

The relationship between parental opinion of school-based sex education,
parent-child communication about sexuality, and parenting styles in a
diverse urban community college population.

by

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A dissertation submitted to the Graduate Faculty in Educational Psychology in partial
fulfillment of the requirements for the degree of Doctor of Philosophy,
The City University of New York

2009

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This manuscript has been read and accepted for the
Graduate Faculty in Educational Psychology in satisfaction of the
Dissertation requirement for the degree of Doctor of Philosophy

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Abstract

THE RELATIONSHIP BETWEEN PARENTAL OPINION OF SCHOOL-BASED SEX
EDUCATION, PARENT-CHILD COMMUNICATION ABOUT SEXUALITY,
AND PARENTING STYLES IN A DIVERSE URBAN
COMMUNITY COLLEGE POPULATION.

by

Janet Heller

Advisor: Dr. Helen Johnson

One hundred and ninety-one parents attending an urban, community college were surveyed about what topics schools should teach their children about sexuality education, and how they communicate with their child about sexuality topics. The quantitative data was collected using a *School Sexuality Education Questionnaire* (SSEQ), and the *Parenting Styles and Dimensions Questionnaire* (PSDQ) (Study A). The majority of sex education topics were supported by 80% of parents. This finding was surprising because the sample population was diverse in terms of ethnicity, and the majority had immigrated from countries considered socially conservative. There was a significant negative correlation between attendance at religious services and support for school sex education ($r = -.20$). These results were consistent with previous national and state-wide surveys. There was no correlation between support for school sex education and race/ethnicity, country of origin, religion, or parenting style.

Twenty parents with a range of demographic characteristics were selected for in-depth interviews based on their responses to the PSDQ in Study A. They responded to common questions children ask about sexuality (Study B). Parental responses to children's questions about sexuality were considered in relation to the democratic and authoritarian patterns of communication identified by Baumrind (1967). The majority of parents were labeled authoritarian based on their responses to 5 common sexuality topics. Themes that emerged from the qualitative analysis included lack of sexual information, support of school sexuality education, differences in opinion of sexual orientation, personal experiences with family members and friends being infected with HIV/AIDS, and issues related to cultural appropriateness. Parental support for school sex education seemed to be primarily motivated by having the schools handle topics parents were uncomfortable talking about themselves.

Acknowledgements

This research could not have been accomplished without the help of some key faculty at the Graduate Center of the City University of New York. First of all, many, many thanks go out to my advisor, Dr. Helen Johnson. Dr. Johnson was willing to take me on as a student because she thought my area of interest, sexuality education, was appealing. I came to her with no clear idea of how to connect my interests to my research or my teaching at Bronx Community College. Dr. Johnson was incredibly patient in helping me think things through and she stuck by me through several complete changes of topic and research methodology. She was always encouraging and gracious in her suggestions and comments, and a pleasure to work with. I feel incredibly fortunate to have had Dr. Johnson as my advisor, and without her, this dissertation would never have been completed.

I would also like to thank Dr. Carol Tittle. Dr. Tittle was the first professor that I encountered at the Graduate Center, and I immediately felt drawn to her welcoming personality. She always had an open office and provided an ear to listen. I felt honored that she agreed to serve on my committee, even though she was about to retire from the department. Her suggestions were always right on target and she offered much needed encouragement when I was struggling with ideas and research methodology. I also much appreciated the time and effort Dr. Rindskopf has spent on my committee as well as my outside readers, Dr. Mary Kopola and Dr. Daisuke Akibe.

Another key component in my completing this work was my colleagues at Bronx Community College in the Department of Health, Physical Education, and Wellness. All of my colleagues offered me encouraging words and support during various frustrating

moments on the way to completion of my doctorate. In particular, I'd like to thank my chairperson for the past 8 years, Dr. Michele Stern. She went out of her way to make my doctoral a work a priority and schedule my teaching and committee assignments around my research. She kept me on target and has been incredibly supportive. Last but not least, I am deeply grateful to Professor Ann Kelemen. Ann has not only been a good friend, and a shoulder to lean on, but has been a sounding board for discussions related to sexuality education. I have learned so much from her vast knowledge and insights into the field of human sexuality. Ann always brought a fresh perspective, an open mind, and good humor to our conversations.

