condom	34
Knowledge of correct use of condom	35
Knowledge of potential health risks of teen pregnancy	37
Knowledge of sex determinants of a child	38
Attitude towards condom	38
Attitude towards people living with HIV	39
Sexual behavior of youth	40
Multivariate results	41
Feedback for strengthening the program	45
D. Utilization and dissemination phase	47
CONCLUSIONS AND RECOMMENDATIONS	48
REFERENCES	50

LIST OF TABLES, FIGURES AND BOXES

LIST OF TABLES

Table 1	Study design	9
Table 2	Distribution of male youth members by YC and site	11
Table 3	Number of male youth interviewed in pre-intervention and post intervention surveys	13
Table 4	Knowledge of peer educators on SRH issues before and after training	21
Table 5	Percentage of sessions with various features of LSE before and after the refresher training	25
Table 6	Number of BCC materials distributed and other BCC activities performed	25
Table 7	Percentage of youth according to their socio-demographic characteristics by site at pre-intervention survey	27
Table 8	Percentage of youth received LSE by experimental sites	28
Table 9	Percentage of youth who knew about name and symptoms of STI by site and time of interview	29
Table 10	Percentage of youth who knew about transmission and prevention of STI by site and time of interview	30
Table 11	Percentage of youth who knew the consequences and treatment of STI by site and time of interview	31
Table 12	Percentage of youth by comprehensive knowledge of STI by site and time of interview	32
Table 13	Percentage of youth who knew about HIV by site and time of interview	32
Table 14	Percentage of youth knew about safe sex by site and time of interview	33
Table 15	Percentage of youth who knew about modern contraceptive methods by site and time of interview	34
Table 16	Percentage of youths' knowledge of dual benefits of condom and condom efficacy by site and time of interview	35
Table 17	Percentage of youths' knowledge of correct use of condom by site and time of interview	36
Table 18	Percentage of youth who knew the potential health risks of teen pregnancy by site and time of interview	37
Table 19	Percentage of youths' knowledge on sex determinant of a child by site and time of interview	38
Table 20	Percentage of youths' attitude towards condom use by site and time of interview	39
Table 21	Percentage of youths' attitude towards people living with HIV by site and time of interview	39
Table 22	Percentage of youth reported sexual behavior and condom use by site and time of interview	41

Table 23	Models, outcome variables and analytic categories	41
Table 24	Adjusted odds ratio of youth knowledge regarding STIs and HIV by site and time of interview	43
Table 25	Unadjusted and adjusted odds ratio (OR) associated with the interaction term of time by experimental sites regarding SRH knowledge of youth	44
Table 26	Percentage of youths' opinion regarding LSE sessions by experimental sites	45
Table 27	Percentage of youths' opinion on usefulness of BCC materials they received by site	46

LIST OF FIGURES

Figure 1	Location of study sites	10
Figure 2	Percentage of male youth who attended LSE sessions over the period of June '05-January '06	24

LIST OF BOXES

Box 1	Awareness on STI treatment	16
Box 2	Necessity of SRH information	16
Box 3	Awareness on abstinence	17
Box 4	Negative impact of satellite channels	17
Box 5	Communication barriers	17
Box 6	Peer approach	18
Box 7	Supportive gatekeepers	18
Box 8	Comprehensive STI and HIV information	18
Box 9	STI knowledge	19
Box 10	Environment of SRH sessions	19
Box 11	Access to condoms	19
Box 12	LSE course contents	20

ABBREVIATIONS

ABC	Abstinence, Be faithful and/or use Condom correctly and consistently
ACPR	Associates for Community and Population Research
AIDS	Acquired Immune Deficiency Syndrome
BCC	Behavioral Change Communication
BRAC	Bangladesh Rural Advancement Committee
CSW	Commercial Sex Worker
DYD	Department of Youth Development
ESCAP	Economic and Social Commission for Asia and Pacific
FGD	Focus Group Discussion
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human Immunodeficiency Virus
ICDDR, B	International Center for Diarrhoeal Disease Research, Bangladesh
IUD	Intra Uterine Device
MCH-FP	Maternal and Child Health-Family Planning
NIPORT	National Institute of Population Research and Training
NASP	National AIDS/STD programme
NGO	Non Government Organization
NSDP	NGO Service Delivery Program
OR	Operations Research
PATH	Program for Appropriate Technology in Health
PE	Peer Educator
PIC	Project Implementation Committee
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Infections
STD	Sexually Transmitted Disease
TV	Television
UNAIDS	Joint United Nations Program on AIDS
UNICEF	United Nations Children's Fund
USA	United States of America
USAID	United States Agency for International Development
WHO	World Health Organization
YC	Youth Club

EXECUTIVE SUMMARY

Around the world youth often do not have access to basic sexual and reproductive health (SRH) information, skills in negotiating sexual relationships and access to affordable confidential SRH services. They lack proper knowledge about their own or their partners' sexuality, communicate very little about sex in their relationships, and believe in numerous sexual myths. In Bangladesh, youth aged 15-24 years represent approximately one-sixth (23 million) of the total population. They are at risk of sexually transmitted infections (STIs) including HIV, and unwanted pregnancy because of limited access to SRH information and services. Some of them are involved in high-risk behavior including practicing unsafe sex, and suffer from STIs. Thus, there is an urgent need for ensuring youth access to life skills education (LSE) on SRH and condom services. Considering the above situation, Population Council conducted an operations research (OR) to assess the feasibility of improving access to LSE on SRH and condom services among the male members of youth club aged 15-24 years in collaboration with Department of Youth Development (DYD), Ministry of Youth and Sports (MOYS). There are approximately 5000 youth clubs operating in Bangladesh. These clubs are either enlisted under the DYD, MOYS and/or registered with Ministry of Social Welfare of Government of Bangladesh. Each club has more than 100 active male members.

A quasi-experimental design with pre-post measurement and two intervention strategies were used. Strategy I, denoted as experiment I, received LSE on SRH along with condom service while strategy II, denoted as experiment II, received only LSE on SRH. The control group received none of the interventions. Three upazilas were selected purposively from Dhaka district. These three upazilas were randomly assigned as experiment I, experiment II, and control. From each upazila four youth clubs were selected. Male club members aged 15-24 years were listed and the list was served as sampling frame for pre-intervention and post-intervention surveys, and for implementing subsequent interventions. Before implementing the interventions, 14 focus group discussions (FGDs) were conducted among the gatekeepers and youth in experimental clubs. A group of peer educators (PEs) from the members of the clubs was selected and trained in both experimental sites to impart LSE on SRH among the club members. The PEs of experimental site I served as condom promoters as well. Pre-intervention and post-intervention surveys were conducted among the same male youth members across experimental and control clubs. Information collected from 603 male youth who were interviewed at the pre-intervention as well as post-intervention surveys was analyzed to determine the impact of interventions.

FGD findings reveal that the gatekeepers are supportive of youths' access to SRH education and services, and the youth are also keen to learn about SRH issues from trained peers and to get access to condom services. The bivariate and multivariate analyses show that interventions had positive effects on youth knowledge of SRH issues. Comprehensive knowledge of STI and HIV was assessed for determining whether an individual youth has knowledge of all four items, such as, at least two symptoms of STIs, at least two modes of transmission of STIs, at least two ways of prevention of STIs, and at least 2 consequences of untreated STIs. Comprehensive knowledge of STIs increased to 13.5 percent from less than one percent in experimental sites ($p < 0.001$) while in control site no significant increase was observed. Similarly, comprehensive knowledge of HIV (at least 3 modes of transmission of HIV as well as knowledge of at least 3 ways of prevention of HIV) increased more ($p < 0.001$) in the experimental sites than in the control site.

Use of condom during sex as a safe sex practice was mentioned by 87 percent of youth during post intervention survey compared to 54 percent in the pre intervention in experimental sites ($p < 0.001$). No change was observed in control site, as the knowledge level about safe sex was as high as 72 percent at pre-survey. Knowledge of the dual benefits of condom use was varied from 1 percent to 11 percent during pre-survey across sites with more knowledge in control site (11 percent). At post- survey, it increased significantly ($p < 0.001$) in experimental sites (33 percent points) while no change was observed in control site. Condom is effective when used correctly and consistently. Knowledge of correct and consistent use of condoms for its effectiveness was as low as three percent in pre-survey, which increased significantly ($p < 0.001$) to nearly 38 percent in post-survey in experimental sites while no significant change was observed in the control site. In pre-survey no youth had comprehensive knowledge of correct steps of condom use across sites. In post survey, the level of knowledge increased significantly ($p < 0.001$) in experimental sites to as high as 20 percent while corresponding knowledge remained at one percent level in control site.

Regarding knowledge of at least three potential health risks of teen pregnancy, no youth had such knowledge in pre-survey across sites. At post survey the knowledge of at least three potential health risks of teen pregnancy increased to 15 percent ($p < 0.001$) in the experimental sites while only three percent increase was observed in the control sites.

Intervention also resulted in significant ($p < 0.001$) positive attitudinal change among the youth of experimental sites regarding use of condom by unmarried sexually active youth for safer sex practices than control site. Though the sample size is quite small, but an increasing trend of condom use among youth was observed over time in experimental site I where condom access was improved through trained peer educators while it remained same in experimental site II, and a decreasing trend was observed in control site.

The project demonstrates that active participation of local level government officials can help the implementation process effectively; focused training and supportive supervision can enable youth to communicate about SRH issues and promote condoms among their peers; providing BCC materials and organizing quiz competitions to make the sessions lively, and these increase attendance in the SRH sessions; and youth can have access to condom services through peers. Indeed, for LSE on SRH youth clubs can be an ideal venue if the clubs are well organized with youth focused activities.

The recommendations based on the study findings are:

- ◆ The youth should be trained effectively to impart LSE on SRH to their peers, since skills and efficiencies of information providers are vital for the success of the program
- ◆ LSE needs to be focused on improving the comprehensive knowledge on SRH issues among youth and to strengthen their skills on safe sex decision making
- ◆ Exposure to LSE on SRH increased youth knowledge, and changed attitude and behavior positively, such program therefore should be scaled up
- ◆ LSE on SRH is not enough to effect positive behavioral changes if services are not available
- ◆ Youth need a private place to discuss SRH issues and youth clubs can serve that purpose

The second phase of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) in Bangladesh provided financial support to introduce the successful interventions of OR activities in 60 youth clubs. The project is being implemented in collaboration with DYD, MOYS. The objectives of the phase wise scale up are to i) identify the programmatic and operational issues for national level scale up; ii) build the capacity of youth clubs to play the key role in prevention of HIV among young people; iii) build the capacity of Youth Training Centres (YTCs) for providing SRH training; and iv) increase comprehensive SRH knowledge, promote positive and responsible attitudes, and strengthen the safe sex decision-making skills among young people. The 60 youth clubs are being selected from 12 districts under two administrative divisions, Dhaka and Khulna, covering nearly 25,000 youth. In addition, the findings of the study are also being utilized in 'building knowledge transfer capacity among project partner organizations' a component under GFATM phase II. As a part of dissemination of project findings, leanings from the project were shared with the program managers, policy makers and the researchers. A research update describing the important findings and lessons learned was published and distributed among the partner organizations and relevant agencies. In addition, the quarterly progress reports were also shared with partners.

BACKGROUND

The largest-ever young generation is now approaching adulthood throughout the globe. A majority of them will have begun to experience sexual intercourse before they leave their teens or during their adolescence, and at least half by the age of 16 (Juntunen 2004; UNAIDS 1997). Most teenage males are not well informed about sexuality, safer sex practices, condoms and other contraceptive methods, and young males are far less addressed than young females by existing health communications and services (Johns Hopkins Center for Communication Programs 1997). They lack proper knowledge about their own or their partners' sexuality, communicate very little about sex in their relationships, and believe in numerous sexual myths (Ndong and Finger 1998). It makes them more vulnerable to manage sexual and reproductive health (SRH) problems. For example, the number of young males contracting chlamydial urethritis, which is asymptomatic up to 80 percent of cases, is increasing, and frequently, sexually transmitted infections (STIs) are being ignored. In other cases, boys rely on home remedies or self-treatment, increasing the risk of HIV infection (WHO 1999). In Asia as many as 2.2 million youth aged 15-24 years are HIV infected; of them nearly 65 percent are males (UNAIDS 2004). Young people's vulnerability is compounded by their scanty knowledge of HIV transmission and prevention. But even where knowledge has substantially increased, it shows that 'knowing' is not necessarily 'doing'. Many young people do not connect knowledge and risk perception with behavior (UNAIDS 2002).

