REPORT ON MEASUREMENT OF ASSERTIVE BEHAVIOR & HIV PREVENTION PROGRAM AMONG CSWs

(CONDUCTED IN MUDA, KAILALI DISTRICT OF NEPAL, Feb. 1999)

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ABSTRACT: Measurement of Assertive Behavior & HIV Prevention Program among CSWs

Introduction :

In Nepal, women are generally weaker in sexually, economically & socially due to which are placed at greater risk of HIV infection. It was hypothesized to change the self-efficacy to condom use through Sexually Assertive Behavior Training(SABT) which could improve self-efficacy of Commercial Sex Workers(CSWs) learning technical skills & coping behaviors.

Objective:

To determine safer sex norm & risk-taking factors on HIV/AIDS & identify the effectiveness of group work intervention on formation of specific norm supportive to condom use.

Methodology:

Random sampling method was applied & questionnaire & posters were used. SABT to Experimental Group(instruction, demonstration, & role play/brainstomming) and Control Group(instruction & demonstration) was provided. Any intervention programs were not provided to the Waiting List Control Group. Efficacy & group-norm perception were measured regarding **Personal behaviors**(buying/keeping of condom at work place & its correct use) and **Interpersonal behaviors**(requesting clients to use condoms/refusing condom-unprotected sex & always having condom-protected sex with clients).

Result:

Out of 16 respondents, 15 had changed their risky behaviors into Sexually Assertive Behaviors(SAB), 15 had condom-protected sexual intercourse, 15 had serious to be infected with HIV, and all 16 responded confidence for condom use. The scales of self-esteem, self-repression, norm-conformity, self-efficacy and HIV/AIDS related knowledge were high scored that represented high HIV/AIDS awareness.

Conclusion:

All respondents had high scores on HIV preventive knowledge & condom use efficacy that has emphasized the influence of norm to promote condom-protected sexual intercourse. The result showed that the study population had high scores on Personal & Interpersonal condom use group-norm perception. Sex business gives an opportunity of earning income favorable only to younger CSWs. Thus it is essential to organize an Income Generating Program(IGP) as an alternative occupation for older CSWs.

Ⅲ SUMMARY: Measurement of Assertive Behavior & HIV Prevention Program among CSWs

AIDS has been to date put a great impact in Nepal as well as developing countries worldwide. It is well known that women are generally weaker on sexually, economically and socially which have placed them a greater risk of HIV infection. This variable underscores the necessity of assertive behavior to prevent further spread of HIV infection. CSWs (Badi women) in Kailali and house wives in Achham & Kavre Districts are the target population & this study. This study will change their risky behavior i.e. Sexual intercourse with multiple partners among MLs and CSWs. It is believed that all participants in the intervention study will complete HIV/AIDS knowledge scale, HIV prevention self-efficiency scale, self-esteem scale, sexually assertive sexual behavior state-anxiety scale and sexually assertive behavior rating sheet at pre-intervention, post-intervention & several-week follow-up program. It is also expected of outcome that participants in experimental group change their risky behavior into sexually assertive behavior and maintain it even.

The main mode of HIV transmission is heterosexual contact. Women have made vulnerable to HIV infection due to lower social status. This assumption underscores the necessity of Sexually Assertive Behavior (SAB) to prevent further spread of HIV infection. SAB is one of the social skill to manage the interpersonal situations which can be divided into following responses:

- The ability to say "no" the ability to ask for favors or to make requests.
- The ability to express positive & negative feelings.
- The ability to initiate and terminate general conversions.

Assertive Behaviors are Conceptualized are as follows:

1) Request of Condom-use "I don't like to use Condom."
2) Refusal of sexual intercourse without condom "I don't have sexual intercourse without condom."
3) Discussion on condom use "I think condom-use is very important for our health."

⇒ Those who tend to practice aggressive behaviors think "I am O.K., but you are not O.K., I will do what I want." They can achieve their goals with the other people having objection or hostility against them.

⇒ Those who tend to practice non-assertive behaviors think "you are O.K., but I am not O.K., I will comply with you." They can not achieve their goals expectedly.

⇒ Those who tend to practice assertive behaviors think "you are O.K., and I am O.K., I will do what we decide." They can achieve their goals with mutual satisfaction and agreement.

The propose of assertive behaviors is to successfully manage interpersonal situations to achieve the goal with mutual satisfaction and agreement. In this study, the purpose is to promote sexual intercourse with condom for HIV prevention with customers' satisfaction and agreement. Previous studies have found that subjects who received assertive behavior training change risky sexual behaviors into safer ones. Those finding strongly supports the necessity of assertive behaviors for HIV prevention.

IV. KEY WORDS USED IN THE STUDY:

1. **Assertiveness:**
   Assertiveness training teaches people how to communicate confidently & obtain what they want without anything others.

2. **Assertive:**
   Someone who is assertive behavior confidently & is not afraid to say what they want or behave.

3. **Assess:**
   To judge or decide the value/amount.

4. **Behave**
   To act in a particular way or to be good by acting in a way which has society's approval.

5. **Behavior:**
   Behavior is a way of acting.

6. **Norm:**
   Norm is an accepted standard or way of behaving or doing things that must people agree with i.e. ethical or political or professional, etc.

7. **Perception:**
   Perception is an awareness of things though the physical senses esp. sight.

8. **Conform:**
   To behave according to a society's or group's usual standards of behavior & expectations.

9. **Efficacy:**
   Efficacy is an ability, esp. of a medicine or method achieving something to produce intended result; effectiveness.

10. **Repression:**
    process & effect of keeping particular taught & desires out of your conscious wind in order to defense to protect it.

11. **Brainstorming:**
    The practice of trying to solve problems or come up with new ideas i.e. by group discussions as possible are made but none discussed in depth.

