

Promote Safe Sexual Behaviors among Three-Wheeler Drivers in Selected Three-Wheeler Parks in Anuradhapura Town, Sri Lanka through a Health Promotion Approach

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Abstract - Sexually Transmitted Infections (STI) can be seen as common infections around the world because of annual estimated number of STI cases has reached 448 million [8]. In this case Sri Lanka is also not an exception. Evidence shows that, Three-Wheeler Drivers (TWD) is an inter-mediate risk group for STIs in Sri Lanka. Bases of this situation, a Health Promotion intervention were applied to promote safe sexual behavior practices among TWD in Anuradhapura district, Sri Lanka.

A quasi-experimental design was used in Intervention ($N=50$) and control groups ($N=44$) which were selected from two districts by the means of similar socio-economic background. At the beginning, enthusiasm of intervention group on sexual well-being was improved. Thereby the provision was taken to discuss about determinants of unsafe sexual practices. Meanwhile, facilitated to identify perceptions as determinant factor of sexual well-being and to analyze behavior intervention is on sexual behaviors. Gradually, capacitated to design a mutually agreed mechanism to address and to measure changes. It was consisted of participatory discussions, facilitated with innovative tools. Statistical tests were applied to detect significant differences.

Among selected seven behavior intentions, four have changed in significantly with compared to pre and post levels ($p<0.05$) of intervention group. Apart from that, five behavior intentions have changed in intervention group with compared to control group ($p<0.05$). Thirteen perceptions out of selected seventeen, have been changed significantly in intervention group ($p<0.05$). Eight perceptions on safe and unsafe sexual practices have been changed significantly in intervention group, compared to control group.

Hence, Health Promotion interventions to change behavior intentions on unsafe sexual practices among this particular community are effective.

Index Terms – Health Promotion, Perceptions, Sexually Transmitted Infections, Three-Wheeler Drivers

I. INTRODUCTION

Sexual health is a state of physical, mental and social well-being in relation to sexuality and Sexually Transmitted Infections (STIs) are infections that spread primarily through sexual contacts from person-to-person [9]. The highest estimated prevalence of 48 millions of STIs has been reported from the region of South and South East Asia, and estimated prevalence of Sub Saharan Africa is 32 million [6].

In Sri Lanka STIs in every year have been estimated about 60,000 to 200,000. Only 10 to 15 percent is reported by government clinics that are responsible for preventive way of the issue. STI is a case for the spreading of HIV infection and serve as indicators for low condom use and other high-risk sexual behaviors [7]. Safe sexual practices lead to prevention of STIs. Perceptions related to safe and unsafe sexual practices can be determined the sexual well-being of an individual. According to the previous studies, TWD have engaged with risk behaviors. Hence, in Sri Lanka, they have identified as an intermediate risk group for STIs. Approximately 111,000 registered three-wheeler taxis are operated in Sri Lanka, but intervention studies on STIs have not focused on three-wheeler drivers. Basis on that, this study a Health Promotion approach was applied to promote safe sexual behavior practices among three-wheeler drivers.

II. IDENTIFY, RESEARCH AND COLLECT IDEA

Human sexuality is a complex behavior which is affected by vast area including, learning, physiology and cognitive. Apart from that it plays a major role in human's life. Spring L.M. sexuality is the way in which we experience and shows ourselves as sexual beings [5].

According to UNAID's 2004 Global Report on the AIDS Epidemic, 'ABC' method has describe as, Abstinence (not engaging in sex, or delaying first sex) Being safer, by being faithful to one's partner or reducing the number of sexual partners , Correct and consistent use of condoms [2]. The "ABC approach" to preventing the sexual transmission of HIV has been defined and variety of organizations, governments and non-governmental organizations used, ever since the term was first used in 1992.

According to WHO estimates four hundred and forty eight million new cases of curable STI cases throughout the world [8]. So many studies have been carried out around the world, on STD and HIV; and most of them were on HIV/AIDS. In this respect there was not significant number of studies carried out in Sri Lanka. There were a few number of studies have conducted focused on three wheel setting under STI and HIV issue. In addition to that previous studies too much focused on identifying behavioral practices or prevalence of cases, rather than prevention actions. National STD/AIDS Control Program is intervening by certain amount with three wheeler drivers on STI and HIV. They are conducting a Sentinel Survey once a year. But the case is survey is not focused on intermediate group, like three-wheeler drivers in depth.

According to study of Amarasinghe & Gunasinha, (as stated in 11th ICSSL, 2007, p. 64), based on thirteen focus group discussions (FGDs) with youths in Sri Lanka, it has shown that, the prevalence of alcohol use, smoking, unprotected sexual habits and drug addiction among youths in post conflict Sri Lanka [1]. Most of studies in Sri Lanka, did not aim to intervene to solve this problem. They have explored seen determinants, attitudes, knowledge, unsafe sexual practices etc. Studies have not focused to find out unseen determinants, methods to deal with both seen and unseen determinants. Review of the National Response to Sexually Transmitted Infections and HIV/AIDS in Sri Lanka, (2006) has highlighted Anuradhapura district in various ways in this case.

