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Association of Knowledge, Attitudes, and Self-Efficacy with Sexual Risk Behaviors Among High School Students in Aguablanca District-Cali, Colombia

Zulma Hernandez

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**Association of Knowledge, Attitudes, and Self-Efficacy with
Sexual Risk Behaviors Among High School Students in
Aguablanca District-Cali, Colombia.**

**Thesis submitted to
The Graduated College of
Marshall University**

**In partial fulfillment of the
Requirements for the degree of
Master of Science
Adult & Technical Education**

By

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ABSTRACT
**Association of Knowledge, Attitudes, and Self-Efficacy with
Sexual Risk Behaviors Among High School Students in
Aguablanca District-Cali, Colombia.**

By
Zulma Hernandez, R.N., M.S.

The purpose of this study was to evaluate the level of knowledge, attitudes, and self-efficacy related to reproduction, contraception, STD/HIV and sexual risk behaviors among high school students. The study featured a cluster sampling involving eleventh grade students from two high schools in Aguablanca District - Cali, Colombia. A cohort of 313 students completed an anonymous questionnaire with a 20-item scale that measured level of knowledge in reproduction, contraception and STD/HIV; 5 item-scale that measured attitudes and self-efficacy related to practices of protective sexual behavior; and a 5-item scale that measured intentions toward their capabilities to perform specific actions that predicted the adolescents at risk for acquisition of STD/HIV and early pregnancy.

The results found in this study suggest that a large percentage of these high school students have serious misinformation or no information concerning selected health matters they should be aware of at certain stage of their growth cycle. The data revealed that there are existing gaps in knowledge that should be of concern to parents, teachers and health personnel.

The prevalence of the risk behaviors among this group of eleventh grade indicates a need for broad-based educational efforts. Such efforts should include an increase of high schools' curricula and availability of resources that aid in the

prevention of STD/HIV transmission, early pregnancies, and other essential health issues.

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LIST OF SYMBOLS / NOMENCLATURE ACRONYMS

AIDS: Acquired Immune Deficiency Syndrome

ATE: Adult and Technical Education

DANE: Spanish acronyms for the Colombian National Department of Statistics

FE & ALEGRIA: An International Non-Governmental Organization (NGO)

FHI: Family Health International

HIV: Human Immunodeficiency Virus

ICPD: International Conference on Population and Development

NGO: Non-Governmental Organization

PRB: Population Reference Bureau

PROFAMILIA: Colombian Largest Non-Profit Family Planning Organization

RH: Reproductive Health

RTI: Reproductive Tract Infection

SIECUS: The Sex and Information Council of the United States

STD: Sexual Transmitted Disease(s)

UN: United Nations

UNICEF: United Nations Children's Fund

UNFPA: United Nations Population Fund

WHO: World Health Organization

CHAPTER I

INTRODUCTION

During puberty, adolescents go through profound changes that need to be understood as part of the maturity process. Young Adults are in early stages of developing attitudes, communications patterns, and behavior related to sex and relationships (Weiss, Whelan, & Gupta, 1996). Many youth are enrolled in school when they initiate intercourse. By providing reproductive health programs early, particularly before the initiation of sexual activity, it is still possible to encourage the formation of healthy reproductive health attitudes and practices instead of changing well-established unhealthy habits (Kirby, & Brown, 1996). Schools can promote healthy messages and establish helpful norms about sexuality and reproductive health.

The challenges facing young adults growing up in the 21st century, especially the poorest and most disadvantaged young people living in low-income countries are greater than ever. Millions of young adults are affected by problems of poor nutrition, infectious diseases, early pregnancies, inadequate access to clean water and sanitation, violence, substance abuse, and the increasing threat and burden of living with Sexual Transmitted Diseases (STD) and Human Immunodeficiency Virus (HIV). Young people need to be equipped with the knowledge, attitudes, values and skills that will help them face these challenges and assist them in making healthy life-style choices as they grow. Skill based health education programs delivered through schools is one way through which young people can be helped to face these challenges and make such choices.

The main issue is that wherever programs are to be implemented in order to improve young adults knowledge in reproductive health, they must be shaped to meet the local socio-cultural norms, values and religious beliefs, and need to include ongoing monitoring (Kirby & DiClemente, 1994).

Young people themselves have brought attention to the realities that threaten their reproductive health daily. In a recent essay contest in which the United Nations Population Fund (UNFPA) invited adolescents all over the world to discuss responsible reproductive health, more than 500 boys and girls from 107 countries eloquently highlighted the lack of equality between the sexes and argued the need for the following: better information regarding the dangers of early sexual relationships; accurate information about STD/HIV; access to advice relating to early marriage; greater male involvement in family responsibilities; and support and guidance as they make their transition to adulthood (Popnews, 1996).

Despite the concerns voiced by the United Nations, 180 members countries, international organizations, and individual adolescents everywhere, the reproductive health concerns of young people are too often neglected. Herbert Friedman, chief of World Health Organization (WHO) Adolescents Health Program Division stated, “although young people can make great use of knowledge and skills, they are often denied access to information and services for their health” (WHO, 1995, p. 95). This stems in part from societal beliefs and attitudes about adolescent sexual behavior and contraception and from subsequent policies and regulations preventing adolescents from receiving services.

The repercussions from this neglect will be exacerbated as the number of adolescents growth rate increases during the next decade. In 2010, demographers predicted that there would be more 10 to 19 years old on the planet than ever before. The state of their health and education will determine greatly the strength and fate of the nations in which they live (MacCauley & Salter, 1995). The World Health Organization (WHO) explains, “As their individual development and social contribution will shape the future of the world, investment in adolescent’s health, nutrition and education is the foundation for national development” (WHO, 1996, p. 65).

Unfortunately, the studies about reproductive health programs that exist are predominantly in the United States and developed countries. The majority of reproductive health programs in developing countries have not been evaluated or even described extensively. The research could not locate published information.

Evaluation that has been conducted is generally weak, because of a number of factors including limited resources and evaluation expertise, lack of clarity about the purpose, goals and objectives of programs efforts, and limited access to essential reproductive health data. Methodological problems in studies include incomparable or no control groups, no pretests, very small samples, no-long term outcome assessments, and unclear or poor measure procedures, such as content validity and reliability (WHO, 1995a). Senderowits (1995) points out that few projects that include scientific evaluation are too new to allow an assessment of quantitative outcomes. As a result of such limitations, little is known about the effects of reproductive health programs in

developing countries or whether most programs achieve their respective reproductive health objectives.

Evaluating the impact of sex education programs on adolescent in Latin America has been problematic. Programs vary in content, making comparisons difficult. However, evaluations that have been done in few studies in Latin American countries show that formal sex education programs can increase knowledge of reproductive health and can improve the use of methods to protect against early pregnancies and STD/HIV (Millan & Valenzuela, 1995).

Colombia has made few advances in sexual and reproductive health programs since the recognition of family planning as a basic human right under the 1991 Constitution, the inclusion of the Social Security and Health Law of contraceptive services in the mandatory basic package of health services to all Colombians in 1993 and even since the introduction of a National Plan for Sex Education at all levels in the school system in the same year. There is a fact that from the Spanish conquest and until the expedition of the Resolution 03353 in July 1993 by the Ministry of Education, the sexual education of the Colombians was the responsibility of the Catholic Church, dictated obligatorily in all the educative establishments of the country (Gonzalez & Useche, 1999).

Therefore, research about the knowledge, attitudes and self-efficacy related with reproduction, contraception, STD/HIV and sexual risk behavior among high school students in Colombia is scant. However, Alzate (1977, 1989) and Alzate & Villegas (1994) have periodically surveyed the sexual behavior of Colombian university students, as far as we are aware, just one study has been published on the

sexual practices of Colombian high school students. The published study entitled “Sexual Behavior of Colombian High School Students” was done in the city of Manizales, Colombia, among a group of high school students by Useche & Villegas in 1998.

Statement of the Problem

Many young adults in Colombian high schools, who become sexually active, do so without accurate information about reproductive health. This lack of information can put them at risk of unplanned pregnancy or sexually transmitted diseases (STD/HIV). Twenty six percent of the Aguablanca population are young adults, approximately 50% become sexuality activity, 29% have initiated the maternity, 18% result in unwanted birth and 24% of all pregnancies are terminated in abortion and approximately 2% have STD/HIV (Profamilia, 2000). This is the first systematic study that will measure the high school student’s knowledge, attitude and self-efficacy related with reproduction, contraception, STD/HIV and sexual risk behavior among high school students Aguablanca District –Cali, Colombia.

Purpose of the study

The purpose of this study was to investigate the association of knowledge, attitudes and self-efficacy related to sexual risk behavior among high school students, Aguablanca- District, Cali, Colombia.

Objectives

1. To determine the level of knowledge about reproduction, contraception, and STD/HIV of selected high school students enrolled in eleventh grade.

2. To predict practices of protective sexual behavior among those high school students enrolled in eleventh grade and their capabilities to perform specific actions that result in attitudes and self-control over their motivations, behaviors and social environments.

Significance of the Study

The controversy over reproductive health programs in Colombia's high schools has had a long process with resistant to produce solutions. Although Colombia has made progress in recognizing, at least in theory, the sexual education mandatory subject in the formal education system in Colombia's school, it is clear that little effective action has been taken so far to implement these stipulations.

One of the goals of sexuality education programs is to increase high school students' knowledge about reproduction, contraception, and the danger of sexually transmitted diseases (Haffner & Goldfarb,1997). It would thus seem reasonable to assess the level of knowledge among high school students in Colombia and then to design programs based on the findings, filling gaps, and spending less time on what teens already know. The level of knowledge found in this study could show the level of risk that these high school students are exposed to early pregnancies and sexually transmitted diseases.

Rates of sexually transmitted diseases and unintended pregnancies have been increasing among high school students in Colombia. The real dimension of sexually transmitted diseases in Colombia's high school students is not very well known because most of the cases are not reported. However, The Public Health Department in

Cali, Colombia, 1999 reported some cases of STD among high school students, 2% male and 1.1% female.

Some research and theoretical considerations suggest that self-efficacy plays an important role in whether a person practices protective sexual behavior. Self-efficacy, a component of social learning theory (Bandura, 1977.) refers to a person's beliefs concerning how capable he or she is of performing specific actions that result in specific outcomes. In particular, self-efficacy focuses on individuals' convictions that they can exercise control over their motivations, behaviors, and social environments.

Reports in the literature provide support for the utility of self-efficacy as a predictor of intending to use condom and other contraceptives or refusing intercourse unless contraception is used (Heinrich, 1993).

The significance of this study in measuring high school students' knowledge, attitudes and self-efficacy is evident. Level of knowledge related with reproduction, contraception and risks for STD/HIV as well as attitudes and self-efficacy can show us the necessity of establishing reproductive health programs in Colombian's schools. Through research papers such as this, we are developing a full understanding of the characteristics of why high school students in Aguablanca District-Cali, Colombia are at risk for early pregnancy, and STD/HIV.

