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Influence of Sexual Education on Sexual Behavior and Contraceptive Use Among 15 to 19 Year-Olds at Colégio Azevêdo Fernandes in Salvador, Brazil

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**Influence of sexual education on sexual behavior and contraceptive use among
15 to 19 year olds at Colégio Azevêdo Fernandes in Salvador, Brazil**

Julia Still

Spring 2011

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Resumo da Pesquisa

Objetivo

Educação sexual está relacionada à redução da gravidez na adolescência, DST e HIV/AIDS com o aumento do uso de contraceptivos e comportamento sexual saudável. Muitas pessoas tem a idéia de que a educação sexual ocorre na família, nos amigos ou nos colégios. Embora isso seja certo, não é a realidade completa da educação sexual. Os adolescentes aprendem através de uma combinação varias dessas fontes em vez de apenas uma. A educação não é limitada ao colégio; é muito importante examinar essas fontes. É igualmente importante examinar que conhecimento e entendimentos que são aprendidos dessas varias fontes e a maneira em que se manifestam no comportamento do adolescente.

A questão desta pesquisa é quais são os entendimentos sobre o comportamento sexual e saúde sexual dos estudantes de 15-19 anos de idade da rede pública de ensino de Salvador onde eles e elas obtêm o conhecimento. Mais especificamente, este projeto investiga e analisa que conhecimento vem do colégio, seus amigos, da mídia e das famílias em respeito aos contraceptivos. Este projeto avalia estas fontes de educação sexual para entender melhor o conhecimento dos adolescente sobre contraceptivos, uso de contraceptivos e saúde sexual.

Métodos

A pesquisa foi realizada no Colégio Estadual Azevedo Fernandes no Pelourinho, Salvador, Bahia, Brasil que não tem um programa formal de educação sexual. A coleta de dados foi feita através de entrevistas e questionários respondidos por estudantes, professores, e profissionais que ensinam educação sexual na escola. Foram aplicados 60 questionários com estudantes 15 a 19 anos de idade do Ensino Fundamental II e Ensino Médio. Os questionários foram feitos nas salas de aula pela manhã e pela tarde. Quatro entrevistas foram realizados com a Diretora Maria Célia Sampaio, os Vice-Diretores Augusto e Eliana e a professora de Biologia no Ensino Fundamental, Janeide Nicassio. As entrevistas formais foram gravadas. Consentimento foi obtido de cada informante durante o processo de pesquisa. Foi explicado que a informação é confidencial e que nenhum nome seria divulgado. Adicionalmente, os participantes foram informados sobre o tema e as metas da pesquisa.

Resultados

Entre 60 adolescentes no colégio, 88% são sexualmente ativos e a maioria deles já tem feito sexo sem um método contraceptivo. Todos menos 2 conhecem algum risco de não usar um método contraceptivo durante o ato sexual. O adolescente que tem uma relação aberta com sua família sobre comportamento sexual e uso de contraceptivos é duas vezes mais provável usar contraceptivo durante o ato sexual. Também, estudantes relataram que estão aprendendo sobre essa questão na escola e que estão de acordo com o que estão aprendendo. A escola é o lugar mais notado pelos estudantes como fonte de educação sexual. Apesar de que estudantes relataram que a mídia e seus amigos promovem saúde sexual, a influencia positiva dessas fontes não é evidente em seu uso de contraceptivos nas relações sexuais.

Conclusões

Os resultados mostram a importância da educação sexual na escola e com as famílias. Um programa formal tem que ser implementado na escola. Também a escola e as famílias tem que tomar o papel de educar os adolescentes sobre comportamento sexual saudável e uso de contraceptivos. Os pais tem que ser educados neste assunto para que possam ter relações abertas com seus filhos e educa-los. É importante que os programas educativos e a família incorporem todos os determinantes e dimensões da questão para que tenham efetividade.

Introduction

Although sexual health education provided by the government through schools has shown positive results, such as those distributed by the Brazilian Ministry of Health, it is not the only source, nor the most implemented source, in which adolescents are exposed to and gain knowledge on the subjects of sexual behavior and sexual health. Just as Article 24 of the Convention on the Rights of the Child details, parents, schools and communities play important roles in the process of sexual education and are required to provide guidance and direction to youth (Pan American Health Organization, 2010). In addition to sexual health education in schools, adolescents learn about sex from other sources such as their families, friends, and the media. Each source of sexual education, whether it be positive or negative, contributes to the adolescent's understanding of sexual behavior and sexual health in varied and sometimes conflicting ways. This research study examines the impact of the following sources of sexual education on adolescent sexual behavior and contraceptive use: sexual health education in schools, with family, friends and in the media.

Statement of Problem

Sexual education is linked to the reduction of adolescent pregnancy as well as STD's and HIV/AIDS through the increased use of contraceptives and practices of healthy sexual behavior. A recent study titled "Changes in sexual behavior following a sex education program in Brazilian public schools" states that Brazil, like other developing countries has limited resources and increasing rates of sexual transmitted diseases related to unsafe sexual behavior as well as unplanned pregnancies among adolescents (Andrade 1174). This same article agrees that "it is widely recognized that the main mechanism for the prevention of risky sexual behavior is education prior to sexual debut" yet it finds that "this recognition in academic circles has failed to translate into widespread policies, except in some of the most developed countries in the world" (Andrade 1174). There are conflicting ideas as to where sexual health education should come from and what type of sexual health education is most affective. Many people have the belief that sexual health education is something that happens at home with one's family or is the government's responsibility to educate students in schools. Although this is true, it is not the entire picture. Adolescents do not learn about sexual health education from only one source but a combination of many sources which determine their sexual behavior. Sexual health education is not limited to the classroom and it is important to examine these sources of sexual health

education. It is as equally important to examine what knowledge and understandings are coming from these sources and the way in which they manifest in an adolescent's sexual behavior.

The problem, or foundation, of this research is articulated by the National Association of Social Workers in the United States in an article titled, "Parents, Peers, and Pressures: Identifying the Influences on Responsible Sexual Decision-Making". The article states that "how teenagers make decisions about relationships, abstaining or participating in sex, and protecting themselves and others from sexually transmitted diseases and pregnancy is influenced by numerous factors" (National Association of Social Workers). The article continues to discuss that their parents, their friends, the media, access to education and services, as well as many other factors influence the decisions of adolescents and their sexual health and a host of other factors influence decisions and subsequent health outcomes (National Association of Social Workers). It is extremely important to understand why adolescents are making these decisions regarding their sexual behavior and sexual health so that they can be better educated.

Research studies in Brazil as well as the Secretary of Education in Bahia Brazil promote that sexual education in school and at home with one's family are the two sources of sexual education that are the more effective and positive influences of sexual health and contraceptive use in Brazil (Almeida, Andrade, Baleeiro). However, like the school chosen for this study, Colégio Azevêdo Fernandes, many schools do not even have a formal sexual education program and the sexual education that happens in schools is minimal, unregulated, and many times insignificant (Maria Célia Sampaio). Additionally, the majority of parents are unlikely to foster open relationships and conversations with their children about sexual behavior and contraceptive use, which is actually one of the most positive determinants of contraceptive use and healthy sexual behavior amongst those in Bahia, Brazil (Almeida 571). The influences of sexual education on adolescent sexual behavior must be further understood and analyzed so that sexual education can be improved and adolescents can make more positive decisions about their sexual health.

Question and Hypothesis

The founding question of this research study is what are the influences of different sources of sexual education amongst 15-19 year old students of public schools in Salvador and how do these sources of sexual education affect their sexual behavior and contraceptive use? More specifically, this research project investigates and analyzes what adolescents are gaining

from sexual education in schools, their peers, the media, and their families in respect to sexual contraceptives and sexual behavior. This project evaluates these four sources of sexual education to better understand the determinants of adolescent sexual behavior, contraceptive knowledge and use, and sexual health.

This study is based on the hypothesis that students are exposed to a variety of knowledge about contraceptive use from these four sources but that it is conflicting at times and that there are lapses in information. Additionally, it is hypothesized that the sexual education in school, the media, friends, and the family do not project a unified front of knowledge and understanding to the adolescent about sexual behavior and contraceptive use. Students do not learn about sexual health from the same source and trends are present that points out what sources of sexual education prove to promote healthy sexual behavior and contraceptive use. However, in general, the more a student knows about contraceptives and the more access they have to them, the healthier they are and the more likely they are to use them. Additionally, it is hypothesized that school sexual education as well as sexual education from family prove to be more positive influences on sexual behavior and use of contraceptives in comparison to friends and the media.

Thesis statement

This research study examines and evaluates sexual education in school, with the family, friends, and the media, to understand their influence on the sexual behavior and contraceptive among adolescents ages of 15 to 19 at Colégio Azevêdo Fernandes in Pelourinho, Salvador, Brazil.

Purpose of Research

The purpose of conducting this research is to better understand where students are gaining their knowledge and understandings of sexual health education and sexual behavior and what behaviors they are learning from these sources of education. Students gain knowledge of contraceptives and contraceptive use from their family, friends, media, and their school. Not only does this study aim to better understand adolescent sexual behavior and contraceptive use in general, this research assesses adolescent beliefs on where and what they are learning about sexual behavior, sexual health, and contraceptive use. With this knowledge about the influences of sexual behavior, more effective methods of sexual education can be developed, promoted, and implemented to create positive change in the sexual lives of adolescents.

Background

Background Information

The lack of beneficial adolescent sexual health education in the world manifests itself in high rates of pregnancy and STDs amongst this group of individuals. A study performed by the Demography and Health Survey in 37 developing countries including Brazil showed that almost all adolescents can now identify a contraceptive method but contraceptive use has hardly changed. This is consistent with Brazilian results which indicate that the use of contraceptives is not necessarily solely related with adolescent knowledge of them (Almeida 567). This information illustrates that there are other determinants of contraceptive use being that adolescents are now able to identify what a contraceptive method is but their sexual health remains unaltered. Studies must focus behavioral determinants to better the sexual education of adolescents. In the 1980s and 1990s, literature about factors associated with contraceptive use illustrated that youth were misinformed about matters related to conception and contraception (Almeida 567). As a result, there was a focus on access to adequate information rather than the role of the family, media and friends on sexual behavior on contraceptive use. Due to this closed focus in the past decades, there is little information about the factors that influence Brazilian adolescents to make decisions regarding their sexual health and contraceptive use and a lack of new direction and strategies regarding sexual education.

To this day, many studies about adolescent sexual health focus on pregnancy and STD rates as opposed to the causal determinants and sexual health education. However, one of the recent studies that closely relates to this research study is titled “Contraceptive use among adolescents at public schools in Bahia”, a study performed in 2003 within MUSA at the Federal University of Bahia. Out of the 5,512 participants, the study discovered that male adolescents began having sex at 13 years and females began having sex at 15 years (Almeida 569). Additionally, the most common reason for not using a condom in the past six months amongst male and female participants of the study was because the individual was not expecting to have sex at that time. Second, was the belief that the contraceptive would hinder sexual relations (Almeida 570). Additionally, the study found that the reason males did use contraceptive the first time was an older age, higher education level, a close relationship with parents about sexual health and contraceptives, and a stable partner. For women, the use of contraceptives the first time is positively related with starting having sex later and to have a parent as their information

source about sexual health and contraceptives (Almeida 571). This study illustrates that the family proves to be a very important source of sexual education that increases contraceptive use and promotes healthy sexual behavior.