Rajapaksha's study (as cited in BSS report, 2006) found that 16.6% of three-wheeler drivers used a condom in their most recent sexual encounter. In addition to that Abeysekera's study (as illustrated by BSS report, 2006) indicated that among male attendees of the Colombo STD Clinic, 14% used a condom in their most recent sexual encounter. Based on the outline result of Rifai study (as illustrated by BSS report, 2006) youth who living in slums and shanty settlements in Colombo, and men who living in the Dehiwela, Mt Lavinia Municipal Council area, 12.1% used a condom in their most recent sexual [3].

The Oxford dictionary (2005) defines; perception is understand or thinks of somebody or something in a particular way [4]. Self-perception theory (SPT) is an account of attitude change developed by psychologist, Daryl Bem. It asserts that people develop their attitudes by observing their behavior and concluding what attitudes must have caused them [10].

After identified research topic systematic analysis of the problem was used to identify factors that contribute the problem. It was done by under these steps, firstly identified current public issues related to sexual well-being in Sri Lanka. Based on feasibility of the study, is it important problem to research? , has it been studied before, and association of ethical issues selected one topic for the study. Then wrote down core problem, brainstorm possible areas associated with the problem, identified further contributory factors, organized related factors under broader headings, analyzed relationship between these factors. The first concept was perception as a major determinant factor of safe and unsafe sexual practices. Secondly, changes in perceptions lead to change of behavior intentions related to sexual practices. Finally behavior intentions lead to changes in behavior and by that improve sexual well-being. Overall objective was to promote safe sexual behaviors among three-wheeler drivers in selected three-wheeler parks in Anuradhapura town, Sri Lanka. To achieve the general objective, there were few specific objectives. Those were, to describe current knowledge on Sexually Transmitted Infections, attitudes, perceptions on safe and unsafe sexual practices, perceptions of individual risk to self, behavior intentions and sexual behaviors , to formulate an intervention to improve safe sexual behaviors and to measure changes towards safe sexual behaviors.

III. METHODOLOGY AND FINDINGS

The study was carried out based on a quasi-experimental study design. Intervention ($N=50$) and control groups ($N=44$) which were selected from two districts by the means of similar socio-economic background. The study was carried out with three-wheeler drivers in a selected setting in the Anuradhapura town area and the Polonnaruwa town area, which belongs to North Central Province (NCP), Sri Lanka. Participants were selected in the study, through cluster sampling method and Pre scheduled inclusion criteria were used to select participants for the study. Informed consent of participants was taken at two stages. Firstly, at the outset of the study the informed consent was taken to carry out the intervention study. As the next, data were taken under the informed consent of participants. Study variables were perceptions relating to safe and unsafe sexual behaviour practices and behavioural intention relate to sexual well-being.

Before commencing the main study identified a link among three-wheeler drivers, clients and commercial sex workers. At the same time persisted perceptions among three-wheeler drivers in Anuradhapura were explored. Perceptions relate to safe and unsafe sexual practices of three-wheeler drivers were identified through basic group discussions and individual discussions with 30 (non participants of the research) TWDs of the study area. And pre tested selected perceptions with another 20 (non participants of the research) TWDs

in the study area. Behavioural intentions questions was identified based on preliminary discussions with three-wheeler drivers, Men who Sex with Men, Female Sex Workers, as well as key informants such as staff of STD clinic of General hospital Anuradhapura and Non Governmental Organization which work on prevention of STI.

Both qualitative and quantitative methods were used for data collection. Those were interviewer-administered questioning, group discussions, in-depth interviews, interviews. The prepared questionnaire was applied for a pilot study. It was carried out with another ten selected three-wheeler drivers (non participants of the study). Persistence of selected perception within the intervention group and the control group was checked from the result of the baseline survey.

Current knowledge, on Sexually Transmitted Infections, perceptions of individual risk to self, sexual behaviours, acceptance of certain perceptions, attitudes was assessed by pre-test both of experimental and control group. Interviewer administer questionnaire was used for fulfilment of the 1st specific objective. The intervention period of the study was consisted of three phases. Those were planning of the interventions, implementation of the interventions and monitoring. This was conducted in fulfillment of the 2nd specific objective of the study. Interventions were designed with the participation of three-wheeler drivers and were planned to address perceptions relate to safe and unsafe sexual practices. From the result changes of behavior were detected. Changes in behavior intention were measured as the proxy of behavior. Because it is too much difficult to measure sexual behaviors of someone. Health Promotion principles and practices were applied as the core concept of interventions. However at the implementation period predefined intervention plan was modified according to the factors of three-wheeler setting and ideas of three-wheeler drivers.

