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EFFECTIVENESS OF BEHAVIORAL CHANGE COMMUNICATION ON LEVEL OF HIGH RISK SEXUAL BEHAVIOR AMONGADOLESCENT BOYS AT SELECTED SCHOOLS KERALA

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ABSTRACT

Background

High Risk Sexual Behavior (HRSB) includes any behavior that would cause participants emotional or physical harm e.g. unprotected sex, sex before the legal age of consent and multiple sex partners.

Aims and Objectives

The aim of this study is to assess the effectiveness of behavioral change communication on level of HRSB among adolescent boys.

Methods

A quasi experimental non equivalent control group design was undertaken to study the HRSB and risk factors among adolescent boys selected by purposive sampling technique. Modified Jasper Mountain's inappropriate sexual behavior scale and risk factor assessment scale was used. BCC on HRSB was administered.

Results

The study revealed that low level of HRSB and medium level of risk factors existing in adolescent boys. BCC had no significant effect on HRSB between groups at $P<0.05$, but it had a high significance on HRSB in experimental group at $P<0.001$.

Conclusion

Administration of BCC for a longer duration was an effective intervention to modify HRSB with other psychotherapeutic modalities like counselling, psychotherapy, psychodrama there would consistent sustainable behavior modification among adolescent boys.

KEYWORDS: Behavioral Change Communication, High Risk Sexual Behavior, Risk Factors

INTRODUCTION

BACKGROUND

According to Alden Nowlan " Adolescence means the day, when child realize that all adults are imperfect, he becomes an adolescent, the day he forgives them, he becomes an adult, and the day he forgives himself, he become

wise". During adolescence the brain undergoes significant developmental changes and they are receptive to the positive influences of youth development strategies, social and emotional learning and behavioral modelling. The developing brain combines with hormonal changes and makes them more prone to mental disorders along with other risky and thrills seeking behaviors.

High risk sexual behavior (HRSB) includes any behavior that would cause participants emotional or physical harm e.g. unprotected sex, sex before the legal age of consent and multiple sex partners.

Adolescent and Youth Reproductive Health in India revealed that a large percentage of adolescents engage in non-penetrative sexual experiences, 28% of boys and 6% of girls were sexually active. 26% of boys and 3% of girls had experienced sexual intercourse and 54% of adolescents had premarital sex. The urge for sexual contact begins at 13.7 years among boys and 14.9 years for girls, whereas the interest for sexual intercourse arises at the age group of 15.25 years in boys and 16.6 years in girls. As the grading of school level increases the attitude towards sex also increases which was evident by Global Adolescent Sexual Behavior Survey (2010). In that survey 32% of sexual interest in IX grade which gradually interested to 62% in XII grade. This statistics provoked the researcher to identify the felt need and guided to search for a means to improve adolescent sexual health and reduction of high risk sexual behavior.

Adolescent and Youth Reproductive Health In India, 2003revealed that 1/ 5^{th} of population is in the adolescent age group of 10–19 years. One-half of all young women were sexually active by the time they were 18, and almost 1 in 5 were sexually active by the time they are 15. There were approximately 10 million pregnant adolescents and adolescent mothers throughout India. In Mumbai a large percentage of boys and girls reported engaging in non-penetrative sexual experiences (e.g., kissing, hugging, touching sexual organs), and 28 % of males and 6 % of females were sexually active. But only 26 % of boys and 3% of girls reported that they had experienced sexual intercourse. In Rajasthan, adolescent boy's and girl's knowledge and awareness of sexual behavior revealed that more than half of the adolescent boys reported that they masturbated, and the practice was more among rural and older boys. More than one-third of the adolescents said they touched their body in some sexual manner, and about 20% had touched their genitals. The study also revealed that 15 % of the adolescents had experienced sexual intercourse and 21 % of those reported had a homosexual relationship. In Madras found that 13 % of male school-going adolescents and 10 % of female school-going adolescents clearly approved of premarital sex. The study also revealed that 14% of both boys and girls stated that premarital sex is allowable for males only.