Limitations of the study

Several methodological limitations to this study must be considered. First, although the study demonstrates validity of the self-efficacy instrument for a sample of high school students in Aguablanca District, the results may not be generalized to

other adolescent populations. Second, outcome data were collected using self-report questionnaires. Because few, if any, acceptable approaches exist for examining the criterion validity of students' responses, several approaches were used to create a safe and comfortable environment for completing the questionnaire such as using professional data collectors with knowledge in sexuality issues, providing students a formal assurance of confidentiality with total anonymity in completing the self-administered questionnaire. It is impossible to rule out potential biases due to self-report.

Background of the Problem

With the Cairo programs of action, the International Conference on Population and Development (ICPD), the global community resolved to “Protect and promote the rights of adolescents to sexual and reproductive health information and services” (UN, 1994; UN, 1995). Delegates from more than 180 countries at the Cairo conference agreed to a comprehensive definition of reproductive health, specifically, a state of “complete physical, mental and social well-being and not merely the absence of disease or infirmity in all matters relating to the reproductive health system and to its functions and processes” (UN, 1995, p. 87).

Reoriented to meet the needs of adolescents, both male and female, integrated Reproductive Health (RH) education and services were subsequently charged to include the promotion of voluntary abstinence as well as family planning information, counseling and services for sexually active adolescents; sex education and information for the prevention of STD and HIV/AIDS; counseling on gender relations, violence and sexual abuse against adolescents and responsible sexual behavior for both sexes;

confidential mental health services for youth who have experienced any form of violence; and prevention and treatment of abuse and incest (UN,1994).

There is an urgent need for the global community to act on the preceding principles and recommendations. Currently more than 1.5 million of young adults, defined by the World Health Organization (WHO) as those individuals aged 10 to 24, face considerable threats to their reproductive health. Adolescents, 83 percent of who live in developing countries, are vulnerable to sexual assault, rape and prostitution, early pregnancy and childbearing, infertility, anemia, genital mutilation, malnutrition, unsafe abortion, and Reproductive Tract Infection (RTI) including STD and HIV/AIDS. Findings from 17 studies in Africa, Asia, the Pacific, Latin America and the Caribbean showed that adolescent sexual experiences are “driven by a wide range of factors” including not only romance and sexual desire but economic gain and sexual coercion (Weiss, Whelan, Gupta, 1996).

Many of the actions which were agreed upon in the Cairo Program are already incorporated in the development policies of Colombia. The constitutional reform of 1991 stressed the necessity of protecting groups of population in especially vulnerable conditions. In 1993, the new health legislation adopted family planning as a part of sexual and birth health services and established the obligation of including these services in the obligatory health service.

In 1993, The Ministry of Education made sexual education mandatory subject in the formal and non-formal educational system in Colombia, and in 1994, a Department of Youth was established under the Ministry of Education. In spite of this mandatory law, Colombia’s high schools still lack the resources to implement

reproductive sexual education program as a formal curriculum in class. PROFAMILIA, the only Non-Governmental Organization (NGO) that is participating in the South Initiative, has carried out the followings actions: 1) Establishing of a Gender Office to work with the sexual and reproductive rights. 2) Training of medical and nurse staff in order to enable them to attend the issue of sexual and reproductive health and family planning in all phases of the reproductive cycle. 3) Construction of a model of orientation that includes sexual reproductive health among adolescents and increasing the number of centers for youth.

a) Colombia Demography Data

Colombia is a multiethnic and multicultural country with 81 indigenous groups as well as a sizable population of African ancestry (25%) and of mixed race. Colombia's population, estimated at 40.8 million by the Colombian National Department of Statistics (DANE) in 1999, occupies an area of just over one million square kilometers. About one-quarter of the population lives in rural areas. Natural resources are plentiful, and include agricultural land, water for irrigation, energy resources (oil, natural gas, and coal), and minerals such as nickel, gold and emeralds. The growth of the illegal drug industry, and the presence of active insurgent groups have had an increasingly negative impact on the overall economic performance of the country.

Moreover while raising unemployment has affected most Colombians, the poor, and in particular women and young people, have suffered the most. The rate of unemployment among the youth between 15-19 years old is now 44.3 percent and among women 23.2 percent. The loss of employment has placed increased stress on the

incomes of the poor, resulting deferred health care and higher school dropout rates. (DANE, 1999).

In the past 25 years, Colombia's birth rate has dropped by almost one half; the demographic growth rate has fallen from 3.2% to 1.7% per year; and contraceptive use has gone from being almost nonexistent to 72%. Fertility rates in rural areas are still higher than in the urban areas and women overall have an average of 2.7 children. The degree of unmet need is illustrated by the fact that 24% of all pregnancies are terminated in abortion and 26% result in unwanted births. Unsafe abortion is the third leading cause of maternal death. Of all the pregnancies that end in abortion in 1995, 24% were due to contraceptives failure, and the rest were due to lack of access to contraceptives (Profamilia, 2000).

b) Adolescents and Pregnancy in Colombia

The Colombian population is very young. According to the 1995 National Census, the largest age category were those individuals between the ages 0 – 19 years old within 44.4 % of the total population, while only 6.9 % were those individuals between the ages 60 and over. Colombia like the other Hispanic countries has had a high fertility rate, before 1970 the majority of the Colombian families had between 4 and 6 children per family. The Catholic religion and rural traditions have influenced this trend.

The fertility rate in Colombia has been decreasing during the last 30 years thanks to Profamilia, a non-profit organization that has been developing family planning programs across the country in spite of the Catholic religion's opposition. Currently, fertility rate in Colombia is 2.7 children for woman (Profamilia, 1999).

More than 7,391,781 Colombians are between 10 and 19 years old, one out of five Colombians is adolescent, 49.2% female and 50.8% male. Seventy percent of the population inhabit in the cities and 30% in the countryside. Every year 70 of out 1000 adolescents become parents (Dane, 1998).

c) Cali - Aguablanca District

Cali with 1.8 million residents is the second largest city in Colombia. Although the overall environmental quality in Cali is good, many residents live in extreme poverty in illegal squatter settlements. Some of these communities have sprung up on government-owned or privately owned land without the required permits, they lack garbage collection. Schools and primary health care are also lacking. One such District is Aguablanca, a settlement of 350,000 residents covering 3,700 acres (1,500 hectares). Aguablanca attracted large numbers of people looking for a better place to live after a series of natural disasters and political upheavals in the 1980s.

The secondary education in Colombia includes six to eleventh grade. Health education programs are supposed to be taught in each grade, but the schools lack of sufficient resources to implement this programs. One of the big issues that this community, Aguablanca faces with its young population is early pregnancies and STDs. Sixty eight percent of the adolescents who ask for pregnancy tests already have completed ninth grade. The adolescents know the existence of the contraceptive methods, but they lack of integral knowledge to use them. It is necessary educational strategies that help them to take knowledge, forming an integral vision of the sexuality, where the adolescent motivates his/herself to exert his/her sexuality with responsibility avoiding consequences that can jeopardize their future lives.

CHAPTER II

REVIEW OF RELATED LITERATURE

Sexuality education focuses on the individual: specifically, individual sexual activity, biology, relationships, sexual orientation and sexual behavior, STD, gender role, attitudes, and values (Ford, D'Auriol, Ankomah, Davies, & Mathie, 1992).

The Sex and Information Council of the United States (SIECUS) defines sexuality education as a “lifelong process of acquiring information and forming attitudes, beliefs and values about identity, relationship and intimacy” (SIECUS, 1991, P. 23). With the ultimate goal of promoting sexual health, sexuality education generally aims to provide the following content: Sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image, and gender roles, to help young adults acquire skills to make decisions and take care of their sexual health.

The components of School-Based Reproductive Health Programs from published and unpublished literature and also from the experience of programmers through the classroom have shown that students can not only receive sexuality Reproductive Health (RH) information but also explore their own values and attitudes and acquire personal skills needed to maintain healthy behavior.

An issue confronted worldwide is whether it is appropriate to address reproductive health in schools. The content and goals of school-based reproductive health programs are often a source of great controversy. One mayor concern frequently voiced by parents, teachers, and school officials is that sex education and the availability of family planning services will increase young people’s interest and

involvement in sexual behavior. Research overwhelming points to the contrary (Focus on Young Adults Research Series, 1997).

A study commissioned by the World Health Organization (WHO) analyzed 1,000 reports on Reproductive Health (RH) programs primarily in developed countries and found no evidence that the provision of sex education, including the provision of contraceptives services, encourages the initiation of sexual activity. In some cases, sex and HIV/AIDS education delayed the initiation of sexual intercourse, decreased sexual activity, and increased the adoption of safer sexual practices among sexually active young people (Grunseit & Kippax, 1993).

Young people need two types of messages in sex education programs, the World Health Organization, report from 1998 says, messages for those who have not begun sexual activity and messages for those who are already sexually active. Also, because some young people begin having sex as early as age 12, the report recommended that formal sex education programs begin well before this age. The goal of many sex education programs is to reduce the incidence of unplanned pregnancies, and try to find ways to reduce the incidence of unprotected intercourse as well.

While some studies have found benefits of sex education programs, others have shown negligible results. A study in St. Kitts-Nevis, in the eastern Caribbean, compared students who took sex education courses and those who did not. The course, which was held twice weekly for 26 weeks, included information on reproduction and contraception, emotional development and sexuality. Students completed a questionnaire on sexual activity and contraceptive use before they took the course, then at the end of the course. Approximately one-third of sexually active students said

they used contraception before they began the sex education course, and the percentage changed was very negligible (Russel, Rice& Hector, 1992).

A retrospective study of 8,450 young adults women in the United States, ages 15 to 24, examined the relationship between sex education and use of contraception at first intercourse. Women who received formal instructions on contraceptive use before their first sexual intercourse were more likely to use a contraceptive method of birth control. Women were less likely to use a method of contraception if they received information on contraception the same year they began sexual activity. A survey conducted among 1,800 15 to 19 years-old males in United States, found that among those who had received formal education about AIDS and family planning, there was a decrease in number of sexual partners and increase in consistent use of condoms (Kirby & Brown, 1996).

Lack of information may be one reason that adolescents' use of family planning methods is generally low. In South America, for example, only 43 percent of young married women, ages 15 to 19, are using contraception, according to data compiled by the Population Reference Bureau (PRB). Among unmarried sexually active women, 29 percent use contraception. In Western Africa, five percent of married teenagers use a family planning method, compared with 34 percent of sexually active unmarried teenagers. In Southeast Asia, 36 percent of married young adults use contraception, compared with 28 percent of unmarried adolescents (UNICEF, 1996).

Misinformation and misunderstandings about conception, family planning and STD risks abound among young adults. In Jamaica, research conducted by University of the West Indies and Family Health International (FHI) Women's Studies project

found that one group of adolescent had little information about reproductive health issues. The study surveyed about 500 students, ages 11 to 14, as they began an in-school family life education program designed to delay first pregnancy. Students in this group were considered to be at high-risk for early sexual activity (Eggleston, Jackson, & Hardee, 1996).

Another example of sex education programs that encourages behavior change is the Center for Youth in Colombia. Established in 1990 by Profamilia, the center offers information and education to adolescents, education for parents and teachers, and reproductive health services. Profamilia which operates in 20 cities in Colombia decided to expand the content of its sex education programs, which traditionally had focused on the biological aspects of reproduction, to include information on pregnancy and STD prevention, plus activities designed to promote self-esteem, communication, and decision-making. One of the services Profamilia has begun to offer is a “psychological orientation,” or a counseling session in which young people can discuss fears or concerns about sexuality and health (Lopez, 1997).