According to the logical framework, at the beginning, enthusiasm of intervention group on sexual well-being was improved. From that created an active group in the intervention group to launch interventions. Thereby the provision was taken to discuss about determinants of unsafe sexual practices. Meanwhile, facilitated to identify perceptions as determinant factor of sexual well-being and to analyze behaviour intervention is on sexual behaviours. Gradually, capacitated to design a mutually agreed mechanism to address selected perceptions and to measure changes. It was consisted of participatory discussions, facilitated with innovative tools.

Efficiency of the process was measured through the monitoring process of this study. It was a systematic collection and analysis of information as a study progress. Each and every intervention in the logical framework was monitored and it helped to keep the work on relevant track, and could identify whether things are going right way or the wrong way. As an invaluable tool, monitoring plan was helped to the management of the study, and it provided a foundation for evaluation as well. Input, process and output indicators were set which were provided a framework for monitor intervention. Determined the key indicators of the evaluation. Once gather evaluation details, then were applied to the analyzing system. Outcome indicators were created based on the study, which made frame work for evaluation system in the study.

Outcome of the study was adoption of safe sexual behaviors among three-wheeler drivers in selected three-wheeler parks in Anuradhapura town area, through a peer based intervention. However, it is not an easy task to measure sexual behaviors. Hence, facilitator insight to measure changes of behavior intentions as the proxy of sexual behaviors. Three-wheeler drivers have changed behavior intention relate to sexual well-being through changing acceptance of perceptions along well with safe and unsafe sexual practices among, selected three-wheeler drivers in Anuradhapura. Meanwhile, individual risk was assessed. Through a post evaluation was checked, whether there is any effect from another factor to the changes of perceptions through exploring statistical difference between control and intervention group.

At the commencement, collected data checked to review for incompleteness. As the next step, filled gaps in data entry, based on variables of each objective data were classified to quantitative and qualitative. Statistical tests were applied to detect significant differences. Analysis of quantitative data were involved the production and interpretation of frequencies, graphs and tables. Statistical significance between variables was assessed through chi-score and independent t-test and paired t-test. SPSS data analyzing software were used for data analysis. Qualitative data were collected through close questions in interviewer administered questionnaires, and individual interviews or group discussion opinions of respondents on the study issue. Interviewer administered questionnaires were coded at the planning stage based on a liker scale. Then data was entered to the computer. SPSS computer software was used. Ordinal data was analyzed through Mann-Whitney U test, and Wilcoxon test. Mann-Whitney U test were used to compare two independent groups and Wilcoxon on test were used to compare pre and post levels of both groups.

A numbers of key phrases were followed for system of ethical protections. Research participants were protected through these rights. The study was carried out with more sensitivity issue of a person. Most of people unwilling to discuss on sexual relate things at very open. So, ethical consideration was an important area to follow. Informed verbal consent for participation was sought prior to recruitment to the study. It was important get valid data to enhance validity. All data collection methods were used to get valid data. Knowledge, Attitudes, Perceptions, Behaviour Intentions and individual risk were changed in intervention group. Basically, interventions focused to change perceptions on selected safe sexual practices, such as abstinence, be faithful, condom use, and also unsafe sexual practices such as homo sexual practices, sexual practices with commercial sex workers, partner change, and sexual contacts with causal partners. Selected perceptions which are mainly considered from identified perceptions at the beginning were

Unmarriages should be avoided from sexual contact until marriage, For having fun /experience, should make sexual practices before marriage, Possibility is having infect STI to wife, if I deviate from faithfulness to wife in sexual practices, Possibility is having infect STI to children, if I deviate from faithfulness to wife in sexual practices, Sexual Pleasure is reduce, if you use a condom, Condom do not protect person from STI, Shy to obtain condom from available places, Haven't strength trust, on use of condom, Homo sexual practices is suitable, because from that can have experiences, Homo sexual practices are suitable because those are not risk, Sexual contact with commercial sex workers, is needed for have experiences, Sexual contact with commercial sex workers, is need for have experiences, Drug use enforce, sexual feelings, Sexual contact with commercial sex workers is good for have a fun, Time to time change of partner can be a risk condition, If I have a chance to change your partner from time to time I am willing to make it, If I have a chance, to sex with causal partners I am willing to make and If I have a chance to sex with causal partners it can be a risk condition.

Selected behavior intentions were, If you are marriage sexual practices keeping only with your marriage partner, If you are unmarried sexual practices will occur when you have get marriage, If you are unmarried You wish to avoid from sexual practices until get marriage, If you make sexual contacts with CSWs, or other one except permanent partner you will use a condom, If someone request for homosexual practices you will reject, If commercial sex worker, request for a sexual practices, you will reject, Do not change partner, even you have a chance for change and Avoid sexual practices with causal partners.