Most researchers of this topic agree that effective sexual education is the most important determinant of healthy sexual behavior and contraceptive use. In regards to this study, it is important to first define adolescence in relation to sexual behavior. According to the National Association of Social Workers in the United States in an article titled, “Parents, Peers, and Pressures: Identifying the Influences on Responsible Sexual Decision-Making”, “Adolescence signifies the onset of physical/sexual maturation and reproductive capacity”. Additionally, “Sexual health is an essential part of good overall health and well-being. Sexuality is a part of human life and human development. Good sexual health implies not only the absence of disease, but the ability to understand and weigh the risks, responsibilities, outcomes, and impacts of sexual actions, to be knowledgeable of and comfortable with one's body, and to be free from exploitation and coercion. Whereas good sexual health is significant across the life span, it is critical in adolescent health”. These terms will be used when discussing the research that will be performed.

The same article also stresses the importance of educating adolescences about sex and acknowledges the problematic consequences if it is ignored. The article states that “young people have a need and a right to know about their bodies and to be educated and informed about their sexual health, yet they face many social, political, and community barriers to receiving and gaining access to the right information. Sex is often a challenging and difficult issue for both youths and adults to discuss. The consequences of not talking about sex, however, can be severe” (National Association of Social Workers).

Sexual education for adolescents is means to empowerment and better health. Sexual health education has been linked to the reduction of adolescent pregnancy, STDs such as HIV/AIDs, and sexual abuse and violence (Pan American Health Organization, 2010). Sexual education is a right under the Convention on the Rights of the Child which was ratified by Brazil on September 2, 1990. Article 24 details that parents, schools and communities play fundamental roles in this process and are required to provide direction and guidance to youth to exercise their rights (Pan American Health Organization, 2010). Additionally, Articles 3, 7 and 24 mentions that adolescents have the right to access sexual and reproductive information, including

information about family planning and contraceptives, the dangers of early pregnancy, and prevention of STIs (Pan American Health Organization, 2010). Despite the acknowledgement of these rights, sexual health education in practice meets much resistance and is poorly implemented.

In Brazil, sexual education programs for adolescents started to be implemented at the beginning of the last century. Starting in the late 1980s, the majority of Brazilian sex education took the stance that sexuality is positive and healthy, other than a few religion related programs (Andrade 1168). Only in 1998 did sex education begin to be implemented in the Brazilian national school curriculum and in 2003 a program by the National STD and AIDs Program started. This program made condoms available in public schools, but the implementation of this program and sex education in general was extremely limited (Andrade 1169). A 2005 census showed that only 60% of Brazilian schools had STD/AIDS prevention programs and only 9% offered condoms to students. Those that did have programs lacked monitoring and evaluation of their effectiveness and positive change (Andrade 1169). These findings reported illustrate that initiatives may be created but there is a lack of implementation and monitoring to produce the wanted results in adolescent sexual behavior and contraceptive use.

The Brazilian Ministry of Health has implemented a plan under the Programa de Saúde da Família called the Programa de Saúde na Escola (PSE) which has taken actions within the area of adolescent health. The PSE was established by Presidential Decree NO. 6.286/2007 and is a policy under the domain of the Ministries of Health and Education created to provide comprehensive care, “prevention, promotion, and attention”, to children and adolescents in schools in an integrated manner” (Ministry of Health, 2007). The Ministry of Health claims that the PSE is more than a strategy but embodies a comprehensive policy on health education that: “deals with health and education in full and as part of a broad education for citizenship and the full enjoyment of human rights; allows the progressive enlargement of the actions taken by health care and education with a view to comprehensive health care for children, adolescents and youth and health education, promoting the coordination of knowledge, the participation of students, parents, school community and society in general construction and social control policy” (Ministry of Health).

Amongst these actions are the implementations of the National Guidelines for Comprehensive Health Care for Adolescents and Youth, the Handbook of Healthy Adolescents,

and the National Action Plan for Comprehensive Health Care for Adolescents and Youth. The Ministry of Health website notes that “with the population well informed, you can reduce the incidence of disease, improve health surveillance and thus contribute to improving the quality of life of 54 million Brazilian citizens aged 10 and 24 years” (Ministry of Health). The Ministry of Health website details that by 2011 approximately 26 million Brazilian students will have comprehensive health care through the PSE. An updated number has not been found as well as the number of schools that have the PSE program.

The Ministry of Health has provided statistics that illustrate that the implementation of their program has been crucial in raising awareness about sexual and reproductive health. The Ministry of Health notes that 76% of students who were sexually active used a condom during their last intercourse. Young people have free access to condoms and other contraceptives at clinics and in public schools. According to the Ministry, more than 700 million condoms were distributed to the entire population in 2008 and 2009. However, is this actually the reality in schools where there no sexual education program has been implemented?

In addition to the sexual education provided by the federal government, in 1996, the State Secretary of Education of Bahia started a program called Sexual and Reproductive Health in Adolescents in public schools in attempt to integrate educative action and sexual education together (Almeida 568). However, there were no traces of this program at the school where this study was performed and those who had worked their long enough had not seen any sort of government sexual education program (Janeide Nicassio). These findings are concordant with the reality that “although the inclusion of sex education in school has become an official policy of the Federal Government [and Bahian State government] the implementation of such policies depends on the municipal and state governments and has lagged well behind expectations, as in practically every other developing country” (Andrade 1174). The article states that the reasons for the lack of policy implementation is that policymakers are not convinced of the effectiveness of sexual education and are “concerned with opposition groups, which claim that sex education may stimulate premature sexual debut and sexual promiscuity among adolescents” (Andrade 1175). Sadly, this is the reality in Salvador, Brazil.

In addition to public health education in schools, the media plays a large and varied role in sexual health education from explicit music, provocative television displaying causal sex, to Ministry of Health condom campaigns. For example, the Ministry of Health publishes annual

media campaigns during Carnival focused on youth ages 15 to 24. The 2011 campaign had two phases and focused on the importance of the use of the condom. The first phase was that each person should come prepared to the party with their condom at hand. After Carnival, the second phase focused on those who had unprotected sex and that they should have an HIV test (Ministry of Health, 2011). Studies in Brazil have also illustrated the negative role that media plays on sexual behavior and health. A study regarding sexual initiation and contraceptive use in Northeastern Brazil found that “greater frequency of attending religious services and greater exposure to television are also associated with lower rates of sexual initiation and higher use of contraceptives” (Gupta 228). However, results from the Demographic and Health Surveys (DHS) show adolescent sexual activity has increased by more than 50% during 1986 and 1996. The study attributes the exposure to mass media and the declining influence of the Catholic Church to this increase of sexual activity (Gupta 228). The role of the media as a determinant on contraceptive use is complex and has yet to be clearly defined.

Definition of Terms

Contraceptive: A device or drug serving to prevent pregnancy and /or the spread of sexually transmitted disease.

Adolescent: Brazil and the Ministry of Health’s Adolescent Health Program adopted the World Health Organization’s definition of an adolescent as an individual between the ages of 10 to 19 years of age (Almeida 567). The adolescents in this study are 15 to 19 years of age.

Sexual Health: “Good sexual health implies not only the absence of disease, but the ability to understand and weigh the risks, responsibilities, outcomes, and impacts of sexual actions, to be knowledgeable of and comfortable with one's body, and to be free from exploitation and coercion. Whereas good sexual health is significant across the life span, it is critical in adolescent health” (National Association of Social Workers).

Safe Sex: Consensual sex with a contraceptive method and/or a condom.

Sexual Behavior: A person’s practices regarding all aspects of sexual activity.

Sexual Education: Education that pertains to topics of human sexual behavior such as human sexual anatomy, sexual reproduction, sexual intercourse, reproductive health, relationships, and contraceptives.

Colegio: Secondary School

Ensino Fundamental II: Middle School (Grades 5 through 8)

Ensino Medio: High School (Grades 1 through 3) Final level of secondary schooling.

Gravidez: Pregnancy

DST: STD (Sexually Transmitted Disease)

Nenhum: None

Riscos: Risk of not using contraceptives during sexual intercourse.

Director and Vice-Director: Principal and Vice-Principal

N/A: Informants who reported that they are not sexually active appear on graphs as N/A or appear as N/A if they have not answered the question.

Significance of Research

This research is significant because very few studies in Brazil have been performed that pertain to the determinants of the use of contraceptive methods and sexual behavior (Almeida 567). This justifies studies about contraceptive methods and influences of contraception. This research coincides with the increased interest in the research of the contraceptive use of Brazilian adolescents which has been growing due to the fact that since 1980, in all of the regions of the country, there are decreasing fertility levels, except amongst this age group (Almeida 567). Similar to the study performed at MUSA-UFBA, the results of this study are useful in proving that implementing sex education in schools and opening dialogues with parents produces very positive returns in the sexual health of adolescents. Additionally this research is significant because positive association with sex education can be helpful in overcoming resistance to the widespread realization of sex education in the school system.

Sexual health education amongst adolescents is an important topic to research being that health education is a source of empowerment for a young individual. “Formal sexual health education for adolescents has been influenced by changing government policies and by public opinion. The degree of success of these programs in promoting behavioral changes varies from one to another, but overall they result in the adoption of safer sexual practices by youth” (Andrade 1168). Adolescents who have received some form of sexual health education lead healthier sexual lives and take fewer sexual risks. More specifically, sexual health education programs have been linked to the reduction of unprotected sex amongst adolescents. The examination of topics on sexual health education will lead to discoveries that can further improve sexual health education programs.

With respect to this study, investigating different sources of sexual health education and their impact on contraceptive use will allow for a better understanding of what is affecting contraceptive use in amongst adolescents in Salvador and what knowledge they are gaining from each source. This project exposes conflicts and gaps in sexual health education pertaining to contraceptive education and shows where improvements and change must be made. This research is noteworthy because be made to create a more comprehensive sexual health education system which accounts for all sources of sexual education in the life of a young person.

Personal and Professional Motives of Research

My major, Latin American Studies, at the University of North Carolina at Chapel Hill provides the foundation for my motivation behind me being in Brazil and this research topic. I did this project because I am interested in education systems and education. These interests stem from my background as a swimming instructor, English as a second language volunteer within the Chapel Hill and Carrboro City Schools, and experience volunteering with youth in Panama and Bolivia. Before arriving to Brazil, I was beginning to consider a career as teacher. Being that education is a passion of mine and a possible career opportunity I knew that I would be happiest researching within this theme. As the project progressed I am beginning to consider a career in public health education. This project has led me into a possible new direction in my future and what I want to study after college. I believe that I work very well with adolescents and wanted to continue my work in this field. I have a strong faith in education and its ability to promote very successful lives. Until this research, I had never studied sexual health education and I find it to be very relevant, important, and fascinating, especially in a new culture.

Assumptions

This research project process was based on several assumptions that became clear during the research process. The most noteworthy assumption was that schools in Salvador would have some form of a health education program in their schools. The Brazilian Ministry of Health website provides information on a program that has been implemented throughout Brazil called the Programa de Saúde na Escola which is a government school health program part of the Programa de Saúde na Família that covers topics such as sexual health (Ministry of Health). During the research study it became evident that this is not the case. Colégio Azevedo Fernandes has never had a formal health class or program and the administration is not even aware of the Programa de Saúde na Escola. The biology teacher at Colégio Azevêdo Fernandes, Janeide

Nicassio, who has been teaching for 20 years, commented that the implementation of a formal sexual health or health program has never been attempted by the government. Janeide's account, along with interviews with the administrators and findings at the school, contradict the presence and success of the Programa de Saúde na Escola displayed on the website (Ministry of Health).