Objectives

- To assess the existing level of high risk sexual behavior among adolescent boys in experimental and control group.
- To assess and compare the pretest level of risk factors among adolescent boys between experimental and control group.
- To assess the effectiveness of behavioral change communication on high risk sexual behavior among adolescent boys.
- To correlate the risk factors with the level of high risk sexual behavior among adolescent boys in experimental and control group.

- To associate the selected demographic variables with the level of risk factors among adolescent boys in experimental group.
- To associate the selected demographic variables with mean differed level of high risk sexual behavior among adolescent boys in experimental group.

Null Hypotheses

- **NH_1-** There is no significant difference in the pre-test level of risk factor among adolescent boys between experimental and control group at $P<0.05$ level.
- **NH_2-** There is no significant difference in pre and post test level of high risk sexual behavior among adolescent boys between experimental and control group at $P<0.05$ level.
- **NH_3-** There is no significant relationship of risk factors with the level of high risk sexual behavior among adolescent boys in experimental and control group at $P<0.05$ level.
- **NH_4 -** There is no significant association of selected demographic variables with the level of risk factors among adolescent boys in experimental group at $P<0.05$ level.
- **NH_5-** There is no significant association of selected demographic variables with the mean differed level of high risk sexual behavior among adolescent boys in experimental group at $P<0.05$ level.

Conceptual Framework

The research process for this study was framed by the conceptual framework based on **Integrated Kurt Levin's Force Field Analysis (Change) model and Dorothy Johnson's Open System theory.**

Input Refreezing

The investigator assumes Kurt Levin's force field analysis theory's restraining forces and driving forces as the input of Dorothy Johnsons open system theory. The restraining forces are age, education, religion, cultural practices, external stressors, internal stressors, developmental needs, social influences, lack of concerns by health care agency, families and individual attitude-values and beliefs. The driving forces are health care services, family support, school health programs, positive approach and health education.

In unfreezing stage, when the desire for change develops the adolescent boys are motivated to change either internally or externally by behavioral change communication as a change agent and the researcher who is an external force to assess the existing level of high risk sexual behavior and level of risk factor among adolescent boys.

Throughput-Freezing

The freezing stage of Kurt Levin's force field analysis theory is considered as the through put of Dorothy Johnsons open system theory. Freezing occurs when the people accept and try the innovation. During this stage students experience series of knowledge transformation, ranging from acceptance commitment to accomplishing change. Researcher introduces the behavioral change communication regarding high risk sexual behavior through focused group discussions and lecture cum discussion.

Output-Refreezing

The refreezing stage of Kurt Levin's force field analysis theory is considered as the output of Dorothy Johnsons open system theory. Refreezing occurs when adolescent boys are established as an accepted and permanent part of the system. This involves integrating or internalizing the change and then maintaining the change. The researcher will assess the new change by assessing the posttest level of high risk sexual behavior by using Modified Jasper Mountain's Inappropriate Sexual Behavior scale.

If the adolescent boys have modified their high risk sexual behavior it may reveal that the adolescent boys internalized the change and in turn promotes the practice to improve quality of life. This has to be enhanced.

If the adolescent boys still have high risk sexual behavior it reveals that there is no behavior change in the adolescent boys. So they have to be motivated for change

Methodology

Research approach: quantitative research approach.

Research design: quasi experimental non equivalent control group design.

Variables: Independent variable- Behavioral Change Communication.Dependent variables- high risk sexual behavior and risk factors of adolescent boys.

Setting: St. Thomas Higher Secondary School Engandiyur and National Higher Secondary School, Irinjalakuda, Thrissur district, Kerala.

Population

Target population- all the adolescent boys studying at selected schools between the age group of 13 - 19 years.

Accessible population- Adolescent boys who were studying in X and XII at St.Thomas Higher Secondary School Engandiyur and National Higher Secondary School, Irinjalakkuda, Thrissur district, Kerala and were available during the time of data collection.

Sample: Adolescent boys who fulfilled the sample selection criteria were selected for the study as samples.

Sample size: 120 adolescent boys were selected by non probability purposive sampling among which 60 samples for both experimental and control group.