Profamilia, the largest family planning provider in Colombia, has found difficulties to establish long-term sexual education programs, and achieve their objectives due to the lack of resources of schools located in low-income communities. They have also found that young people on those communities do not have access to contraceptives services because their poor financial situation.

In the last decade in Colombia, life skills training has been promoted by the Department of Human Development of the Ministry of Health, as part of a health promotion strategy that addresses some of the most important risk factors of

adolescents, including school drop out, child labor, early sexual activity and adolescent pregnancies, delinquency, violence and substance abuse. In 1996 Fe & Alegria, an International Non-Governmental Organization (NGO), began implementation of a pilot project using WHO Life Skills training materials, adapted to a Colombian context. The pilot covered six schools in three regions (1,260 students, aged 10-15, 500 parents and 45 teachers. The project included teacher training and workshops, extra curricula activities and work with parents. Although full evaluation of the project has not yet been completed, teachers, parents and pupils have indicated initial positive outcomes, including; positive changes in behavior, decreased levels of aggression, greater ability to speak openly and cope with emotions, high degree of acceptance of life skills methods (WHO, 1998).

One study that has been completed and published is “Sexual Behavior of Colombian High School Students” (Useche & Villegas, 1998). This study was done in the city of Manizales, Colombia; the study presented the results of a survey on the sexual behavior of Colombian high school students indicating that prostitutes are playing a decreasing role in the sexual lives of Colombian males as a result of a trend toward premarital coital permissiveness among Colombian females.

This study’s findings as well as those obtained by Alzate (1977, 1989) among Colombian university students, indicate that Colombian females start sexual activities much later and carry them out in fewer numbers or with fewer frequencies than do their male counterparts. This is in accordance with the double standard (Reiss, 1960) that has prevailed in Colombia, and contrast with the more egalitarian sexual behaviors of American adolescents (Zelnik & Kantner, 1992). On the other hand, the

fact that a boyfriend was the partner at most first coital experiences indicates that the standard of sexual behavior of the female subjects who had this experience was permissiveness with affection (Reiss, 1960).

The prevalence of the sexual risk behaviors among young adults in Colombia is still not very well known. The few studies that have been conducted so far indicate a need for broad-based educational efforts. Such effort should include education in the school, increased availability of resources that aid in the prevention of early pregnancies and STD/HIV, condom use, patients counseling, and mass media information campaigns. Given that attitudes and self-efficacy are related to risk behavior, an educational approach that involves more than providing information is needed. Attitudes change requires an exploration of personal values, while increasing self-efficacy requires role modeling and successful experience with the desired behavior (Basen & Guy, 1995).

Early efforts to measure knowledge, attitudes and self-efficacy for youth are not informed by theoretical models or empirical data to determine the antecedents of risk behavior in Colombian high schools. In order to further develop educational programs that have the potential for risk education, it is essential that research be conducted to provide a better understanding of the psychosocial variables that lead to risk taking behavior. The result of this study will help to give some directions to intervention; however much more work will be needed, including the expansion of predictive variables, longitudinal studies, and testing of interventions to influence change in predictor variables.

In summary, during the last decades researchers have been working on several sexual education programs with high school students. Most of those studies have been conducted in the United States and few studies have been done in Latin America high schools. Researchers and program developers are trying to make great progress in their efforts to reduce adolescent unprotected sex and prevent teen pregnancy. Research studies are now more likely to employ experimental designs with random assignment, to have large sample sizes with adequate statistical power, to measure actual sexual and contraceptive behaviors, to measure longer-term effects, to employ proper statistical methods, and to report results in an unbiased manner. As a result of these research studies, large advances could occur if there is an understanding of teen pregnancies and its consequences, the effects of improving adolescent knowledge, increasing access to contraception, and improving parent/child communication, and the characteristics of effective programs.

CHAPTER III

METHODOLOGY

The level of knowledge, attitudes, and self-efficacy related with reproduction, contraception, STD/HIV and sexual risk behavior among Colombian's high school students was implemented during the months of May and June 2002. The evaluation used a randomized cluster sampling, involving students from the eleventh-grade in selected public schools of Aguablanca District.

The study featured a cluster sampling involving two public high schools in Aguablanca-District, Cali, Colombia with a cohort of 313 students enrolled in eleventh grade. According to the Educational Directory published by the Cali Board of Education for the year 2001, Aguablanca District has 16 public high schools with a total of 5,600 eleventh-grade students.

Population and Sample

The population was 5,600 eleventh-grade students from all high schools in Aguablanca District, the sample size was 560 (10%). Schools were classified as a logically cluster; the education system in Aguablanca has a list of all schools in the district. There are 16 public schools, although the number of students per grades varies from each school. There is an average of 350 eleventh-grade students per school. The number of schools selected according to the sample of 560, divided by the average size of a cluster 350, was two schools, ($560/350 = 1.6 = 2$ schools). Two of the 16 schools were randomly selected by assigning a number to each school and using a table of random numbers.

One of the advantages of cluster sample is that it selects groups, not individuals. All the members of the selected groups have similar characteristics (Gay, & Airasian, 2000). Cluster sampling is most useful when the population is very large. In this study, the population of students in Aguablanca district was very large, and selecting this method made it easier to implement the survey in the schools allowing the data collectors to expend less time during the administration of the surveys. There could be some disadvantages using this method, there is a chance that the sample selected may not represent the population. The fewer the sampling points (individuals versus schools) selected, the more likely that the sample selected may not represent the population.

Instrumentation

The questionnaire (appendix 1) assessed demographic characteristics (gender, race, age), sexual behavior and self-efficacy for the three domains of protective sexual behaviors, contraceptive, and attitudes.

The questionnaire was adapted from similar questionnaires employed in other investigations (Joffe, 1996) and adapted to Colombian local social and cultural norms, values and religious beliefs. Twenty items from 75 on a wide range of sexuality-related topics were selected to measure student's knowledge. Six items measured knowledge about reproductive physiology, seven items measured contraceptive knowledge, and seven items assessed knowledge of STD/HIV.

The study measured attitudes in Likert-type items taken from the National Adolescents Students Health Survey (Banduera, 1986) and adapted to Colombian local social cultural norms. Five items asked adolescents how they feel about people their

age having sexual intercourse, high scores indicated more conservative attitudes and positive attitudes toward condoms.

The self-efficacy scales were adapted from an instrument developed by Longoria, 1988. Each of the scales consisted of 12 Likert-type items that asked the respondent to rate his/her confidence that he/she can implement particular STD/HIV preventive behavior. The instrument exhibited good internal consistency, and convergent validity was demonstrated for the 12 sexual behavior items. The instrument was reliable and valid for assessing high school students' self-efficacy for protective sexual behavior.

The instrument was assessed and revised by the professors of the Adult and Technical Education (ATE) program at Marshall University Huntington, West Virginia. The instrument was then field tested with 20 high school students from Colombia to identify problems that could be revised before applying the instrument to the sample population. Some of the questions of the instrument were modified after it was piloted. For instance, on the basis of pilot work and discussion with teachers in the schools and Profamilia's professionals in psychology, the question "if they had ever engaged in vaginal intercourse" was changed to "if they had ever had sexual intercourse". They suggested that these high school students preferred this terminology and understood the item to refer to vaginal intercourse.

Data Collection

The Marshall University Graduate College awarded the research coordinator, with \$500 Summer Thesis Research Grant in order to conduct the surveys in Cali, Colombia. The researcher contacted two health professionals of Profamilia

Aguablanca (Institution that offers reproductive health and family planning services to this community), a psychologist and a registered nurse were contacted and trained to conduct the surveys in the schools.

The principal of each school was contacted by the researcher and Profamilia professionals to determine whether he or she was willing to participate in the survey. After the principal of each school agreed to participate in the survey, active parental consent was required for survey participation; the expectation was that all 560 students returned with parental consent forms to apply the survey. Three hundred and twenty two (322) students returned with parental consent.

Survey and materials were mailed to Colombia's school Aguablanca District campus to be administered by the two health Profamilia professionals. The surveys were administered in the classrooms during the months of May and June 2002, the students completed the anonymous questionnaire (four pages) during a regularly scheduled class period. The questionnaire took approximately 30 minutes to complete.

To increase honest disclosure of information, student's responses to the survey were anonymous and protected from disclosure by allowing each student to return the survey to Profamilia personnel to be sealed in an envelope. The surveys were then returned by mail for scoring and analysis.

CHAPTER IV

RESULTS AND DISCUSSION

This study evaluated the level of knowledge about reproduction, contraception, and STD/HIV and attitudes, self-efficacy and sexual risk behaviors among eleventh grade students in Aguablanca District, Cali, Colombia. In addition, this study used relationships to assess predictions about practices of protective sexual behavior and their capabilities to perform specific actions that result in certain attitudes and self-control over their motivations, behaviors and social environments. These analyses evaluated behavioral factors that predicted the adolescents at risk for acquisition of STD/HIV and early pregnancy.

Before analysis, nine cases (2.8%) had to be dropped because of missing answers to some of questions. Participants did not answer some questions concerning ethnicity, religion and sexual intercourse. There were no significant differences between dropped and retained cases in the rest of the items. SPSS program was used to examine descriptive statistics of central tendency and variability. Pearson's r coefficient was used to summarize the magnitude and direction of the relationship between variables.

A study of knowledge, attitudes and self-efficacy related to reproduction, contraception, STD/HIV and sexual behavior among high school students is the first systematic comprehensive survey to date in Aguablanca District- Cali, Colombia. Nearly 313 Aguablanca eleventh high school students responded out of a 560 randomly selected sample with a response rate of 56%. The survey provided valuable information about the knowledge, attitudes and self-efficacy of Aguablanca high

school students toward reproduction, contraception, STD/HIV and sexual risk behaviors.

The sample respondents appear to reflect the demographic characteristics of the Aguablanca high school students. Generally, the majority of the respondents were male and mestizo. The average ages of the respondents were between 15-17 years old. The family composition of the students revealed that the majority of the respondents live with their mother 44.1% and 39% live with both parents. The religion reflects the characteristics of Colombian population, 84.3% of the participant reported to be Catholic.

The survey asked a variety of questions intended to measure level of knowledge, reproduction, contraception and STD/HIV. Overall, on the total 20 items, these high school students had an average score 40% correct. On the scale measuring knowledge about reproductive physiology, the average percentage correct was 38.6% while on contraceptive knowledge, the average was 33.7% correct. The high school students did better on the scale measuring knowledge about STD/HIV with an average score of 46.7% correct.

The data suggests that a large percentage of these high school students have serious misinformation or no information at all about some matters they should know by their ages according to the health and sexual education program implemented for the government. Research reveals that the high school students are receiving less than adequate health and sexual education programs in the high school curricula.

There are many basic physiological facts of which these high school students are apparently ignorant, these include not knowing what it means if a teenage girl

starts menstruation after 14, being misinformed about the physiology of menstruation and urination.