1.00. INTRODUCTION

1.01. Country Background

1.01.1. Geophysical Characteristics

Nepal is a landlocked country situated between China and India. It has a land area of 147,181 square km., with an average length of 885 km. east to west, and a width of 193 km. north to south. The altitude rises from 70 meters from the sea level in Terrain, the southern plain to 8848 meters to the high Himalayas to the north (Mr. Everest). It has a tremendous latitudinal variation with a wide range of topography and climates, comprising of the subtropical to the alpine. The annual rainfall ranges between 1154 mm. and 3620 mm. Topographical, Nepal can be divided into three belts : the Mountains (35.21 percent), the Hills (41.68 percent) and the Terrain (23.11 percent of total area). For the administrative purpose, the country is divided into five development regions and 75 districts. There are 58 municipalities and 3,912 Village Development Committees (VDCs) in Nepal

Mother Nature has showered her choicest blessings on Nepal and the country's spectacular landscape, as well as its rich flora and fauna, have attracted international appreciation. Nepali art and architecture, including richly endowed monasteries and temples, are world-famous. However, Nepal is economically disadvantaged, partly due to the fact that is a landlocked country.

1.01.2. Socio-economic Characteristics

Nepal's wide range of altitudes with Himalayas support broad cultural variations. There are about 60 different ethnic groups, speaking about 38 languages. Badi is a one of the ethnic group where female are actively involving in sex profession. Inhabitants of the Hills and Mountains are of Tibeto-Burmese origin, while that of the Terrain are largely Indo-Aryan. The official language is Nepali, spoken by the large majority.

Agriculture dominoes life and economy. About 81 percent of the population depend on agriculture, which contributes about 43 percent to GDP. The per capita income stands at US $210. Around 18 percent of the total land area is under cultivation. About 65 percent of families hold 0.96 hectares of land on an average. Since many people who prefer to live in the hilly areas with major cities and valleys like Kathmandu, Pokhara, Surkhet, etc. lies in this areas occupying about 46.7% of the total population.

According to the 1991 census, Nepal has an estimated population of 18.5 million, 50.1 percent of which is female. The population distribution by sex and age is given below:

Population Distribution by Sex and Age

Age Group	Percentage of	Population by	Sex and Age
	Male	Female	Total
0-18	51.6	49.7	50.7
19-59	42.5	44.6	43.5
60+	5.9	5.6	5.8

Source: 1991 Census, Central Bureau of Statistics, HMG/N

About 46 percent of the population live in the Hills., 46 percent in the Terrain and 8 percent in the Mountains. Currently, the GDP grows by about 5 percent annually, while the population, despite concerted family planning initiatives, increases by 2.1 percent

1.02. Health situation in Nepal

Despite the efforts made over the last four decades, the health status of the people remains poor due to absence of effective interventions in managing physical and logistic facilities for the retention of manpower. The delivery of health service has not yet been able to bring a positive impact in improving the health status of the rural people. Situation analysis on demographic and disease pattern indicate that preventive infectious disease, maternal & prenatal disorders and nutritional deficiencies are still as predominant burden of diseases, though showing a declining trend. The Children between 0-4 years of age and the female from 15-44 years of age constitute the majority affected by the burden of disease, leading to high prenatal and maternal mortality rate (MMR), child mortality rate (CMR) remain high. Despite the focus on family planning and safe motherhood, less than 10 percent of women are attended by trained persons during child birth. Antenatal and post natal care and services are very limited.

Regarding Health Service Delivery System (HSDS), the record shows that there is one hospital per 168,000 persons and one doctor per 92,000 persons in the rural areas. Likewise, only hospital bed is available per 4,000 persons and one health post per 24,000 persons in the same areas. The situation become critical when the remoteness and mountainous hardy life is considered. The above indicators represent the inadequate health institutions available in Nepal.

There are several health facilities centralized in metropolitan cities. Most of training institutes and government hospitals as well as private nursing homes are also located near capital cities. Although there is one sub-health post in each village development committee, there is lack of technical manpower, and physical & infrastructure facilities. Because of lack of these facilities and traditional social believe (Dhami/Jhakri), the formal health facilities have been reached to very few people. On these background, the government as well as NGOs should implement health related programs at the grassroots level.

1.03. International commitments to ensure Health Services to Nepalese people

His Majesty's Government of Nepal has committed to implement the provisions of International as well as Regional Declarations such as Alma-Ata Declaration, UN Convention on the Elimination of all Forms of Discrimination Against Women, Fourth World Conference on Women, 1995-Beijing Declaration, and Copenhagen Declaration to Social Development, 1995 etc. to ensure the health facility of Nepalese people.

1.04. Long-term Health Policy of Nepal

The health policy adopted in the **Ninth Plan** has again incorporated a 20-year vision for primary health care. It has considered health as the part of human right and an effective measure to control population and to facilitate poverty alleviation program.

The policies and strategies of the Ninth Plan include mobilization of private sector and NGOs together with the government for the development of the health service; effective planning, management and implementation of the health service through decentralization policy and process; implementation of health personnel development plan; reforming national health policy and laws; increasing resources for the health sector; and mobilization of the private sector and NGOs for resource generation.
Long-term target for health sector is given as follows:

Long-term and Ninth Plan Target for Health

Particulars	1997/98	Ninth Plan Target (2001)	Twelfth Plan Target (2016)
1. Life Expectancy			
Male	55.9	60	72
Female	53.4	59	75
2. Infant Mortality per Thousand	79	50	25
3. Child Mortality per Thousand	118	70	55
4. Total Fertility Rate	4.6	4.1	2.5
5. maternal Mortality per 100 Thousand	539	400	250
6. % of Delivery Attended by Trained Personnel	31.5	50	95
7. % of Facilities with Essential Drugs Available	-	100	100
8. Users of Family Planning Measures (%)	28.9	37.2	65.0

1.05. National Health Policy of Nepal

According to National Health Policy - 1991, Ministry of Health (MOH), His Majesty Government of Nepal (HMG/N) has committed to provide preventive and curative health services to all level of people in Nepal. In the health policy of 1991, the priority has been given to the following areas:

- to upgrade the health of rural population through the Primary Health Care approach.
- to provide Family Planning and Maternal Child Health (FP/MCH) Services more effectively to the village level for population control.
- to provide opportunity to the rural people to enjoy the benefits of modern medical institutions by making those services easily accessible to them.