Peers, siblings, parents and the media are the most common sources of knowledge about sexual matters for young people (Hong and Nam 1989; Lema 1990) but the information they receive from these sources is usually limited, and may be erroneous and contradictory in many ways (ESCAP 2001; Ogutu-Ohwayo 1991; McCauley et al. 1995). Discussing sexuality with parents or other adults with whom they can talk about their SRH concerns is not comfortable for many youth (PATH 1998). Parents and healthcare providers are frequently unwilling or not able to provide complete, accurate, age-appropriate SRH information to young people. This is often due to the discomfort they feel and the false belief that allowing access to SRH information will provoke earlier or increased sexual activity (Caldwell et al. 1999; Baldo et al. 1993). Similarly the policy-makers, religious and other influential groups continue to fear that open discussion of sexuality and contraception, and SRH service provisions foster premarital sex and encourage promiscuity (ESCAP 2001; Kiragu et al. 1996). Studies contradict such beliefs and fears. In fact findings suggest that educating youth on contraception, HIV and STI prevention reduces unintended consequences of early sexual exposure (Nafsted 1992), or reduces overall sexual activity (Grunseit and Kipax 1994; Baldo et al. 1993), nor does it increase their intention to have sex (Baker et al. 2003; Reddy, James and McCauley

2005). The SRH educational programs are associated with the postponement of early sex and increased use of contraceptive methods among sexually active adolescents (Kirby et al. 2005; Askew et al. 2004; Nafissatou et al. 2004; Bhuiya 2003; Baldo et al. 1993; Grunseit and Kippax 1994; Blanchard et al. 1993; Herlitz 1993; Wielandt and Jeune 1992). Findings also indicate an association between life skills education (LSE) and decreased numbers of sexual partners, lower frequency of intercourse and increased condom use (Erulkar et al. 2004; Magnani et al. 2004; Baker et al. 2003; Kirby 2001; Ku, Sonenstein and Pleck 1992).

Comprehensive sexuality education programs not only cover biological facts but also provide youth with practical information and impart skills regarding sexual behavior, STI prevention and contraceptive use (Focus on Young Adults 2001). An overview of current STI risk reduction strategies suggests that it may effectively use the ABC (Abstinence, Be faithful and/or use Condom correctly and consistently) approach to change sexual behavior (Shelton et al. 2004; Holge et al. 2002). This approach clearly advocates delayed sexual debut for adolescents (A, abstinence), partner reduction (B, be faithful), and information and skills regarding condom use (C, condoms) (Shelton et al. 2004; Holge et al. 2002). The approach has been successfully pioneered in Uganda where previously STD rates were higher (Anon 1999). Various combinations of ABC behavioral changes appear to have contributed in the decline of HIV prevalence in Zambia, Cambodia, and the Dominican Republic (Genuis SJ and Genuis SK 2005; USAID 2003). It was found that the ABC approach led to significant delays in the onset of sexual activity, decline in premarital sex. A large decline in extramarital sex and multiple sexual partnerships occurred in Uganda and Zambia. This approach substantially increased condom use in all of these countries.

There are examples of a number of interventions, which are primarily focused on male youth, and among them youth-center based, community-outreach based, and peer-education interventions merit special attention for their efficacy and success. These programs have multiple goals including decreasing unintended pregnancy, decreasing STIs and improving sexual health of youth.

Multipurpose youth centers or clubs offer recreation and these centers are suitable places for discussions on sexuality provided the facilitators are sincere and non-threatening (Ndong and Finger 1998). The Family Planning Association of Grenada sponsors "Under-20's Clubs" where male and female adolescents gather after school to socialize and do homework. Counseling, health education classes, physical examinations and contraceptives are available in those clubs (Kurz 1995). In Zambia, hundreds of anti-AIDS clubs based both in the school and in the community are organizing and conducting recreational activities like football and netball games, drama, red ribbon campaigns and community outreach for young people (Population Council 2002).

Study suggests that one important determinant of early sexual initiation is peer influences (Meekers and Calvès 1997), and peer educators can often provide support that counters negative peer pressure and myths that have shaped the young males own attitudes about themselves (Alexis 1998). In general, young males find peer educators credible, approachable and helpful; therefore they respond well to them taking the opportunity to talk about their feelings and their roles as men (Alexis 1998). The MEXFAM's Gente Joven project in Mexico demonstrates that as a result of intervention, more young males are seeking information about contraceptive methods from peer educators (Brito-lemus 1992) and male youth were at least twice as likely as female youth to use a method (Vernon, Ricardo and Maricela Dura 2004). In Namibia, soccer clubs and the Church trains cadres of peer educators to conduct ongoing educational sessions for young males (Alexis 1998) and the peer education program in Cameroon demonstrated increasing in abstinence, fidelity and condom use among youth (IRESCO 2002).

There are still substantial problems with access to condoms for young males though condoms are becoming increasingly available and affordable. Most adults think that youth should not have easy access to contraceptives; and pharmacists in many countries are often reluctant to sell condoms to youth (Best 1998). At the same time many young males do not have the necessary behavioral and interpersonal skills to use condoms effectively, consistently and satisfactorily (Plata 1998).

STATEMENT OF THE PROBLEM

In Bangladesh, young people aged 15-24 years represent approximately one-sixth (23 million) of the total population, and about half of them are male (Bangladesh Population Census Report 2001). The effects of globalization, rapid urbanization and greater opportunities for socialization have heightened the risk of STIs and HIV among young people in Bangladesh. The situation is getting complicated as the young people often do not have access to basic SRH knowledge, skills in negotiating sexual relationships and access to affordable SRH services (Bhuiya et al. 2004; Barkat et al. 2000; Nahar et al. 1999; Haider et al. 1997). Findings suggest that some of them engage in high-risk behavior including visiting commercial sex workers (CSWs) (National AIDS/STD Program, Bangladesh 2002, 2006; Bhuiya et al. 2004;), do not use condoms consistently (National AIDS/STD Program, Bangladesh 2006; Bhuiya et al. 2003) and suffer from STIs as a consequence (National AIDS/STD Program, Bangladesh 2006; Chowdhury et al. 1997).

The provision of SRH information and improved condom services has become an important issue across the globe primarily due to the AIDS crisis. Nevertheless, in several environment/countries, parents, elders and community leaders strongly oppose any program to provide young people with SRH information and services, including access to condoms. Findings suggest that 75 percent of parents disapprove of adolescents attending HIV prevention activities (Bhuiya et al. 2003), which are put forward to explore gatekeepers' views as an essential step for designing HIV prevention programs among youth.

Lack of skills and correct knowledge about condoms lead young people to inconsistent and improper use of condoms, making them vulnerable to infections as well as unwanted pregnancy. Absence of focused behavior change communication (BCC) and interactive skills building activities may have a role in the low level of risk perception and low demand for condoms despite the involvement of more than 200 NGOs in HIV prevention program in Bangladesh (Bhuiya et al. 2002). Thus, low awareness, unsafe sexual practices and social prejudice against condom use by young people have great implications for the HIV epidemic. Therefore, LSE on SRH issues along with access to condom service is crucial to avert HIV epidemic among young people in Bangladesh.

There are approximately 5000 active Youth Clubs (YCs) in Bangladesh which are either enlisted under the Department of Youth Development (DYD), Ministry of Youth and Sports (MOYS), and/or registered under Ministry of Social Welfare of

Government of Bangladesh. Each club has more than 100 active male members. Usually programs run by the YCs includes observance of literacy day, national immunization day, providing micro-credit, and distribution of Vitamin A capsule.

Considering the vulnerable situation of male youth, Population Council designed an operations research (OR) with the DYD, MOYS to assess the feasibility of expanding male youths' access to life skills education (LSE) on SRH and condom services through peers. For reaching male youths in an organized manner, YCs were considered as an ideal venue.

METHODOLOGY

Objectives

- ◆ Improve access to LSE on SRH for male youth
- ◆ Increase the level of knowledge, attitudes, and skills on SRH issues among male youth
- ◆ Improve access to condoms for male youth
- ◆ Increase use of condoms among male youth

Hypotheses

- ◆ LSE on SRH along with improve access to condoms will increase condom use among male youth than those exposed to only LSE on SRH
- ◆ Intervention will increase awareness on SRH issues among male youth

Study design

The study used a quasi-experimental design with two intervention strategies. The intervention strategies were: a) provision of LSE on SRH along with condom service by trained peers; b) provision of LSE on SRH by trained peers. To test the hypotheses, three upazilas (sub-districts) namely Nawabganj, Dohar, and Savar were purposively selected from Dhaka district where DYD enlisted YCs were operating. These three upazilas were randomly assigned as experimental I (Nawabganj), experimental II (Dohar) and control (Savar). Experiment I received LSE on SRH along with condom service, experiment II received only LSE on SRH, and control received none of these interventions. The experimental upazilas were situated in the South-West while the control upazila was in the North-West of Dhaka city.

Table 1 : Study Design

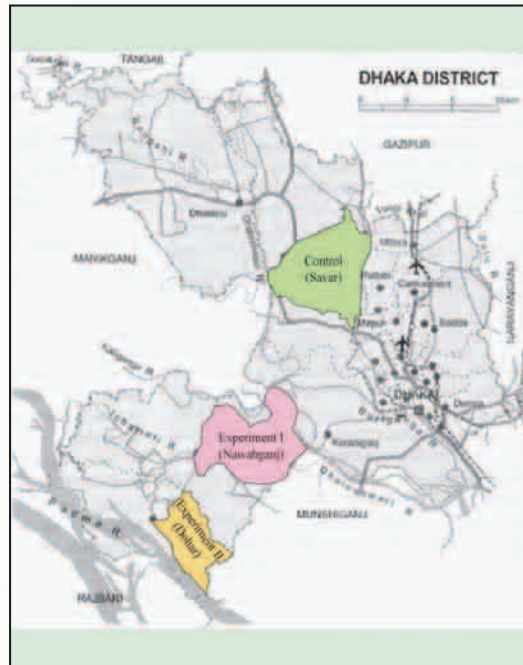
Study site	Interventions	
	LSE on SRH	Condom service
Experiment I (Nawabganj)	✓	✓
Experiment II (Dohar)	✓	-
Control (Savar)	-	-

Study sites

Nawabganj upazila has 37 YCs and consists of 14 unions with an area of 245 square kilometers. The Nawabganj district is approximately 40 kilometers away from Dhaka city. The total population of Nawabganj is 2,93,740; and overall literacy rate is 54 percent (Bangladesh Population Census 2001). The contraceptive and condom use

rates are 68 percent and eight percent respectively (Source: Upazila Health Complex 2006). Among the young population, about half are attending school. A significant number of school dropouts are unemployed. The nature of employment includes running small business or working outside the country. Regarding availability of health service provision, government upazila health complex is the only service delivery point. Nearly 10 NGOs are working in this area to provide only micro-credit facility. Nawabganj is approximately 10 kilometers to the north of Dohar.

Figure 1 Location of study sites



Dohar upazila has 10 YCs. It consists of eight unions with an area of 162 square kilometers. It is approximately 50 kilometers away from Dhaka city. The total population of Dohar is 1,91,280 and overall literacy rate is 44 percent (Bangladesh Population Census 2001). The contraceptive use rate is 67 and approximately 10 percent eligible couples are using condoms (Source: Upazila Health Complex 2006). The NGO Service Delivery Program (NSDP) supported NGO 'Bamaneah' is providing health care services while the other NGOs are providing micro credit facilities.

Savar upazila has 24 YCs and consists of 11 unions. The area of Savar is 280 square kilometers and approximately 25 kilometers away from Dhaka city. The total population of Savar is 6,02,860 and overall literacy rate is 56 percent (Bangladesh Population Census 2001). The contraceptive use rate among the eligible couples is 68 percent while approximately 11 percent are using condoms (Source: Upazila Health Complex 2006). Several NGOs are working in this area with micro credit program while only NSDP supported NGO 'Swarnirbhar' is providing health care services. Savar is about 75 kilometers away from Dohar and 60 kilometers from Nawabganj.

Selection of club

There are a total of 71 YCs in the selected three upazilas: 37 YCs in Nawabganj, 10 in Dohar and 24 in Savar. From each upazila, four functional YCs were selected using selection criteria that included: a) presence of physical facility (club ghar); b) have at least 100 male members aged 15-24 years; and c) the clubs enlisted with DYD, and

d) one club from one union. Thus, a total of 12 YCs, four YCs from each upazila, were selected. The YCs in the experimental upazilas were Notun Bandhura Muslim Jhubo Songho (NBMJS), Waseq Jhubo Kallyan Samabai Samiti Ltd. (WJKSSL), Digirpar Nowmujahid Club (DNMC), Jesis Youth Club (JYC), Social Development and Rehabilitation Program (SDRP), Sorol Songho (SS), Anirban Songho (AS), Ikrashi Nobin Songho (INS), while the YCs in the control upazila were Charigram Mitali Songho (CMS), Pathalia Union Samaj Kallyan Sangstha (PUSKS), Udoyon Jhubo Samabai Samiti Ltd. (UJSSL), and Sathi Samaj Unnayan Sangstha (SSUS).