On a more personal note, I am grateful to my wonderful husband, Michael, who has stood by me all these years. He always encouraged me to continue with my studies, even when I felt that I could go on no more. I am also so appreciative of his editing work – reading draft after draft, without any particular interest, other than assisting me. My children, Lawrence and Dana, have been a source of encouragement and they have always brought a smile to my face. I would also like to acknowledge the role my mother, Pauline Albert, has played during these past 8 years. She allowed me to continue my education by filling in with childcare, when ever asked, and always with good cheer. She has always been proud of my accomplishments and has been particularly supportive of my graduate work. Finally, much thanks to my girlfriends (Lisa Zeitoun, Elka Klarsfeld, Beth Levy, Liz Manning, and Marjorie Wolfson) who have listened to my stories and complaints over the years. I could not have gotten through this without my much-needed venting. I know that you are just as happy as I am that this part of my life has come to completion!

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Chapter 1: Introduction

Serious health problems associated with adolescent sexual activity continue to plague the well-being of families in the United States. Approximately 820,000 teenage pregnancies occur each year, the highest rate of teen pregnancy in the Western industrialized world (The National Campaign to Prevent Teen Pregnancy, 2006). While these numbers are extremely high, there is some good news in that the rate of adolescent pregnancy in the United States has declined 27% from 1991 to 2000 (Santelli et al., 2007). Recent research attributes the decline in pregnancy rate predominantly to adolescent contraceptive use rather than increased rates of abortion or abstinence (Santelli et al., 2007). This new evidence provides support for policies related to the promotion of accurate sexual information and improved access and availability of contraception services. Improved education and access to health services are imperative not only for reducing teenage pregnancy rates, but also for decreasing the incidence of sexually transmitted infections, including HIV/AIDS. Recent statistics indicate that 1 out of 4 young women between the ages of 14-19 are infected with a sexually transmitted infection (STI) (Centers for Disease Control and Prevention, 2008a). If left untreated, STI's may lead to long-term health consequences including cancer, pelvic inflammatory disease (PID), ectopic pregnancy, and infertility. In addition, these STI's make individuals more susceptible to acquiring HIV. The Centers for Disease Control and Prevention (2008b) estimated that in the United States, 4,883 young people between ages 13-24 years received a new diagnosis of HIV infection or AIDS in 2004, and an estimated 7,761 young people were living with AIDS in 2004.

The health problems related to teenage sexual activity are particularly salient for Black and Hispanic populations, who are disproportionately affected by high rates of teenage pregnancy, HIV/AIDS, and sexually transmitted infections (Centers for Disease Control and Prevention, 2008a). Black and Hispanic teenagers between the ages of 15-19 are at greater risk for unintended pregnancy than other populations. Statistics indicate that the pregnancy rate per 100,000 population is 134.2 for Blacks, 131.5 for Hispanics and 65.0 for Whites (Guttmacher Institute, 2006b). A recent Centers for Disease Control and Prevention (2008a) study found that female Black teenagers were more likely to be infected with an STI (48%) when compared with White teenagers (20%). Black youth between the ages of 13-24 are also disproportionately affected by HIV, making up more than half (55%) of all reported cases in 2004 (Centers for Disease Control and Prevention, 2008b).

Concerns about the relationship between sexual activity, the high rates of teenage pregnancy, and sexually transmitted infections are at the forefront of many public health initiatives. Public health officials call for education and prevention efforts aimed at young people as the best way to reduce the risks involved in adolescent sexual activity. One of the major efforts has been the implementation of sexuality education programs, which was the focus of this research study. Sexuality education programs take two main forms: (1) implementation of school-based curriculums, and (2) home-based efforts that teach parents how to communicate with their children about sexuality. This research study addressed the topic of adolescent sexuality education by focusing on the relationship between the school and the home from the viewpoint and practice of the parent. The theoretical program models for school-based curriculums that are discussed in this

research are Fear Appeal Theory (Witte, 1998) and Social Cognitive Theory (Bandura, 1986). A third theoretical model, Baumrind's Parenting Styles, is presented to address communication patterns between parents and children (Baumrind, 1967).