Almost 82% knew that pregnancy occurs when sperm fertilizes an ovum, but only 34.5% knew that a girl could get pregnant the first time she has sex. When they were asked about the knowledge that when sex is infrequent, pregnancy could still occur, 31% did not know the correct answer to this question. These findings suggest that there is a lot of work that need to be done to increase student's knowledge in reproduction and contraception. As in the physiology items, there are some results here that suggest dangerous lack of knowledge. Over 47.3% did not know that urinating after sex does not prevent pregnancy and 59% did not know that douching is not a method of birth control.

These high school students did better on the items pertaining to STD/HIV. However, there are results that suggest great risk for early pregnancies and STDs. Nearly a third 28.4% did not know that teenage girls could get STDs from boys who have had sex only a few times. Only about 41.2% knew that STDs do not go away on their own, and 25.9% knew that it is possible to have more than one STDs at the same time.

The survey also asked a variety of questions intended to measure attitudes that predict practices of protective sexual behavior among these high school students and their capabilities to perform specific actions that result in attitudes on self-control over their motivations through their sexual behavior. The students were asked how they feel about people their age having sex with several people, 30.7% disagreed to have sex with several different people. These findings revealed that 56.7% have more

conservative attitudes through having sex with several different people. The behavioral intentions for sexual intercourse and the intention to use condoms were assessed by the attitude scale. These findings suggest that 80.2% of the respondents demonstrated a positive attitude toward condom use.

The self-efficacy questions intended to measure protective sexual behavior. The data included items about refusing sexual intercourse, measuring ability to use or not condom. Inspection of these scales suggest that the typical respondents believed that they could use condoms, 70% of the respondents reported confidence in their ability to use condoms. Fifty three percent of the participants had ever had sexual intercourse These finding indicate that an important number of high school students are engaging in sexual intercourse and the majority of them have positive attitudes about condom use. In spite of this, there is an important number of students, 30.4% who would not refuse to have sexual intercourse if they do not have condoms. These data suggest that these students are at risk for STD and pregnancies and could benefit from interventions to enhance their self-efficacy for protective sexual behaviors.

There are a number of different methods of computing a correlation coefficient in SPSS program. Which one is appropriate depends on the type of data represented by each variable. The most commonly used technique is the product-moment correlation coefficient, usually referred to as the Pearson's r . The Pearson's r is used when both variables to be correlated are expressed as continuous data such as ratio or interval data (Gay & Airasian, 2000).

Since the majority of the questions for the instrument for this study were treated as being interval data, Pearson r was the appropriate coefficient for

determining relationships. For that reason, Pearson's r coefficient was used to describe the magnitude and direction of the relationship between variables. Pearson's r coefficient of 0.70 or higher describes very strong association, Pearson's r coefficient of 0.50 to 0.69 describes substantial association, Pearson's r coefficient of 0.30 to 0.49 describes moderate association, Pearson's r coefficient of 0.10 to 0.29 describes low association, and person's r coefficient of 0.01 to 0.9 describes negligible association. (Davis, 1971). The following tables described some of the relationships between variables found in this study:

Summary of Demographic Distribution of respondents

Gender: Of all respondents, 55.9 percent were male and 44.1 percent were female.

Table 4.1. Gender Distribution

Gender	Frequency	Percent
Male	175	55.9
Female	138	44.1
Total	313	100.0

Age: The largest age category responding to the survey was the group with students between the ages 15-17, 69.6 percent. The age group between 18-20 was the second largest responding group, 24.6 percent.

Table 4.2. Age Distribution

Age	Frequency	Percent
12-14	9	2.9
15-17	218	69.6
18-20	77	24.6
More than 21	9	2.9
Total	313	100.0

Race: Over 60 percent of all respondents were mestizo” (an historical mix of Indians and white races), 29.7 percent were black, and 4.5 percent were white.

Table 4.3. Race Distribution

Race	Frequency	Percent
Mestizo	206	65.8
Black	93	29.7
White	14	4.5
Total	313	100.0

Religion: The overwhelming majority of the respondents were Catholic (84.3 percent), while the remaining 15.7 were of “other religions”.

Table 4.4. Religion Distribution

Religion	Frequency	Percent
Catholic	264	84.3
Other	49	15.7
Total	313	100.0

Family Composition: Out of all student respondents, 44.1 percent were living with their mother only, while 39.0 percent were living with both parents. Only about nine percent of the respondents were living with other relatives.

Table 4.5. Family Composition

Family Composition	Frequency	Percent
Live with both parents	122	39.0
Live with mother only	138	44.1
Live with father only	26	8.3
Live with other relatives	27	8.6
Total	313	100.0

Students’ Level of Reproduction Knowledge

Table 4.6 summarizes the results regarding students’ reproduction knowledge. The overwhelming majority of the respondents, 74.1 percent, responded with the correct answer when they were asked whether or not the fluid that contains the male sperm is called semen.

The question, “the male hormone is called testosterone”, was responded evenly distributed among the group categories. Almost 38 percent of the respondents selected

the incorrect answer, while 34.5 percent of the respondents selected the correct answer. The question whether or not the fertilization of the egg occurs in the uterus, almost half of the respondents, 49.2 percent, chose the correct answer, while 46.0 percent of the respondents chose the incorrect answer.

The majority of the respondents, 50.5 percent did not have an opinion when they were asked whether or not there is usually a problem if a teenage girl does not get her period by the time she is 14. Only, 18.2 percent of the respondents selected the correct answer. Almost 60 percent of the respondents chose the incorrect answer when they were asked whether or not urination and menstruation occur through the same opening in the female organ. When the respondents were asked whether or not it is dangerous to have sexual intercourse during a girls' period, 44.4 percent of the respondents did not have an opinion on this matter.

Students' Level of Contraception Knowledge

The results for the questions related to contraception knowledge are found in table 4.7. The question, "pregnancy happens when a sperm fertilizes an ovum (egg)", was answered correctly by the overwhelming majority of the respondents, 82.1 percent. When the respondents were asked whether or not girls can not get pregnant the first time they have sex, the majority of the respondents, 50.2 chose the incorrect answer, while 34.5 percent of the respondents selected the correct answer.

The results for the question, "a girl who has sex only once in a while, needs a birth control", were evenly distributed among the group categories. Forty three percent of the respondents chose the incorrect answer, while 26.5 percent of the respondents

Table 4.6. Students' Level of Reproduction Knowledge

QUESTION	FREQUENCY	PERCENT	ANSWER
The fluid that contains the male sperm is called semen			
True	232	74.1	TRUE
False	54	17.3	
Don't know	27	8.6	
Total	313	100.0	
The male hormone is called testosterone			
True	108	34.5	TRUE
False	118	37.7	
Don't know	87	27.8	
Total	313	100.0	
Fertilization of the egg occurs in the uterus			
True	144	46.0	FALSE
False	154	49.2	
Don't know	15	4.8	
Total	313	100.0	
There is usually a problem if a teenage girl does not get her period by the time she is 14			
True	98	31.3	FALSE
False	57	18.2	
Don't know	158	50.5	
Total	313	100.0	
Urination and menstruation occur through the same opening in the female organ			
True	185	59.1	FALSE
False	119	38.0	
Don't know	9	2.9	
Total	313	100.0	
It is dangerous to have sexual intercourse during a girls' period			
True	119	38.0	FALSE
False	55	17.6	
Don't know	139	44.4	
Total	313	100.0	

selected the correct answer. The remaining 31.0 percent of the respondents did not have an opinion on this matter. When the respondents were asked whether or not urinating after sex sometimes prevents pregnancy, 47.3 percent of the respondents selected the incorrect answer, while 33.5 percent of the respondents chose the correct answer.

Table 4.7. Students' Level of Contraception Knowledge

QUESTION	FREQUENCY	PERCENT	ANSWER
Pregnancy happens when a sperm fertilizes an ovum (egg)			
True	257	82.1	TRUE
False	16	5.1	
Don't know	40	12.8	
Total	313	100.0	
Girls can not get pregnant the first time they have sex			
True	157	50.2	FALSE
False	108	34.5	
Don't know	48	15.3	
Total	313	100.0	
If a girl has sex only once in a while, she really does not need birth control			
True	133	42.5	FALSE
False	83	26.5	
Don't know	97	31.0	
Total	313	100.0	
Urinating after sex sometimes prevents pregnancy			
True	148	47.3	FALSE
False	105	33.5	
Don't know	60	19.2	
Total	313	100.0	
Douching is a method of birth control			
True	185	59.1	FALSE
False	77	24.6	
Don't know	51	16.3	
Total	313	100.0	
Sperm can live a few days in the women's body			
True	57	18.2	TRUE
False	72	23.0	
Don't know	184	58.8	
Total	313	100.0	
Letting semen drip out of the female organ after sex prevents pregnancy			
True	109	34.8	FALSE
False	60	19.2	
Don't know	144	46.0	
Total	313	100.0	

Almost 60 percent of the respondents chose the incorrect answer when they were asked whether or not douching is a method of birth control. Only 16.3 percent of the respondents did not have an opinion on this matter.

Fifty-nine of the respondents did not have an opinion when they were asked if the sperm could live a few days in the women's body. Forty one percent of the respondents selected the incorrect answer.

The question, "letting semen drip-out of the female organ after sex prevents pregnancy", was answered incorrectly by 34.8 percent of the respondents. Forty-six of the respondents did not have an opinion on this matter.

Students' Level of STD/HIV Knowledge

Table 4.8 summarizes the results regarding students' level of STD/HIV knowledge. The question, "a highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicidal", was answered by 40.2 percent of the respondents correctly, while 33.5 percent of the respondents selected the incorrect answer. The overwhelming 49.5 percent did not know that it is possible to have more than one STD at a time.

Forty-seven of the respondents stated that people who look sick could spread the AIDS virus. Conversely, 52.1 percent chose the correct answer. The majority of students, 58.5 percent knew that a person cannot get AIDS by being bitten by a mosquito that has bitten someone else with AIDS.

Table 4.8. Students' Level of STD/HIV Knowledge

QUESTION	FREQUENCY	PERCENT	ANSWER
A highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicidal			
True	151	48.2	TRUE
False	105	33.5	
Don't know	57	18.2	
Total	313	100.0	
Teenage girls can not get HIV from teenage boys who have had sex only a few times			
True	89	28.4	FALSE
False	157	50.2	
Don't know	67	21.4	
Total	313	100.0	
STDs usually go away on their own			
True	140	44.7	FALSE
False	129	41.2	
Don't know	44	14.1	
Total	313	100.0	
It is possible to have more than one STD at a time			
True	81	25.9	TRUE
False	77	24.6	
Don't know	155	49.5	
Total	313	100.0	
Only people who look sick can spread the AIDS virus			
True	147	47.0	FALSE
False	163	52.1	
Don't know	3	1.0	
Total	313	100.0	
A person can get AIDS by touching or hugging someone with AIDS			
True	173	55.3	FALSE
False	137	43.8	
Don't know	3	1.0	
Total	313	100.0	
You can get AIDS by being bitten by a mosquito that has bitten someone with AID			
True	48	15.3	FALSE
False	183	58.5	
Don't know	82	26.2	
Total	313	100.0	

Students' Attitudes Toward Sexual Risk Behavior

The information in this section is displayed in Table 4.9. When the students were asked if it is ok for people of their age to have sex with several different people in a liker scale, a total of 57.5 percent disagreed. Surprisingly 42.5 percent agreed. The overwhelming totals of 80.2 percent agreed that condom should be used if a person of their age is sexually active.