Listing of male youth member

For preparing the lists of the male members of youth clubs aged 15-24 years, the President or Secretary of the selected 12 YCs was requested to provide the list of male members aged 15-24 years (Table 2). Since the clubs did not have proper registration system, a draft list of 1065 members was provided by the club officials, which was validated for age and presence in the community through household visits. Three field workers and one supervisor conducted the household visits. The final list consists of 940 male members aged 15-24 years and the list served as a sampling frame for conducting surveys as well as for implementing the subsequent interventions.

Development of data collection instrument

Before implementing the interventions the opinion and suggestions of key gatekeepers (President of YCs, Secretary of YCs, parents, religious leaders, community leaders, and teachers) and youth were sought through qualitative data collection method such as focus group discussion (FGD). The FGD guidelines were prepared for conducting FGDs among gatekeepers and youth. The FGD guidelines for gatekeepers focused on an assessment of the gatekeepers' attitudes towards prevention of STIs including HIV among male youth by providing LSE on SRH issues and services. The FGDs also explored gatekeepers' suggestions regarding how the male youth could get access to these services. Similarly, FGD guideline was

Table 2: Distribution of male youth members by YC and site

Study site	Number
Experiment I	
WJKSSL	115
NBMJS	99
DNMC	98
JYC	90
Total	402
Experiment II	
SDRP	104
SS	55
AS	86
INS	60
Total	305
Control	
CMS	104
UJSSL	90
PUSKS	70
SSUS	94
Total	358
Grand Total	1065

developed for male youth in order to seek their opinion regarding access to SRH information and services. In addition, a questionnaire was developed to conduct a survey among male youth for assessing their knowledge of STIs and HIV, contraception and safe sex. Attitudinal and behavioral questions were also included in the questionnaire. These data collection instruments were shared with the GFATM consortium partners before finalization.

For conducting FGDs, the FGD team received a two-day intensive training while for conducting survey among youth 15 male interviewers were trained for six days. Each FGD team consisted of a moderator, a note taker and an observer. Similarly, each interview team consisted of four interviewers and a supervisor.

Data collection

Data were collected from seven clubs out of selected eight because one club in experimental site II withdrew from the study. A total of seven FGDs were conducted with the key gatekeepers of the experimental clubs, one in each club. Similarly, seven FGDs were conducted with male youth members of the experimental clubs. Pre-intervention survey was conducted among male youth in both the experimental and control clubs in May 2005. After exclusion of one club from experimental site II, the total listed members aged 15-24 years were 880, regardless of marital status and all of them were interviewed in pre-intervention survey. The overall response rate was 80 percent (Table 3). The consortium partner, Associates for Community and Population Research (ACPR), helped in data collection.

To measure the effect of interventions among the youth, a post-intervention survey was conducted after eight months of intervention among the same youth who were interviewed in pre-intervention survey. In post-intervention survey, information on program implementation was collected in addition to pre-intervention survey information. Twenty interviewers were trained for six days, out of which a total of 16 interviewers were finally selected for conducting survey among the youth. A total of 603 male youths were successfully interviewed in the post-intervention survey and the response rate was 85 percent.

Table 3 : Number of male youth interviewed in pre-intervention and post-intervention surveys

Name of study club	Pre-intervention survey			Post-intervention survey		
	Selected	Interviewed	Response rate	Selected	Interviewed	Response rate
Experimental club						
WJKSSL	81	70	86.4	70	62	87.7
NBMJS	95	82	86.3	82	75	87.4
DNMC	74	67	90.5	67	54	83.8
JYC	90	73	81.1	73	64	76.7
SDRP	87	74	85.1	74	67	88.5
SS	50	43	86.0	43	39	84.0
AS	83	61	73.5	61	53	78.3
Total	560	470	83.9	470	414	88.1
Control club						
CMS	91	72	79.1	72	60	85.7
UJSSL	74	59	79.7	59	51	81.1
PUSKS	69	53	76.8	53	42	76.8
SSUS	86	51	59.3	51	36	54.7
Total	320	235	73.4	235	189	80.4
Grand total	880	705	80.1	705	603	85.5

Variables

Independent variables

Independent variables are considered the determinants for change occurring over time in outcome variables. The age of respondents, years of schooling, marital status, working status, media exposure, and exposures to other NGO interventions (contamination effect) were the independent variables and specified as covariates in the multivariate analysis.

Process Variables

- ◆ Number of SRH sessions organized
- ◆ Number of youth attending in SRH sessions
- ◆ Number of SRH sessions monitored
- ◆ Number of condoms sold to youth
- ◆ Number of quiz competitions and dramas organized
- ◆ Number of youth received BCC materials
- ◆ Number of Project Implementation Committee (PIC) and stakeholders meetings held

Dependent variables

- ◆ Access to LSE on SRH
- ◆ Access to condoms
- ◆ Improve SRH knowledge, attitude and behavior

The following indicators are related to specific knowledge, attitudes and behaviors, and program implementation feedback:

Knowledge indicators

- ◆ Heard about STIs other than HIV
- ◆ Name at least two STIs
- ◆ Know at least two symptoms of STIs
- ◆ Know at least two routes of transmission of STIs
- ◆ Know at least two consequences of STIs
- ◆ Know at least two ways of prevention of STIs
- ◆ Know about treatment of STIs
- ◆ Has comprehensive knowledge of STIs
- ◆ Know at least three routes of transmission of HIV
- ◆ Know at least three ways of prevention of HIV
- ◆ Has comprehensive knowledge of HIV
- ◆ Has knowledge of safe sex
- ◆ Know about modern contraceptive methods
- ◆ Know the dual benefits of condom use
- ◆ Know the correct and consistent use of condom for its efficacy
- ◆ Know the steps of correct use of condom
- ◆ Know possible sources of condoms
- ◆ Know potential health risks of teen pregnancy
- ◆ Know parents' role in determining the sex of the child

Attitude indicators

- ◆ Suggests condom as the best method for youth
- ◆ Agree with access to condoms by youth irrespective of marital status
- ◆ Agree with use of condoms by unmarried sexually active youth
- ◆ Understanding attitude towards HIV positive persons

Behavior indicators

- ◆ Unmarried males aged 15-24 years ever had sex
- ◆ Unmarried males aged 15-24 years had sex in last 3 months
- ◆ Unmarried males aged 15-19 years never had sex
- ◆ Male youth aged 15-24 years used condoms

Program assessment indicators

- ◆ Usefulness of the LSE on SRH
- ◆ Usefulness of flipcharts explaining the topics discussed in the sessions
- ◆ Usefulness of distributed BCC materials

Data analysis

Data were cleaned by consistency check. The 603 male youth who were interviewed at the pre-intervention and post-intervention surveys were used for analysis. Bivariate analyses were done for comparing the findings between pre and post surveys, within site and between sites. Socio-demographic characteristics, SRH knowledge, attitude and practice indicators were examined by site and time. Findings related to exposure to SRH intervention, program feedbacks were reported by site. As the samples were correlated, the hypotheses were tested by using appropriate test statistics (McNemar test, Z test, t test) to examine whether the observed changes over time within site and between sites related to different indicators are significant or not. Finally multivariate analyses were carried out to measure the net effect of interventions after adjusting for covariates.

Limitations of the study

The study targeted males aged 15-24 years. Most of the clubs are operating micro-credit programs and thus club members are more females than males. According to DYD definitions youth are within the age group of 18-35 years. Thus, selection of clubs with the required number of male members within the appropriate age and sex groups was a real challenge for the project. The internal conflicts adversely affected the smooth implementation of the interventions. For instance club officials were requested to call a general meeting to inform members about the project activities, but in some clubs it could not be arranged due to such conflicts. In addition, due to conflict among club officials also prevented peer educators from utilizing the club for conducting LSE sessions.

DESCRIPTION OF ACTIVITIES

The project activities were carried out in four phases: preparatory, intervention, evaluation, and utilization and dissemination.

A. Preparatory phase

Before implementing the interventions several preparatory activities were carried out which included conduction of FGDs among gatekeepers and youth, development of local partnerships, development of a LSE manual, development of BCC materials, selection and training of peer educators (PEs), and development of monitoring tools.

FGDs among gatekeepers: The opinion and suggestions of key gatekeepers were sought through seven FGDs, one in each experimental club, for assessing their attitude towards prevention of STIs and HIV among male youth by providing LSE on SRH and services. The FGDs also explored gatekeepers' suggestions on how to make these services accessible to male youth. The key gatekeepers were the President of YCs, Secretary of YCs, parents, religious leaders, community leaders, and teachers. A total of 45 gatekeepers participated in the FGDs. The outcomes of the FGDs among gatekeepers are summarized below.

It was observed that gatekeepers' opinion reflected a marked uniformity as all of them realized the need for LSE on SRH. They suggested educating youth about unwanted pregnancy and consequences of contracting STIs and HIV could protect them from harmful and risky behavior. All the gatekeepers felt the necessity of providing appropriate SRH information to youth to make them aware of the risks associated with unprotected sex. Information on the routes of transmission of STIs and HIV and its prevention will discourage youth from getting involved in risky behavior and help them practice safe sex. For instance, if they go to sex-workers in hotels or brothels, they are likely to use condoms because of awareness; and when they suffer from STIs, they will seek care from qualified doctors. They also expressed concern regarding drug addiction that the young generation is getting involved in without knowing its risk. So, HIV prevention program should also address this issue urgently.

Box 1 Awareness on STI treatment

"Youth should be aware of the consequences of contracting STIs (jouno roug), and where to go for treatment. Otherwise, they may seek treatment from canvassers or quacks, which would bring sufferings in their life" - Gatekeepers suggestions

Box 2 Necessity of SRH information

"It is necessary to inform the youth that if they go to sex workers, they may get STIs (jouno roug) including HIV. If youth have awareness, they are likely to use condoms"- Gatekeepers suggestions

Youth should learn about family planning methods for maintaining a happy family by controlling fertility. Gatekeepers believe that the prevalence of unwanted pregnancy and STIs will be increased among youth if they do not have appropriate contraceptive knowledge including information about condom. The gatekeepers also stressed that youth must refrain from premarital sexual relations because society considers such acts culpable. Youth therefore need to be educated about the merits of practicing abstinence and should also learn about pubertal changes such as ejaculation and wet dreams - so that they can get rid of all the misconceptions related to wet dreams.

Box 3 Awareness on abstinence

"Youth need to be educated on merits of practicing abstinence. This awareness may help them refrain from premarital sexual relation"
- Gatekeepers suggestions

Almost all the gatekeepers opined that satellite TV channels and the Internet are mainly responsible for derailing youth. Many of them strongly believed that there is a gap between what the youth know about sexual health and the information they get from satellite TV channels and Internet. The knowledge gap leads them to absorb the information they are getting from the electronic media indiscriminately. Some of the gatekeepers reasoned that in the developed countries, schools educate youth on sexual health, so erotic movies do not affect them negatively and drive them to indulge in risky behaviors. Gatekeepers mentioned parents cannot discuss sexual issues with their children freely, hence youth do not get correct information. Moreover, male youth do not talk about personal problems such as ejaculation, attraction for females, sexual urge etc. with their parents. Youth go to their friends for discussion and information and are often misled. As a result, the problem worsens. Gatekeepers suggested that awareness about such matters could be increased through trained friends and peers in the community and through trained teachers in schools. In addition, reading materials such as booklet, pamphlet, leaflet can be distributed to youths for increasing awareness about SRH issues.

Box 4 Negative impact of satellite channels

"Satellite channels show various erotic movies. As a consequence of viewing such movies, boys and girls become physically attracted to each other and build physical relations. Besides, boys along with their friends go to brothels and as such the young generation acquires STIs (jouno roug). Currently, this generation is becoming more involved in risky behavior than before, which may result in deadly infections like HIV"- Gatekeepers opinion

Box 5 Communication barriers

"It is not possible for parents and elders to communicate with youth on SRH issues. On the other hand, youth cannot discuss with elders about these issues because of shyness and social norms. If a youth gets correct knowledge then he can communicate it to his peers"- Gatekeepers opinion

Gatekeepers' opinion about utilization of youth clubs for conducting LSE on SRH and services were examined. All the gatekeepers opined that providing SRH education through youth clubs is a good idea and a timely initiative as well. If SRH education is imparted through clubs, then youth members will be benefited. The club members are nearly of same age, so they can discuss SRH issues with their peers without hesitation. All the gatekeepers agreed that providing SRH information through trained peers is an effective way because youth can discuss SRH issues/problems with peers. They believe that if the education sessions are arranged at a suitable time, all youth will be able to participate.