The next assumption was that the secondary school system in Brazil is very similar to that in the United States. This proved to be false. This study was founded on the assumption that students who were enrolled in school attended school but the lack of attendance at Colégio Azevêdo Fernandes is evident. Of the 1,300 students that are enrolled, very few students frequent. There is also no system to ensure that students attend school. Additionally, many students are held back. Many older students are still in school and students of all ages are spread throughout the grade levels. It was not expected to find students of the age range desired spread amongst so many different years of school. In addition, it was assumed students ages 15 to 18 would understand the vocabulary used on the surveys but some students had difficulty with certain questions or words such as contraceptive, socioeconomic status, and gender. Time was spent clarifying questions with the students.

Methodology

Location of Research

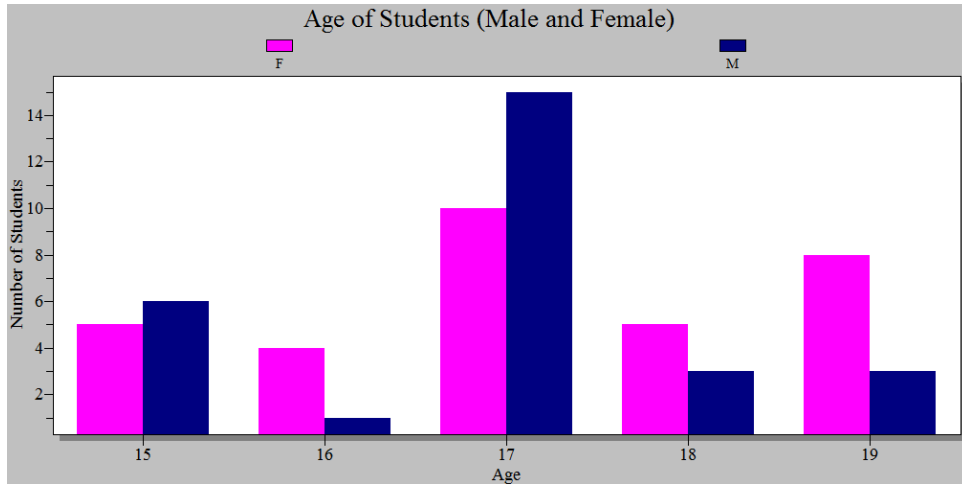
The research study was conducted at Colégio Azevêdo Fernandes in the neighborhood of Pelourinho in Salvador, Bahia, Brazil. Although Pelourinho is the historic center of Salvador and attracts many tourists, those who live there and go to school in the area are of a lower socioeconomic standing (Maria Célia Sampaio). The population of Salvador is approximately 3.7 million (IBGE, 2008). Colégio Azevêdo Fernandes is divided into two campuses, both within the heart of the historic Pelourinho district. The director of the school, Maria Célia Sampaio, directs both campuses, while there is a vice director at each site for each session. The school has a morning session, afternoon session, and night session. Research was performed during the morning and afternoon sessions. Azevêdo Fernandes is made up of two different “graus”, or schooling levels: Ensino Fundamental II and Ensino Medio. The upper campus where the director has her office is the Ensino Fundamental II, comprised of students in the 5th through 8th year. The other site is the Ensino Medio, the higher level of secondary education, made up of students from the 1st through 3rd. Physically, both school sites have a very prison-like feel, are bare and are run-down. There are guards at each metal door that lock students and faculty in and out of the building as well as different sections of the school. Once again, it is important to note that there is no formal sexual education program or health program for students at Colégio Azevêdo Fernandes.

Subjects of the Research

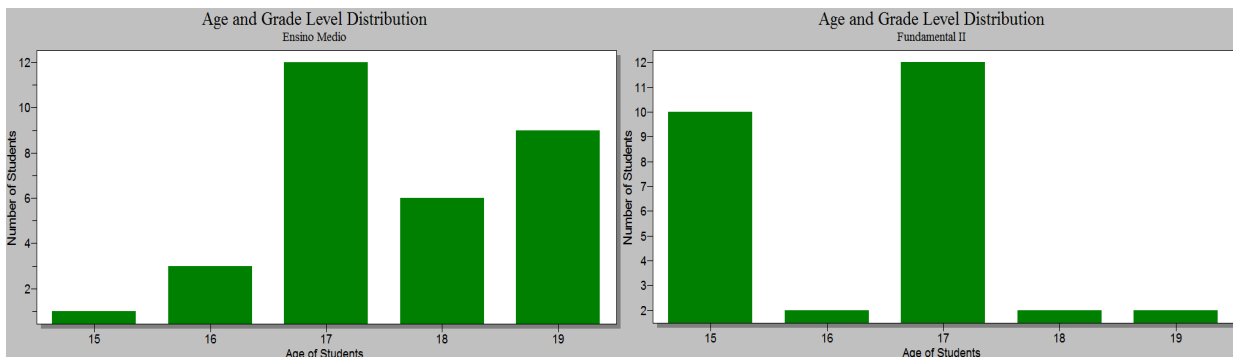
There are 1,300 students enrolled in all three sessions of school at Colégio Azevêdo Fernandes (Maria Célia Sampaio). However, most of the students do not frequent the school. According to the 2010 INEP Survey, the average class size at Colégio Azevêdo Fernandes is as follows: 34 students in 5th, 22.5 in 6th, 21 in 7th, 20 in 8th, 31 in 1st, 23 in 2nd, and 20 in 3rd. There are approximately 188 students in Ensino Fundamental II and 74 students in the Ensino Medio (INEP 2010). The student population at Colegio Azevedo Fernandez is predominantly black and of the low socioeconomic standing (Maria Célia Sampaio).

The subjects for this study were chosen from the Ensino Fundamental II and the Ensino Medio at Colegio Azevedo Fernandez, excluding the four interview subjects who work at the school. The adolescent subjects were: a) students at Colégio Azevêdo Fernandes in Ensino Fundamental II or Ensino Medio, b) 15-19 years of age, and c) agreed to participate in the

research. Sixty students participated in the study by completing the questionnaire. Of those sixty students 32 are women and 28 are men (Graph 1). Additionally, of the study population, 31 students are in the Ensino Medio and 29 students are in Ensino Fundamental II (Graphs 2 & 3). In regards to race, 61.7% of the participants reported negro, 35% *pardo* or *mulatto*, and 3.3% reported white.



Graph 1



Graph 2

Graph 3

The interview subjects were chosen from the faculty and administration of the school and agreed to participate in the research. The subjects of the interviews were: a) Maria Célia Sampaio- Director of the school, b) Eliana- Vice Director of Ensino Medio in the mornings, c) Augusto Sampaio- Vice Director of Ensino Fundamental in the mornings, and d) Janeide Nicaso- Biology teacher for Ensino Medio. Maria Célia Sampaio has been the Director at Colégio Azevêdo Fernandes for 4 years but has 30 years of experience in the education system. Eliana has been working at Colegio Azvedo Fernandes for 1 year and has worked in the education system for 14 years. Augusto, who also teaches history at during the night session, has worked at

in the education system and at the Colegio for 12 years. Janeide has worked in the education system for more than 20 years and has worked at Colégio Azevêdo Fernandes for more than 15 years.

Data Collection: Questionnaires and Interviews

The methodology used for data collection was both quantitative and qualitative. A questionnaire with 17 questions administered to the students determined both quantitative and qualitative data pertaining to the adolescent student. A formal interview with the faculty member provided qualitative information.

Questionnaires

Questionnaires were administered to students ages 15 to 19 within classrooms at Colégio Azevêdo Fernandes under the supervision of a faculty member. The classrooms accessed and when they were accessed was random and depended on the availability of the students and teachers. As a result, it was not possible to control the number of students of a certain age, sex or grade level in the sample size. The questionnaire process took about twenty to thirty minutes for each group. Questionnaires were administered at both school sites, Ensino Fundamental II and Ensino Medio, depending on feasibility of classroom access. Sixty questionnaires and nine erred questionnaires were completed over the course of ten days.

The questionnaire was devised to answer the main question of the study by providing quantitative and qualitative data. A copy of the original questionnaire is in the appendix of this monograph. Questions pertained to socio-demographic factors, indicators of sexual behavior and contraceptive use, and questions regarding each source of sexual education. The questionnaire allowed for comparisons to be made between the sources of sexual education and the indicators of sexual behavior and contraceptive use. Questions were left open ended and participants were able to provide their own answers.

Interviews

Four fifteen minute interviews were completed in one morning at Colégio Azevedo Fernandes. The interviews were scheduled ahead of time. Each interview was recorded with permission. Each informant signed the terms of consent and gave consent for their names to be disclosed. The interview questions are in the appendix of this monograph.

Data Analysis Procedures

Each day I went to the school to perform primary research, I returned home with the completed questionnaires filled out by the students at Colegio Azevedo Fernandes and input the qualitative data into an Excel spreadsheet. Being that some information was more qualitative, I chose not to include it in the spreadsheet and created several categories that I wanted to include. I focused more on the questions that resulted in qualitative answers that would yield more statistical trends. Being that there are no names on the surveys, I gave each survey an ID Number so that I could track the information back to the survey. After all 60 surveys were completed and the information was organized into Excel, I began looking for trends in the data that would answer my question. My research question was defined as what sexual education sources influence sexual behavior and contraceptive use of students and how, so I focused on comparing each source of sexual education to different indicators of sexual behavior and contraceptive use. I started out with the most basic percentages and then worked my way to comparing several categories or columns at a time. In order to do more data analysis, I transferred over the qualitative data onto a program called Epi Info. I used Epi Info to create graphs and tables with the data to highlight important findings and trends. I chose to leave my data in the form of percentages, bar graphs and pie charts depending on what illustrated the findings best. I also used Epi Info to find the p-values to find significant connections between sexual behavior and sources of sexual education.

The data analysis for the qualitative data received differed from the analysis procedures of the quantitative data. After I extracted and analyzed the quantitative data from the student questionnaires, I began reviewing the more qualitative information that students included with the more open ended questions. For each question I took notes and grouped together similar answers to understand trends. I focused on what information students learned from each source of sexual education to bolster the quantitative results.

After I performed and recorded the four interviews with the faculty and administration at Colégio Azevêdo Fernandes, I returned home and listened to each interview once. After, I listened to the interviews one at a time and took notes on the responses for each interview question. I focused on the information pertinent to my research question and what would support my findings gathered from the questionnaires.

Limitations of Research

This research project was marked by a large number of limiting factors that had to be adapted to and worked around. The limitations of the research and those encountered during the researched shaped the methodology. The most crucial limitation to note is time. The independent study project must be begun and completed in one month's time. As a result, I had to gain approval at a school quickly, could only perform research at one school, and the sample size had to remain small. Getting approval to research at the school proved to be more difficult and time consuming than anticipated. After choosing Colégio Azevêdo Fernandes, I made many attempts to meet with the Director of the school who was very busy taking care of other important matters. It took about one and a half weeks of trying to gain official approval before I was allowed to begin research. Due to the fact that the amount of time limited my research to one school, the findings cannot be representative of Salvador or Brazil. The results are only representative for the Colégio Azevêdo Fernandes and perhaps schools who have a very similar profile.

With regards to limitations involving the research subjects, I found that many students at the school are above 18 which made it more difficult to stay within my original 15-18 year old sample group. The large age range of students and the lack of attendance at the school made it so that I had to change the number of questionnaires from 75 to 60. I decided to include 19 year olds and make the age group 15-19 so that I could get the 60. I encountered unclear school schedules, class times, and two bus strikes during my time period of data collection resulting in a limited number of students and time with students to fill out the questionnaires. I found that student interviews were not feasible due to the lack of time available with students and a lack of student desire to do an interview with me on the same topic. Rather than student interviews, I performed four interviews with faculty and administration.