1.06. Non-Governmental Coordination

According to the current national health policy of Nepal, the non-governmental sectors have been encouraged to provide health facilities by establishing Health Institutions like Research Center, Training Center, Hospital and Health Units. The necessary coordination has also been advised to maintain at each sector like Health Education & Information, Nutrition, Environmental health, FP/MCH, Safe Motherhood, Control & Prevention of infectious diseases, and prevention & control of HIV/AIDS etc. The Ayurvedic and the traditional (naturopathy) system has also been encouraged to develop on research basis by non-governmental sector. It has also been mentioned on the health policy about capable manpower to required for various health institutions to develop in a planned manner by the non-governmental sectors.

The qualitative and quantitative health services can be provided widely to the people at the grassroots level in coordination with non-governmental sectors. National Health Foundation is emerged to provide health services to the people in line with the goal of national health policy; "Health for all." That's why, National Health Foundation (NHF) is committed to provide the Primary Health Care(PHC) services to obtain the benefits from modern & traditional institutions by making the institutions accessible to the rural people beside from NHF being itself a professional Non-Government organization (NGO) based on grassroots' health programs.

1.07. National Health Foundation

National Health Foundation (NHF) is a non-profit making non-governmental organization (NGO) committed to work with both national and international institutions. Initially, NHF was closely associated with Nepal AIDS Prevention Institute (NAPI) which was established in 1994 for the purpose of preventing HIV/AIDS in far-western development region of Nepal. NAPI was registered in district administrative office in Kailali district in 1995. The NAPI has been working in a specific areas of AIDS prevention, training, research and other preventive activities since 1994. The executive committee of NAPI has decided to upgrade the NAPI to National Health Foundation (NHF) to cover wide areas of health programs maintaining it as a component of NAPI. The NHF is affiliated with Ministry of Health (MOH), HMG, Council for Technical Education & Vocational Training (CTEVT), and is being involved with joint programs of other institutions established for health and health related socio-economic areas. NHF is implementing health related activities i.e., to promote health services, to train the health manpower and to expand curative health services in the village areas. NHF has also targeted to establish one hospital in Charitrapur, Ugratara Village Development Committee (VDC) of Kavre district to provide preventive, promotive, rehabilitative, and curative health services through an integrated way.

1.07.1. Goal of NHF

The goal of NHF is to provide preventive, curative, promotive & rehabilitative health services and training for individual, family and community at grassroots level of the country, and to help to achieve the national goal "Health for all through the community mobilization."

1.07.2. Main objectives of NHF

The followings are the main objectives for which NHF is devoted to carry out:

- To conduct training on health related socio-economic aspects.
- To provide health services to people by establishing health clinics, hospital and conducting mobile health camps.
- To prevent Human Immune-deficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS) & Sexually Transmitted Diseases (STDs) through integrated health activities of NAPI.
- To produce audio-visual materials and publish books, journals and other training materials.
- To conduct research on health related activities including socioeconomic areas to upgrade the economic status of the grassroots people.
- To create awareness on health through mass campaign (Mahasankalpa).
- To make disable people self reliance by providing community based programs.

1.07.3. Main Activities

- Auxiliary Nurse Mid-wife(ANM) Training Programs at Janagal, Kavre district.
- Community Medicine Assistant(CMA) Training Programs at Janagal, Kavre & Bardiya districts.
- Community Health Volunteer(CHV) Training Programs at Janagal, Kathmandu and Kavre districts.
- Health Clinic at Janagal Kavre district.
- Publication of Medical Books & Audio-visual Production at Kathmandu.
- Operational Research on HIV/AIDS & its Intervention Programs at Kailali and Achham districts.

1.08. Statement of HIV Problem:

AIDS has been tagged as one of the greatest social problems in the world since 1981 when the first AIDS case was reported in the United States. At present, it is estimated that the number of those infected with HIV worldwide is over 30 million persons. It is estimated that more than 90% of them live in the developing countries of Asia and Africa. It means AIDS is increasingly remain endemic in those countries. In this study, it was prioritized to develop effective intervention to prevent the explosive of HIV infection at Muda village of Kailali district of Nepal. It is assumed that the choice of health behavior would depend on the relationship between motives and burdens which is called the Health Behavior Seesaw Model (HBSM). The model assumes that a Health Behavior will be chosen if motives exceed burdens. It places Self-efficacy as Motive; Self-repression and Norm-conformity as Burden; and Self-Counseling as the Axis of 'Seesaw" which have great influence in the choice of health behavior.

The number of the HIV infected population through heterosexual contact has been rapidly rising in Nepal. Although some factors may acerbate to the future HIV transmission in the future through heterosexual contact in Nepal. One of the well-known factor is the historically common and religiously accepted Commercial Sex Work (CSW) in Badi ethnic group, specifically those who are engaging in this business in a remote area of Kailali district has been at greater risk of HIV infection where correct information and such preventive mean as condoms are less available. This assumption highlights the necessity of intervention with those population for HIV prevention in the district.