Box 6 Peer approach

"Trained youth could communicate sexual issues to their peers effectively, and youth clubs could be an ideal place for providing such education"
- Gatekeepers suggestions

The gatekeepers considered informing the youth about the LSE on SRH and encouraging them to attend the sessions as part of their responsibility. All the gatekeepers pledged that they would provide support to organize such education

Box 7 Supportive gatekeepers

"We will extend all our support and cooperation. Even we will provide financial assistance if necessary. We will encourage youth to attend the education sessions at the club. Furthermore, we will take necessary steps to ensure that the trained youth does not face any problems in conducting SRH sessions" - Gatekeepers' suggestions

sessions at the club. Some of them agreed that if required, they would provide financial support too. Gatekeepers would like to ask the youth to attend the session during their free time. They believe that in order to increase awareness about SRH, HIV and drug abuse among youth, all parents and elders have a role to play to encourage youth to attend the SRH education sessions. It was suggested that the elders should encourage male youth to gather together and discuss SRH issues. In this context, teachers and community leaders can take the lead to gather school and community youth respectively. Gatekeepers emphasized that parents and elders should facilitate an appropriate environment where the youth can get correct SRH information. Moreover, they would like to extend their cooperation so that youth do not face any problems or difficulties in imparting LSE on SRH.

FGDs among youth: Seven FGDs were also conducted, one in each club, with male members to learn about their opinions and suggestions on imparting LSE on SRH, and providing condom services at the clubs. The opinions and suggestions elicited from the discussions are as follows.

Box 8 Comprehensive STI and HIV information

"Many youth visit sex workers, do not use condoms, and eventually get infected with STI (jouno roug). They go to quacks for treatment, which worsens the problem. The young people require correct information on causes, routes of transmission and prevention of sexually transmitted diseases including HIV to keep them healthy."
-Youths' opinion

All the youth opined that it is necessary for them to get access to correct SRH information including

information on the causes, symptoms, and modes of transmission, ways of prevention and consequences of STIs and HIV. Consequences of early marriage and contraception also need to be conveyed to them. Youth also underscored their need for SRH services so that they could seek treatment from qualified doctors when the necessity arose.

Regarding effective and successful program implementation, the youth also added that to make the program effective and successful some initiatives have to be taken. First of

Box 9 STI knowledge

"We need to know about sexual and reproductive health, sexually transmitted disease and how it affects our health, what to do if one is affected and how to prevent it."- Youth opinion

all, club members need to be informed about the issue and encouraged to participate in the LSE sessions on time. The sessions should be arranged with the convenience of the members in mind so that every member can attend. Young people prefer to discuss socially sensitive issues such as sex

and sexuality with peers. In this regard, trained peers as educators could attract more audience for the LSE sessions. The educators must be knowledgeable and friendly. They need to be trained to

Box 10 Environment of SRH sessions

"SRH sessions need to be entertaining with drama, music, and quiz competition. Trainers also need to be friendly and knowledgeable." - Youth suggestions

impart SRH through entertainment such as drama and song, which could enhance program performance. In addition, elderly people of the

locality should be informed about the program and their help sought for making the program effective and successful. The combined efforts of club members, gatekeepers and trained educators will make the program successful.

All the youth opined that it is very important for them to get access to contraceptive methods such as condoms, to maintain healthy life. It also emerged from the FGDs that youth are eager to know about the correct use of condoms and to have easy access to them. They also underlined their need for STI services.

Box 11 Access to condoms

"Young people feel shy to buy condoms. When necessary, they get it through married friends. It seems easy to purchase condoms from shops or pharmacies, but it is not possible to buy condoms from sales person. If peer club members become depot holders (who sell condoms), young people could get condoms easily from him." - Youths' view

Development of local partnerships: For the smooth implementation of the project and for ensuring the involvement of local partners, two PICs in the experimental upazilas, one in each upazila, were formed with Upazila Nirbahi Officer as the Chairperson and Upazila Youth Development Officer (UYDO) as the Member Secretary. Six other members of the PIC were Upazila Family Planning Officer, Upazila Health and Family Planning Officer, President/Secretary of YCs, Chairman of the Union Council, and representatives from the Population Council. The PIC met every

three months and the outcomes of these meetings were very useful for receiving support for the implementation of the interventions. In addition, stakeholders meetings were also organized to review day-to-day activities of PEs and necessary steps were taken to maximize program performance. The stakeholders were UYDOs, YC officials, parents, elders, and community leaders.



A PIC meeting in Nawabganj

Development of LSE manual: Reaching the youth with LSE on SRH is not possible without appropriate communication materials. A manual (teaching aid) was developed for delivering standardized SRH information to youth. The teaching aid contains information on SRH, safe sex, STIs and HIV, and family planning (FP) methods (Box 12). The teaching aid was the main educational tool used in group sessions with youth. Its contents were divided into four one-hour sessions with a summary at the end of each session. Each summary highlighted important points of the sessions to reinforce the lesson. After completion of all the four sessions, the course was reviewed through a quiz competition. The manual was field tested and reviewed by professionals.

Development of BCC material: Several BCC materials such as a poster on the dual role of condoms, a pamphlet on ejaculation/wet dreams, a pamphlet on condom, a booklet on safe sex, and banners publicizing the course at YCs were developed, field-tested, revised and printed. In addition, a booklet *Nijeke Jano* (know yourself) developed by the Adolescent Reproductive Health Working Group, and adapted and printed by SC-USA was distributed among the youth.

Selection and training of peer educator: Fourteen PEs (two from each experimental club) were selected for imparting LSE on SRH among youth club members. Presidents of YCs did the primary selection of PEs based on the selection

Box 12 LSE course contents

Session I: SRH

- SRH and reproductive rights
- Reproductive organs
- Pubertal events
- Risks of teen pregnancy
- Sex determination of a child
- Summary of session I

Session II: Safe sex

- Merits of abstinence
- Advantage of being faithful
- Role of condom
- Correct use of condom
- Advantage of condom use
- Misconceptions about condom
- Summary of session II

Session III: STI and HIV

- Name and symptoms of STIs
- Consequences of untreated STIs
- Curative measures for STI patients
- Transmission of STI and HIV
- Prevention of STI and HIV
- Coping with HIV positive persons
- Summary of session III

Session IV: FP methods

- Modern FP methods
- Natural FP methods
- Summary of session IV

Recapitulation of sessions I, II, III and IV: through quiz competition

criteria provided by the Population Council: youth should have least 10 years of schooling, enthusiastic, energetic, self-motivated, and good communication skills. The selected PEs were trained for six days. The first two days of training focused on educating them on SRH issues outlined in the LSE course (Box.12). The next four days were devoted to 'practice session' where each PE conducted the four LSE sessions in a simulated situation to enhance their facilitation skills with correct information delivery and use of teaching aid. A checklist was developed to observe these sessions. Observation of these sessions helped in identifying the strengths and weaknesses of each trainee. In addition, self-administered pre-post training tests were used to assess the impact of the training.

At the end of the six days' training, the performance of the trainees, based on their pre-post training test results, and the facilitation skills (observed by using checklist) with correct information delivery and use of materials was evaluated. The results of the pre-post training tests indicated a significant increase in the SRH knowledge of the trainees (Table 4).



A peer educator practicing facilitation of SRH issues

On the whole, factual knowledge of all the trainees improved but some of the trainees had problems communicating with the flipchart, making the sessions lively and summarizing the sessions with feedback. Based on their aggregate performance, PEs were selected as category I (considered ready for imparting LSE on SRH without any assistance) and category II (required assistance during imparting LSE on SRH for about a month). Population Council staff and the PEs of category I provided assistance to PEs in category II.

Table 4: Knowledge of peer educators about SRH issues before and after training

	Test score of PEs	
	Pre-test	Post-test
Experiment I (Nawabganj)		
WJKSSL	21.0	81.0
NBMJS	14.8	50.8
DNMC	15.0	74.0
JYC	30.8	86.3
Total	20.4	73.0
Experiment II (Dohar)		
SDRP	35.0	72.8
SS	29.3	75.0
AS	39.0	76.8
Total	34.4	74.8

Development of monitoring tools: To ensure proper implementation of the interventions, monitoring tools were developed and PEs were trained on utilizing those tools. The monitoring tools included: a) session plan; b) sessions conducted by PEs per month; c) youth attending LSE on SRH; d) condom sale; and e) BCC materials distribution. In addition, a checklist was developed to assess the quality of information and skills imparted by PEs during LSE on SRH.

B. Intervention phase

The main activities included in the intervention phase were: a) imparting LSE on SRH at the club, b) organizing BCC activities, and c) providing condom services.

LSE on SRH at the club: As part of sensitization of the club officials for imparting LSE on SRH among male youth members, PEs reiterated the objectives of the project with the club officials. This helped them to organize the club for imparting LSE on SRH. The PEs started to conduct LSE sessions among the peer members in June 2005. Almost all of the sessions were planned in the evening because this was the only convenient time for the working and some in-school youth. Each trained PE was assigned to impart LSE to at least two groups of youth members per day in each club. The PEs tried to keep the sessions participatory by using the teaching aid for explaining SRH issues, demonstrating the correct use of condoms using penile model and taking feedbacks from the participants. Almost all the youth participants practiced correct use of condom by using penile model.



A peer educator imparting LSE on SRH

Organization of BCC activity

Banner was given to each PE to hang in front of the respective club to publicize the program. Posters were displayed in youth clubs, market places, tea-stalls and public gathering places. PEs were requested to distribute pamphlets and booklets to every youth who received LSE on SRH. The BCC materials were also distributed to youth in the community who were not the members of youth club. In addition, PEs and youth organized quiz competitions, dramas, and cultural program. They brought out rallies on World AIDS Day and organized discussion sessions after rally.



Youth brought out a rally on the World AIDS Day 2005

Condom service at the club: Condom services could not be introduced as it was planned due to the sensitiveness of the issue. Condoms were made available in experiment site I after four months when the LSE program had generated enough confidence in the community. Four PEs from experimental site 1, one from each club, were trained as condom promoters. Project officials purchased government supplied condoms from the open market and PEs were asked to sell them to the youth at government price.

C. Evaluation phase

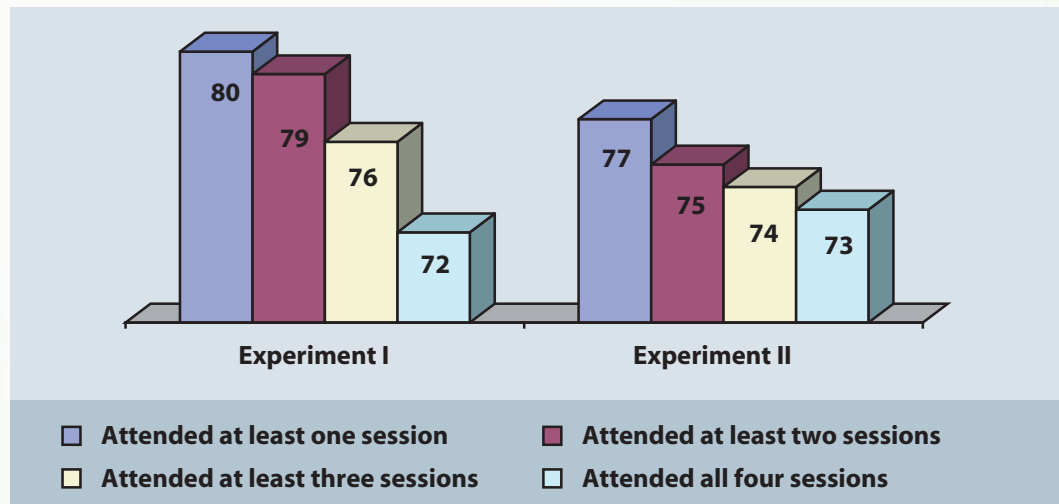
Impact of interventions were measured at two levels: I) process evaluation at implementation level by documenting the activities systematically, and II) evaluation at beneficiaries level by comparing the information collected from youth in pre-intervention and post-intervention surveys.

i. Findings from process evaluation

Systematic documentation was carried out for evaluating the implementation process. These include: total number of sessions organized, number of youth attending sessions, facilitation skills of PEs observed during imparting LSE, BCC activities performed, and number of condoms supplied and sold.

Number of youth received LSE on SRH: In experimental sites, the total number of listed youth members were 560. However, a total of 675 youth received LSE on SRH both from listed (65 percent) and unlisted (35 percent) youth. The unlisted youth are those who are members of the clubs but their names were not provided by the club officials as the clubs do not have proper registration system. The average number of youth who received LSE in each club was 96. The PEs were not able to impart LSE as it was planned. This is mainly due to the internal problems of some clubs, time constraints of the youth and excessive involvement of PEs in organizing games, dramas and quiz competitions. During the eight months of interventions, out of the listed youth members 78 percent attended at least one session, 77 percent attended at least two sessions, 75 percent attended at least three sessions and 73 percent attended all the four sessions. Both the experimental sites had some youth who did not attend all the four sessions. In experimental site I, 80 percent attended at least one session and 72 percent attended all the sessions. In experimental site II, 77 percent of youth attended at least one session and 73 percent attended all the sessions. The differences observed between two experimental sites may be due to the individual efforts of the PEs in motivating the youth to attend LSE sessions, and some operational limitations of the clubs.