Table 4.9. Students' Attitudes Toward Sexual Risk Behaviors

QUESTION	FREQUENCY	PERCENT
I believe it is OK for people my age to have sex with several different people		
Agree	133	42.5
Disagree	96	30.7
Strongly Disagree	84	26.8
Total	313	100.0
I believe condoms should used if a person my age is sexual active		
Strongly Agree	88	28.1
Agree	104	52.1
Disagree	62	19.8
Total	313	100.0
Having sexual intercourse makes a boy and girl popular		
Strongly Agree	33	10.5
Agree	104	33.2
Disagree	79	25.2
Strongly Disagree	97	31.0
Total	313	100.0
Having sexual intercourse at my age is a "cool" thing for a girl and boy to do		
Agree	122	39.0
Disagree	176	56.2
Strongly Disagree	15	4.8
Total	313	100.0
It is important to talk with your parents or counselors about your sexual doubts		
Strongly Agree	164	52.4
Agree	100	31.9
Disagree	49	15.7
Total	313	100.0

A total of 56.2 percent disagreed when they were asked whether or not having sexual intercourse makes a boy and a girl popular. The overwhelming majority of the respondents, 84.3 percent, agreed with the statement, “it is important to talk with their parents about their sexual doubts”.

Student’s Self-efficacy Toward Sexual Risk Behaviors

Table 4.10 grouped the questions related to student’s self-efficacy toward sexual risk behaviors. The statement, “I would refuse to have sexual intercourse without condom”, asked the respondents to rate his/her confidence that he/she can implement preventive behavior. Over 70 percent of students agreed that they would have refuse sexual intercourse without condom. However, 29.7 percent disagreed with this statement. When the students were asked if they would insist on using condom even if their partner did not want to, a total of 69.7 percent students agreed to use condoms and 30.4 percent disagreed. A total number of 53.4 percent responded they have engaged in sexual intercourse, whereas 46.6 percent answered “No” to this question.

When the students were asked if they feel worried about getting pregnant if you are a girl or getting a girl pregnant if you are a boy, the overwhelming number of 91.4 percent of the participants did not feel worried about pregnancy, only 8.6 percent did.

A similar number of students, 63.3 percent, would refuse to have sexual intercourse without condoms. This question verified the intention of the students to use condoms if they were engaged in sexual intercourse.

Table 4.10. Student’s Self-Efficacy Toward Sexual Risk Behaviors

QUESTION	FREQUENCY	PERCENT
I would refuse to have sexual intercourse without condom		
Strongly Agree	173	55.3
Agree	47	15.0
Disagree	93	29.7
Total	313	100.0
I would insist on using a condom even if my partner did not want to		
Strongly Agree	173	55.3
Agree	45	14.4
Disagree	95	30.4
Total	313	100.0
Have you ever had sexual intercourse?		
Yes	167	53.4
No	146	46.6
Total	313	100.0
Do you feel worried that you might get pregnant if you are a girl or that you might get a girl pregnant if you are a boy?		
Yes	27	8.6
No	286	91.4
Total	313	100.0
If I did not have a condom, would you have sexual intercourse anyway?		
Yes	115	36.7
No	198	63.3
Total	313	100.0

Relationships Between Variables

Apparently, no appreciable effect of religiosity on the sexual behavior of the students was found. When religion was compared with attitudes toward the use of condoms use, it appears that religion did not affect the sexual behavior of the students toward the use of condoms. Of the 84.3 percent students that answered to be catholic, almost 80 percent reported a positive attitude toward the use of condoms.

Table 4.11. Cross-Tabulations Between Religion and Attitudes Toward the Use of Condoms

Religion			Attitude: I believe condoms should be used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
	Catholic	Count % Q.4 % Q.9.2 % of Total	73 27.7% 83.0%	139 52.7% 85.3%	52 17.9% 83.9%	264 100.0% 84.3%
	Other	Count % Q.4 % Q.9.2 % of Total	15 30.6% 17.0%	24 49.0% 14.7%	10 20.4% 16.1%	49 100% 15.7%
Total		Count % of Total	88 28.1%	163 52.1%	62 19.8%	313 100%

Apparently, the data would suggest that women demonstrated more knowledge than men in reproductive health matters. From 49.2 percent (154 students) that answered the correct question about fertilization of the egg occurs in the uterus, 51.9 % (80 students) were female. Also, from 38 percent of the students (119) that answered the correct question about urination and menstruation occur through the same opening in the female organ, 56.4 percent (67 students) were female. It would suggest that females demonstrated more awareness of knowledge in reproduction health matters than their male counterparts.

Table 4.12A. Cross-Tabulations Between Gender and Reproduction Knowledge

Fertilization of the egg occurs in the uterus			Gender		TOTAL
			Male	Female	
	True	Count % Q.6.3 % Q.1 % of Total	92 63.9% 52.6%	52 36.1% 37.7%	144 100.0% 46.0%
	False	Count % Q.6.3 % Q.1 % of Total	74 48.1% 42.3%	80 51.9% 58.0%	154 100.0% 49.2%

	Do not Know	Count % Q.6.3 % Q.1 % of Total	9 60.0% 5.1%	6 40.0% 4.3%	15 100.0% 4.8%
TOTAL		Count % of Total	175 55.9%	138 44.1%	313 100.0%

Table 4.12B. Cross-Tabulations Between Gender and Reproduction Knowledge

Urination and menstruation occur through the same opening in the female organ			Gender		TOTAL
			Male	Female	
	True	Count % Q.6.3 % Q.1 % of Total	109 58.9% 62.3%	76 41.1% 55.1%	185 100.0% 59.1%
	False	Count % Q.6.3 % Q.1 % of Total	52 43.60% 34.3%	67 56.4% 42.8%	119 100.0% 38.0%
	Do not Know	Count % Q.6.3 % Q.1 % of Total	6 62.5% 2.9%	3 37.5% 2.2%	8 100.0% 2.9%
Total		Count % of Total	167 55.9%	146 44.1%	313 100.0%

Pearson's r correlation between the variables reproductive knowledge and attitudes toward the use of condoms had substantial associations. Pearson's r correlations of 0.55 and 0.59 suggest that students that answered the correct questions about reproductive knowledge are more likely to use condom than those students that answered incorrectly. Of the 74.1 percent of the students (232) that answered the correct question about the fluid that contains the male sperm is called semen, a total of 81.4 percent (189) agreed to use condoms, these data suggest that students that are more knowledgeable in reproduction are more likely to use condoms when they are engaged in sexual intercourse. Of the 49.2 percent (154 students) that answered the correct question about fertilization of the egg does not occur in the uterus, a total of 84.5 percent (130 students) agreed to use condoms. These data also suggest that

students with more awareness and knowledge about reproduction are more likely to use condoms.

Table 4.13A. Correlation of Reproduction Knowledge and Attitudes Toward the use of Condoms

The fluid that contains the male sperm is called semen			Attitude: I believe condoms should used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
True	Count	78	111	43	232	
	% Q.6.1	33.6%	47.8%	18.5%	100.0%	
False	Count	10	32	12	54	
	% Q.6.1	18.5%	59.3%	22.2%	100.0%	
Do not Know	Count		20	7	27	
	% Q.6.1		74.1%	25.9%	100.0	
Total	Count	88	163	62	313	
	% of Total	28.1%	52.1%	19.8%	100%	
Pearson's r Correlation = 0.55 Substantial association			Q.6.1. The fluid that contains the male sperm is called semen		Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active	
Q.6.1. The fluid that contains the male sperm is called semen			1		**0.55	
Pearson's r Correlation Sig. (2tailed)						
N			313		313	
Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active						
Pearson's r Correlation Sig. (2tailed)			**0.55		1	
N			313		313	

** Pearson's r correlation coefficient 0.55 is significant at the 0.01 level (2tailed).

Table 4.13B. Correlation Between Reproduction Knowledge and Attitude Toward the use of Condoms

Q.6.3. Fertilization of the egg occurs in the uterus			Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
	True	Count % Q.6.3 % Q.9.2 % of Total	29 20.1% 33.0%	82 56.9% 50.3%	33 22.9% 53.2%	144 100.0%
	False	Count % Q.6.3 % Q.9.2 % of Total	58 37.7% 65.9%	72 46.8% 44.2%	24 15.6% 38.7%	154 100.0%
	Do not Know	Count % Q.6.3 % Q.9.2 % of Total	1 6.7% 1.1%	9 60.0% 5.5%	5 33.3% 8.1%	15 100.0
Total		Count % of Total	88 28.1%	163 52.1%	62 19.8%	313 100%
Pearson's r Correlation = 0.59 Substantial association		Q.6.3. Fertilization of the egg occurs in the uterus	Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active			
Q.6.3. Fertilization of the egg occurs in the uterus						
Pearson's r Correlation Sig. (2tailed)			1		**0.59	
N			313		313	
Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active						
Pearson Correlation Sig. (2tailed)			**0.59		1	
N			313		313	

** Pearson's r correlation coefficient 0.59 is significant at the 0.01 level (2tailed).

Pearson's r correlation between the variables of contraception knowledge and attitudes toward use of condom had moderate associations. Pearson's r correlation of 0.47 suggests that students that answered the correct questions about girls cannot get pregnant the first time they have sex are more likely to use condom than those students who answered incorrectly. Of the 34.5 percent (104 of the students) that answered the

correct question about girls not getting pregnant the first time they have sex, a total of 77.8 percent (84 students) agreed to use condoms. These data suggest that students that are more knowledgeable in contraception are in some way more likely to use condom when they are engaged in sexual intercourse.

Table 4.14. Correlation of Contraception Knowledge and Attitudes Toward the use of Condoms

Q.7.2. Girls cannot get pregnant the first time they have sex			Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
True	Count	56	77	24	157	
	% Q.7.2	35.7%	49.0%	15.3%	100.0%	
False	Count	23	61	24	104	
	% Q.7.2	21.3%	56.5%	22.2%	100.0%	
Do not Know	Count	9	25	14	48	
	% Q.7.2	18.8%	52.1%	29.2%	100.0	
Total	Count	88	163	62	313	
	% of Total	28.1%	52.1%	19.8%	100%	
Pearson's r correlation = 0.47 Moderate association		Q.7.2. Girls cannot get pregnant the first time they have sex	Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active			
Q.7.2. Girls cannot get pregnant the first time they have sex Pearson's r Correlation Sig. (2tailed) N		1 313	**0.47 313			
Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active Pearson's r Correlation Sig. (2tailed) N		**0.47 313			1 313	

** Pearson's r correlation coefficient 0.47 is moderately significant at the 0.01 level (2-tailed).

Pearson's r correlation between the variables STD/HIV knowledge and attitudes toward the use of condoms had substantial association. Pearson's r correlation of 0.51 suggests that students that answered the correct questions about STD/HIV knowledge are more likely to use condom than those students that answered incorrect.

Of the 48.2 percent of the students (151) that answered the correct question about a highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicidal, a total of 78.1 percent (118 students) agreed to use condoms. These data suggest that students who are more knowledgeable in STD/HIV are more likely to use condoms when they are engaged in sexual intercourse.