1.09. Situation of HIV:

Nepal is not only ranked as the least developed country, but one of the poorest countries in the world. Furthermore, AIDS is recognized as a serious social problem in Nepal. The first case of HIV positive in Nepal was detected in 1988. Since then the number of HIV/AIDS cases have been increasing rapidly through heterosexual transmission. It is reported that more than 1108 people are infected with HIV in Nepal (NCASC, 31 July 98). Taking into account the limited intervention programs and medical facilities available, there is rapidly spreading the infection of HIV in the future. Therefore, effective intervention should be required to prevent the explosive infection as early as possible.

At present, condom use is the only means for Commercial Sex Workers (CSWs) to protect themselves from HIV infection. Previous studies have found that one of the predictors of condom use is the norm on HIV preventive behaviors. Therefore, it would be effective to form the specific norm supportive to condom use among CSWs to promote condom-protected sexual intercourse.

Sheriff has found that the psychological basis of norm formation is the common frame of reference of a product of the interaction. Therefore, we can hypothesize that the specific norm supportive to condom use could be formed through the interaction during the Experimental Group(EG) work given in this study on the promotion of condom use among participants. Furthermore, peer educators were selected among CSWs who were adopted as an outreach worker in order to enhance an interaction.

The study on Assertive Behavior & HIV Prevention was conducted by Nepal AIDS Prevention Institute(NAPI) for CSWs(those CSWs are well known as Badi girls) in Muda village of Dododhara Village Development Committee (VDC), Kailali district. The purpose of this study was to examine the effects of the experimental intervention on formation of the specific supportive norm to use condom among CSWs in Muda village of Kailali district, Nepal.

1.10. Health System of Nepal:

Traditional healers such as Dhami/Jhankris play an important role in health services. National modern health system has involved in Nepal since 1950. At present, NGOs have taken a larger share of the sector. Integrated health services are delivered through Primary Health Center(PHC), Health Post(HP) and Sub-Health Post(SHP) with district hospitals at first informative level. Further level of zonal, regional, and central level hospitals are also delivering the health facilities in the other part of the country.

In 1992, there were 1707 nurses and 863 physicians working in 816 HP, 57 district, 12 Zonal and 2 regional hospitals. Most physicians and nurses about half of them are in Kathmandu valley(Dr. Hajo Zeeb, 1996)

Women's health status is considered as being rather low in a male dominated society with culture-bound exceptions such as in the Badi Community where girls are likely to provide family income through traditional prostitution, male offering is preferred by Nepali couples in Kailali district. Although illiteracy in a problem of both genders in Nepal about 60% of men and 80% of women disadvantaged in educational matter.

2.00. GOAL & OBJECTIVE OF STUDY :

2.01. Goal of Study

To aware Commercial Sex Workers(CSWs) known as Badi girls through peer workers on HIV/AIDS & STDs.

2.02. Specific Objectives of Study:

2.02.1. To determine the existing behavior related to safe sex norm regarding sexual behavior & risk- taking factors among CSWs at Muda Village of Kailali district, Far Western Region of Nepal.

2.02.2. To identify the effects of the experimental intervention group work on formation of specific norm supportive to condom use among CSWs at the same village.

3. RATIONAL OF STUDY :

This study has helped to identify existing activities on HIV/AIDS and compare their effectiveness with a new information and behavior adopted by CSWs which are given as follows:

3.01.1. Existing intervention activities were identified and composed their effectiveness with the new information and skills .

3.02.2. Target population were aware with their own problems regarding HIV/AIDS & STDs and transferred the new knowledge & skills to the target population through peer and social workers.

3.03.3.1 The training sessions of the intervention study was conducted effectively for self-efficiency and improvement of task.

4.00. LITERATURE REVIEW

4.01. STDs and HIV are as Public Health Problem:

Sexually Transmitted Disease(STDs) have also been public health problem in the world. The incidence of Gonorrhea in African countries was estimated at between 3,000 and 10,000 annually per 100,000 population(WHO 1986) while in the USA it was 223 per 100,000 in 1991(CDC, 1992).

With regards to Nepal, positive serology for syphilis(VDRL) 1.87% of samples in 1991-92. The comparative figures for 1992-93 were 2.1%. In 1993-94 only 1.5% of samples were found positive for syphilis(Budathoki, 1995). Previously, the figures cited 7.2% VDRL seropositivity prevalence in the general population published in the study by Shrestha (1993). The several types of STDs like Gonorrhea, Syphilis, Chanchroid, Herpes, etc. were 46% and 19% among Badi women & House wives respectively who attended the STD Camp in Kailali district, organized by Nepal AIDS Prevention Institute in 1994.

The major mode of transmission of HIV in the country is heterosexual. The reported number of HIV cases are given as below (July 31, 1998):

Table No. i. Cumulative HIV/AIDS situation of Nepal(Updated on 31 July 1998)

Condition	Male(M)	Female(F)	Total M/F
HIV +Ve including AIDS	728	380	1108
AIDS (Out of total HIV)			225*

*Death Source: National Center for AIDS & STD Control(NCASC)

Table No. 1. Shows that the male and female prevalence ratios are 728÷380= for HIV +Ve and for AIDS respectively.