The purpose of this study was to extend and expand upon previous research by using a population that is underrepresented in the literature and is disproportionately affected by health problems related to adolescent sexual activity. A self-administered survey elicited data about parental opinion regarding topics that should be included in a school-based sexuality education program *and* about how parents interact with their child (parenting style) (Study A). Diverse populations, including new immigrants, traditionally have been underrepresented in research related to school sexuality education. It is important to understand their opinions of what topics they think schools should teach their children, particularly since the traditional and cultural norms of these groups may be at odds with American teaching methods. There is also little qualitative information available on what parents are actually saying and how they are saying it when they speak to their children. Therefore, participants from Study A were interviewed as to how they respond to common questions that children ask about sexuality (Study B). It is important to understand *how* diverse groups of parents are actually responding to questions children ask at home about sexuality, and whether the messages are consistent or conflict with outside influences. And finally, the connection between parents' overall style of communication (parenting style) and *both* their opinion of school sexuality education and their manner of communicating with their child about sexuality was explored. Understanding the relationship between these three factors will be important for gaining

parental support for school-based sexuality education programs as well as for the development of appropriate programs to assist parents with sexuality education at home.

School-based Sexuality Education

Overall, the majority of parents and other adults conceptually support sexuality education in public schools as a way to prevent teenage pregnancy, sexually transmitted diseases, and HIV/AIDS (Santinelli et al., 2006). Reports estimate that over 90% of parents of middle and high school students believe that sexuality education is an important component of the school curriculum while only 4-6% of parents state that sexuality education should not be taught at all in school (SIECUS Report, 2004). Recent public opinion polls indicate that most parents support abstinence as a behavioral goal *and* also support education about contraception, and do not see this as a conflict or offering a mixed message (Bleakly et al., 2006; Kaiser Family Foundation, 2004). While most parents believe that a wide range of topics should be covered, there is variation in support for coverage of controversial topics such as contraception, abortion, masturbation, and sexual orientation (Kempner, 2000; SIECUS Report, 2004).

This variation in support for particular curriculum content was brought to the forefront in recent years by special interest groups who encouraged sexuality education content that focused on abstinence-only as opposed to the mixed approach. The specific abstinence-only content focus is opposed to a broader curriculum, categorized as “comprehensive” sexuality education that teaches abstinence and also covers other sexual health topics including contraceptives (Kempner, 2000; SIECUS Report, 1999/2000). The divide between supporters of these two approaches to sexuality education widened under President Bush’s administration (2000-2008) when Federal support for abstinence-

only-until marriage based programs increased substantially at the expense of the comprehensive approach. Funding for abstinence-only programs went from about \$73 million in fiscal year 2001 to about \$158 million in fiscal year 2005 (United States Government Accountability Office, 2006), while during the same time period there was no designated funding for comprehensive programs. Recently, the tide seems to be shifting towards more comprehensive-based programs stemming from a recent publication (Mathematica Policy Research Inc., 2007) of an evaluation of abstinence-based programs that found no significant differences in teenage sexual activities when compared to control groups. The election of President Obama in 2008 is expected to bring with it many shifts in sex education policies (The White House, 2009).

The abstinence-only curriculums are based on Fear Appeal Theory and use fear of the physical, psychological, and social consequences of sexual activity as the basis of the program (Witte, 1998). The abstinence-only programs also take a narrow view of sexuality and emphasize the promotion of behavior and standards consistent with abstinence only before marriage. A “just say no” approach to sex is taken and abstinence is promoted as the only acceptable method for preventing pregnancy, sexually transmitted infections, and HIV/AIDS. If sexual activity and pregnancy prevention are addressed, the emphasis is on condom failure rates and oral contraceptive failure rates (Donovan, 1998; Mayer, 1997). The underlying messages given to students regarding sexuality tend to be negative and rely on the emotions of shame, guilt, embarrassment, and fear. The abstinence-only approach is characterized by being very controlling and directive when presenting information. This type of communication is comparable to the authoritarian parenting style described by Baumrind (1967). In fact, qualitative studies on parent-child

communication demonstrate similarities between the approach of abstinence-only curriculums and parents who use authoritarian communication styles (Gilliam, 2007; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004).