TABLE 4.15. STD/HIV Knowledge and Attitudes Toward the use of Condoms

A highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicidal			Attitude: I believe condoms should used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
	True	Count % Q.8.1 % Q.9.2 % of Total	47 31.1% 53.4%	71 47.0% 43.6%	33 21.9% 53.2%	151 100.0% 48.2%
	False	Count % Q.8.1 % Q.9.2 % of Total	41 39.0% 46.6%	51 48.6% 31.3%	13 12.4% 21.0%	105 100.0% 33.5%
	Do not Know	Count % Q.8.1 % Q.9.2 % of Total		42 71.9% 25.2%	16 28.1% 25.8%	57 100.0 18.2%
Total		Count % of Total	88 28.1%	163 52.1%	62 19.8%	313 100%
Pearson's r correlation = 0.51 substantial association			A highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicidal		Attitude: I believe condoms should used if a person my age is sexual active	
Q.8.1. A highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicidal						
Pearson's r Correlation Sig. (2-tailed)					1	
N					313	
					**0.51	
					313	

Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active		
Pearson's r Correlation Sig. (2-tailed)	**0.51	1
N	313	313

** Pearson's r correlation coefficient 0.51 is significant at the 0.01 level (2tailed).

Pearson's r correlation between the variables sexual behavior and attitudes toward the use of condoms had a low association. Pearson Correlation of 0.08 indicates that students who agreed to have sex with several different people could independently use or no condoms. Of the 42.5 percent of the students (133) who agree to have sex with several different people, 46 percent (62 students) disagreed to use condoms and 53.4 percent (72 students) agreed to use condoms.

Table 4.16. Sexual Behavior and Attitudes Toward the Use of Condoms

I believe it is OK for people my age to have sex with several different people			Attitude: I believe condoms should used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
Agree	Count	7	64	62	133	
	% Q.9.1	5.3%	48.1%	46.6%	100.0%	
Disagree	Count	5	91		96	
	% Q.9.1	5.2%	94.8%		100.0%	
Strongly Disagree	Count	76	8		84	
	% Q.9.1	90.5%	9.5%		100.0	
Total	Count	88	163	62	313	
	% of Total	28.1%	52.1%	19.8%	100%	
Pearson's r correlation = 0.08 Low association			I believe it is OK for people my age to have sex with several different people	Attitude: I believe condoms should used if a person my age is sexual active		
Q.9.1. I believe it is OK for people my age to have sex with several different people						
Pearson's r Correlation Sig. (2-tailed)				1	**0.08	
N				313	313	
Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active						
Pearson's r Correlation Sig. (2-tailed)				**0.08	1	
N				313	313	

** Pearson's r correlation coefficient 0.08 is significant at the 0.01 level (2-tailed).

Pearson's r correlation between the variables self-efficacy and attitudes toward the use of condoms had moderate association. Pearson's r Correlation of 0.29 indicates that students who have ever had sexual intercourse agree to use condom and those who never had sexual intercourse also agree to use condoms.

Of the 53.4 percent of the students (167) who affirmed to have had sexual intercourse, 83.2 percent (139) agreed to use condom while only 16.8 percent (28 students) disagreed to use condoms. In addition, from 46.6 percent (146 students) who have never had sexual intercourse, 76.7 percent (112 students) agreed to use condoms while 23.3 percent (34 students) disagree to use condoms. These data predict practices of sexual behavior. Of the 46 percent of the students who have never had sexual intercourse, 76.7 percent intend to use condoms in the future while 23.3 percent will not intend to use condom in the future.

In our sample (313 students), 53.4 percent of the students reported having had sexual intercourse, 16.8 percent indicated that they would not use condoms in the future. These students are at risk for STDs and early pregnancies and could benefit from interventions to enhance their self-efficacy for protective sexual behaviors.

This study found that respondents, who had greater opinion to use condoms, were more likely to report using condoms in the future. These results are consistent with previous studies that have demonstrated significant relationships between self-efficacy and use of condoms (Basen & Engquist, 1992).

Table 4.17. Self-Efficacy and Attitudes Toward the Use of Condoms

Have you ever had sexual intercourse?			Attitude: I believe condoms should used if a person my age is sexual active			TOTAL
			Strongly Agree	Agree	Disagree	
	Yes	Count % Q.10.3 % Q.9.2 % of Total	43 25.7% 48.9%	96 57.5% 58.9%	28 16.8% 45.2%	167 100.0% 53.4%
	No	Count % Q.10.3 % Q.9.2 % of Total	45 30.8% 51.1%	67 45.9% 41.1%	34 23.3% 54.8%	146 100.0% 46.6%
Total		Count % of Total	88 28.1%	163 52.1%	62 19.8%	313 100%
Pearson's r correlation = 0.29 Moderate association			Q.10.3. Have you ever had sexual intercourse?		Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active	
Q.10.3. Have you ever had sexual intercourse? Pearson's r Correlation Sig. (2-tailed) N			1 313		**0.29 313	
Q.9.2. Attitude: I believe condoms should used if a person my age is sexual active Pearson's r Correlation Sig. (2-tailed) N			**0.29 313		1 313	

** Pearson's r correlation coefficient 0.29 is significant at the 0.01 level (2-tailed).

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

These data are in some ways discouraging and alarming. These students are supposed to have some knowledge about sexuality according to the class curriculum for eleventh grade students. Knowledge at this point is sorely lacking and sometimes dangerously absent. There are gaps in knowledge shown here that should alarm parents and teachers. Adults sometimes assume that high school students or teens in general are very knowledgeable about sexuality and reproduction, because they are expose to the media, such as television, movies, and magazines. The results show that students lack information about sexuality issues in general. Also there is evidence here that shows that the schools and their parents are providing insufficient sexuality education for their adolescents.

The prevalence of the risk behaviors among this group of eleventh grade students indicates a need for broad-based educational efforts. Such efforts should include education in the schools, increased availability of resources that aid in the prevention of STD/HIV and early pregnancy, patient counseling, and mass media information campaigns. The results also revealed that attitudes and self-efficacy are related to risk behavior. An educational approach that involves more than providing information is needed. Attitudes change requires an exploration of personal values, while increasing self-efficacy requires role modeling and successful experience with the desired behavior. Those adolescents who have had sex and those who never have had sex may need special attention in educational programs, as this study demonstrated that some students are more likely to use condoms than others. It is

important to include all high school students in Aguablanca District-Cali, Colombia, sexual educational programs that enhance practices of protective sexual behavior and decrease the risk of contracting STD/HIV and early pregnancies.

The results found in this study demonstrated that there is a need to increase the level of knowledge of students in reproduction, contraception and STD/HIV. Also, there is a need for these students to increase availability of resources that aid in the prevention of early pregnancies. The educational project to be developed to increase student's knowledge and attitudes to enhance their practices of protective sexual behavior should include mass media information campaigns, students counseling with trained people, role modeling, or watching others perform or talk about the task such as having peer leaders demonstrate how to put a condom on an artificial model; and feedback on physiological arousal states that help students infer their vulnerability to stress and anxiety.

Although the results of this study indicate the self-efficacy and sexual risk behaviors are associated, there is a large proportion of unexplained relationships between dependent variables that indicate that further research is needed to develop a better model of the factors affecting adolescents' sexual behavior. Early efforts to provide education for these high school students to prevent STD and early pregnancy were not asked in the survey to determine the antecedents of risk behavior. In order to further develop educational programs that have the potential for risk education, it is essential that research be conducted to provide better understanding of the underlying psychosocial variables that lead to risk taking behaviors. The results of this study showed the level knowledge of high school students in sexual reproductive issues and

at the same time give some direction to intervention. However, much more work is needed, including the expansion of predictive variables, longitudinal studies, and testing of intervention to influence change in predictor variables. What teens know about their own bodies, about sexuality, about how to protect themselves, about abstinence, and about the threats to their health should guide the efforts for future studies to develop sexual education programs. These data provide testimony that much more is needed.

The findings of this project will have an impact upon adolescents in Colombia as more and more projects are implemented and adolescents will benefit from sexual education programs as a curriculum in class. Furthermore the impact of all educational programs and research efforts should extend well beyond than Aguablanca District, they should extend to the schools that have not yet established sexual education programs. Most of the research on programs to reduce adolescents sexual risk behaviors should be conducted integrality with countries that are currently working in these research projects and have already learned the effects that these programs on adolescents behavior.

There are still many opportunities to conduct research and programs that could benefit adolescents throughout or within Colombia. Working with these projects enhance researchers to continue building a foundation of knowledge that will affect future generations of youth, in this country and throughout the world.

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APPENDIX A

Questionnaire, English Version

Association of Knowledge, Attitudes, and Self-Efficacy with Sexual Risk Behaviors Among High School Students in Aguablanca District-Cali, Colombia.

This Survey is completely confidential and anonymous. We are interested in learning more about your knowledge, thoughts, opinions, and feelings about the health and sexual education programs in high schools Aguablanca District. One person is going to assist you during the time you are answering this survey. If you have any question or you do not understand, please let us know we are here to help you.

We hope you will help us by completing this survey. We will use your answers to propose school health education programs as a curriculum class in Aguablanca District. Your answers will not be available to anyone at any time. All the information you give us will be kept private. Do not put your name on this questionnaire.

Whether or not your answer the questions will not affect your grades. If you decide not to participate, your teacher will provide you with some other activity during this class. However, we really need your help to keep young people in Aguablanca District healthy!

Please remember:

- Do not put your name on this form.
- Your answers are private. We will not tell anyone what you write.
- You will not be graded on this exercise.
- Please take your time and answer carefully.

I. Demographic Data:

1). Sex:

Please check one.

Male ____ 1 Female ____ 2

2). Age:

Please check one

12-14 _____ 1 15-17 _____ 2 18-20 ____ 3 More than 21 ____ 4

3). Race:

Please check one.

Mestizo _____ 1 Black _____ 2 White ____ 3 Other _____ 4 (specify) _____

4). Religion:

Catholic ____ 1 Other ____ 2

5). Family Composition:

Do you live with your parents?

Please check ONE below.

I live with both of my parents _____ 1
I live with my mother only _____ 2
I live with my father only _____ 3
I live with other relatives _____ 4

II. Knowledge about reproduction, contraception, and STD/HIV.

6). Reproduction:

Below are some statements about **reproductive physiology knowledge**. For each question, check one for the answer you think is correct. If you don't know the answer, check one that is labeled **Don't Know**.

6.1. The fluid that contains the male sperm is called semen.

True ____ 1 False ____ 2 Don't Know ____ 3

6.2. The male hormone is called testosterone.

True ____ 1 False ____ 2 Don't Know ____ 3

6.3. Fertilization of the egg occurs in the uterus

True ____ 1 False ____ 2 Don't Know ____ 3

6.4. There is usually a problem if a teenage girl doesn't get her period by the time she is

14.

True ____ 1 False ____ 2 Don't Know ____ 3

6.5. Urination and menstruation occur through the same opening in the female organ

True ____ 1 False ____ 2 Don't Know ____ 3

6.6. It is dangerous to have sexual intercourse during a girl's period.

True ____ 1 False ____ 2 Don't Know ____ 3

7). Contraception:

Below are some statements about **Birth Control knowledge**. For each question, check one for the answer you think is correct. If you don't know the answer, check one that is labeled **Don't Know**.