Sampling Technique

The investigator screened the boys for high risk sexual behavior by using Modified Jasper Mountain's Inappropriate Sexual Behavior Scale. A total of 60 adolescent boys with high risk sexual behavior selected from each school in those 30 adolescent boys were selected from high school and higher secondary class respectively for experimental and control group by **non probability purposive sampling technique.**

Data Collection Tool

The data collection tool used for the study included three sections:

Demographic Variables

Demographic variables of the adolescent boys which include age, educational status, type of school, religion,

residential area, involvement in religious activities, involvement in recreational activities, birth order, number of siblings, type of family, marital pattern of parents, consanguineous marriage, parenting style, grades in exam, kind of friendship, intimate relationship with girls, money spend in a day, type of recreation, family monthly income in rupees, history of mental illness among significant care takers, education of father, education of mother, occupation of father and occupation of mother.

Modified Jasper Mountain's Inappropriate Sexual Behavior Scale

This section consisted of Modified Jasper Mountain's Inappropriate Sexual Behavior Scale on a 3 point scale of "NEVER-0", "OCCASIONAL-1" and "ALWAYS -2" to screen the level of high risk sexual behavior. The tool consists of 5 domains: sexualized expression (7 Items), Cooperative sexualized expression (5 Items), emotional abuse of a sexual nature (5 Items), emotional and physical coercive sexual abuse (5 Items) and psychological thoughts (18Items). This high risk sexual behavior assessment scale consisted of 40 items with a maximum score of 2 for each item. Hence the total score was 80. The levels of high risk sexual behavior were categorized as follow

1-26: Low level of high risk sexual behavior

27-53: Moderate level of high risk sexual behavior

54-80: High level of high risk sexual behavior

Risk Factor Assessment Scale

Risk Factor Assessment Scale on a dichotomous scale of "YES", and "NO" to identify the level of risk factor for high risk sexual behavior. It has 5 domains: sexual abuse (5 Items), peer group (5 Items), media (5 Items), substance use & curiosity (5 Items) and parent, teacher & relative communication (5 Items).

This risk factor assessment scale consisted of 25 items. If they answer YES for positive risk factors a score of 1 is given and for NO answer a score of 0 is given and for negative risk factors the scores were vice versa.

1-8: Low level of risk

9-16: Medium level of risk

17-25: High level of risk

Intervention Tool

This intervention was given by the following two methods

- Focused group discussion with adolescent boys regarding sexual behaviors a total of 6 adolescent boys were made to sit comfortably (cabre method) in a well ventilated noise free class room and discussed about their current knowledge, researcher cleared their doubts regarding various sexual behaviors.
- Lecture cum discussion regarding high risk sexual behavior including its definition, age appropriate and inappropriate sexual behaviors, risk factors, warning signs, preventive actions, reasons for high risk sexual behavior, nursing management including thought stopping techniques and psychological consequences presented by using power point presentation.