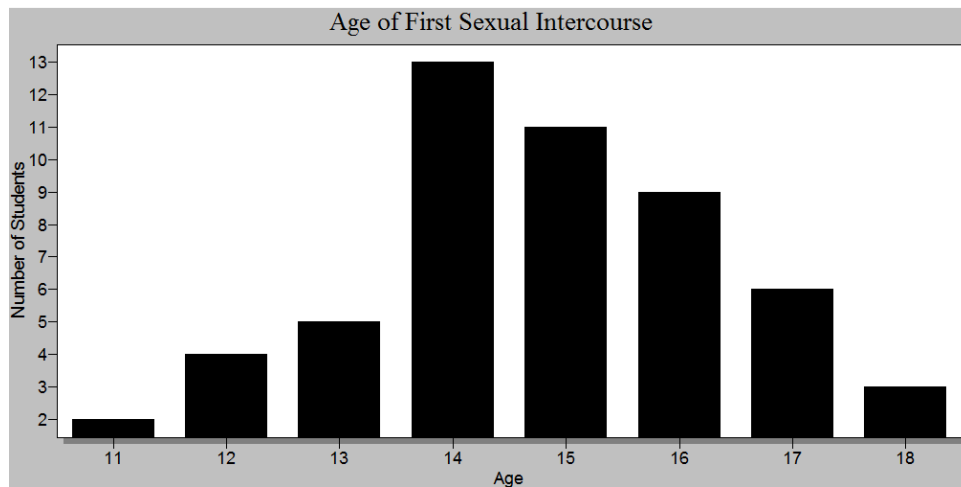
After questionnaires were completed I encountered several limitations regarding the design of my questionnaire. I had to throw out numbers 16 and 17 of my questionnaire due to the fact it was unclear and many students answered it incorrectly. The spaces for students to write their race and class were too open of a question and the results only illustrate what the students think about their race and class as opposed to what it accurately is. I should have given options as opposed to an open space. I will always have to keep in mind that they might not be telling the truth on the questionnaire because it is a naturally uncomfortable subject. I also had to answer

questions to clarify vocabulary and wording for certain questions during the time I spent in the classroom as students filled out questionnaires.

During my time performing secondary research I found very few secondary sources that were extremely pertinent to my question. I found a lot of research surrounding the same themes but with regards to specific data, it was very difficult, especially data that is from Bahia or Salvador. During the analysis process, the most limiting factor was my lack of experience with statistics and data analysis. I had no problem organizing the information, but the statistical part which included more of a mathematical modeling approach proved difficult and out of my expertise.

Results

Of the sixty adolescents sampled in the study, 88% of the students are sexually active. Of the 32 females, 84% are sexually active and of the 28 males, 92% are sexually active. Five females are not sexually active and two males are not sexually active. Of the population that is not sexually active one person is 15, five are 17, and one is 18 years of age. Of those who have had sex, the average age that females become sexually active is 15.29 years of age. The age of sexually initiation for men is significantly lower, 14.19 years of age. Graph 4 shows the age at which adolescents became sexually active.

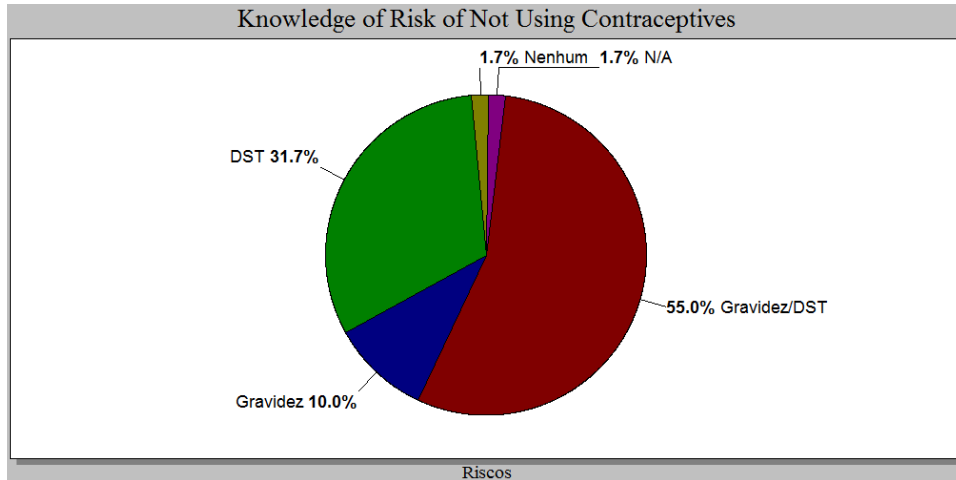


Graph 4

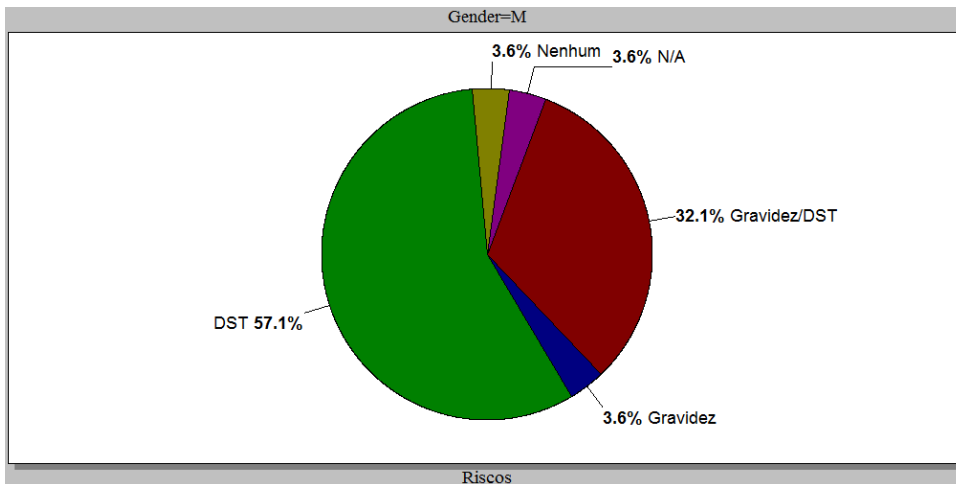
Of the sexually active population, 54% used a condom the first time they had sex: 55% of the females and 53% of the males. Additionally, 53% of the sexually active females and 64% of the sexually active men have had sex without using a contraceptive method. Several themes appeared regarding the reason that contraceptives were not used amongst the population that has had sex without a contraceptive. Adolescents listed that they did not have a contraceptive with them at the time, they were not prepared, they were not thinking, they didn't know how to get them, they were not expecting to have sex, and they felt that it hinders the sexual pleasure and experience.

All students but two reported at least one risk associated with not using a contraceptive during sex. The majority of adolescents (55%) listed both STDs and pregnancy. Males are more likely to list only STDs as the risk whereas women are more likely to put STDs and pregnancy as risks of having sex with a contraceptive method. Additionally, the two people that listed no risk are males. A small percentage of people only listed pregnancy (10%). Of those that listed STDs,

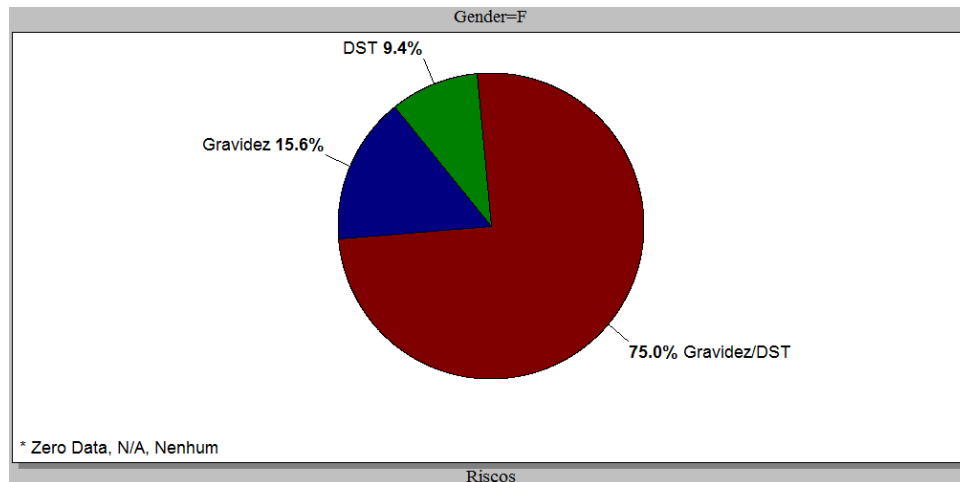
the majority wrote HIV or AIDS as the example or only wrote HIV/AIDS. Many students wrote “pegar doença” meaning get a sickness as opposed to writing STDs. Graph 5 shows what the study group reported when asked the risks of not using contraceptives during sex. Graph 6 shows male answers and graph 7 shows female answers.



Graph 5



Graph 6



Graph 7

The adolescents were asked to list where they learned about contraceptive use and sexual health. Some students put only one source of sexual education and others listed several. School was listed 38 times, family was listed 20 times, friends were listed 21 times, the media was listed 15 times and the health post or doctor was listed 9 times.

P-Values of Risk Factors

The following table represents the probability values (P-values) of each source of sexual education's influence on the three indicators of sexual behavior and contraceptive use: age of first sexual intercourse, contraceptive use during first sexual intercourse, and ever not used a contraceptive during intercourse. The smaller the p-value is, the higher the probability that the risk factor, or source of sexual education, has an effect on the indicator of sexual behavior and contraceptive use. A p-value of below .05 illustrates a statistically significant correlation.

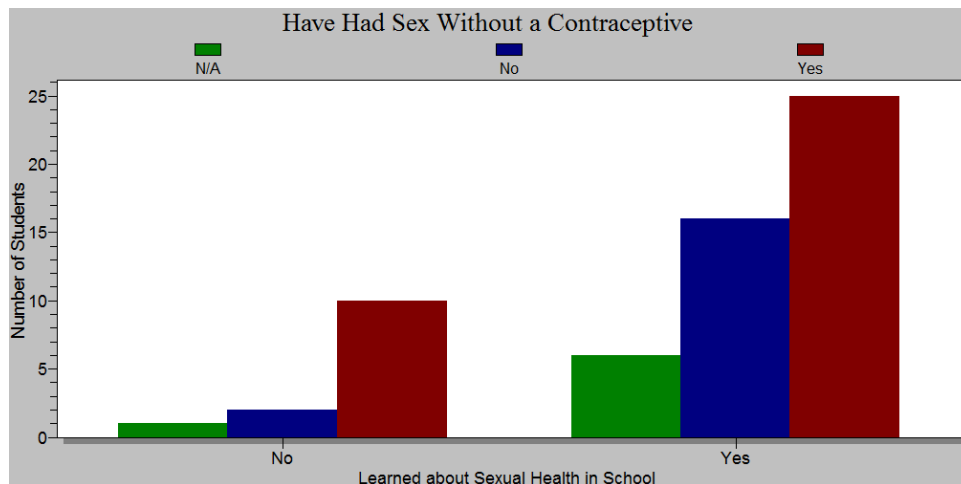
| Risk Factor | Age of First Sexual Intercourse | Contraceptive Use During First Sexual Intercourse | Ever not Used a Contraceptive During Sexual Intercourse |
|--------------------|--|--|--|
| School | 0.8243 | 0.508 | 0.3028 |
| Media | 0.1714 | 0.2279 | 0.2255 |
| Family | 0.9487 | 0.0033 | 0.1396 |
| Friends | 0.2983 | 0.1452 | 0.079 |

School Education

Being that there is no formal sexual education offered at it is interesting that only 21% reported that they did not learn about sexual health and contraceptive use at school. Of the 79%

that reported that they have learned about sexual health and contraceptive use, 100% agree with what they have learned. Students reported that the sexual education they have received in school has stressed prevention, protection and education about the risks of not using contraceptives such as STDs and pregnancy.