Table No. ii. Cumulative HIV infection by Sub-group & sex (updated on July 31,1998)

Sub-group	Male	Female	Total
Commercial Sex workers (CSWs)	-	290	290
Client of CSWs	573	11	584
House wives	-	73	73
Blood transmission	-	1	1
Injecting drug use	148	1	149**
Mother to child transmission	7	4	11
Total	728	380	1108

** Mode of transmission- unknown. (Source: NCASC)

Table No. iii. Cumulative HIV infection by age and sex (Updated on 31 July, 1998)

Age-group	Male	Female	Total
0-5 Yrs	7	3	10
6-13 Yrs	-	1	1
14-19 Yrs	49	124	173
20-29 Yrs	448	200	648
30-39 Yrs	183	45	228
40-49 Yrs	37	6	43
50 above	4	1	5
Total	728	380	1108

* Death 108 (Sources : NCASC)

** Mode of transmission- unknown.

4.02 An inter-relationship between STDs & HIV:

An inter-relationship between STDs and HIV being studies through assessment of intervention effects, a scientific rationale for strengthening HIV control effects and combining HIV and STDs programs exists. This study types of leads to a look at concepts and practices on HIV & STDs prevention programs.

As far as HIV is concerned, cumulatively, 1108 cases of HIV infection have been reported (31 July, 1998, NCASC), while 5000-7000 HIV cases are being estimated by WHO. Chinet al (1994) have projected a cumulative number of up to 105,000 HIV cases for the year 2000 which will be high scenario. In this way, the transmission of HIV Virus is 90% through heterosexual in Nepal (Suvedi et al 1994). In terms of transmission dynamics, commercial sex has been described as the main route through which HIV spreads in Nepal (Cox & Subedi, 1994). Women of one particular tribal group, the Badi, are known for traditionally engaging in commercial sex. An another important fact is that thousands of Nepalese women are working in brothels in India which was a result of coercion & girl trafficking. Furthermore, more than 90% men work as migrant labors in India. There are several evidence that a high proportion of there migrant workers have casual sexual contacts during the periods of migration (Suvedi et al, 1995).

4.03. National Program on HIV Prevention:

Since the first case detected in 1988, HIV infection has been increasing gradually. A number of activities have been undertaken to reduce the HIV transmission over the last decade. The objective is to reduce the impact of HIV through appropriate management, care & supportive environment. The policy for prevention of HIV has been highly prioritized as multi-sectoral program specially for promotion of safer sexual behavior. Since a multi-sectoral effects is needed for the effective prevention of HIV, the "Prevention of sexual transmission strategies" has been planned as follows (Do HS. Annual Report of AIDS & STD control, 1996/97):

- Information, education and communication (IEC) activities.
- STD services & training of health workers on appropriate STD case management.
- Control & promotional ~~a~~ the activities like distribution & social marketing.

5.00. METHODOLOGY

5.01. Method used in the study:

The methodology was used as qualitative where they were collected, analyzed and discussed on this export. The random sampling technique was applied. This study was an intervention study where Sexual Assertive Behavior Training (SABT) was conducted by forming Experimental, Control & Waiting List control group for different types of intervention programs, but not for waiting list control group.

Various intervention activities have been touched to measure the assertive behavior and HIV intervention. The aim of the study was well-based descriptions of real life situation & explanations of process through group intervention procedure of data collection was prioritized that is called qualitative research. Participants perception was prioritized in this study. Quantitative method was divided into interviews, group discussion, training seasons, observations and interactive techniques. After that the data was reemerged, clustered/organized so that meaningful interactions evolve. Interviews with CSWs were done to gain information of both on the perceived quality of intervention programs & their behaviors. The main objective of this study was to examine of the effects of the experimental interaction on formations of the specific supportive norm to Condom use among CSWs in Muda village of Kailali district Nepal. Three groups were divided for pre & post & follow-up measurement with intervention programs thought Assertive Behavior Training (ABT)

1. Experimental group (EG) with instruction, demonstration, modeling & role-play(brain storming).
2. Control group (CG) with instruction & demonstration(not role play).
3. WLCG without any intervention program. (see manual).

5.02. Tools used in the Study :

Previous studies have indicated that there are many gaps between intervention providers and service consumers. Medical shops, governmental health facilities, and central based NGOs as well as traditional healers were the main service providers having appropriate tools developments. Clients of the letter complained about lack of privacy and overworked, inadequately trained personnel while medical shops seem to have the advantage of easy accessibility(Cox & Subedi, 1994). When multiple independent providers of care exist & non-uniform management can be expected which is in contrast to the recommended use of standardized protocols(WHO, 1994). There is national STD case management of guidelines for Nepal which was developed to address the STD concerning issues, but not yet the measurement tools of intervention program on HIV prevention.

The main tools were intervention guidelines presented in the annex. They include possible procedure & limitation of intervention of discussion for group interviews. The questionnaire were also used for recording details to cover the objective of the study. The questionnaires were quantitatively analyzed according to the individual topics/questions. The feedback from Nepal Health Research Council (NHRC) was collected and clarified the points of the methodology.

5.03. Research procedure & intervention activities:

In an intervention study, three groups were adopted to compare the effects of the interventions. The first group was the Experimental Group (EG) with intervention program as well as role play, the other was Control Group (CG)with intervention program, and still other was Waiting-list Control Group (WCG) without any intervention program. Before we started the study, participants were well informed on this study, and encouraged to participate in this voluntarily initiates research. Participants were randomly assigned to either EG, CG, or WCG. Then, six participants were to EG and CG respectively, and five were to WCG.

Both EG and CG intervention programs include information provision on HIV prevention on correct condom use training and assertive behavior training on condom use. We selected peer-educator among female CSWs in study site and female social worker as conductors of this study for the experimental group and the control group, respectively. Then, they were trained in advance for this study with applying the technique of verbal instruction, modeling, and role playing.