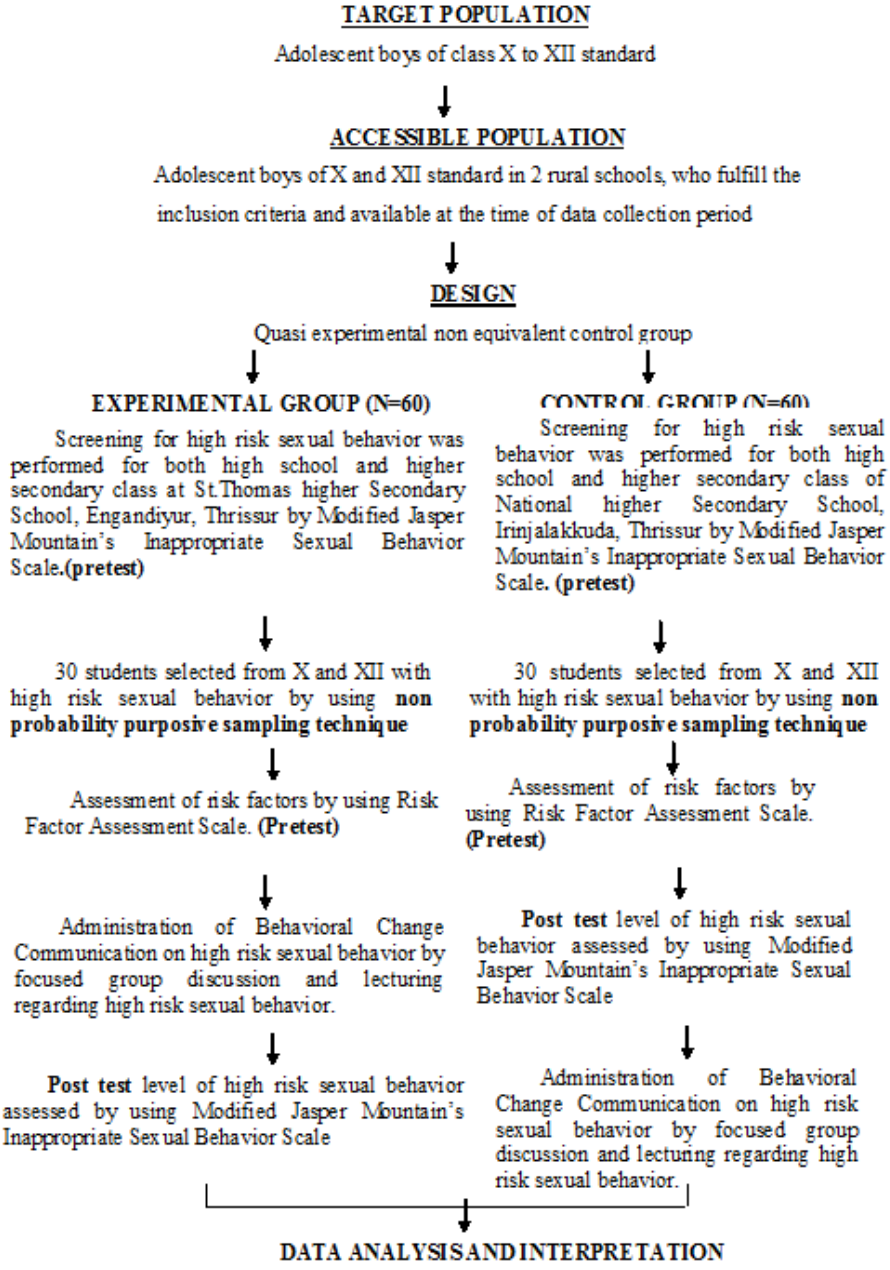

Figure 1: **Schematic Representation of Research Methodology**

RESULTS AND DISCUSSIONS

Demographic Variables of the Adolescent Boys

- 68.33% & 46.67% of adolescent boys belonged to age of 15-17 years and 50% of adolescent boys were from high school and higher secondary and all were studying in government aided school in both experimental and control group respectively.
- In relation to religion (58.33% & 78.33%) belong to Hindu religion, 26% & 23.33% belong to Christian and 15% & 3.33% belong to Muslim in both experimental and control group respectively.
- 48.33% & 50% of adolescent boys had occasional involvement in religious activities, 32% & 23% had always

involved in recreational activities in both experimental and control group respectively.

- 33% & 34% of adolescent boys had B and B+ grades in previous exam in both experimental and control group respectively.
- 38% & 40% of adolescent boys had both boys and girls as friends and 40% and 29% of adolescent boys had intimate relation with girl in both experimental and control group respectively.
- Majority of adolescent boys (68.33% & 73.33%) had sports and games as their recreation in both experimental and control group respectively.
- 45% & 50% of adolescent boys belong to first child of their family, 61.67% & 61.67% of them had one sibling and most of them (88.33% & 90%) belong to nuclear family in both experimental and control group respectively.
- Majority of adolescent boy's parents (91.67% & 93.33%) had arranged marriage and (95% & 91.67%) had non consanguineous marriage in both experimental and control group respectively.
- In relation to parenting style 75% & 45% belong to democratic parenting style and none of the adolescent boys had history of mental illness among significant care takers
- 51.67% & 53.33% of adolescent boy's father belong to high school education and mother (45% & 38.33%) were belongs to high school education in both experimental and control group respectively.
- 56.67% & 53.33% of adolescent boy's father belong to self-employment and mother (70% & 61.67%) were belongs to home maker in both experimental and control group respectively.