Figure 2 Percentage of male youth who attended LSE sessions over the period of June '05-January '06



Quality of LSE session: The PEs were trained to prepare session plans with date, timing and topic of discussion, and requested to submit these to the Population Council for monitoring purpose. The session plan helped in monitoring the physical presence of PEs at the session venue as well as the topic of discussion at the session on the assigned day. In addition, a checklist was developed to monitor (through observation) the quality of information delivered at the session. During the first four months of the intervention, Population Council staff monitored at least four sessions of each PE per month. Special attention was given to PEs of category II. In the last four months two sessions of each PE per month were monitored. During the intervention period, the total numbers of sessions conducted PEs were 540. The Council staff targeted to monitor nearly 60 percent of the conducted session. The monitoring was equally distributed over four one-hour LSE sessions. However, 68 percent (221 sessions) of the targeted sessions were monitored. The reasons for falling short of monitoring target were: almost all LSE sessions scheduled in the evening for the convenience of the working youths which led to overlapping of the timing of sessions, bad weather, and the month of *Ramadan* (fasting month).

Monitoring of LSE sessions recommended some specific feedbacks for the PEs to improve their facilitation skills. The feedback was mainly on the content of the sessions, approach and style of the session delivery, timing, environment, condom demonstration and the specific problems encountered by the PE during session delivery. If any inconsistencies were found with regard to complete and correct information delivery, the PEs were given feedbacks to enhance their facilitation skills (one-to-one training) after the session. They were also advised to follow the teaching aid and not to deliver any additional messages if they were not confident

about that issue. All the above gaps were addressed during a two-day refresher training to improve PEs' facilitation skills. The refresher training was organized after three months of implementation of interventions. Substantial improvement was observed after the refresher training as shown in the Table 5.

Table 5 : Percentage of sessions with various features of LSE before and after the refresher training

Indicators	Experiment I		Experiment II	
	Before	After	Before	After
Delivered correct SRH messages	75	100	70	100
Explained topics showing flipchart	72	95	82	98
Demonstrated correct use of condom by penile model	66	100	72	100
Encouraged participants to ask questions	30	73	39	87
Provided correct answer to participant's questions	67	97	68	100
Summarized with feedback	67	87	74	88
Covered all aspects of SRH sessions	66	95	86	94
Number of sessions monitored (N)	97	31	74	19

BCC activities: To reinforce the topics discussed in the LSE sessions, peer educators were asked to distribute different BCC materials (booklet and pamphlet) to session attendees as well as among those who had not attended the sessions. The monitoring of distribution of BCC materials was done by spot check and almost in 90 percent cases the distribution was confirmed. A total of 904 copies of pamphlet on ejaculation, 908 condom pamphlets, 992 booklets on safe sex and 963 copies of *Nijeke Jano* booklet were distributed among male youth. Besides, several outdoor activities such as dramas, games, observance of the World AIDS Day, and quiz competitions were organized at the experimental clubs.

Table 6: Number of BCC materials distributed and other BCC activities performed

BCC activities	Experiment I	Experiment II
BCC materials distributed		
Poster on dual role of condom	548	450
Poster on AIDS (SC-USA)	144	101
Pamphlet on ejaculation	585	319
Pamphlet on condom	569	339
Booklet on safe sex (ABC)	597	395
Booklet on Nijeke Jano (SC-USA)	590	373
Banners about program	4	3
Other BCC activities performed		
Rally	4	2
Drama	2	2
Cultural program	3	1
Quiz competition	14	14

Table 6 shows the performance of PEs in terms of BCC activities. Comparing the BCC activities between experimental site I and experimental site II, it shows that the number of BCC materials distributed by each club was higher in experimental site I than in experimental site II. However, all the session attendees in both the experimental sites received pamphlets and booklets. The PEs in experimental site I were more active in organizing other activities such as rally and cultural program compared to PEs in experimental site II.

Condoms sale: After introduction of condom services, statistics of condoms sold was collected from PEs every month. The trained PEs were responsible for selling and keeping records on condom sale. During the four-month period, a total of 1,000 pieces of condoms were sold to the youth members. Average number of condoms sold by each PE was 250 pieces.

ii. Findings from impact evaluation

After eight months of the intervention, post-intervention survey was conducted among the same male youth interviewed in pre-intervention survey. A total of 603 youth were interviewed both in pre and post intervention surveys to measure the impact of intervention.

Socio-demographic characteristics of youth: Table 7 represents the socio-demographic characteristics of male youth who were interviewed both in the pre-intervention and post-intervention surveys. In the sample a higher proportion of males were aged 15-19 years than young adults aged 20-24 years in both experimental sites, while in the control site it was the reverse. Youth aged 15-19 years were found to be significantly ($p < 0.001$) higher in experimental site II compared to control and experimental site I. Similarly youth aged 20-24 years were many more ($p < 0.001$) in the control site than in both the experimental sites. Mean age of the respondents was found to be 19.95 years.

Nearly 27-43 percent of youth were currently attending schools across experimental and control sites with significantly ($p < 0.001$) lower proportion in experimental site I. Mean years of schooling significantly differed across sites with comparatively fewer years of schooling observed among youth in experimental site I. Regarding level of education, a significantly ($p < 0.001$) lower proportion of youth had no education in experimental site II compared to control and experimental site I. The proportion of youth completing primary and secondary level of education was higher in experimental sites than in control. In case of higher secondary plus education, significant ($p < 0.001$) variation was observed between experimental and control sites with higher proportion in control site.

Table 7 : Percentage of youth according to their socio-demographic characteristics by site at pre-intervention survey

Characteristics	Experiment I	Experiment II	Control
Age group			
15-19	54.5	57.9***	40.7
20-24	45.5	42.1	59.3***
Mean age in years (sd)	19.6 (3.4)	19.2 (3.8)	20.99 (3.9)
Currently attending school	27.5***	42.8	41.8
Mean years of schooling (sd)	7.0 (2.9)	8.1 (2.7)	8.6 (3.1)
Education level			
No education	7.1	2.5***	3.7
Primary completed	22.7	15.7	13.8
Secondary completed	67.1	73.0	60.8
Higher secondary plus	3.1	8.8	21.7***
Married	9.8	5.7	19.6***
Mean age at marriage (sd)	21.8 (2.6)	22.8 (4.4)	21.6 (2.9)
Working	76.1	57.9***	79.9
Media exposure	99.2	100.0	100.0
Islam religion	97.0	93.1	99.5
(N)	255	159	189

Significant at * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Nearly 88 percent of youth were never married in experimental and control sites. The proportion of currently married youth was significantly ($p < 0.001$) higher in control site than the experimental sites. The mean age at marriage was 22 years. Over 55 percent of youth reported that they worked for earning money with the highest proportion observed in the control site (80 percent). In experimental site II, a significantly ($p < 0.001$) lowest proportion of working youth was in the sample compared to experimental site I and control site. Exposure to mass media is universal across sites.

Exposure to LSE on SRH: Table 8 shows percentage of youth exposed to interventions at post-intervention survey. Overall 82 percent of youth received LSE on SRH, with slight variation between the sites, which in fact implies the performance of PEs in organizing the LSE sessions. Regarding youth receiving BCC materials, on an average 85 percent and 73 percent of youths received booklets and pamphlets respectively.

According to study design, access to condom was introduced in experimental site I and it was observed that 38 percent of youth of experimental site I reported PEs as one of their sources of condom supply. However, overall exposure to intervention was 92 percent with slight variation between the sites. This implies that youth accessed to LSE on SRH either through education or BCC materials or PEs as source of condom.

Table 8 : Percentage of youth received LSE by experimental sites

Category	Experiment I	Experiment II	Total
Attended LSE on SRH	83.1	79.2	81.6
Received booklets	86.3	83.0	85.0
Received pamphlets	71.8	74.2	72.7
Mentioned PEs as source of condom supply	37.6	na	na
Overall exposed to LSE intervention	92.9	89.3	91.5
(N)	255	159	414

Significant at * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ na= not applicable

Knowledge of STI: A massive AIDS prevention campaign is underway in Bangladesh but emphasis is not given much on raising STIs awareness. Lack of awareness about STIs was found in pre-intervention survey among youth of both experimental sites rather than that of control. Only 15 percent and 20 percent of youth of experimental site I and experimental site II respectively heard about STIs while it was 47 percent in control site in pre-intervention survey.

LSE on SRH makes a difference in the lives of youth by increasing significantly ($p < 0.001$) their level of awareness about STIs from pre-intervention survey (17 percent) to post-intervention survey (70.0 percent) in experimental sites, while in control site no significant improvement over time was observed. Comparing between experimental sites, the change observed in experimental site I was higher (18 percent points) than experimental site II ($p < 0.001$).

According to Table 9, syphilis and gonorrhoea were the highly reported STIs by youth in both pre and post surveys irrespective of sites. But only six percent or fewer youth had known the name of genital herpes and chlamydia at post survey. This required further attention. Regarding symptoms of STIs, significant ($p < 0.001$) improvement of knowledge among youth was evident in experimental sites compared to control over time. The proportion of youth who knew at least two symptoms of STIs was significantly ($p < 0.001$) higher in experimental sites at post-survey (63 percent) compared to pre-survey (8 percent). No significant change happens in the control site.

Table 9: Percentage of youth who knew about name and symptoms of STI by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Heard about STIs other than AIDS	14.5	74.9***	20.1	62.3***	46.6	54.5
Name of STIs						
Syphilis	4.7	39.6***	9.4	18.9**	9.5	20.1***
GonorSRHea	3.5	37.3***	7.5	18.9***	5.3	14.3***
Chlamydia	0.0	3.5**	0.0	4.4**	0.0	2.1*
Genital herpes	0.8	5.9**	0.0	5.7**	0.5	2.1
<i>Name at least two STIs</i>	3.9	31.8***	6.9	17.0**	5.3	13.8**
Symptoms of STIs						
Greenish or yellowish mucus from penis	3.1	37.3***	4.4	40.3***	12.2	12.7
Pain passing urine	6.3	34.1***	7.5	20.8***	19.6	10.1**
Pain in scrotum	1.6	14.1***	1.3	15.1***	0.0	1.6
Ulcer in genital region	6.3	54.1***	5.0	43.4***	9.0	21.2**
Swelling in groin area	1.6	23.1***	2.5	8.8*	1.6	7.4**
Itching and pain in penis	2.7	18.4***	4.4	23.3***	12.7	7.4
<i>Know at least 2 symptoms of STIs</i>	8.6	66.7***	6.9	57.9***	19.0	21.7
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Table 10 shows that knowledge of transmission of STIs increased significantly ($p<0.001$) in experimental site I and II than that of control over the period. The frequently reported modes of transmission of STIs were unprotected sex with STI infected person, having sex with sex worker, and receiving STI infected blood across sites. The proportion of youth who knew at least two routes of transmission of STIs were significantly higher ($p<0.001$) in experimental sites compared to control ($p<0.05$) (Table 10).

In case of prevention of STIs, less than 21 percent of youth believed in abstinence, the proportion is higher in post-survey compared to pre-survey across experimental and control sites. Youth of experimental sites showed significant ($p<0.001$) change over time in knowledge of prevention of STIs in relation to 'use condom correctly and consistently', 'screen blood before transfusion' and 'limit sex within marriage', while in the control site no change was observed. However, the proportion of youth knew 'at least two ways of prevention of STIs' increased from four percent in pre-survey to 32 percent in post-survey ($p<0.001$) over time in experimental sites. No significant change was observed in control site.

Table 10 : Percentage of youth who knew about transmission and prevention of STI by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Transmission of STIs						
Unprotected sex with STI infected person	1.2	49.8***	3.1	30.8***	14.8	12.2
Having sex with sex worker	5.9	33.7***	12.6	28.9***	10.1	36.5***
Sex with multiple partners	5.1	9.4	3.8	13.8**	1.1	11.1***
Receiving STI infected blood	0.8	38.0***	3.1	28.3***	9.5	15.3
Through pregnancy /delivery	0.0	5.5***	0.6	3.1	0.0	0.0
<i>Know at least 2 modes of transmission</i>	0.8	39.2***	3.1	29.6***	8.5	14.8*
Prevention of STIs						
Use condom correctly and consistently	3.5	57.6***	5.0	51.6***	4.2	4.8
Do not have sex (abstinence)	1.2	19.2***	3.8	21.4***	4.2	16.9***
Limit sex within marriage	1.6	9.4***	5.0	6.3	2.1	2.1
Screen blood before transfusion	0.4	14.9***	4.4	22.0***	9.5	14.8
<i>Know at least 2 ways of prevention</i>	3.5	29.8***	6.3	36.5***	4.8	6.3
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

The youth were asked to mention the consequences of untreated STIs. Table 11 shows that not more than 13 percent of youth could mention a few consequences of untreated STIs at pre-intervention survey. The mostly cited consequences of STIs at pre-intervention survey were infertility and higher risk of HIV transmission, across sites.