5.03.1. Intervention Program for EG:

Three peer-educators in this study were selected because she was considered to be trusted by other CSWs. Peer-led intervention was aimed at enhancing an interaction among participants. In the information provision on HIV prevention, participants were given information verbally on mode of HIV transmission, HIV preventive means such as condom use, Assertive Behaviors and so on. In the correct condom use training, the peer-educator showed participants about how to use a condom correctly with a penile model. Then, participants practiced it actually with penile models and condoms. In the assertive behavior training on condom use, the peer-educator showed participants the examples of assertive behaviors in four given cases to participants. Those cases were designed to be difficult to assert their opinions (see in Study measures for details). Participants were brainstormed having possible responses to each case to have condom-protected sexual intercourse with customers, and discussed to find appropriate responses to each cases. Finally, they role-played in each cases.

(Peer educators → Verbal mini lecture + Modeling + Role play with different cases having condom-protected sexual intercourse).

5.03.2. Intervention program for CG:

CG program also had the same components as did EG program. The information provision on HIV prevention of CG was identical to that of EG in terms of educational content. However, another two

programs of CG were different from those of EG in terms of teaching method although they were designed for correct condom use training and assertive behavior training. Those were comprised of only modeling by female social worker. In the correct condom use training, female social worker showed participants about how to use a condom correctly with a penile model and condom, but participants did not practice it actually. In the Assertive Behavior Training (ABT) on condom use, female social worker showed the examples of assertive behavior in the same four cases as did EG program use, but participants did not brainstorm, group-discuss, and role-play. These methodological differences were made to control the verbal interaction among participants caused by brainstorming, group-discussion, and role-play.

(Social Workers → Demonstration with verbal mini lecture).

5.04. STUDY POPULATION & PLACE:

Study populations in this study were female commercial sex workers (CSWs) in Muda village of Dododhara VDC, near the national boundary with India, which belongs to Kailali district of the Far Western Region of Nepal. The study population belong to the lowest caste that is called "Badi", who are engaging in the specific occupations to please customers such as dancing, singing and commercial sex. They start their work from evening to late night or next morning, They have a few customers per night and earn approximate 50 to 200 Nepali Rupees per customer. It costs 30 Nepal Rupee to take a meal at a local cafeteria). Mean age of participants was 22.25 years old, and age range was 17 to 35 years old. All participants were Nepalese, and believed in Hinduism. Fifteen had no career of education, and two married. Sixteen perceived themselves financial supporters of their families.

5.05. Materials:

Two kinds of materials were used in the preliminary study. One was the questionnaire, which was used to quantitatively investigate respondents, socio-psychological attributes. Variables in the questionnaire were: age, nationality, educational career, purpose of CSW, favor toward CSW, favor toward condom use, seriousness to HIV infection, self-esteem, self-repression, norm-conformity, self-efficacy, and HIV/AIDS-related knowledge.

The other was the Self-Counseling Sheet, provided by Mr. Masataka Umeda the graduate student of Tsukuoa University, Japan that is a Structural Association Health Counseling Technique. The Sheet was intended to aid individuals discover on their own the underlying emotions in a health situation. For this study, it was intended to aid respondents to identify their self-image, in accordance with the stated procedures on the Sheet, as a springboard for behavior change such as condom-use. It is hypothesized that self identification of the self-image may predicate self-propelled behavioral change.

Self response procedure was intended for the two materials, but the problem of literacy forced a change in the procedure. Instead, the questionnaire was completed by the interview schedule method (i.e. interviewer-respondent question and answer method) in which research collaborator in NAPI and in it three Community Health workers assistants acted as facilitators/interviewers. Similar procedure was adopted for the Self-Counseling Sheet. The research collaborator completed them on behalf of the respondents using question and answer. However, respondents were led to personally identified their own self-image from the list of emotions on the Self-counseling Sheet.

5.06. Study measures:

Study variables were HIV preventive knowledge, condom use efficacy, and condom use group-norm perception, and measured at pre-intervention/ post-intervention/ One-week follow-up period. In addition, the frequency of actual condom use during previous one week was also self-reported at pre-

intervention and one-week follow-up period. In this study, both efficacy and group-norm perception were devised into two dimensions because condom use could be classified into two as follows:

- Personal behaviors (i.e., buying condom, keeping a condom in own workplace, and using a condom correctly)
- Interpersonal behaviors (i.e., requesting the customer to use a condom, refusing condom-unprotected sex with the customer, and always having condom-protected sex with the customer).

Furthermore, interpersonal condom use efficacy and group-norm perception were constructed on the basis of four different cases that CSWs would have some difficulty in behaving assertively. Those cases were:

- Case 1, that their customers wouldn't use condoms voluntarily
- Case 2, that their customers would pay more amount of money to have condom-unprotected sexual intercourse.
- Case 3, that their customers would behave violently to them in response to their request of condom use
- Case 4, that their customers would be regular customers for whom they have affections and trustful relationships.

Furthermore, the pictures of the given four cases were used to assist participants imagination in each case, in the measurement of condom use efficacy and group-norm perception. These scales were recognized to be valid by a Japanese HIV preventive activist.

Three scales in this study were progressively scored with higher scores indicative of higher knowledge, efficacy, and group norm perception respectively. The ranges of scores were from 0 to 8 for knowledge, 0 to 15 for both efficacy and group-norm perception.

6.00. ANALYSIS:

Data from the study questionnaire were analyzed descriptively. The five scales of the study i.e. self-esteem scale, Self-repression scale, norm-conformity scale, self-efficacy scale, and HIV/AIDS-related knowledge scale were scored in a manner that a high score represented "high" amount of the variable among the respondents. A low score represented "low" quantity of the variable in the respondent. For example, a high score on the HIV/AIDS-related knowledge scale meant high HIV/AIDS awareness. A low score on the self-esteem scale meant respondent's low self-esteem.

As far as Self-Counseling Sheet was concerned self-image through self-association technique, emotions concerning self-image, and confidence for condom use following Self-Counseling were described. Respondents choose one answer in confidence for condom use from "Yes", "No"' and "don't know".