The study findings revealed that following high risk sexual behavior were existing in adolescent boys were masturbation (85%), drawing sexual pictures (61.6%), looking underwear advertisements (46.6%), staring body parts of others (52.5%), mutual touching of private parts (32.5%), fantasy thoughts of others sexual activities (43.35%), exhibitionism (10.8%), frotteurism (42.5%), voyeurism (21.65%), risk taking behaviour (67.5%), antisocial behaviours (31.6%), self preoccupation with sexual thoughts (57.5%), study disturbances (65%), sexual interaction with friends or classmates (39.15%), sexual interest directed towards younger children (15.8%), feeling of sex reduce mental tension (31.6%), premarital sex (16.6%), guilty or depression after sexual activity (83.3%), reported need for counselling (50.85%), fear of knowing sexual behaviors by others (67.5%), habit of visiting sex videos centres and book stores (52.5%) and worry about getting or affected with a sexually transmitted disease like HIV/ AIDS (37.5%).

The study also identified that the following risk factors among adolescent boys includes majority of them had experienced some form of child abuse, experienced uncomfortable talk about sex (45%), rubbing of private parts against them (37.5%), touching in a sexual manner without permission (15.8%), forcing to touch body parts of others against wish (12.5%) and forcing to sex (9.15%). Peer group pressure for sexual activity (48.3%), encouragement to watch pornography (67.5%), encouragement to do masturbation (27.5%) , reported influence of media for sexual thoughts (47.5%), watch internet/TV with explicit sexual or adult content (52.5%), reported curiosity as a major factor for their sexual thoughts (55%), 95.8% had not received any parental sex education, 86.65% had not received any sex education from relatives and 55.85% had not received any sex education from teachers.

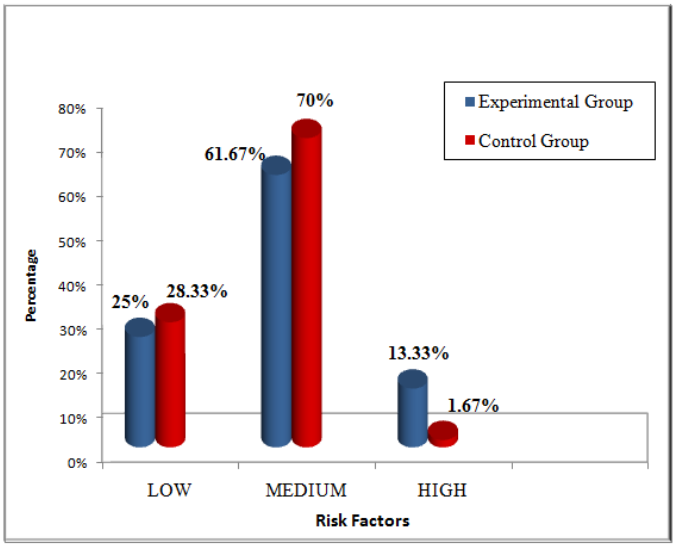

Figure 1

The analysis revealed that 37(61.67%) and 42(70%) had medium level of risk factors, 15(25%) and 17(28.33%) had low level of risk factors and 8(13.33%) and 1(1.67%) had high level of risk factors was identified in both experimental and control group respectively.

Nazar, Barry L. Zanis, David A. Melochick, Jennifer Ryan (2011): conducted a survey on self-reported intentions and related factors for sexual onset among 306 early adolescents in the age group of 10 to 25 years at Pennsylvania. The domains examined in this study include attitudes, social norms, parenting practices, dating activities, self-efficacy, school and community activities, psychosocial experiences, substance use, prior sexual activity, communications, family structure, familial relationships, and life goals . The results revealed that these factors had an influence on intentions to engage in sex.