7.1. Pregnancy happens when a sperm fertilizes an ovum (egg).

True ____ 1 False ____ 2 Don't Know ____ 3

7.2. Girls cannot get pregnant the first time they have sex.

True ____ 1 False ____ 2 Don't Know ____ 3

7.3. If a girl has sex only once in a while, she really doesn't need birth control.

True ____ 1 False ____ 2 Don't Know ____ 3

7.4. Urinating after sex sometimes prevents pregnancy.

True ____ 1 False ____ 2 Don't Know ____ 3

7.5. Douching is a method of birth control.

True ____ 1 False ____ 2 Don't Know ____ 3

7.6. Sperm can live for a few days in the women's body.

True ____ 1 False ____ 2 Don't Know ____ 3

7.7. Letting semen drip out of the female organ after sex prevents pregnancy

True ____ 1 False ____ 2 Don't Know ____ 3

8). STD/HIV:

Below are some statements about **STD/HIV knowledge**. For each question, check one for the answer you think is correct. If you don't know the answer, check one that is labeled **Don't Know**.

8.1. A highly reliable method of avoiding pregnancy and STD/HIV is to use a condom and spermicide.

True ____ 1 False ____ 2 Don't Know ____ 3

8.2. Teenage girls cannot get HIV from teenage boys who have had sex only a few times.

True ____ 1 False ____ 2 Don't Know ____ 3

8.3. STDs usually go away on their own.

True ____ 1 False ____ 2 Don't Know ____ 3

8.4. It is possible to have more than one STD at a time.

True ____ 1 False ____ 2 Don't Know ____ 3

8.5. Only people who look sick can spread the AIDS virus.

True ____ 1 False ____ 2 Don't Know ____ 3

8.6. A person can get AIDS by touching or hugging someone with AIDS.

True ____ 1 False ____ 2 Don't Know ____ 3

8.7. You can get AIDS by being bitten by a mosquito that has bitten someone with AIDS.

True ____ 1 False ____ 2 Don't Know ____ 3

III. Attitudes and self-efficacy related with sexual risk behaviors:

Below are some questions about expressing your opinions, feelings, attitudes, and intentions about sexual risk behaviors. Check the answer that best describes how do you feel, what do you think or what would you do.

Please think about how you would handle these situations. If you have never had sexual intercourse, just tell us what do you think or what would you do.

These next questions help us to find out what young people IN GENERAL are doing so we can know what to teach you about reproductive health programs in school.

Decisions to have or abstain from sex. Potential sex partners. Condom Use.

9. Attitude

9.1. I believe it is OK for people my age to have sex with several different people.

Strongly Agree ___1 Agree ___2 Disagree ___3 Strongly Disagree ___4

9.2. I believe condoms should be used if a person my age is sexual active.

Strongly Agree ___4 Agree ___3 Disagree ___2 Strongly Disagree ___1

This time we want to know what you think makes a person “cool” or popular.

Please check the statement that shows what you think.

9.3. Having sexual intercourse makes a boy and girl popular.

Strongly Agree ___1 Agree ___2 Disagree ___3 Strongly Disagree ___4

9.4. Having sexual intercourse at my age is a “cool” thing for a girl and boy to do.

Strongly Agree ___1 Agree ___2 Disagree ___3 Strongly Disagree ___4

9.5. It is important to talk with your parents or counselors about your sexual doubts.

Strongly Agree ___4 Agree ___3 Disagree ___2 Strongly Disagree ___1

10. Self-efficacy

10.1. I would refuse to have sexual intercourse without condom.

Strongly Agree ___4 Agree ___3 Disagree ___2 Strongly Disagree ___1

10.2. I would insist on using a condom even if my partner didn't want to.

Strongly Agree ___4 Agree ___3 Disagree ___2 Strongly Disagree ___1

10.3. Have you ever had sexual intercourse? (by sexual intercourse, we mean putting a male reproductive organ in a female reproductive organ). **Please check only one.**

Yes ___ 1 No ___ 2

10.4. Do you feel worried that you might get pregnant if you are a girl or that you might get a girl pregnant if you are a boy?

Yes ___ 1 No ___ 2

10.5. If I didn't have a condom, I would have sexual intercourse anyway.

Yes ___ 1 No ___ 2

APPENDIX B

Questionnaire, Spanish Version

Asociación de Conocimientos, Actitudes y Mecanismos de Auto-Control Relacionados con Comportamientos de Riesgo Sexual entre Estudiantes de Educación Secundaria en el Distrito de Aguablanca, Cali, Colombia.

Esta encuesta es totalmente confidencial y anónima. Estamos interesados en aprender más sobre su conocimiento, percepciones, opiniones, y sentimientos acerca de los programas de salud sexual y reproductiva en las escuelas secundarias del Distrito de Aguablanca. Una persona estará colaborándole durante el tiempo en que usted este contestando esta encuesta. Si tienes dudas o no entiende consulte por favor al encuestador.

Esperamos que usted nos ayude contestando esta encuesta. Utilizaremos sus respuestas para proponer programas de salud y educación sexual como clase curricular en los colegios de nivel secundaria en el Distrito de Aguablanca. Ninguna de sus respuestas estará disponible para cualquier persona en ningún caso. Toda la información que usted nos suministrará será mantenida en forma confidencial. No es necesario que coloque su nombre en este cuestionario.

Las respuestas a este cuestionario no afectarán sus calificaciones. Si usted decide no participar, su profesor le facilitará alguna otra actividad durante esta clase. Sin embargo, nosotros realmente necesitamos que usted nos ayude para proponer programas que mantengan los jóvenes de Aguablanca sanos!

Por favor recuerde:

- No coloque su nombre en esta encuesta.

- Sus respuestas son confidenciales. Nosotros no le diremos a nadie lo que usted escriba.
- Usted no será calificado con esta encuesta.
- Por favor tome su tiempo y responda tranquilamente.

I. Datos Demográficos:

1. Sexo:

Por favor marque una respuesta.

Masculino ____ 1 Femenino ____ 2

2. Edad:

12-14 ____ 1 15-17 ____ 2 18-20 ____ 3 Mayor de 20 ____ 4

3. Raza:

Marque por favor uno.

Mestizo ____ 1 Persona de color ____ 2 Blanco ____ 3 Otro ____ 4 (especifique)

4. Religión:

Católico ____ 1 Otro ____ 2

5. Composición Familiar:

Vive usted con sus padres?

Marque por favor UNO de los siguientes.

Vivo con ambos padres ____ 1 Vivo solo con mi madre ____ 2 Vivo solo con mi padre ____ 3 Vivo con otros familiares ____ 4

II. Conocimiento acerca de reproducción, métodos contraceptivos y ETS/VIH(enfermedades de transmisión sexual y virus del sida)

6. Reproducción:

Las siguientes son afirmaciones acerca del conocimiento fisiológico de la reproducción. Por cada pregunta, marque una de las respuestas que usted piensa es

correcta. Si usted no sabe la respuesta, marque la que esta señalada con **No tengo conocimiento.**

6.1. El fluido que contiene los espermatozoides en el hombre se llama semen.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

6.2. La hormona masculina es llamada testosterona.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

6.3. La fertilización del óvulo ocurre en el útero.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

6.4. Generalmente hay problema cuando una adolescente no le llega la menstruación cuando cumple los 14 años de edad.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

6.5.. La orina y la menstruación ocurren por el mismo orificio en el órgano femenino

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

6.6. Es peligroso tener relaciones sexuales durante el periodo menstrual.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7. Métodos de Contracepción:

Las siguientes son afirmaciones acerca del conocimiento sobre los métodos de planificación familiar, Por cada pregunta, marque la respuesta que usted considera es correcta. Si usted no tiene conocimiento, marque la que este señalada con **No tengo conocimiento.**

7.1. El embarazo ocurre cuando el espermatozoide fertiliza el óvulo (huevo).

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7.2. Las adolescentes no tienen riesgo de quedar embarazadas en su primera relación sexual.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7.3. Si una adolescente tiene relaciones sexuales de vez en cuando, ella no requiere métodos para prevenir el embarazo.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7.4 Orinar después de tener relaciones sexuales previene el embarazo.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7.5. Ducharse es un método de control para prevenir embarazos.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7.6. Los espermatozoides pueden vivir por pocos días en el cuerpo de la mujer.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

7.7. Depositar semen en el órgano reproductor femenino después de una relación sexual previene el embarazo (coito interrumpido).

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8. STD/HIV: Enfermedades de Transmisión Sexual y SIDA

Las siguientes son afirmaciones acerca del conocimiento sobre ETS/VIH. Por cada pregunta, marque la respuesta que usted piensa está correcta. Si usted no sabe la respuesta, marque la que este señalada con **No tengo conocimiento**.

8.1. Un método altamente confiable para evitar el embarazo y las ETS/VIH es usar los condones y espermicidas.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8.2. Las adolescentes no tienen riesgo de contagiarse con el VIH si tienen relaciones sexuales con hombres adolescentes que han tenido solo pocas relaciones sexuales.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8.3. Las ETS generalmente se mejoran sin tratamiento.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8.4. Es posible adquirir mas de una ETS al mismo tiempo.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8.5. Solo personas que lucen enfermas con SIDA pueden transmitir la enfermedad.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8.6. Una persona se puede contaminar con SIDA al tocar o abrazar a alguien que tenga esta enfermedad.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

8.7. Usted se puede contaminar con SIDA si es picado por un mosquito que previamente había picado una persona con SIDA.

Verdadero ___ 1 Falso ___ 2 No tengo conocimiento ___ 3

III. Actitudes y mecanismos de auto-control relacionados con comportamiento de riesgo sexual:

Las siguientes son preguntas acerca de sus opiniones, sentimientos, actitudes e intenciones acerca del comportamiento de riesgo sexual. Marque la respuesta que mejor describa como usted se siente, que piensa o que haría ante una situación.

Las siguientes preguntas nos ayudaran a averiguar que están los jóvenes en general haciendo, de esta manera nosotros podemos conocer cuales son los aspectos que se deben tener en cuenta en la enseñanza de programas de salud reproductiva en los colegios.

9. Actitudes:

9.1. Yo creo que esta bien para los jóvenes de mi edad tener relaciones sexuales con diferentes personas.

Fuertemente de acuerdo ___ 1 De acuerdo ___ 2 No estoy de acuerdo ___ 3
Fuertemente en desacuerdo ___ 4

9.2. Yo creo que los condones deben usarse si una persona de mi edad es sexualmente activa.

Fuertemente de acuerdo ___ 1 De acuerdo ___ 2 No estoy de acuerdo ___ 3
Fuertemente en desacuerdo ___ 4

Para esta parte nosotros deseamos conocer cual es su opinión acerca de que hace a un joven ser “chévere” o popular.

Por favor marque la afirmación que muestre lo que usted piensa.

9.3. Tener relaciones sexuales hace a una joven o joven popular.

Fuertemente de acuerdo ___ 1 De acuerdo ___ 2 No estoy de acuerdo ___ 3
Fuertemente en desacuerdo ___ 4

9.4. Tener relaciones sexuales a mi edad es una cosa “chévere” para una joven o un joven.

Fuertemente de acuerdo ___ 1 De acuerdo ___ 2 No estoy de acuerdo ___ 3
Fuertemente en desacuerdo ___ 4

9.5. Es importante hablar con los padres o personas que dan orientación acerca de las dudas con respecto a relaciones sexuales.