Significant improvement in knowledge was observed across experimental and control sites over time regarding infertility, HIV transmission and the risk of infecting a sex partner if STIs are left untreated. The improvement was better in experimental sites compared to control site. Less than 11 percent of youth did not have any idea about the risk associated with pregnancy and its outcome across experimental and control sites, and the situation is more severe in control site compared to experimental sites. These points should be considered in scaling up phase. Knowledge of at least two consequences of untreated STIs among youth significantly ($p<0.001$) increased over time across sites, but the change was higher in experimental sites (from four percent in pre-survey to 30 percent in post-survey) compared to control site. Comparing between experimental sites shows that site I (27 percent points) had greater improvement than site II (23 percent points).

Table 11 : Percentage of youth who knew the consequences and treatment of STI by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Consequences of untreated STIs						
Infertile	8.6	32.2***	5.0	27.7***	6.3	15.9**
Risk of HIV transmission	7.1	62.7***	5.7	35.2***	12.7	21.2*
Still birth	0.4	11.0***	0.0	1.9	0.0	1.6
Spontaneous abortion	0.0	4.7***	0.0	5.7**	0.0	0.5
Premature birth	0.4	9.4***	0.6	0.6	0.0	1.1
Ectopic pregnancy	0.0	1.2	0.0	2.5*	0.0	0.0
Blind newborn	0.0	2.0*	0.0	0.6	0.5	0.0
Infecting sex partner	2.4	5.9*	1.3	20.8***	2.6	10.1*
<i>Know at least 2 consequences</i>	5.1	32.5***	2.5	25.2***	2.1	7.9
Treatment of STIs						
Qualified doctor	22.4	81.6***	23.9	73.6***	53.4	66.1**
Follow doctor instructions	2.0	22.4***	6.9	29.6***	0.5	7.4***
Take full course of medicine even symptoms disappears	0.0	0.4	0.0	3.1*	0.0	0.0
Both partners should receive the treatment	0.0	2.7**	0.0	6.9***	0.0	0.0
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Regarding knowledge of treatment of STIs, though nearly 70 percent of youth at post-intervention survey mentioned 'visiting qualified doctors' but only seven percent and less knew the partner management and full medication are required for complete treatment of STIs. In case of partner management and taking full course of medicine, the experimental sites showed only modest improvement. These areas need further attention.

Table 12 represents the comprehensive knowledge of youth about STIs. Comprehensive knowledge is assessed for determining the comprehensiveness or richness of STI related knowledge. In other words, to assess whether an individual youth has knowledge of all four items, such as, at least two symptoms of STIs, at least two modes of transmission of STIs, at least two ways of prevention of STIs, and at least 2 consequences of untreated STIs. Significant (p<0.001) improvement in knowledge was observed regarding comprehensive knowledge of STIs among the youth of experimental sites, but this did not occur in the control site. However, the improvement was not satisfactory because 15 percent or less youth had comprehensive knowledge of STIs in experimental sites. AIDS prevention program should give more emphasis in this area.

Table 12 : Percentage of youth by comprehensive knowledge of STI by site and time of interview

Knowledge of STIs	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
At least 2 symptoms of STIs	8.6	66.7***	6.9	57.9***	19.0	21.7
At least 2 modes of transmission of STIs	0.8	39.2***	3.1	29.6***	8.5	14.8*
At least 2 ways of prevention of STIs	3.5	29.8***	6.3	36.5***	4.8	6.3
At least 2 consequences of untreated STIs	5.1	32.5***	2.5	25.2***	2.1	7.9
<i>Comprehensive knowledge of STIs</i> (Knows all the above items)	0.0	12.5***	0.6	15.1***	0.0	1.1
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Knowledge of HIV: Considering the HIV epidemic in the region in particular and the global situation at large, the mass media are active in the country raising awareness about HIV at the national level. Results suggest that almost all the youth have heard about AIDS (Table 13).

Table 13: Percentage of youth who knew about HIV by site and time of interview

Knowledge	Experiment I		Experiment II		Control I	
	Pre	Post	Pre	Post	Pre	Post
Heard about AIDS	99.6	100.0	98.7	100.0	99.5	100.0
Transmission of HIV						
Unprotected sex with HIV infected person	5.1	60.8***	20.1	45.9***	23.0	25.4
Receive HIV infected blood	42.4	58.8***	46.5	76.1***	59.3	66.1
Use non-sterile needles/syringes	52.5	82.4***	61.6	80.5***	64.0	79.9***
Through pregnancy/delivery of a HIV infected mother	7.5	11.8	3.8	24.5***	7.9	7.4
Through breast feeding by HIV infected mother	7.8	11.8	6.3	11.9	5.8	4.2
Prevention of HIV						
Use condom correctly and consistently	10.2	65.1***	10.1	69.8***	5.3	6.9
Do not have sex	16.1	21.6	15.1	23.9	13.8	27.5**
Avoid unscreened blood transfusion	27.5	32.9	35.8	50.9**	42.9	42.3
Avoid using non-sterile needles/syringes	45.1	53.3	42.8	64.2***	42.3	60.8***
Summarization of HIV knowledge						
At least 3 modes of transmission	8.2	39.6***	17.6	45.3***	15.5	17.8
At least 3 ways of prevention	4.7	26.3***	8.2	41.5***	5.3	9.5
<i>Comprehensive knowledge of HIV</i>	1.2	16.5***	5.7	22.6***	2.6	3.7
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Table 13 shows that knowledge of HIV transmission significantly ($p < 0.001$) increased over the period across sites except mother-to-child transmission (modest improvement observed only in experimental site II). Knowledge of at least three modes of transmission of HIV increased (30 percent points) in experimental sites ($p < 0.001$) while no significant change was observed in control site. Sixteen percent and less youth reported 'abstinence', and 'use of condoms correctly and consistently' as ways of prevention of HIV at pre-intervention survey. A modest change was observed over the period across sites regarding abstinence as a way of preventing HIV infection. The increase in knowledge of 'condom use correctly and consistently' is highly significant in experimental sites (57 percent points) while no significant change was observed in control site (2 percent points). This may be due to the demonstration of correct use of condoms and emphasis given on consistent use of condom in experimental sites. Regarding having knowledge of at least three ways of prevention of HIV, significant ($p < 0.001$) improvement (from 6 percent in pre-survey to 30 percent in post-survey) was observed in experimental sites. No significant improvement was observed in control site. Analysis also shows that less than one-thirds of youth had comprehensive knowledge of HIV (at least 3 modes of transmission of HIV as well as knowledge of at least 3 ways of prevention of HIV). This issue should be considered seriously in the scaling up phase of the HIV prevention project.

Knowledge about safe sex: Over 50 percent of youth in pre-survey and 80 percent of youth in post-survey were aware of safe sex. The change in awareness was twice (30 percent points) in experimental sites of the control site (15 percent points). Youth who were aware of safe sex were further asked whether they could cite examples of safe sex. Use of condom during sex as a safe sex practice was mentioned by 87 percent of youth during post-survey compared to 54 percent in the pre-survey in experimental sites ($p < 0.001$). No change was observed in control site, as the knowledge level about safe sex was as high as 72 percent at pre-survey. Other safe sex practices mentioned were: sex between husband and wife, sex after marriage and sex with a faithful partner (Table 14).

Table 14: Percentage of youth knew about safe sex by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Know about safe sex	50.6	89.8***	64.2	80.5***	52.0	66.7***
N	255	255	159	159	189	189
Use condom during sex	69.0	86.0***	34.3	89.8***	72.4	72.0
Sex between husband/wife	28.7	32.8	43.1	22.7	18.4	36.0
Sex after marriage	27.1	7.9	29.4	7.8	11.2	7.2
Sex with a faithful partners	1.6	13.5	3.9	7.8	2.0	4.0
N	129	229	102	128	89	125

Significant at *** $p < 0.001$

Knowledge of contraception: Over 80 percent of youth in experimental sites and 50 percent of youth in the control site knew about condoms and pills in pre-intervention survey. In the control site, the family planning program of Sawmirbhar', a local NGO, is very intensive and was classified as the best NGO in 2005 by the NGO Service Delivery Program (NSDP), a USAID funded activity in Bangladesh. NSDP also supports 'Swanirbhar'. Thus, NGO program may have great influence on youth knowledge of specific methods over time. Other factors that may have contributed to the control site are the higher proportion of married youth with higher educational qualification. Knowledge of Norplant, IUD, and female sterilization among youth increased significantly over time across sites. But the improvement was grater in experimental sites compared to control. Knowledge of male sterilization showed significant change in the experimental sites (Table 15).

Table 15 : Percentage of youth who knew about modern contraceptive methods by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Condom	82.4	93.3***	90.6	95.6	51.3	93.7***
Pill	79.6	88.6**	82.4	79.2	50.3	89.4***
Injection	36.1	60.0***	35.2	45.3*	28.0	51.9***
Norplant	0.4	32.9***	1.9	32.7***	1.6	7.9**
IUD	0.8	18.4***	0.0	14.5***	1.1	8.5***
Female sterilization	3.1	15.3***	5.7	22.0***	1.6	7.4**
Male sterilization	1.6	14.9***	3.8	18.9***	3.7	6.9
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Knowledge of dual benefits of condom: The condom has been promoted as a temporary contraceptive method for the last 30 years and recently NGOs and government have been trying to promote condoms for preventing HIV. These activities promoted condoms either only for HIV prevention or only for pregnancy prevention. Thus, these programs have lost a valuable opportunity to market the condom as an effective method for both preventing pregnancy as well as infections including HIV. Considering the importance of marketing condoms for preventing pregnancy as well as protection from infections, youths' knowledge of dual benefits of condom use was assessed. Nearly 80 percent of youth knew that condoms could be used for pregnancy prevention across experimental and control sites. Knowledge of condoms as protection against STIs varied between 5 percent and 25 percent in pre-intervention survey across experimental and control sites with highest knowledge in control site (25 percent).

Table 16 :Percentage of youths’ knowledge of dual benefits of condom and condom efficacy by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Condom could be used for						
Preventing pregnancy	94.1	85.5	88.1	95.6*	78.8	82.5
Protecting from STIs	16.1	56.1***	5.0	51.6***	25.4	28.6
Protecting from HIV	45.5	87.5***	50.3	73.0***	48.7	66.1***
Preventing pregnancy and protection from infections	2.0	36.5***	1.3	32.1***	10.6	7.9
Condom is effective when used						
both consistently and correctly	3.9	37.3***	1.9	39.6***	2.1	4.2
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Experimental sites registered significantly higher increase ($p<0.001$) in knowledge of condoms as STIs prevention (43 percent points) over time while the change in control site was not significant (3 percent points). Knowledge of condoms as protection against HIV increased significantly ($p<0.001$) from pre-survey to post-survey across experimental and control sites. While comparing between sites, it was found that the improvement was significantly higher in experimental site I (42 percent) than experimental site II (23 percent) and in control (17 percent). Knowledge of the dual benefits of condom use was varied from 1 percent to 11 percent during pre-survey across sites with more knowledge in control site (11 percent). At post- survey, it increased significantly ($p<0.001$) in experimental sites (33 percent points) while no change was observed in control site. Condom is effective when used correctly and consistently. Knowledge of correct and consistent use of condoms for its effectiveness was as low as three percent in pre-survey, which increased significantly ($p<0.001$) to nearly 38 percent in post-survey in experimental sites while no significant change was observed in the control site. Though knowledge of condoms for its dual role and effective use increased significantly in experimental sites, approximately one-third of the youth have such knowledge (Table 16) which need further attention.

Knowledge of correct use of condom: The lack of knowledge of correct and consistent use of condoms puts people at risk of unwanted pregnancies and infections. So, it is imperative to remove these gaps for effective use of condoms. Six standard steps were used to assess the correct use of condoms (Table 17). Youth were asked to cite the correct steps of condom use in pre and post surveys. In pre-survey, only 23 percent and less of youth had knowledge about the different

individual steps of condom use across sites. In post-survey, the level of knowledge increased significantly in almost all the different steps of correct condom use across sites with significantly greater improvement in experimental sites. For assessing the comprehensive knowledge of correct steps of condom use, the responses were summarized into a) what percentage of youth have knowledge of all six steps of correct condom use, b) what percentages of youth have knowledge about four essential steps (squeeze tip of condom, unroll on erect penis, cover the whole erect penis with condom, after ejaculation hold base of condom when penis is a bit erect and then withdraw) of correct condom use. It was observed in Table 17 that in pre-survey no youth had knowledge of four essential steps or all six steps of correct use of condom across sites.