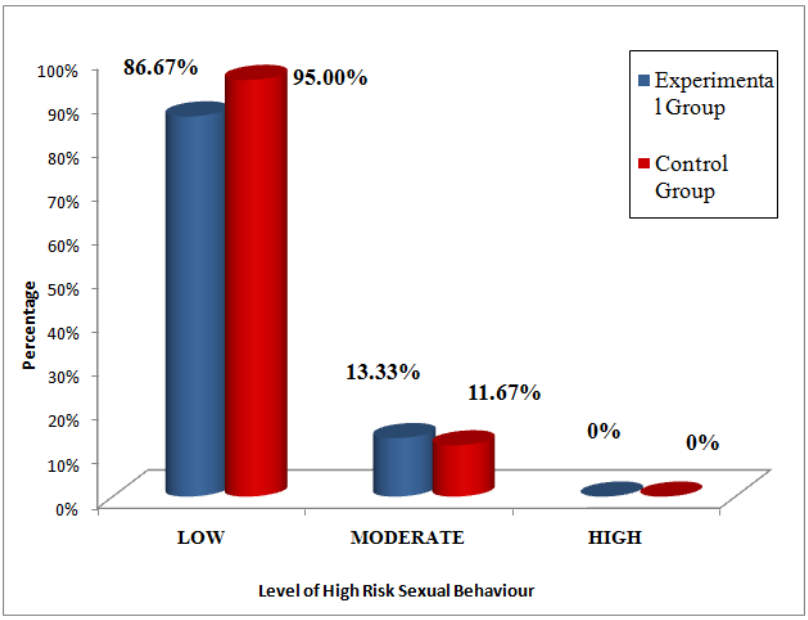

Figure 2: Percentage Distribution of Pretest Level of High Risk Sexual

Behavior in Experimental Group and Control Group

The analysis revealed that 52(86.67%) and 57(95%) had low level and 8(13.33%) and 3(5%) had medium level of high risk sexual behavior in both experimental and control group respectively.

Table 1: Comparison of the Pretest and Post Test Level of High Risk Sexual Behavior Between Experimental and Control Group
N=120

Group	Pretest		Posttest	
	Mean	S.D	Mean	S.D
Experimental group	17.3	9.36	15.27	9.24
Control group	14.65	7.15	16.03	18.23
	t= 1.743, P=0.084, NS		t= -0.291, P=0.772, NS	

N.S – Not Significant

The overall mean score in post test of experimental group was 15.27 with S.D of 9.24 where as in control group post test score was 16.03 with S.D of 18.23. The unpaired't' test value was't'= -0.291 which was less than the table value at $p<0.05$ level. The above findings revealed that Behavioral Change Communication was not effective in modifying the high risk sexual behavior of adolescent boys between the groups.

Table 2: Comparison of the Pretest and Post Test Level of High Risk Sexual Behavior in Experimental and Control Group
N=120

Group	HRSB	Mean	S.D	Paired 'T' Value
Experimental group	Pretest	17.30	9.36	t=6.772
	Post test	15.27	9.24	p=0.001,S
Control group	Pretest	14.65	7.15	t= -0.635
	Post test	16.03	18.23	p=0.528,N.S

When considering the experimental group the overall mean for high risk sexual behavior in pre-test was 17.30 and post test was 15.27. The paired 't' test value was't'= 6.772 which was greater than the table value at $p<0.001$ level and revealed that there was a high statistical significance in reducing the level of high risk sexual behavior in experimental group which indicated that Behavioral Change Communication was effective in modifying the high risk sexual behavior of adolescent boys.

Saewyce, Elizabeth M. Taylor, Darlene Homma, Yuko Ogilvie, Gina (2008) conducted a survey on trends in sexual health and risk behaviors among VII to XII grade adolescent students at British Columbia. The study revealed that regular monitoring of sexual health and sexual behaviors among adolescents provides strong evidence to guide intervention programs and health policies. The study emphasized the importance of monitoring trends, formulation of sexual health promotion strategies and policies, and to document the effectiveness of population-level interventions to foster sexual health among adolescents.