7. 00. RESULT

All seventeen respondents completed the questionnaire at pre-intervention, post-intervention, and one-week follow-up period. Summary of all measurements were presented in Table 1. Most of them were assisted to read items by female social workers, because of low literacy. A survey on sexual behaviors at pre-intervention measurement with seventeen study populations reported that fifteen had sexual intercourse with customers during previous one week. Moreover, when they were asked the approximate number of their customers and actual condom use during the period, all of fifteen belonged to the same categories. Data reported that they had one to ten (1-10) customers, and used condoms in every sexual intercourse with customers during the period. It was found in the Table 1 that they had higher HIV preventive knowledge, higher personal and interpersonal condom use

efficacy, and higher personal and interpersonal condom use group-norm perception even at pre-intervention measurement.

In statistical analysis, within-group comparison was made with non-parametric test of Freedman repeated measures ANOVA to examine the effects of interventions. Freedman repeated measures ANOVA revealed a significant difference in the mean score of interpersonal condom use group-norm perception-case 1 in control group ($p<0.05$). However, multiple comparison revealed no significant difference in the mean score between pre-intervention and post-intervention, and pre-intervention and one-week follow-up.

At one-week follow up period, four participants had not returned to our measurement. These four participants were not statistically different from others in the comparison o study variables. On the other hand, those who participated in follow-up measurement were all consistent condom user during previous one week.

7.01. Result from Questionnaire:

The socio-psychological attributes of the target population was presented in Table 1. They were young Badi women (CSWs) who believed in Hinduism. They had quite low level of educational career in general, and eleven of them had no educational career (Table 1). Twelve of them responded that the purpose of commercial sex work (CSW) was to maintain, a livelihood, one did to buy something, and three did to pay back a debt (Table 2). Most of them had a favor toward CSW (Table 3), and all had a favor toward condom use (Table 4). Fifteen of them recognized that is was very serious to be infected with HIV (Table 5). Respondents' average and standard deviation (SD) scores on the self-esteem, self-repression, norm-conformity, and self-efficacy scales were 4.67 ± 1.70, 14.07 ± 2.74, 2.71 ± 1.38, 9.38 ± 0.81, and 14.44 ± 3.40 respectively (Table 6).

7.02. Result from Self-Counseling Sheet:

Self-images from nine respondents were easily considered to be appropriate. They were subordinate low level person, dominated person, inferior person, and self-confidence. However, all responded "Yes" in confidence for condom use. Self-Counseling Sheet result is presented in Table 7

Sheet No. 1: Review of each score

Respondent	Self-esteem	Self-repression	Norm-conformity	Self-efficacy	Knowledge
1	5	16	2	10	8
2	3	12	1	8	16
3	4	15	4	9	18
4	4	18	5	9	18
5	6	15	4	10	15
6	-	13	2	10	14
7	4	17	4	9	-
8	4	16	2	8	10
9	5	12	4	8	-
10	3	10	4	10	-
11	5	16	2	10	15
12	7	14	1	10	-
13	8	-	1	10	-
14	7	8	2	10	16
15	3	16	-	9	-
16	2	13	-	10	-
Average SD	4.67 1.70	14.07 2.74	2.71 1.38	9.38 0.81	14.44 3.40

Sheet No. 2: "-" means the data with unanswered items.

Table No.1. Demographic variables

Age group	Numbers
10-15 years	1
16- 20 years	7
21-25 years	6
26-30 years	1
More than 31 years	1
Nationality:	
Nepali	16
Others	0
Religion:	
Hinduism	15
Buddhism	0
Missing	1
Educational career:	
Elementary	4
Junior high School	0
Higher secondary	0
No career of education	11
Missing	1

Table No. 2. Purpose of CSW

Purpose of CSW	n=16
To survive for livelihood	12
To buy something	1
To pay back a debt	3
Others	0

Table No.3. Favor toward CSW

Favor toward CSW	n=16
Yes, I like it.	12
No, I don't like it.	2
Missing	2

Table No.4. Favor toward Condom Use

Favor toward Condom Use	n=16
I would like to use it.	16
I wouldn't like to use it.	0
I don't know.	0

Table No.5. Perceived Seriousness for HIV Infection

Perceived Seriousness	n=16
Very serious	15
Serious	0
Not very serious	0
Not serious	1

Table No.6 Average score and Standard Deviation of Each Variable

	Average	S D	Missing
self-esteem	4.67 (10)	1.70	1
Self-repression	14.07 (20)	2.74	1
Norm-conformity	2.71 (6)	1.38	2
Self-efficacy	9.38 (10)	0.81	0
Knowledge	14.44 (19)	3.40	7

The values in the ( ) stand for the maximal scores in each. n=16

Sheet 3

Table No.7. Review of Self-Counseling Sheet

Respondent	Types of self-images concerning Condom Use	Types of Emotions concerning self-image	Confidence for Condom Use
1.	Subordinate	Anxious about self-image	Yes
2.	Low lever person	Afraid of self-image	Yes
3.	Low level person	Happy with self-image	Yes
4.	Encouragement	Happy with self-image	Yes
5.	Encouragement	Happy with self-image	Yes
6.	Safer Practice	Satisfied with self-image	Yes
7.	Expectation for longer live	Satisfied with self-image	Yes
8.	self-confidence	Satisfied with self-image	Yes
9.	Subordinate	Anxious about self-image	Yes
10.	-	Confident with self-image	Yes
11.	Dominated person	Miserable with self-image	Yes
12.	Subordinate	Self-hatred with self-image	Yes
13.	Dominated person	Afraid of self-image	Yes
14.	Inferior Person	Satisfied with self image	Yes
15.	Encouragement	Satisfied with self-image	Yes
16.	Encouragement	Afraid of self-image	Yes