Although 79% of the adolescents who participated reported that they learn about sexual health and contraceptive use in school, there is little evidence that it actually affects adolescent contraceptive use in practice. Graph 8 illustrates that those who report that they have learned about sexual health in school and those who report that they have not, do not actually differ when it comes to contraceptive use. Both groups have a majority of individuals that have had sex without the use of a contraceptive.



Graph 8

Of the students who reported they did not learn about sexual health from school, 38.4% did not use a contraceptive the first time that they had sex whereas 51% of students who did report learning about sexual health from school didn't use a condom the first time that they had sex. 76.9% of students who didn't learn from school about sex have had sex without a condom and 53.1% of students who did report learning from school have had sex without a condom. Those who report that they learned about sexual health in school started having sex at the average age of 14.8 whereas those who did not learn about sex in school, or feel as if they did not, begun having sex at the average age of 14.5 years.

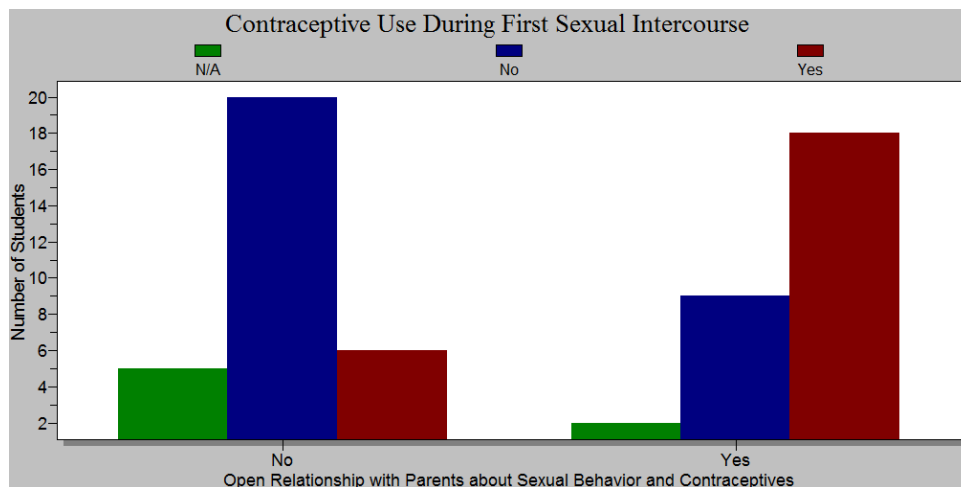
It is difficult to discern connections between level of schooling and sexual behavior due to the fact that the number of students sampled from each age group were not the same at each grade level. Of the 32 students who are in Fundamental II, the lower education, the average age

of beginning sexually activity is 14.3 years whereas those students who have received more schooling, the average age is 15.1 years. It is unknown whether the .8 year age difference is due to a higher level of education or because younger students make up the Ensino Fundamental II.

Family and Parents

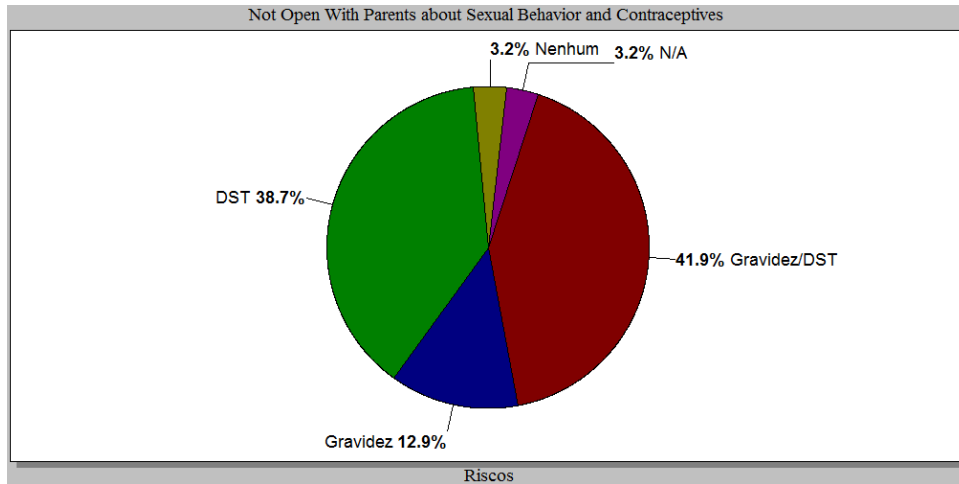
When asked what the study participants have learned from their family about sex and contraceptives, only 21% listed that they had not learned anything from their parents. Of the 79% who listed that they have learned from their family, 100% listed that their parents stressed using contraceptives. 51.6% of the adolescents sampled reported that they are not open and speak with family members about sex, sexual behavior, or contraceptive use. Of the group that does is not open and/or speak with their parents about these topics, 43.7% are females and 60.7% are males. In respect to age of sexual initiation, there is little difference between those that are open and/or speak with their family members about sexual health and contraceptives and those who do not. The average age of sexual initiation for those who have an open relationship with family members on this topic is 14.81 years of age whereas those who do not it is 14.69 years of age.

The most notable finding is that those who are not open with their parents or family members about sex, sexual health and contraceptive use are 2.06 times more likely not to use a contraceptive the first time that they have sex (64%). However, 51.7% of adolescents that are open with their parents about sexual health and use of contraceptives have had sex without a contraceptive. This number still remains lower than the number of students that are not open with their parents. This relationship is illustrated in graph 9.

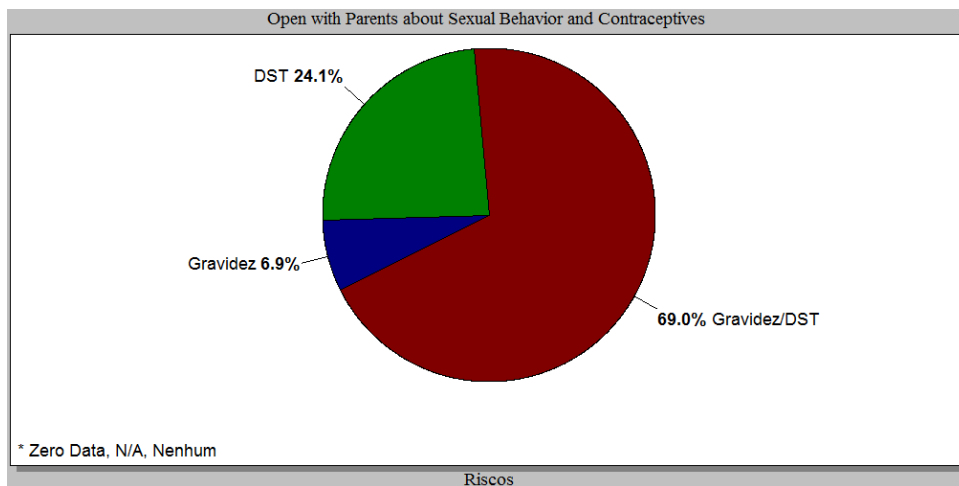


Graph 9

Additionally, those who have are open with their parents about sexual behavior are more likely to list both pregnancy and STDs as risks of not using contraceptives during sexual intercourse. This is shown in the following graphs 10 and 11.



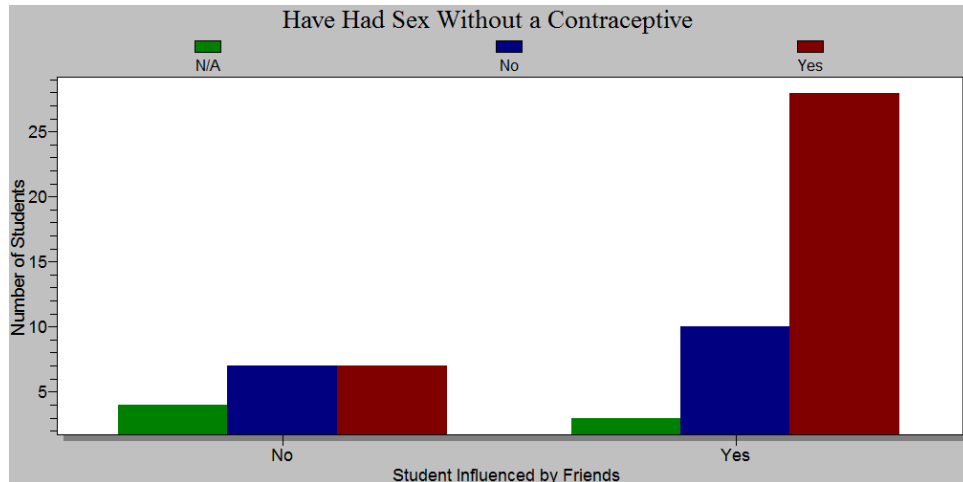
Graph 10



Graph 11

Friends

Of the adolescents who participated in the study, 30% reported that their sexual behavior is not influenced by their friends. Of the population of students that does not feel influenced by their friends, 34% are females and 25% are males. Graph 12 illustrates that of the students whose sexual behavior and use of contraceptives are influenced by their friends, it is significantly more common to have had sex without a contraceptive. However, of those students who feel that they have not been influenced by their friends, there are an equal number of individuals who have never had sex without a contraceptive and those who have had sex without a contraceptive.

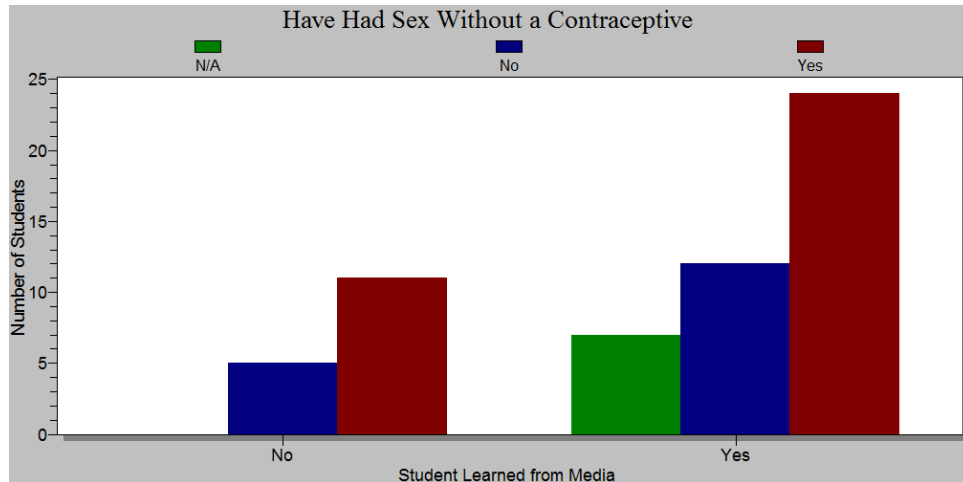


Graph 13

Forty-eight participants listed what their friends think about the use of contraceptives. Of that population, 62% of the adolescents' friends promote the use of contraceptives and speak positively about them. More notably, 83.3% of the adolescents whose friends promote contraceptive use and safe sex reported that their sexual behavior and use of contraceptives is influenced by their friends. Of those who believe that their friends promote contraceptive use, 50% did not use a contraceptive the first time they had sex. 55.5% of those whose friends do not promote contraceptive use did not use a contraceptive the first time they had sex. Although difference is only 5.5% between groups, friend promotion of contraceptives appears to be a slight positive determinant of contraceptive use.