Panzer, Richard A (2008) conducted a survey on multimedia education on teen sexual attitudes, intentions and behaviors among ninth-grade students at New Jersey. The study found that a majority of adults and teens agree that schools

should give a strong message about abstain from sex until they are at least out of high school and also concluded that the traditional instructional design was significantly more effective than the Cognitive Flexibility Theory design. The study suggested that a directive, instructional approach in abstinence-centered sexual health education can strengthen the impact on teens' attitudes and intentions to abstain from sex.

Table 3: Correlation of Risk Factors with the Level of High Risk Sexual Behavior among Adolescent Boys in Experimental and Control Group

N=120

Group	Variables	Mean	S.D	'R' Value
Experimental group	Risk factor	11.47	3.82	r=0.779 p=0.001, S
	HSRB	17.30	9.36	
Control group	Risk factor	10.57	3.16	r= 0.637 p=0.001, S
	HSRB	14.65	7.15	

p<0.001, S – Significant

There was a high positive correlation between risk factors and high risk sexual behavior in both experimental(r=0.779) and control group (r=0.637) which indicated that as risk factor increases the high risk sexual behavior also increases.

Demographic variables like age in years, education of the student, religion, involvement in religious activities, intimate relationship with girl, type of recreation, family monthly income, occupation of father, and marital style of parents had a significant association with the level of risk factors among adolescent boys.

Demographic variables like age in years, education of the student, religion, involvement in religious activities, parenting style, birth order and marital style of parents had a significant association with the level of high risk sexual behavior among adolescent boys.

CONCLUSIONS

The study concluded that there was a mild reduction of high risk sexual behavior of adolescent boys through Behavioral Change Communication. Thus Behavioral Change Communication was an effective intervention to modify the high risk sexual behavior however it was felt by the researcher that if the Behavioral Change Communication administered for a longer duration with other psychotherapeutic modalities like counseling, psychotherapies, and psychodrama there would consistent sustainable behavior modification among adolescent boys. The study recommended that the Behavioral Change Communication (BCC) programs would help in identifying and modifying high risk sexual behaviors of adolescents and it should be implemented in school and community level.

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APPENDICES

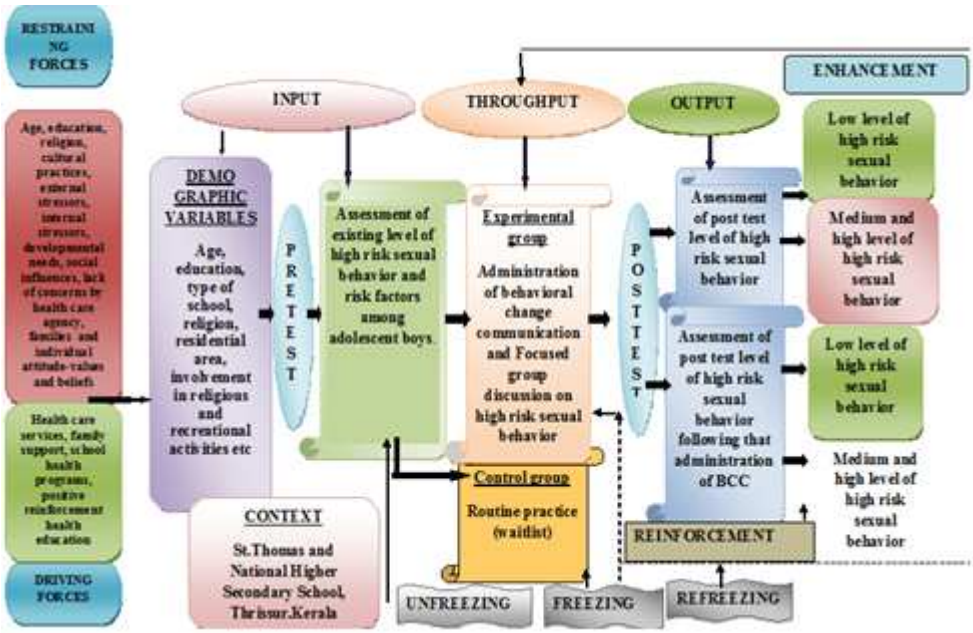

Figure 3: Integrated Conceptual Framework Based on Kurt Levin's Force Field Analysis (Change) Theory and Dorothy Johnson's Open System Theory