Table No.1. Summary of all measurements: Means and Standard Deviations of Each Study Variables at Pre-intervention, Post-intervention, and 1-week Follow-up by Groups

Group (n=9)	Experimental Group (n=6)			Control Group (n=16)			Waiting-List Control	
Pre-intervention	Post-intervention	1-week Follow-up		Pre-intervention	1-week Follow-up		Preintervention	1-week Follow-up
HIV Preventive Knowledge	7.67(0.52)	8.00 (0.00)	7.4 (0.55)	7.67 (0.52)	8.00(0.00)	7.83(0.41)	7.80 (0.45)	7.50 (0.70)
HIV Preventive Behavioral Efficacy								
Personal Behavior:	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)
Interpersonal behavior:								
Case-1	15.00 (0.00)	15.00 (0.00)	12.60 (2.19)	14.50 (1.22)	15.00(0.00)	15.00(0.00)	14.40(1.34)	15.00(0.00)
Case-2	15.00 (0.00)	15.00 (0.00)	15.00(0.00)	14.17(1.33)	15.00(0.00)	15.00(0.00)	15.00(0.00)	15.00(0.00)
Case-3	15.00 (0.00)	15.00 (0.00)	15.00(0.00)	13.17(1.47)	15.00(0.00)	15.00(0.00)	14.80(0.45)	13.00(2.83)
Case-4	15.00 (0.00)	15.00 (0.00)	15.00(0.00)	14.50(0.84)	15.00(1.55)	14.00(1.55)	14.80(0.45)	13.00(2.83)
HIV Preventive Behavioral Norm								
Personal Behavior	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	14.00(1.55)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)
Interpersonal Behavior:								
Case-1	15.00 (0.00)	15.00 (0.00)	14.20 (1.79)	12.50 (1.22)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)
Case-2	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	13.67(1.34)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)
Case-3	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	14.67(1.82)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)
Case-4	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	14.50 (1.22)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)	15.00 (0.00)

Values in ( ) stand for STDs.

8.00. COMMENT & SUGGESTION:

8.01. Comment:

This study revealed that out study populations had high scores of HIV preventive knowledge, condom use efficacy and condom use group-norm perception, and that they were consistent condom users.

Previous studies have found that a specific norm supportive of condom use is a predictor of actual condom-protected sexual intercourse in various populations. This finding emphasizes the influence of norm to promote condom-protected sexual intercourse. The result of this study showed that our study population had high scores of personal and interpersonal condom use group-norm perception with small standard deviations. In other wards, their perception on condom use has converged to a limited area where condom use is accepted, which would indicate that they have already established the group-norm supportive of interpersonal behaviors as well as personal behaviors for condom use, even at pre-intervention and in the cases that it could be difficult to behave assertively on condom use.

Self-efficacy to date has been used as a predictor of condom use in some previous studies therefore, it is necessary to enhance self-efficacy to use condom among study population. We hypothesized that assertive behavior training in this study could successfully improve their self-efficacy to use a condom, because they could learn the technical skill and coping behaviors through condom use training, modeling, and role-play. As can be seen in Table 1, they had already had higher self-efficacy to use a condom, even at pre-intervention and in the cases that it would be difficult to behave assertively on condom use.

We adopted a peer-led intervention for EG to enhance the interaction among participants. The strength of this technique would be emphasized in case that study population wouldn't keep good relationship with such formal educator as social worker. Initially we expected that the peer-led intervention would be more effective than the social worker-led one. However, we couldn't observe any significant difference between peer-led intervention and social worker-led one. One explanation of this result may be, in addition to the problem of scale, that out social worker was a person who lived near from out study site and was age-matched with study population, and who had a carrier of intervention with out study population previously. Therefore, they showed almost no indifference and fear to her.

We should point out the limitation of this study. It might be hard to examine the possible effects of the interventions on study variables and actual behaviors, partly due to the inappropriateness of the study scales and partly due to the possible effect of conformity on their answers. Although we had attempted to design well-matched scales for out study population, with the cooperation of Nepali HIV preventive activists, high scores of each scale at pre-intervention measurement may highlight the inappropriateness of scales. While it should be highly evaluated that we have been intervening with our study populations for HIV prevention since 1992, it is strongly required that we have a system to scientifically evaluate our previous works, for future study and work.

Furthermore, our study populations tended to show the similar answers in every measurement. Although it may be true, we can't conclude that it is true. Many of them were assisted to read the items by female social workers in a crowded space where they could easily hear their peers' answers. Therefore, the convergence of scores observed in this study might be attributed to the conformity as well as the exact measurement.

.02. Suggestion for future study and work

Focus Group Discussion(FGD) were conducted. The study, which implied potential effects of the intervention and some suggestions for future study and work. Some participants reported that they had learned how to successfully respond to the customers with whom they would have some difficulties to behave assertively for condom use. Furthermore, focus group discussion revealed one of study population's concerns. It was their current occupation. As commercial sex work gives an opportunity of earning income favorable to younger women. The older CSWs have anxiety for their future. To solve this problem, an income generating program to CSWs should be continued. In addition, a literacy program to CSWs should be emphasized to get an opportunity for another occupation.

Scientific evaluation of previous work was strongly required to succeed in HIV preventive program more effectively. However, it should be clearly noted that positive results found at pre-intervention measurement which could be attributed to the greater efforts of a Nepal AIDS Preventive Institute(NAPI.

A simple medical check-up program was also conducted with this study revealed some possibility of existence of HIV infected people in the study population. Although focus was put on HIV prevention. More emphasis should be put on coexistence with HIV through education.