On the other hand as knowledge assessment, interventions were targeted to change awareness on STI in various aspects, general symptoms, transmission methods, prevention methods. Apart from that intervened to change attitudes on STIs.

A Semantic differential scale was provided to respondents to evaluate their perceptions on safe and unsafe sexual practices and behavioral intention.

There is a considerable difference between two groups in knowledge on transmission methods and symptoms of STIs. But there is no considerable difference in basic knowledge on STIs between two groups except transmission methods and symptoms of STIs. However, both two groups had good knowledge on STIs. Knowledge on STIs was changed towards positively in control group. Awareness programs on STIs which conducted by government or non government organizations during the study period could be the reason for that. Other than to such programs, interviewer administered questionnaire could be a reason for increasing knowledge on STIs at the base line survey.

There was no considerable difference between intervention and control group, in attitudes related to STIs. Positive attitudes were persisted with drivers of both groups.

There was a significantly changes towards positive between pre and post status of the intervention group in "Possibility is having infect STI to children, if I deviate from faithfulness to wife in sexual practices," "Unmarriages should be avoided from sexual contact until marriage," "For having experience, should make sexual practices before marriage," "Sexual Pleasure is reduce, if you use a condom," "Condom do not protect person from STIs," "Shy to obtain condom from available places," "Haven't strength trust, on use of condom," "Homosexual practices are suitable because those are not risk," "Sexual contact with commercial sex workers, is needed for have experiences," "Drug use enforce, sexual feelings," "Sexual contact with commercial sex workers is good for have a fun," "If I have a chance to change your partner from time to time I am willing to make it," "If I have a chance, to sex with causal partners I am willing to make it". Meanwhile, changes of other study perceptions can be identified, when comparing proportions of strongly agreed participants for each perception on safe and unsafe sexual practices.

There were significantly differences between post status of intervention and post status of control group in "Possibility is having infect STI to wife, if I deviate from faithfulness from wife in sexual practices," "Possibility is having infect STI to children, if I deviate from faithfulness to wife in sexual practice," "Unmarriages should be avoided from sexual contact until marriage," "For having sexual experience, should make sexual practices before marriage," "Homosexual practices is suitable because those are not risk," "Drug use enforce, to sexual feelings," "If I have a chance, to change my partner, I'm willing to do it," "If I have a chance, to sex with causal partners I'm willing to do it".

Perception of individual risk was not significantly changed in both intervention group and control group. Reasons for this condition were not much cleared. However, risk behaviours of three-wheeler drivers during the study period can be the reason for having risky perception.

Four behaviour intentions out of selected seven were significantly changed towards positive result in intervention group ($p < 0.05$). Meanwhile, five behaviour intentions out of seven were changed significantly in intervention group, compared to control group. Thirteen perceptions on safe and unsafe sexual practices out of selected seventeen have changed significantly in intervention group ($p < 0.05$). At the same time, eight perceptions on safe and unsafe sexual practices out of seventeen were changed significantly in the intervention group, compared to control group.

There are several limitations of this study that merit attention. It is difficult to change sexual behaviour, and shaped by closely related certain factors such as cultural, social, religion. Sexual behaviours are very personal and deeply rooted and this leads to difficulties to change sexual behaviours. Time to gather is another limitation; drivers are more likely to living with money minded life. Because of this, time to gather for discussions or intervention is making them less enthusiasm. Topic related to sex which is embarrassing to discuss. Because it is more non acceptance topic for discuss very openly. Project duration was a short period, because of this behaviour changes could not be expected during this limited time period. Apart from that assessing behaviours related to sexuality are too much difficult. Apart from that, there were certain strengths and weakness of the study.

IV. CONCLUSION

Three-wheeler drivers are one of the risk groups when considering the link among commercial sex worker, clients and them. Perception is a major underline factor deviating three-wheeler drivers from the safe sexual practices. There is a clearly identified gap between knowledge and behavior intention related with safe and unsafe sexual practices within three- wheeler drivers.

Negative beliefs, negative attitudes misperceptions and risk behaviours remain with three-wheeler drivers and prevention programs are need to address these social and cultural beliefs, attitudes, perceptions and risk behaviours as well. Perception is a major underline factor to deviate three-wheeler drivers from the safe sexual practices. It was effective implement Health Promotion approach with three-wheeler drivers to making changes in perceptions related to safe and unsafe sexual practices. As the major recommendation, for further studies, Health Promotion approach can be used for other high risk, intermediate and low risk groups to prevent sexually transmitted infections. On the other hand, Current sex education, promotion programs on STIs should be modified towards community empowerment under control over by themselves. Effective prevention programs should be conducted in fields rather than treatment units in hospitals by health professionals.

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