The Media

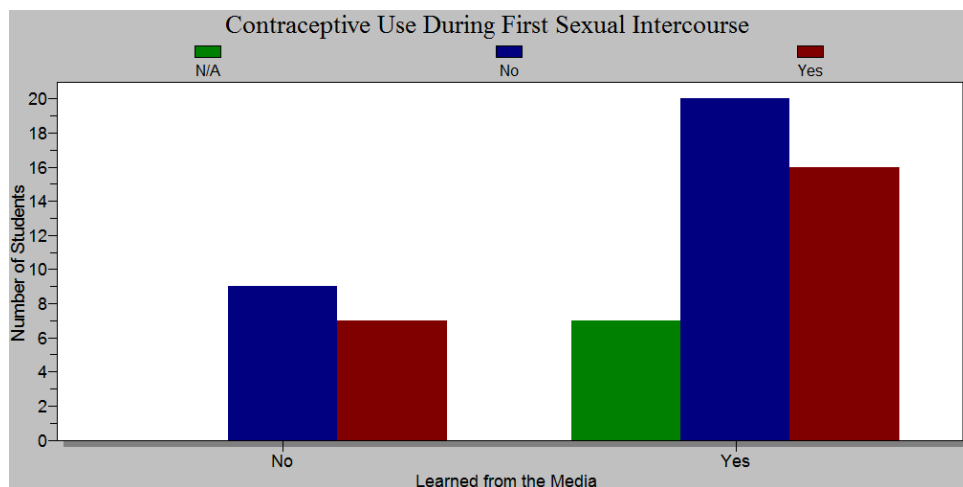
When asked what they have learned from the media about sex, 26.6% of the study participants reported that they did not learn about sex from the media. Of this group that has not learned about sex from the media, 25% and 28.5% of the male. Males report to learn slightly more from the media than women.



Graph 14

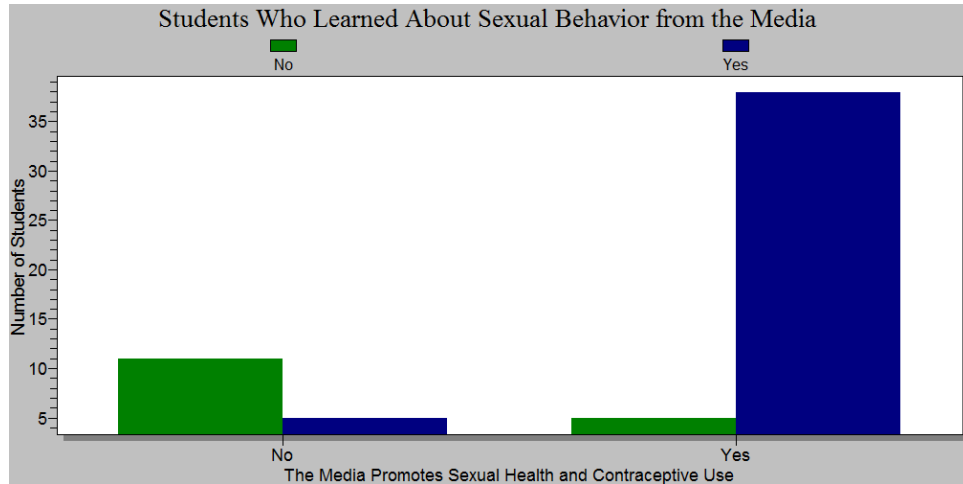
Graph 14 illustrates the way that student beliefs about learning about sex from the media do not actually affect their likelihood to use a contraceptive. There are relative percentages in both groups (have and have not learned from the media) that have had sex without a contraceptive. Interestingly, all of those who are not sexually active have learned about sex from the media.

The graph below illustrates a similar point to the graph above. There are a relatively equal number of adolescents who did not use a contraceptive the first time that they had sex that do believe that learned about sex from the media and that do not believe that they learned about sex from the media. These findings illustrate that adolescent beliefs about learning from the media about sex have little influence on their contraceptive use.



Graph 15

Of the adolescents who participated in the study, 26.6% do not believe that the media influences their sexual health or promotes contraceptive use and safe sex. Notably, 73.3% of adolescents feel the opposite about the media. Only 31.2% of those who feel that the media does not promote safe sex report learning about sex from the media whereas 65% who feel that the media promotes safe sex report learning about sex from the media. This is illustrated by graph 16.



Graph 16

Graph 16 shows the relationship between those who have learned about sexual behavior and sex from the media and those who feel that it promotes sexual health and contraceptive use. Although the majority of the sample population reported that they learned about sexual behavior from media that promotes sexual health and contraceptive use there are no major differences in contraceptive use. It remains significant that those who did not learn from the media believe that it does not promote sexual health and that those who do believe it promotes sexual health feel that they have learned about sexual behavior from it.

Interviews with Administration and Faculty

The four interviews performed provided very interesting insight on adolescent sexual education at Colégio Azevêdo Fernandes from the perspective of the educators. All interviewees responded that there is no formal sexual education course, class or program at the school. However, all interviewees reported that they partake in the sexual education of the students in some form. The director of the school, Maria Célia Sampaio, indirectly participates in the sexual education of students. She has supported a program at the school called “Mais Educacao” that promotes health within the school. She has also invited students from the Federal University of Bahia to come and talk to students about health and promoted science fairs where students have

been exposed to sexual education. Vice Directors Augusto and Eliana directly, yet informally, take opportunities to discuss sexual health, contraceptive use, and sexual behavior with students when they see fit. Both mentioned that when they see risk situations, as they described it, they take the opportunity to give a lesson or have a chat. Eliana also described that she has supported occasional visits from health workers to come to the school but that they have been irregular and of poor quality. The director of the school and the two vice-directors all agreed that the little sexual education that occurs at the school happens in the science classes, more specifically the biology class but it remains informal, unregulated, and not required.

Janeide Nicassio plays the largest role in the sexual education of students at Colégio Azevêdo Fernandes. She is the biology teacher of Ensino Medio and has been working there for almost 20 years. Due to the lack of a formal sexual education or health program, she takes the sexual education of students into her own hands. Janeide devotes time in her biology course to discuss sexual health and sexual behavior with students and promotes contraceptive use. When she is teaching on a topic related to sexual health she notes that she always takes time to bring it up. She gave the example of when she discusses reproduction she speaks about human reproduction and important matters related to sexual behavior and sexual health. Another example is that when she discusses microorganisms like bacteria she gives a lesson on STDs. Additionally, when she finds something pertinent from the media she likes to bring it in and share it with her science classes. Janeide still believes that what she is doing is not sufficient and that there should be a formal health or sexual health course at Colégio Azevêdo Fernandes to actually produce positive results.

All four interviewees agree that the primary source of sexual education should be the family and more specifically the parents. Each interviewer discussed that sexual education must start at home. However, all interviewees noted that parents rarely talk to their children. The larger problem, according to the interviewees, is that parents are not educated themselves about sexual behavior and sexual health which prevents them from properly informing their children or even opening up the conversation to begin with. Due to the fact that parents are not educating their children, the interviewers stated, in agreement, that the role of the sexual health educator falls on the school. Janeide noted that if adolescents start to be educated about sexual health in school now, that when they are parents they will be well informed and able to be open and speak with their children on the matter.

Additionally, all interviewees remarked that they feel that students learn about sex from their friends and that very few learn from their families. Director Maria Célia Sampaio stated that it is not positive when students are learning only from their friends. She believes that if students receive a base of sexual education at home with their families then they can hear things around their friends and not be swayed. She also noted that families are too conservative and are not open with their children. She even has a difficult time speaking with her own children about sexual health and behavior.

All interviewees noted that the biggest issue that has resulted due to lack of sexual education amongst adolescents at Colégio Azevêdo Fernandes is teen pregnancy. There are three students who are pregnant right now and in the past years it is very common to have student that become pregnant.

Several different answers were given when asked about the resistance to sexual education in schools and where it comes from illustrating the many issues that stop the implementation of formalized sexual education in schools. Augusto, the Vice-Director, did bring up an interesting point that many families, especially parents, do not like when others interfere with the sexual education of their children and that the education system in general in Brazil is rather closed off. Janeide noted that the resistance has actually not been seen because there is no formal sexual education program. The director of the school believes that the resistance to sexual education comes from society because society is not oriented to have sexual education in schools. For this reason, there is not a lot of communication happening in the classroom. She stated that if students do not talk then teachers don't know what to say or how to bring it up. Eliani believes that there lacks a government mandated sexual education program for adolescent. She believes that there is too much government resistance. Being that students are so open to learning about sexual health and behavior at school and believe that they do learn about sexual health in school, the resistance must be confronted and formalized sexual education needs to be implemented.

There were mixed responses when interviewees were asked about the level of openness in the relationship between faculty and administration. The Director stated that she was unable to answer the question because she has a more observant and indirect relationship with students. This is very interesting due to the fact that she is the person with the most authority and should be taking initiative to create open paths of communication about sexual health. Eliani is firm in her belief that students are very open with teachers whereas Augusto believes that some are and

some are not. Augusto also noted that teachers and administration generally want to be open and communicate about these topics but they can't answer the questions if the students do not ask. Janeide, believes that students are generally very open with her yet some students play the role of ambassadors to ask questions that timid students cannot. The level of openness with faculty and administration is crucial to the sexual education of adolescents and paths must be opened to further the communication at school. Authority figures at school are in a position where they can make a difference in the sexual health and behavior adolescents and must act accordingly.

Discussion

The results of this study have exposed many noteworthy insights regarding adolescent sexual behavior, knowledge, and the influences of different forms of sexual education on contraceptive use at Colégio Azevêdo Fernandes. The vast majority of adolescents ages 15 to 19 at Colégio Azevêdo Fernandes are sexually active (88%) and become sexually active at an early age (14.19 for males and 15.29 for females) and as a result, sexual education must start young and promote the use of contraceptives and responsible sexual behavior. Unlike the study performed by MUSA-UFBA, this study showed no correlation between a later initiation of sexual activity and contraceptive use (Almeida).

There exist several gender differences pertaining to sexual behavior, sexual knowledge, and contraceptive use. Males become sexually active at an earlier age than females: 14.19 and 15.29 years of age respectively, which is comparable to the results from the study that surveyed multiple schools in Bahia (Almeida). Additionally, males are not as cognizant that pregnancy is a risk of having sex without a contraceptive method. Males focus on STDs as the principle risk of unprotected sex. On the other hand, females are more aware that the risks of not using a contraceptive are both STDs and pregnancy because they are the ones that become pregnant. Sexual education for males should focus on the fact that pregnancy is not only a risk for females because it affects them as well. More males than females have not had sexual intercourse yet. Additionally, more males (64%) than females (53%) have had sex without the use of a contraceptive method. These gender differences should be taken into account when devising effective sexual education methods.

Students in this study are aware of the risks associated with unprotected sex and each student feels that they have had some form of education on sexual health and contraceptive use. These findings are in agreement with the Demography and Health Survey results that conclude that problems related to the sexual health of adolescents are not caused by a lack of knowledge about contraceptive methods or risks of unprotected sex (Almeida 567). Although students are aware of the risks of not using contraceptives during sexual activity, there is an extremely high percentage of sexually active adolescents that have had sex without using a contraceptive. Additionally, more than half (54%) of the sexually active adolescents studied did not use a contraceptive the first time that they had sex. This illustrates that knowing about the risks of unprotected sex is not sufficient sexual education and that there are other determinants of sexual behavior.

Among a sexually active adolescent population contraceptive use is the most crucial way in decreasing pregnancy and STDs in this age group. Due to the poor contraceptive use among adolescents found in this study, it is evident that the stigma behind using contraceptives must be removed. The participants of this study failed to use contraceptives for reasons such as that they weren't thinking at the time, they don't like them, they didn't want to stop the action, and they were unprepared. These reasons for having unprotected sex are preventable. Adolescents need to know where they can obtain contraceptives and feel comfortable to get them so that they are always prepared. Additionally, sexual education should focus on battling the mentality that condoms are "dumb", "stupid", and take the pleasure out of sex, as well as educate adolescents how to use contraceptives and where to get them.