Table 17: Percentage of youths' knowledge of correct use of condom by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Correct condom use						
Open wrapper carefully	9.4	60.4***	3.8	61.0***	10.1	29.6***
Squeeze end (tip of condom)	6.7	76.1***	8.2	76.1***	11.1	23.8***
Unroll on erect penis	22.7	49.4***	15.7	58.5***	4.8	19.0***
Cover the whole erect penis with condom	3.9	51.8***	3.1	52.8***	4.2	14.8***
After ejaculation, hold base of condom when penis is a bit erect then withdraw	0.0	40.4***	0.6	22.6***	3.2	2.1
Wrap used condom in a paper then discard into dustbin	0	49.8***	0.6	42.8***	0	4.8**
<i>Mention all six steps</i>	0.0	14.1***	0.0	7.5***	0.0	1.1
<i>Mention four essential steps</i>	0.0	19.6***	0.0	11.9***	0.0	1.1
Sources of condom						
Shopkeepers	89.0	85.1	88.1	84.3	73.0	85.7**
Pharmacy	88.6	89.4	88.7	93.7	93.1	93.1
Peer Educators	0.0	37.6***	na	na	na	na
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001 na: not applicable

In post survey, the level of knowledge increased significantly (p<0.001) in experimental sites to as high as 20 percent and 14 percent for four essential steps and all steps of condom use respectively. The corresponding knowledge remained at one percent level in control site.

In both pre and post surveys, the youth were asked where they could get condoms if they wanted to buy them. The reported sources were shopkeepers, pharmacies and PEs. The PEs is a new source of condom came out in experimental site I at post-survey and 38 percent of youth mentioned PEs as the source of condoms. This is because according to the study design condoms were made available through PEs in experimental site I.

Knowledge of potential health risks of teen pregnancy: Most of the youth (over 90 percent) were aware of the potential health risks of teen pregnancy at post-survey. When they were asked to specify the risks associated with teen pregnancy, it was found that the youth were aware of eight different risks, of which 'risk to mother's life' was mentioned as the predominant risk (59 percent to 92 percent) across experimental and control sites in both pre and post surveys. The list of risks mentioned was summarized to learn what proportion of youth knew at least three potential health risks of teen pregnancy.

It was observed that at pre-survey no youth had knowledge of three potential health risks of teen pregnancy but it increased (15 percent points) in experimental sites at post-survey ($p < 0.001$). No significant improvement was observed in control site. The Bangladesh government has a safe motherhood program and is implementing it through its health and family planning infrastructure. Findings suggest that though 90 percent or more of youth are aware of risks associated with early pregnancy only a small proportion of youth know what the risk factors are (Table 18).

Table 18 : Percentage of youth who knew the potential health risks of teen pregnancy by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Potential health risks of teen pregnancy						
Prolonged labour	6.7	12.2*	1.3	11.9***	2.6	3.2
Risk to life of mother	78.8	85.5*	69.2	91.8***	58.7	88.4***
Risk to life of baby	45.1	59.2***	49.7	75.5***	51.9	54.5
Premature birth	7.8	38.4***	11.3	28.9***	12.7	13.2
Underweight baby	9.4	39.2***	6.3	33.3***	23.3	28.6
Risk of miscarriage	16.5	21.2	3.1	17.0***	3.2	10.6**
Obstructed labour	1.2	10.2***	3.8	13.8***	0.5	7.9***
Eclampsia	1.6	36.9***	0.0	8.8***	2.6	9.0**
<i>Knows at least 3 potential health risks of teen pregnancy</i>	0.0	18.8***	0.0	8.2***	0.0	3.2
(N)	255	255	159	159	189	189

Significant at * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Knowledge of sex determinant of a child: In Bangladesh, son preference is common and women are usually blamed for not giving birth to a son. This leads to polygamy and domestic violence. Thus, the male parent's role in sex determination of a child is a very important point to stress for preventing gender discrimination that exists in society. Findings represent in Table 19 suggest that the correct knowledge of sex determination of the child increased across experimental and control sites over time with greater improvement in experimental sites than control. In the pre-intervention survey there were misconceptions about sex determination of the child, which decreased in experimental sites. No significant decrease was observed in control site.

Table 19 : Percentage of youths' knowledge on sex determinant of a child by site and time of interview

Knowledge	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Sex determination of a child depends on						
Father only	7.5	42.7***	0.0	42.1***	0.0	19.6***
Both father and mother	8.2	7.8	19.5	11.9*	14.8	10.6
Depend on God	66.3	27.1***	45.9	33.3**	46.0	41.3
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Attitude towards condom: Findings from other research suggest that pre-marital sex is not uncommon in the country, especially among working and out-of-school male youth. Often they indulge in risky sex, which have great implications for STIs and HIV. Thus, the condom is the only solution for protection against STIs and HIV, and preventing unintended pregnancy among them. Youth attitude was assessed with regard to the best family planning method for them, access to condom by married and unmarried youth, and whether they would agree to the use of condom by sexually active unmarried youth. Pre-intervention survey showed that over 75 percent of youth believed condom is the best method for them, which increased to 96 percent in post-intervention survey across sites. The youth were also asked to cite reasons why they considered the condom as the best method. Table 20 shows that greater proportion of youth in experimental site I over time opined preventing unwanted pregnancy was the reason for classifying the condom as the best method for youth. In the pre-intervention survey nearly one percent of the youth mentioned that condoms can prevent STIs which increased across sites over the period and the improvement was greater in experimental sites I than that of control. Similar attitudinal improvement was also observed among youth regarding the prevention of HIV.

In relation to access to condom, an improvement in youth attitude was observed over time in experimental sites compared to control regarding unmarried youths' access to condom. No change was observed in control site as in pre-intervention survey over 60 percent of youth showed positive attitude towards unmarried youth

access to condoms, hence scope of improvement was less than experimental sites. Furthermore, almost all (over 95 percent) youth supported that unmarried sexually active youth should use condoms in post intervention survey.

Table 20: Percentage of youths' attitude towards condom use by site and time of interview

Attitude	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Approved condom is the best method for youth	80.4	98.0***	77.4	98.1***	75.1	95.8***
(N)	255	255	159	159	189	189
Reasons for the best method ^M						
Prevents unwanted pregnancy	71.0	80.5	40.2	82.8	67.4	72.5
Prevents STIs	1.0	56.0	0.8	32.8	1.4	25.4
Prevents AIDS	39.0	84.0	38.5	70.5	33.3	65.2
(N)	205	250	123	156	142	181
Agreed male youth can buy/ get condom easily ^M						
If married	64.7	72.2*	36.5	71.1***	80.4	76.7
If unmarried	47.5	69.8***	25.8	45.9***	63.0	61.9
Agreed on use of condom by unmarried sexually active youth	94.1	99.2**	78.6	100.0***	95.8	95.8
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001, M=Multiple responses

Attitude towards people living with HIV: Reducing stigma and discrimination towards HIV positive persons is a worldwide challenge. In Bangladesh, nearly 200 national and international NGOs are working in raising awareness about HIV - but very few of them address the issue of stigma and discrimination. Youth attitude towards HIV positive people was explored in pre-post surveys.

Table 21 : Percentage of youths' attitude towards people living with HIV by site and time of interview

Attitude	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Attitude towards HIV positive person						
Don't fear the infected person	5.5	12.2**	0.6	25.2***	5.8	4.2
Don't hate the infected person	16.1	52.9***	25.8	65.4***	21.7	39.2***
Don't involve in disgraceful behavior	8.2	30.6***	4.4	19.5***	9.5	13.2
Show sympathy and take care	44.3	57.6**	31.4	58.5***	52.4	45.0
(N)	255	255	159	159	189	189

Significant at **p<0.01; ***p<0.001

In pre-intervention survey 31-52 percent of youth said they sympathized and would take care of HIV positive persons. Findings are presented in Table 21. In post-intervention survey sympathetic attitudes towards HIV positive persons increased significantly ($p < 0.001$) over the period in experimental sites while no change was observed in control site. The improvement was significantly ($p < 0.001$) higher in the experimental than in the control.

Sexual behavior of youth: Table 22 demonstrates the sexual behavior of youth. It was found that a comparatively greater proportion of unmarried youth at post-intervention survey, irrespective of site, admitted their sex initiation than in pre-intervention survey. It may be assumed that LSE on SRH did not necessarily increase sexual activity among the youth in the experimental sites. Rather, due to access to LSE on SRH, the youth might have disclosed their individual sexual behavior more in the post-intervention survey than pre-intervention survey. A significantly greater proportion of youth in the control site ($p < 0.01$) at post-survey (14.5 percent) than pre-survey (5.5 percent) experienced sex in the last three months and it was significantly ($p < 0.05$) greater in control site than that of experimental sites. The finding also suggests that a significantly ($p < 0.01$) lower proportion of adolescent (15-19 years) in post-survey than pre-survey never had sex. This may be due to the shift to the higher age group over the intervention period of those who never had sex in pre-survey.

Though the numbers are very small, the trend of consistent condom use remained same among the unmarried sexually active youth (not shown). Condom use rate increased among currently married youth of experimental site I since pre-survey where condom service was introduced in youth clubs through PEs, while in control site a decreasing trend was observed. So, based on these findings, it may be inferred that only access to LSE on SRH does not necessarily increase condom use if there is no provision of condom services. Some youth reported that they were suffering from STIs at the time of interview. Though the STI prevalence rate seemed to be low, as reported symptoms, the actual scenario might be more alarming if they were tested for STIs. For overall well being of SRH of youth, linking LSE program with health services seems to be urgent.

Table 22: Percentage of youth reported sexual behavior and condom use by site and time of interview

Practice	Experiment I		Experiment II		Control	
	Pre	Post	Pre	Post	Pre	Post
Unmarried						
Ever had sex	12.4	27.1***	3.4	15.1***	25.5	33.1*
Had sex in last 3 months	2.7	4.0	0.7	2.7	5.5	14.5**
(N)	225	225	146	146	145	145
15-19 year youth never had sex	88.3	77.3**	97.6	88.2**	81.0	66.7**
(N)	128	128	85	85	63	63
Currently married youth using condom	8.7	13.0	16.7	16.7	28.6	11.4*
(N)	23	23	6	6	35	35
Married and unmarried						
Suffering from STIs	18.0	14.1	10.1	13.2	14.3	6.3
(N)	255	255	159	159	189	189

Significant at *p<0.05; **p<0.01; ***p<0.001

Multivariate results: Multivariate analysis was done to assess the net effect of interventions on outcome variables after adjusting for the covariates such as age of the respondents, years of schooling, marital status, working status, mass media exposure and access to any other SRH interventions. The models with their key outcome variables are listed in Table 23.

Table 23 : Models, outcome variables and analytic categories

Models	Outcome variables	Categories
Model I	Knowledge of at least 2 symptoms of STIs	Yes/No
Model II	Knowledge of at least 2 modes of transmission of STIs	Yes/No
Model III	Knowledge of at least 2 consequences of STIs	Yes/No
Model IV	Knowledge of at least 2 ways of prevention of STIs	Yes/No
Model V	Comprehensive knowledge of STIs	Yes/No
Model VI	Knowledge of at least 3 modes of transmission of HIV	Yes/No
Model VII	Knowledge of at least 3 ways of prevention of HIV	Yes/No
Model VIII	Comprehensive knowledge of HIV	Yes/No
Model IX	Dual benefits of condom	Yes/No
Model X	Effective use of condoms	Yes/No
Model XI	Mention all steps of correct use of condom	Yes/No
Model XII	Know at least 3 potential health risks of teen pregnancy	Yes/No

As the results of some of the outcome variables at pre-survey was zero, so in order to avoid getting an infinity odds ratio - it was assumed that one person's knowledge was there instead of zero. Interpretation of fitted models is done from the value of odds ratio and corresponding p value. An odds ratio of value equal to, greater than or less than 1 indicates same chance, greater chance or less chance respectively of the expected event occurring among the youth who had access to interventions compared to those who had no access. Within experimental sites I and II, youth at post survey were found significantly more likely to have knowledge on different SRH issues (STI, HIV, and condom) than their pre-survey counterparts, while in control site no significant improvement observed (Tables 24).

Table 25 represents the net effect of interventions in experimental site I and experimental site II. The net effect of interventions is the outcomes of interest (jointly) at pre and post surveys for experimental and control group and measured by difference in outcome between experimental and control groups at post-survey. Awareness about at least two modes of transmission and two ways of prevention of STIs, youth in experiment I ($p < 0.001$) and experiment II ($p < 0.01$) having significantly greater chances than that of control. From models I and III, it was observed that youth of experimental site I and experimental site II at post-survey compared to pre-survey are more ($p < 0.001$) likely to have correct knowledge of at least two symptoms and at least two consequences of STIs than their control counterparts.