The majority of comprehensive sexuality education programs use Social Cognitive Theory and the Health Belief Model, a health education theory, as the basis of program development (Rosenstock et al., 1988; Saunders, 2005). Used together, these models address behavior change by identifying individuals' perceived susceptibility and severity of the health issue as well as self-efficacy toward changing a particular behavior. Modeling and the development of self-regulatory skills are then used to change and maintain a desired health behavior change (Bandura, 1986; Rosenstock et al., 1988). Comprehensive sexuality education programs believe that "just say no" campaigns do not work. These curriculums promote the benefits of abstinence, but also take into consideration the fact that some students are sexually active or considering becoming sexually involved. While delaying initiation of sexual activity is one of the goals of the programs, the larger purpose is to develop skills that young people can use to make appropriate decisions regarding their sexuality that will carry them through adulthood. This comprehensive approach is characterized by being open to various opinions and interactive in nature when presenting information. This type of communication is comparable to the authoritative or "democratic" parenting style described by Baumrind (1967). Qualitative studies on parent-child communication demonstrate similarities between the approach of comprehensive curriculums and parents who use democratic communication styles (Pluhar & Kuriloff, 2004; Rosenthal et. al, 2001).

Parent-Child Communication about Sexuality

The second major approach to reducing adolescent risk behavior consists of community-based programs designed to improve parent-child communication about sexuality. These programs are grounded in the belief that the family plays an important role in the communication of sexual values and expectations, as well as in modeling and shaping behaviors through parenting practices (Dittus et al., 2004). Parent-child communication programs aim to increase parental knowledge and comfort in talking about sexuality with their children in an effort to reduce adolescent sexual risk taking (SIECUS, 2002a).

Quantitative studies examining parent-child communication about sexuality have focused extensively on the impact of communication on adolescent sexual behavior, revealing complex relationships and contradictory findings (Baumeister et al., 1995; Clawson & Reese-Weber, 2003; Hutchinson, 2002; Hutchinson et al., 2003.; Miller, 2002; Pick & Palos, 1995; Taris & Semin, 1998; Taris & Semin 1997). Several factors have been identified that may be responsible for modifying the effect of parent-child communication on adolescent sexual behavior. These include frequency, content and timing of conversations, as well as comfort level of the child and parent in discussing sexuality related issues (Eisenberg et al., 2006; Hutchinson, 2002; Pluhar & Kuriloff, 2004).

Qualitative lines of inquiry have looked at more subtle differences in *how* the information was relayed, or parental communication styles. These studies reveal parental variations in terms of tone, affect and style of communication that may account for differences in how adolescents perceive the messages related to sexuality (Gilliam,

2007; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004; Rosenthal et. al, 2001). The tone and style of communication seem to be consistent across conversations (Kahlbaugh et al., 1997; Lefkowitz et al., 2000), that is, parental communication style is consistent for conversations that range from the relatively innocuous day-to-day to more emotion-laden conversations about sexuality.

These differences in communication patterns have also been well documented in the parenting literature and are called “parenting styles.” Parenting styles are based upon the work of Baumrind (1967), who noted three patterns of parental control and parental support which are authoritarian, authoritative, and permissive styles (Bailey, 2005). In this document, the term “democratic” will be used in place of authoritative to reduce confusion with the authoritarian parenting style. When communicating about sexuality, parents who are authoritarian in style are likely to be directive, negative, and judgmental. This communication style is similar to techniques used in abstinence-only sexuality education (Donovan, 1998; Mayer, 1997). When communicating about sexuality, parents who are democratic in style are likely to be interactive, positive and non-judgmental. This communication style is similar to techniques used in comprehensive-only sexuality education (SIECUS National Guidelines Task Force, 2004). The permissive style of parenting does not have an analogous sexuality curriculum.