This study found that the most important influence of healthy sexual behavior and contraceptive use amongst adolescents at Colégio Azevêdo Fernandes is sexual education with one's family. Many students in this study have learned something about sexual health from their family which is very positive because the family proves to be a very significant influence of sexual health. It is also positive that each student that reported learning from their family learned about the importance of protected sex. Being that the majority of the students are sexually active and have not used contraceptives it is very important that parents stress protected sexual relations. However, very few students report having a relationship with their parents where they feel that they can be open and talk about these subjects. Students who report having an open relationship and talk with their parents or other family members about sexual health and contraceptive use are two times more likely to use a condom the first time that they have sex. There is a very significant relationship between an adolescents relationship with their parents on matters of sexual health and contraceptives and contraceptive use ($P < .033$). The findings in this study support the findings of the study performed by MUSA at UFBA in Bahia that state that adolescents who have learned about sexual health and contraceptive use from their parents are more likely to use contraceptives (Almeida). Additionally, those who have an open relationship with their parents about sexual health put that risks of unprotected sex are both pregnancy as opposed to STDs, rather than just one.

However, most adolescents in this study report that they do not speak with their family members or have an open relationship with their family members about sexual behavior and contraceptive use. The findings from the interviews show that many family members are not

educated or well informed to speak and educate their children. Family members must be educated about sexual behavior and educating their children. Sexual education at home proves to be the most significant influence on contraceptive use amongst adolescents, yet it is not happening. School faculty and administration feel that sexual education should first begin at home with the family because it is the most effective but also understand that if it does not happen at home it should happen at school.

The role of school as a source of sexual education must be further developed because students believe that they do learn about sexual health and contraceptive use in school and that they agree with what they learn about. Sexual education was listed more times than any other source of sexual education which is very interesting being that there is no formal sexual education program at school and students receive their sexual education sporadically such as in biology class. A formal sexual education program must be set up and strictly enforced by the government. Students feel that they learn about sexual health in school and because of this as a result it is very important to have a very effective program in schools to take advantage of this teaching opportunity. In addition to a formal government sexual education program, condoms should be available for students. These are two government initiatives that are not implemented at Colégio Azevêdo Fernandes. School and faculty administrators are beginning to create an open environment with students but this must continue. There are mixed ideas as to whether or not students feel they can discuss sex with the faculty and administration at their school. This study supports the stance that sexual health education at school is an important place of sexual education and it fosters improved sexual health and contraceptive use amongst adolescents.

The influence of the media as a sexual educator for adolescents is very difficult to determine due to the fact that the media has more of a subconscious effect on adolescents. However, it is significant that the majority of students believe that the media promotes sexual health and that those who believe this are the ones that have learned from the media. Just as significant is that those who do not believe that the media promotes sexual health and contraceptive use do not feel that they have learned about sex from the media. However, analysis did not show a strong connection between learning from the media about sex and contraceptive use, illustrating that the positive message in the media is not affecting adolescent sexual behavior.

Similar to the media, the influence of friend groups must be further examined. However, this study did find, that in general, those who are influenced by their friends are more likely to not

use contraceptives. This leads to thinking that the influence of friends on sexual behavior is negative. This is not congruent with the fact that most individuals reported that their friends promote contraceptive use. This decreased contraceptive use amongst those who are influenced by their friends contradicts the fact that 83% of adolescents who reported that their friends promote contraceptive use report that their sexual behavior is influenced by their friends. Faculty and administrators are aware that friends are not necessarily positive influences on sexual behavior and contraceptive use. As a result, these individuals should work to mitigate this affect and improve sexual education to limit the negative influence of friends. A foundation of sexual education at home and at school must be created so that adolescents are not negatively influenced by the media and friends.

This study shows that schools and families have the most positive influence on adolescents regarding their sexual behavior and contraceptive use. As a result, schools and families must create a unified front to better educate and influence the actions of the adolescent.

Conclusions

This research study examined the influences of different sources of sexual education on the sexual behavior and contraceptive use of adolescents ages 15 to 19 at Colégio Azevêdo Fernandes in Salvador, Brazil. The study performed exposed significant findings regarding adolescent sexual behavior, sexual health knowledge, and contraceptive use. The sexual education of an adolescent does not just come from one source but many sources such as the sexual education in school, family and parents, friends, and the media. This study aimed to understand how each source of sexual education influences adolescent behavior and in what way.

The findings of this study should be used to improve, create and implement more effective sexual health education for adolescents. Sexual education in schools and at home with one's family proved to be the most positive sources of sexual education for adolescents. As a result, formal sexual health programs must be promoted and realized in all schools. Although there exist government programs such as the Programa de Saúde na Escola, they are not implemented in all schools due to societal and governmental resistance. This must meet an end. This study, and many others like it, proves that formalized sexual health education programs in schools are effective and students feel that they do learn about sexual health in school. Students do learn about sexual education in schools and it has positive impacts on their sexual health. Additionally, contraceptive use must be promoted and the stigma attached to contraceptive use, more specifically condoms, must be confronted. Many adolescents are having sexual intercourse without contraceptives for reasons that could easily be prevented if contraceptives became more available and accepted amongst this age group.

The family is the most significant form of sexual education. The family has the power to positively influence the sexual health of the adolescent by increasing s one's knowledge, contraceptive use and healthy sexually behavior. Families must foster open relationships with the adolescent about sexual health and contraceptive use. The reality is that most family members do not speak with their children on matters of sexual health and many are not educated in these matters themselves. Families must become educated and transform into promoters of sexual health. Schools and families need to work together to promote positive sexual behavior amongst adolescents in order to combat the pervasive effects of the media and friend groups. The influence of the media and friend groups must be further researched.

In the future, more studies like this research study should be performed and expanded in order to gain a better understanding of the determinants of contraceptive use and healthy sexual behavior. With this knowledge, adolescents can become empowered and better educated on these topics and have the ability to make positive decisions about their sexual health.

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Applying Acquired Knowledge

Indications for Further Research

While doing this research, I realized that I am only breaking the surface on a topic that must be further researched and exposed. This research project could be expanded and other schools in Salvador or Bahia could participate so that the findings could be more substantial and illustrate what is effective sexual health education. I am very curious to see how these results differ in a private school, a school that has a sexual education program, and a school with a higher socioeconomic standing amongst students. If this study were to be expanded I believe that the questionnaire should be edited and refined so that questions are made clearer, such as race and socio economic level. It would also be interesting to have information about the participant's relationship status as well as if they have ever been a victim of sexual abuse.

Additionally, It would be very interesting perform a comparative study on this topic using the data that I have collected here in Salvador with a high school of a similar profile in the United States. I feel that a comparative study would yield interesting information about the two different cultures and much could be learned about affective sexual health education strategy.

Learning Acquired During ISP Process

The process of the ISP has been much more valuable than the final product itself. One of the most important things I learned is that research is out of the researcher's control many times. I learned that I have to be flexible and adapt because my project was dependent on many other factors. My research relied on other people and their schedules. Many times I could not prepare for or predict what would happen. I also learned how to perform primary research, being that this is my first time doing so. I learned how to create and implement an independent primary research project from beginning to end. This was also my first time working with quantitative data and performing data analysis. I taught myself how to use both Excel and Epi Info computer programs. I feel that I gained time management skills during the ISP process, especially during the ISP month. I learned how to create a balanced schedule and enjoy a process that could be stressful. I also gained insight that learning does not exclusively come from books or a classroom environment, and in many cases experiential learning has more of an impact on me.

Application of ISP Learning Back in your Home Environment

Besides further research that could be done, I feel that my experience during the ISP has pushed me to pursue a future in health education and health policy amongst adolescents and minority populations. I want to return home and continue volunteering as an English as a second language instructor but I am also looking for a way in which I can gain more practical experience doing health education work. I now have a new interest in the sexual health of adolescents and sexual health education so I want to learn what the sexual education is like in my area and see if there is a way in which I can become involved in promoting sexual health education amongst adolescents. I am also looking to participate in more primary research projects in the future that pertain to both public health and education.

Ethical Considerations

Ethical considerations were taken into account at all points of the research study. I devised the age range of the participants in the research study to respect research ethics. Those who are under 15 years of age cannot give their own consent and as a result I did not include those under 15 in my study. No subjects under the age of 15 participated in the research, with the exception of a few 14 year olds who were not aware of the age limit. I threw the questionnaires out and did not include them the study. Before I handed out questionnaires to students I explained who I am, the purpose of the research project, and read the terms of consent aloud. I then stopped to ask if there were concerns or questions and proceeded to answer the questions. I explained that they did not have to write their names and that no information would be disclosed. I made it very clear that their participation was voluntary. I also insisted on a quiet classroom and no sharing of answers amongst the students. During data analysis procedures, I assigned each questionnaire a number to keep confidentiality. But I also kept in mind at all times that the questionnaires are the answers of human subjects.

For the interviews that I performed, I explained who I was, my research and the purpose of the interview. All interview participants read and signed the terms of consent and all interviewees gave verbal consent for their names to be disclosed in the monograph.

I kept the Director of Colégio Azevêdo Fernandes well informed on my research. Before beginning, I gave Director Maria Célia Sampaio a copy of my project proposal, all consent forms, and the questionnaire so that my project could be approved by her. I kept her regularly updated about the status of my research and the progress I was making.

Appendix

Informed Consent Forms



TERMOS DE CONSENTIMENTO (QUESTIONARIO DEMOGRAFICO)

Considero-me devidamente esclarecido pela estudante. Compreendi o objetivo do estudo e qual a pergunta a que serei submetida. Entendi que sou livre para interromper minha participação em qualquer momento da pesquisa. Sei que meu nome não será divulgado, sendo mantido em sigilo, que não terei despesas nem receberei nenhum pagamento por minha participação neste estudo. Declaro que não fui obrigado a dar minha autorização para a entrevista e publicação do conteúdo de suas respostas nos trabalhos científicos que dela resultarem.

Salvador, _____ de _____ de 2011.

Amélia Araújo (Orientadora)

Julia Still (pesquisadora do SIT Brasil)

Pesquisadora responsável

Tel.: (71) 9661-5802

Tel.: (71) 8894-2802

Marca do participante (Nao tem que ser a assinatura)

TERMOS DE CONSENTIMENTO (ENTREVISTA E GRAVACAO DA ENTREVISTA)

Considero-me devidamente esclarecida pela estudante. Compreendi o objetivo do estudo e qual a pergunta a que serei submetida. Entendi que sou livre para interromper minha participação em qualquer momento da pesquisa. Sei que meu nome não será divulgado, sendo mantido em sigilo, que não terei despesas nem receberei nenhum pagamento por minha participação neste estudo. Declaro que não fui obrigada a dar minha autorização para a entrevista e publicação do conteúdo de suas respostas nos trabalhos científicos que dela resultarem.

Autorizo () a gravação da entrevista

Não () autorizo a gravação da entrevista

Salvador, _____ de _____ de 2011.