Regarding having comprehensive knowledge of STIs the youth of both experimental sites were found more likely to have comprehensive knowledge than those of the control site. Chances of having knowledge of at least three modes of transmission and prevention of HIV were significantly greater in experimental site I and experimental site II than that of control. Youth of experimental sites were found more likely over time to have comprehensive knowledge of HIV than that of control with greater chances in experimental site I. Youth of both the experiment sites at post-survey were found significantly ($p < 0.001$ and $p < 0.01$ respectively) more likely to know about dual benefits of condom and effective use of condom compared to that of their control site counterparts with higher chances in experimental site II. Youth of experimental sites were more likely to know all steps of correct use of condom compared to control site counterparts with higher chances in experimental site I. Youth of both experimental sites showed greater chance of having knowledge of at least three potential health risks of teen pregnancy than that of control.

Table 24 : Adjusted odds ratio of youth knowledge regarding STIs and HIV by site and time of interview

SRH Knowledge	Experiment I Odds ratio	Experiment II Odds ratio	Control Odds ratio
At least 2 symptoms of STIs			
Time of interview			
Pre-intervention (r)			
Post-intervention	21.8***	32.9***	0.8
At least 2 modes of transmission of STIs			
Time of interview			
Pre-intervention (r)			
Post-intervention	32.0***	11.5***	1.2
At least 2 consequences of STIs			
Time of interview			
Pre-intervention (r)			
Post-intervention	28.9***	49.1***	2.1**
At least 2 ways of prevention of STIs			
Time of interview			
Pre-intervention (r)			
Post-intervention	12.9***	6.2***	0.9
Comprehensive knowledge of STIs			
Time of interview			
Pre-intervention (r)			
Post-intervention	48.6 ***	18.2**	1.9
At least 3 modes of transmission of HIV			
Time of interview			
Pre-intervention (r)			
Post-intervention	6.6***	3.6***	0.6
At least 3 ways of prevention of HIV			
Time of interview			
Pre-intervention (r)			
Post-intervention	8.2***	6.0***	1.5
Comprehensive knowledge of HIV			
Time of interview			
Pre-intervention (r)			
Post-intervention	13.2***	4.3**	1.3
Dual benefits of condom			
Time of interview			
Pre-intervention (r)			
Post-intervention	30.6***	23.1***	0.5
Effective use of condoms			
Time of interview			
Pre-intervention (r)			
Post-intervention	12.5***	32.1***	1.0
Mention all steps of correct use of condom			
Time of interview			
Pre-intervention (r)			
Post-intervention	52.0***	18.4*	1.9
Knows at least 3 potential health risks of teen pregnancy			
Time of interview			
Pre-intervention (r)			
Post-intervention	42.3***	17.6*	5.3

Significant at *p<0.05; **p<0.01; ***p<0.001 (r) = Reference category

Table 25 : Unadjusted and adjusted odds ratio (OR) associated with the interaction term of time by experimental sites regarding SRH knowledge of youth

Variables	Unadjusted OR	Adjusted OR
At least 2 symptoms of STIs		
In experimental site I at post survey	18.0***	24.6***
In experimental site II at post survey	15.7***	20.4***
At least 2 modes of transmission of STIs		
In experimental site I at post survey	43.4***	49.7***
In experimental site II at post survey	6.9**	7.7**
At least 2 consequences of STIs		
In experimental site I at post survey	10.2***	13.4***
In experimental site II at post survey	8.4***	10.5***
At least 2 ways of prevention of STIs		
In experimental site I at post survey	8.6***	9.8***
In experimental site II at post survey	6.3**	6.5**
Comprehensive knowledge of STIs		
In experimental site I at post survey	12.5	13.0
In experimental site II at post survey	9.3	10.3
At least 3 modes of transmission of HIV		
In experimental site I at post survey	10.8***	13.4***
In experimental site II at post survey	5.7***	6.5***
At least 3 ways of prevention of HIV		
In experimental site I at post survey	3.8*	4.3**
In experimental site II at post survey	4.2**	4.6**
Comprehensive knowledge of HIV		
In experimental site I at post survey	11.7**	13.6**
In experimental site II at post survey	3.4	3.6
Dual benefits of condom		
In experimental site I at post survey	39.3***	46.3***
In experimental site II at post survey	50.4***	49.5***
Effective use of condom		
In experimental site I at post survey	7.1**	8.1**
In experimental site II at post survey	16.7**	16.6**
Mention all steps of correct use of condom		
In experimental site I at post survey	14.2	14.5
In experimental site II at post survey	4.6	5.4
At least 3 potential health risks of teen pregnancy		
In experimental site I at post survey	8.4	8.2
In experimental site II at post survey	2.1	1.6

Significant at *p<0.05, **p<0.01, ***p<0.001

Feedback for strengthening the LSE program: Program feedback from the youth who attended sessions are necessary for assessing overall implementation activities as well as usefulness of program in their practical life, which will help in redesigning the intervention activities for scaling up of the project. Thus, in post-intervention survey the youth of experimental sites were asked several questions for assessing the usefulness of LSE, teaching aid used in explaining the SRH issues, skills acquired from LSE sessions, and use of BCC materials provided after sessions.

Table 26 : Percentage of youths' opinion regarding LSE by experimental sites

Indicator	Experiment I	Experiment II	Total
Usefulness of LSE sessions			
Very useful	80.2	57.1	71.6
Usefulness of teaching aid for explaining the topics			
Very useful	81.6	69.0	76.9
(N)	212	126	338

Table 26 shows that the youth found LSE on SRH very useful. The youth of experimental site I found it more useful (82 percent) than experimental site II (57 percent). A similar situation was observed in usefulness of teaching aid for explaining the topics. Over 70 percent of youth who attended sessions received BCC materials and no significant variation between the sites was found. More than 60 percent of youth read booklets and pamphlets (Table 27) with some extent of variation within and between sites. When the youth were asked whether the BCC materials supplied to them were useful, about 60 percent of them said they did. Regarding discussion of contents of BCC materials with friends, over 60 percent of youth reported that they discussed the contents of the booklets and pamphlets with friends (Table 27).

Table 27: Percentage of youths' opinion on usefulness of BCC materials they received by site

	Experiment I	Experiment II	Total
Received safe sex (ABC) booklet	77.6	69.8	74.7
Received Nijeke Jano booklet	82.7	79.9	81.6
Received ejaculation pamphlet	69.0	67.9	68.6
Received condom pamphlet	71.8	74.2	72.7
(N)	255	159	414
Booklet: safe sex (ABC)			
Read booklet	68.7	65.8	67.6
Booklet is very useful	63.1	57.7	61.2
Discussed with friends about the booklet	63.1	62.2	62.8
(N)	198	111	309
Booklet: Nijeke Jano (Know yourself)			
Read booklet	77.7	74.0	76.3
Booklet is very useful	73.0	64.6	69.8
Discussed contents of booklet with friends	70.6	66.1	68.9
(N)	211	127	338
Pamphlet: Ejaculation			
Read pamphlet	63.1	64.8	63.7
Pamphlet is very useful	59.1	51.9	56.3
Discussed contents of pamphlet with friends	64.2	60.2	62.7
(N)	176	108	284
Pamphlet: Condom			
Read pamphlet	64.5	67.8	65.8
Pamphlet is very useful	60.7	56.8	59.1
Discussed contents of pamphlet with friends	64.5	61.9	63.5
(N)	183	118	301

D. Utilization and dissemination phase

The second phase of the GFATM in Bangladesh provided financial support to introduce the successful interventions of OR activities in 60 youth clubs. The project is being implemented in collaboration with DYD, MOYS. Starting from 1981, the DYD has trained more than two million youths and half of them are now self-employed (DYD 2003). The DYD operates 295 training centers located at the district and sub-district levels to provide residential and non-residential vocational training courses to youths. Among them 47 residential Youth Training Centers (YTCs) are located at the district level. The YTCs are managed by a Coordinator or Deputy Program Coordinator while the Senior Instructors conduct theoretical sessions. In addition to the DYD training institutions, there are more than 1500 vocational and technical training institutions that train more than 130,000 students per year (Bangladesh Bureau of Educational Information and Statistics 2003).

The objectives of the phase wise scale up are to i) identify the programmatic and operational issues for national level scale up; ii) build the capacity of youth clubs to play the key role in prevention of HIV among young people; iii) build the capacity of Youth Training Centres (YTCs) for providing life skills training on SRH; and iv) increase comprehensive SRH knowledge, promote positive and responsible attitudes, and strengthen the safe sex decision-making skills among young people. The 60 youth clubs are being selected from 12 districts under two administrative divisions, Dhaka and Khulna, covering nearly 25,000 youth. In addition, the findings of the study are also being utilized in 'building knowledge transfer capacity among project partner organizations' a component under GFATM phase II.

As a part of dissemination of project findings, leanings from the project were shared with the program managers, policy makers and the researchers. A research update describing the important findings and lessons learned was published and distributed among the partner organizations and relevant agencies. In addition, the quarterly progress reports were also shared with partners.

CONCLUSIONS AND RECOMMENDATIONS

The objective of the study was to assess the feasibility of improving access to SRH information and condom services for averting STIs including HIV among male youth. The project imparted LSE on SRH, and distributed BCC materials to males aged 15-24 years in the experimental sites. In addition, condom services were made available in one of the experimental sites. The following conclusions and recommendations are made:

Knowledge

Interventions had positive effects on youth knowledge of SRH issues such as STIs, HIV, safe sex, contraceptive methods including condom for its dual role and efficacy, health risks of teen pregnancy and parents' role in determining the sex of the child. The knowledge of above issues increased significantly over the intervention period in experimental sites compared to control. Knowledge of safe sex increased significantly over the time in experimental sites compared to control site left little scope for improvement, as the knowledge of safe sex was as high as 72 percent in control site at pre-survey. Knowledge about modern contraceptive methods such as condom, pill, and injection increased significantly over the period in both experimental and control sites. Knowledge of long acting method such as Norplant, IUD, female and male sterilization increased in experimental sites compared to control. Results of bivariate and multivariate analyses show that comprehensive knowledge about STIs and HIV increased significantly among youth in both the experimental sites and it remained same in the control site. Knowledge about the dual benefits of condoms, and correct use of condom increased significantly in experimental sites compared to control site. Similarly knowledge about health risks of teen pregnancy also increased significantly over the intervention period in experimental sites compared to control sites.

Attitude

Significant positive attitudinal change was observed towards condom use by youth. Youth believed that unmarried youth should be able to buy and use condoms for safer sex practices. These positive attitudinal changes were not observed in the control site. The youth agreed that they should show sympathy and be ready to take care of HIV positive persons. This positive change in attitude towards HIV positive persons significantly increased over the period in experimental sites compared to control.

Behaviour

At post-intervention survey, comparatively greater proportion of unmarried youth admitted involvement in sexual activities than in pre-intervention survey.

The sexual behavior of unmarried youth in the last three months also shows an increasing trend across sites but the increase is modest in experimental sites while it is significantly high in control site. Though sample size was small it seems to be that condom use among married youth increased in experimental site I over the period where condoms were made available through PEs. It can be inferred that LSE alone is not enough to change sexual behavior if service provisions are not available.

Findings from qualitative data

FGD findings reveal that the gatekeepers are supportive of youths' access to LSE on SRH. Therefore, a supportive environment exists for imparting LSE on SRH to youth. Youth are keen to learn about SRH issues and to get access to condoms through trained peers.

Observation during monitoring

Information collected during monitoring visits suggest that active participation of local level government officials helped the implementation process effectively; focused training and supportive supervision can make youth capable of communicating SRH issues with their peers; providing BCC materials and organizing quiz competitions to make the LSE sessions lively, and these increase attendance at the LSE sessions; youth can have access to condom services through their peers; and youth clubs can be an ideal venue to receive LSE on SRH.

The recommendations based on the study findings are:

- The youth should be trained effectively to impart LSE on SRH to their peers, since skills and efficiencies of information providers are vital for the success of the program
- LSE needs to be focused on improving the comprehensive knowledge on SRH issues among youth and to strengthen their skills on safe sex decision making
- Exposure to LSE on SRH increased youth knowledge, and changed attitude and behavior positively, such program therefore should be scaled up
- LSE on SRH is not enough to effect positive behavioral changes if services are not available
- Youth need a private place to discuss SRH issues and youth clubs can serve that purpose

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The Department of Youth Development under the Ministry of Youth and Sports facilitate the unemployed youth for gainful employment or self-employment by providing them vocational and skill training, and micro-credit. The department works exclusively with the youth population through clubs and training centers throughout the country.



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