Fuertemente de acuerdo ___1 De acuerdo ___2 No estoy de acuerdo ___3
Fuertemente en desacuerdo ___4

10. Auto-control:

10.1. Yo rehusaría tener relaciones sexuales sin condón.

Fuertemente de acuerdo ___1 De acuerdo ___2 No estoy de acuerdo ___3
Fuertemente en desacuerdo ___4

10.2. Yo insistiría en usar condón aún si mi pareja no lo desea.

Fuertemente de acuerdo ___1 De acuerdo ___2 No estoy de acuerdo ___3
Fuertemente en desacuerdo ___4

10.3. Ha usted tenido relaciones sexuales?(Tener relaciones sexuales, significa colocar el órgano masculino dentro del órgano reproductor femenino).

Por favor marque una respuesta.

Sí ___1 No ___2

10.4. Se siente usted preocupada de quedar en embarazo o de embarazar a la novia?

Sí ___1 No ___2

10.5. Si yo no tuviera un condón disponible yo rehusaría a tener relaciones sexuales.

Si ___1 No ___2

Muchas gracias por su colaboración!

APPENDIX C

Letter of Permission to Conduct the Study



COLEGIO PUBLICO SANTA ROSA # 127 Calle 72X # 28 F3-35 Poblado
Distrito de Aguablanca Cali, Valle

Cali, Valle, Colombia Marzo 20, 2002

Sra. Zulma Hernández
Estudiante en los Estados Unidos
Proyecto para la tesis

Estimada Estudiante,

Para el colegio Publico Santa Rosa es un honor poder colaborarle para la elaboración de las encuestas para los estudiantes de ultimo grado de secundaria grado once (II). De acuerdo a conversación telefónica sostenida con usted y el personal de profamilia el único requisito que nosotros solicitamos es que ustedes soliciten consentimiento escrito a los padres de familia de los estudiantes para llevar a cabo las encuestas, si los padres de los estudiantes están de acuerdo, con mucho gusto nosotros le permitiremos el tiempo que ustedes estimen necesario para llevar a cabo la encuesta.

Solicitamos igualmente al personal de profamilia encargados de realizar la encuesta que ellos deben permanecer con los estudiantes hasta que ellos la contesten y ustedes mismos recojan las encuestas y se las lleven pues como ustedes bien saben carecemos de suficientes personal docentes para colaborarles en esto.

Una vez mas es un placer poderle colaborar y esperamos nos informe acerca de los resultados y los planes futuros de este estudio.

Atentamente,

Nohemy Velásquez
Rectora Colegio Publico Santa Rosa # 127
Distrito de Aguablanca
Cali, Valle, Colombia

APPENDIX C

Letter of Permission to Conduct the Study

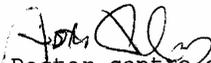
Colegio : Publico Ciudad Córdoba- Distrito Aguablanca-Cali, Valle
Rector: Armando Gordillo López
Referencia: Carta de autorización para realizar encuestas
Fecha: Marzo 23 del 2002

Señora estudiante Zulma Hernández,

El colegio Publico Ciudad Córdoba en reunión de profesores acordó autorizarle la elaboración de la encuesta para los estudiantes de grado once siempre y cuando ellos traigan permiso de autorización de los padres. Por favor haga los estimativos correspondientes para conseguir estos permisos y nos avisa la fecha de la realización de la encuesta. Los profesores aprovecharan este día que ustedes realicen la encuesta para realizar reunión de comité de profesores. Por favor ustedes mismos recojan las encuestas nosotros no tenemos los recursos para hacerles llegar encuestas.

Cualquier información adicional con mucho gusto me puede llamar al teléfono 3272685 con mucho gusto estamos para colaborarle.

Atentamente,


Rector centro docente Ciudad Córdoba
Armando Gordillo López

APPENDIX D

Format of Parental Consent to Conduct the Surveys in the School

Formato de consentimiento de los padres para llevar a cabo las encuestas:

El Colegio Publico _____ llevara a cabo una encuesta con el objetivo de conocer el nivel de conocimiento que los estudiantes de grado 11 tienen acerca de los temas relacionados con educación sexual. Esta encuesta es un proyecto de tesis que esta llevando a cabo una estudiante Colombiana en los Estados Unidos. Le pedimos su colaboración para que autorice a su hijo / hija participar en esta encuesta. Es anónima el estudiante no tiene que colocar su nombre y no interfiere en nada con las calificaciones de grado, igualmente la información obtenida en la encuesta es estrictamente confidencial.

Autorizo a mi hijo(a) _____ participar en la encuesta

Firma del padre o acudiente _____
Fecha _____

Gracias por su colaboración

English Translation

Format of parental consent to conduct the surveys in the school:

The Public School _____ is going to conduct a survey among 11 grade students. Te objective of this survey is to know the level of knowledge that students have related with sexual education. This survey is a thesis project of a Colombian student in the United States. We ask you all your cooperation to allow your son or daughter to participate in this survey. This survey is completely anonymous and confidential. The students do not have to write their names in it and it does not affect their grades.

Authorize my children _____ to participate in the survey.

Parent or guardian signature _____

Date _____

Thanks for your cooperation.

APPENDIX E

Letter of Dr. Heather Cecil, Author of Self-Efficacy Instrument

Subject: RE: Information

Date: Tue, 22 May 2001 13:01:36 -0500

From: "Heather Cecil, Ph.D" <HCecil@ms.soph.uab.edu>

To: 'zulma hernandez' <zulmal@marshall.edu>

Zulma:

Hi there and thank you for your interest.

What additional information would you like about the instrument? You may want to review the initial article describing this instrument by Kasen et al. (1992). Self-efficacy for AIDS preventive behavior in young adults. AIDS Education and Prevention, 19, 187-202.

I also discuss this instrument in another paper: Cecil, H., & Pinkerton, S.D. (2000). Magnitude: An important dimension of self-efficacy. Journal of Applied Social Psychology, 30(6), 1243-1267.

As an aside, this instrument was used successfully in a study of female condom use intentions among African Americans and Hispanics, and in a study of childhood sexual abuse among African American adolescents.

Because I do not know what you mean when you say "...apply in an educational programs with young adults," I am not able to respond.

In general, the issues that come to mind in applying this instrument to a non-united states sample are as follows (these issues would need to be addressed prior to using this instrument in the final sample):

- 1) will the population understand the term self-efficacy? Is this a construct that folks will understand and can identify?
- 2) the instrument would need to be translated forward and backward to ensure that the content remains identifcal.
- 3) the instrument would need to be piloted with a smallish sample to investigate the reliability and validity of using it with a non-united states sample (this is extremely critical). Relatedly, you would want to be sure that the terms used are acceptable to your population. For example, instead of using the term "condom" I used the term "rubbers" when I gave this instrument to a sample of adolescent girls based on the feedback from girls who participated in focus groups. In the U.S., it is important to ensure that you are using terms preferred by that population, this may not be true for your folks - I do not know.

The items for the instrument are in the appendix of the article: Cecil, H., & Pinkerton, S.D. (1998). Reliability and validity of a self-efficacy instrument for protective sexual behaviors. Journal of American College Health, 47, 113-121.

I hope this has helped. Feel free to email me additional questions or you can call me at (205) 934-6369.

Good luck with your thesis, it sounds very interesting!

Sincerely,

Heather Cecil

Heather Cecil, PhD
Assistant Professor

CURRICULUM VITAE

Curriculum Vitae

Zulma Hernandez, R.N., M.S

Graduated from the School of Nursing Valle University Cali, Colombia obtaining her Bachelor of Science in Nursing in 1983 and Master of Science in Nursing with emphasis en Maternity Child Care in 1995. In 1997 attended ICESI University in the same city in Colombia obtaining the title of specialist in Administration with emphasis in Advance Marketing. In 2000 traveled to USA to improve her English for academic purpose and pursue her Master of Science in Adult and Technical Education at Marshall University. Currently, she is a RN certified in Canada and United States.

Summary of Qualifications

- Fifteen years of experience in nursing care management: Nursing practice standards, legal and ethical aspects of nursing, managing client care and safety.
- Ability to plan, designs, implement, administer and control nursing services according to the needs of national health systems and services.
- Extensive experience in health administration and management of the learning system within the organization through the planning, organizing, staffing, controlling, and marketing continuing education for the development of nursing and allied health personnel.
- Experience in developing nursing and allied health personnel policies, regulation, and practices according to the national health system.
- Knowledge in the development of research projects to promote the mobilization of national and international resources for training and technical assistance.
- Strong working knowledge of Word, Excel, Windows 98/200, PowerPoint, Microsoft Project, Visual Basic, Microsoft Access, Internet business applications.
- Ability to function well in a fast-paced, high-pressure atmosphere.
- Interpersonal skills in dealing with diversity of professionals, clients and staff members.
- Fluent in Spanish.

Education

- ***Master of Science in Adult and Technical Education***
Marshall University GPA= 4.0
Huntington, WV, USA 2003

- ***Specialization in Administration with emphasis in Advance Marketing***
ICESI University GPA = 3.9
Cali, Colombia 1997
- ***Master of Science in Nursing with emphasis in Maternity Child Care***
Valle University GPA = 4.0
Cali, Colombia 1995
- ***Bachelor of Science in Nursing***
Valle University GPA = 3.8
Cali, Colombia 1983

Work History

- ***Marshall University (June 2000 – 2002)***
Huntington WV, USA

Title: Research Projects Graduate Assistant for Social Work Department

Duties:

Lead and participate in research projects activities, including creating project documents, scheduling meetings, helping principal investigators prepare agendas and taking minutes at meetings.

Prepare written and oral recommendations regarding database structure and data output.

Assist in analyzing data and preparing reports as needed.

- ***Profamilia (1996 - 1999)***

Cali, Colombia

Title: Nursing Director / Manager

Duties:

Management, development, implementation, training, evaluation, and maintenance of all Clinical services. Coordinate and facilitates communications with areas that interface with the Clinical and Physician Services areas.

Development nursing and allied health personnel policies, regulations and practices according to the national and local health system.

Plan, design, implement, administer, and control nursing services, organizing, staffing and marketing continuing education.

Development of research projects to promote national and international resources to support local health services.

- ***Valle University (1996-1999)***

Cali, Colombia.

Title: Nurse Professor Assistant Part Time

Duties:

Teach undergraduate and graduate nursing programs in mother child care areas.

Coordinate and organize regional and national conferences collaborating with school of nursing, allied health sciences and other health training institutions.

- ***Valle University Hospital (1984-1994)***

Cali, Colombia

Title: Nurse Supervisor

Duties:

Supervise and coordinate patient care and consulting activities according to the policies and procedures of the Health Department Service.

Plan and monitor staffing of nurses at occupational health clinics, company sites, hospital and other settings.

Supervise nursing staff including, recruitment, hiring, merit recommendations, promotions, transfers, vacation schedules, disciplinary action, performance evaluation, orientation, training and development.

HONORS

Honorific Inscription – Research Summer Thesis – Marshall University - 2001

Honorific Inscription – ICESI University – 1997

Honorific Inscription – Health Care National Woman of the year- Colombia 1996