Amélia Araújo (Orientadora)

Julia Still (estudante do SIT Brasil)

Pesquisadora responsável

Tel.: (71) 9661-5802

Tel.: (71) 8894-2802

Marca do participante (Nao tem que ser a assinatura)

Interview Questions (English Version)

1. What is your full name?
2. What is your position at this school?
3. How long have you been working in the education system?
4. How long have you worked at this school?
5. Have you taken part in the sexual education of students at this school? If so, how?
6. Is there a formal sexual education course, class, or program for students here?
7. Whose role is it to educate students about safe sexual behavior and contraceptives?
8. Where do students at this school learn about safe sexual behavior and contraceptive use?
9. What are the influences of sexual behavior and contraceptive use at this school?
10. What are the problems in relation to sexual health and use of contraceptives here at this school? How do you think these problems could be avoided, improved or solved?
11. Where does resistance come from with regards to implementing formal sexual education in the school?
12. What role do friend groups play in terms of sexual behavior and contraceptive use?
13. What role do families play? Are families more conservative or liberal when it comes to sexual education and contraceptive use?
14. Are students open with teachers and administrators about sexual behavior and contraceptive use?

Questionnaire

PROJETO: “Influência da educação sexual no conhecimento e uso de contraceptivos sexual entre os adolescentes, 15-19 anos de idade, em Salvador, Brasil”

Pesquisadora: Julia Still
Questionário

1. Idade:
2. Gênero:
3. Raça:
4. Nível socioeconômico:
5. Grau de escolaridade:
6. Você é sexualmente ativa?
 - a. Quantos anos você tinha quando teve sua primeira relação sexual?
 - b. Você usou um método contraceptivo para sua primeira vez? Se sim, quais métodos contraceptivos foram utilizados?
 - c. Alguma vez você deixou de usar contraceptivos, mais especificamente, um preservativo? Por que?
7. Quais são os riscos de não usar contraceptivos?
8. Onde você aprende sobre contraceptivos?
9. Onde você aprendeu sobre a saúde sexual?
10. Você aprendeu sobre saúde sexual e métodos contraceptivos na escola?
 - a. Você sente que aprendeu muito na escola sobre o comportamento sexual saudável e contraceptivos?
 - b. Que influência teve a educação sexual na escola em seu comportamento sexual?
 - c. Você concorda com o que você aprendeu na escola?
11. O que você aprendeu com sua família sobre sexo e contraceptivos?
 - a. Você fala com seus pais ou outros membros da família sobre sexo?
 - b. Você está aberto com seus pais sobre seu comportamento sexual e uso de anticoncepcionais?
 - c. O que pensam seus pais ou familiares sobre sexo e uso de contraceptivos? Você concorda? Por quê?

12. De que maneira influenciam seus amigos o seu comportamento sexual e uso de contraceptivos?

a. Você sente a pressão dos amigos para você ser sexualmente ativo?

b. O que pensam seus amigos sobre o uso de contraceptivos?

13. O que lhe ensinou a mídia (música, TV, campanhas de filmes, cartazes, saúde, etc.) sobre sexo?

14. Você acha que a mídia promove o uso de contraceptivos e sexo protegido?

15. Acha que as campanhas das camisinhas têm influenciado seu comportamento sexual e a frequência em que usa contraceptivos?

16. Por favor, classifique o seguinte em ordem (1 a 4) em relação à influência sobre a escolha em seu uso de contraceptivos. 1 é a maior influência e 4 é menor influência.

Educação na escola _____, A mídia _____, Seu pais or familiares, _____, Seus amigos _____

17. Por favor, classifique o seguinte em ordem (1 a 4) em relação à influência sobre seu comportamento sexual. 1 é a maior influência e 4 é a menor influência.

Educação na escola _____, A mídia _____, Seu pais or familiares, _____, Seus amigos _____

SIT Appendix Questions

1. *Could you have done this project in the USA? What data or sources were unique to the culture in which you did the project?*

Yes, I could have completed this project in the USA. The most difficult part of performing the study in the United States would be attaining school and classroom access to do my research as an undergraduate student. I feel that I could meet resistance and more difficulties finding a school to perform my research especially since I am an undergraduate student.

2. *Could you have done any part of it in the USA? Would the results have been different? How?*

I could have done this project in the USA but the results would be different in the way that adolescent culture is not same around the world. Additionally, I cannot make the assumption that sexual health and sexual education is the same in Brazil as it is in the United States. I feel that abstinence is stressed more by conservative parents and the government in the USA in comparison to Brazil. Tied to this, the media in the United States does not promote contraceptive use as openly. These cultural differences related to sexual education and perceptions of sexuality would alter the findings of the study.

3. *Did the process of doing the ISP modify your learning style? How was this different from your previous style and approaches to learning?*

The largest way that the ISP process modified my learning style was the way in which I learned through primary research and primary data analysis. These are two things that I have never done before and the process opened my eyes to another way of learning about a theme or answering a question. In my university environment in the United States, I am more accustomed to secondary research and analysis. Additionally, I was at liberty to create my own schedule of learning during the ISP as opposed to attending classes daily. I was in charge of my work and my progress. I no longer feel that learning happens only when I read books and write papers. If I am open, experiences that I have and the way I perceive life going on around me is just as much of a way of learning as in the classroom setting.

4. *How much of the final monograph is primary data? How much is from secondary sources?*

About 80 percent of the final monograph is primary data and about 20 percent comes from secondary sources.

5. *What criteria did you use to evaluate your data for inclusion in the final monograph? Or how did you decide to exclude certain data?*

I included data that was pertinent to answering my original question and adhered to the theme of my problem statement. My questionnaires contained a large quantity of information that could be analyzed in many ways and show a variety of interesting trends. However, I chose to use only the data that fit with the research topic. I focused on data that showed how each source of sexual education was influencing adolescent contraceptive use and sexual behavior. I excluded data that was not relevant to my question and that did not show anything substantial.

6. *How did the “drop-offs” or field exercises contribute to the process and completion of the ISP?*

The drop-offs and field exercises increased my confidence in doing work alone and being independent in a foreign country. The exercises built skills regarding my ability to collect data and observe in another culture. I also improved my ability to communicate with people in Brazil. During the ISP process I was confident and comfortable going out in the field to collect data and make contacts.

7. *What part of the PHMFSS most significantly influenced the ISP process?*

The instruction and focus on drafting and revising the ISP proposal most significantly influenced the ISP process. Spending so much time learning to create a proposal and a research project not only taught me how to create a research proposal, but it made the ISP research and writing process easier.

8. *What were the principal problems you encountered while doing the ISP? Were you able to resolve these and how?*

The principal problems of my ISP are detailed in the limitations and assumptions sections of the ISP monograph. The problems encountered were minimal and resolved. I had to be flexible and make changes to my original methodology. These problems involved lack of time, difficulty getting my research project accepted at Colégio Azevêdo Fernandes, and a small number of students within my original age group that frequented the school. Additionally, I encountered some problems with my questionnaire during the data analysis. I resolved these by excluding the weaker questions such as questions 16 and 17 that were unclear for students.

9. *Did you experience any time constraints? How could these have been resolved?*

I did not experience any time constraints. However, if the ISP period were longer I would have included other schools in my project to have a larger sample size and more points of comparison. I also would have completed more interviews with faculty and administration.

10. *Did your original topic change and evolve as you discovered or did not discover new and different resources? Did the resources available modify or determine the topic?*

Yes, throughout the drafting of the ISP proposal my topic evolved. My topic was always related to sexual education and the sources of sexual education but I narrowed down my topic to focus on contraceptives and how sexual education influences contraceptive use and sexual behavior. As I discovered more information and different resources, I realized that my topic was too broad and I had to refine it to the use and understandings of contraceptives amongst adolescents rather than “perceptions of sexual health”. I found that there is more definitive research available pertaining to adolescent contraceptive use. The secondary research I did illustrated that contraceptive use is a good indicator of sexual health and sexual behavior. Additionally, I initially planned to perform my research at a school that has the Programa de Saúde na Escola but I soon found out that it was not feasible due to the lack of resources and schools that actually have the program or any form of sexual education program.

11. *How did you go about finding resources: institutions, interviewees, publications, etc.?*

In regard to the institution I performed my research at, I learned about Colégio Azevêdo Fernandes through my advisor, Amelia Araujo, and the Academic Director Dr. Damiana Miranda. Amelia Araujo, Damiana Miranda and Francisco Santos helped me with the process of gaining research approval from the director of the school, Maria Célia Sampaio, to perform my research at the school. Maria Célia Sampaio as well as the Vice Director at the school assisted with scheduling and gaining classroom access to have classroom time with the students. After spending two weeks at the school it was very evident who I wanted to interview and it was rather easy because I had been interacting with the interviewees for those two weeks. I found secondary research online and in the SIT office. My advisor recommended I speak with Greice Menezes at MUSA-UFBA. She helped me find more secondary research on the internet using a Brazilian database called Scielo. Francisco Santana was a great resource regarding data analysis.

12. *What method(s) did you use? How did you decide to use such method(s)?*

The two methods that I used in the primary research collection were questionnaires with adolescents and interviews with the faculty and administration. I decided to do questionnaires because I felt that it was most feasible with adolescents in a classroom setting given time constraints and the need for a larger sample size. With questionnaires, I was able to gain a large quantity of information on a rather personal topic by visiting classrooms for only a short period of time. Additionally, the questionnaires allowed me to easily compare a substantial amount of information provided by the informants. Interviews with students were not realistic due to lack of interest and free time outside the classroom. I decided to perform interviews with the faculty and administration to gain another perspective being that interact with the adolescents in a formal education setting and play a part in their sexual education.

13. *Comment on your relations with your advisor.*

I had an excellent relationship with my advisor Amelia Araujo. However, after being my advisor for about one week, she encountered some problems at her workplace which prevented her from continuing her role as my advisor. Although her position as my advisor was rather short lived, she was helpful in the way that she helped me gain access to Colégio Azevêdo Fernandes and provided me with reading material on the research subject.

14. *Did you reach any dead ends? Hypotheses which turned out to be not useful? Interviews or visits that had no application?*

I do not feel that I reached any dead ends. My hypotheses and questions were useful. All interviews that I performed had an application. I did have to throw out 9 questionnaires due to the fact that the students that filled them out were either above or below the age range of the study.

15. *What insights did you gain into the culture as a result of doing the ISP, which you might not otherwise have gained?*

I gained insight to Brazilian adolescent culture in a formal education environment. I also learned a lot about how the education system works in Brazil. I discovered how different schools and grades are set up, what the student relationship with the teacher is like, and how students behave in a classroom setting. I can't say that I learned about Brazilian culture as a whole but I gained a lot of insight pertaining to a very specific culture.

16. *Did the ISP process assist your adjustment to the culture? Integration?*

I do not feel that the ISP process assisted my cultural adjustment to Brazil. I feel that by the time the ISP time began I was already well adjusted and comfortable in my research environment. This may be the case because I did not leave Salvador and was already very familiar with the city. I believe that the ISP period confirmed that I was culturally adjusted to Salvador and the culture.

17. *What were the principal lessons you learned from the ISP process?*

I learned that the researcher must remain flexible and able to adapt during the research process because it is so dependent on outside factors that cannot always be accounted for or controlled. I learned how to perform primary research and data analysis. I learned that it is very important to have a balanced schedule and time manage.

18. *If you met a future student who wanted to do this same project, what would be your recommendations to him/her?*

I certainly would have refined my methodology. After meeting with Francisco Santana, I learned of many things that I should have thought about before beginning my research. It is always better to have a questionnaire that is not too open-ended especially when it comes to

the socio-demographic information of the participant. It is better to have options as opposed to a blank space. I also would have been more active finding people to help me with my secondary research which proved to be difficult. Greice Menezes at MUSA-UFBA was extremely helpful and I wish I had met with her sooner. I also recommend beginning earlier looking for a school to perform the research at and to not get discouraged if it does take a long time.

19. *Given what you know now, would you undertake this or a similar project again?*

Yes, I would definitely undertake this or a similar project again.