This research study bridges these two important components of sexuality education: school-based sexuality education and parent-child communication about sexuality. At the same time, this study links both of these aspects of sexuality education to parenting styles. Is there a relationship between parenting style and support for school-based sexuality education? Is there a relationship between parenting style and

how a parent communicates with his/her child about sexuality? The implications of these findings are relevant for both school administrators who are implementing sex education curriculums as well as educators who work with parents. Identifying specific sexuality content areas that parents think are appropriate for school will assist schools in understanding parental views and gaining support for implementation of a sexuality curriculum. Understanding parental communication styles at home will assist parent educators in teaching effective communication skills.

In sum, this research study is important because the sample population will be diverse and include new immigrants, who are underrepresented in the literature and are disproportionately affected by teenage pregnancy, sexually transmitted infections, and HIV/AIDS. There is an increasing prevalence of immigrant populations residing in the United States, and it is important to understand their opinion of what topics they think schools should teach their children, particularly because their traditional and cultural norms may be at odds with American school sexuality curriculum. There is also little qualitative information available on what parents are actually saying and how they are saying it when they speak to their children. It is important to understand *how* diverse populations of parents are actually responding to questions children ask at home about sexuality, and whether the messages are consistent with or conflict with outside influences.

This research will utilize both quantitative and qualitative methods to (1) identify what parents think schools should include in sexuality education curriculum, (2) identify either democratic or authoritarian parenting styles, and (3) explore how parents respond to common questions children ask about sexuality.

Chapter 2: Review of the Literature

Reproductive Health Knowledge

A review of the most recent literature related to sexual knowledge of adolescents and young adults reveals the need to improve sexuality education for young people. Several large-scale studies (Carrera et al., 2000; Kaiser Family Foundation, 2000), as well as studies involving college age students (DeMarzo, 1998; Synovitz et al., 2002), and health clinic populations (Romo et al., 2004; Van Royen, 2000) highlight the limited sexual knowledge of adolescents and young adults. Surveys have consistently revealed low levels of knowledge related to pregnancy, reproductive anatomy, sexually transmitted infections, and HIV/AIDS (Carrera et al., 2000; Kaiser Family Foundation, 2000; Romo et al., 2004; Synovitz et al., 2002; Van Royen, 2000).

The most recent nationwide survey conducted in 1999 by the Kaiser Family Foundation assessed sexual knowledge of 1501 adolescents between the ages 11-19 years as part of a larger study of students, parents, teachers, and principals on sex education in America. A national sample was obtained through a random digit dialing technique of all households with telephones. The sexual knowledge assessment was conducted through a telephone survey and was based on 10 true-false questions related to pregnancy prevention and disease prevention. Individual scores were indexed and rated as high, medium or low on knowledge of sexuality. Overall, students who received sexuality education scored higher on knowledge of sexuality than those that had never had sexuality education, that is, 30% were rated as having high knowledge, 49% medium knowledge, and 21% low knowledge, while 15% of students with no previous sexuality

education were rated as having high knowledge, 43% medium knowledge, and 42% low knowledge. The results should be viewed cautiously because they may not be representative of actual knowledge about sex and reproduction; respondents answered only 10 questions that focused on issues such as where to obtain birth control and if teens need parental permission for birth control. When students were asked what topics they would like more information about, 56% requested information about what do if a friend was raped or sexually assaulted, 53% requested information on STD's other than AIDS, and 53% wanted more information on testing for STD's and HIV/AIDS. This illustrates adolescents' self-perceived need for information directly related to their sexual health.

Another national survey conducted in 1996-1997 in seven communities throughout the United States assessed 661 teenagers aged 13-15 (Carrera, et al., 2000). The sample was recruited from communities considered high risk and disadvantaged, and were recruited for a teenage pregnancy prevention program. Fifty-three percent of the participants were female, 47% male, and the ethnic breakdown was 42% African or Caribbean Black, 29% Latino and 25% other. Sexual knowledge was assessed through a true /false/don't know questionnaire that contained 75 items. Of those 75 items, 39 pertained to sexual knowledge including 20 on reproductive physiology, 13 on contraceptive knowledge, and 6 on sexually transmitted infections (STI's). Overall knowledge scores were low and particular differences were found based on ethnic background, gender, age, experience with sexual intercourse, and amount of sexuality education. On the knowledge scale, 30% of the participants correctly answered questions on reproductive physiology, 44% on contraceptive knowledge, and 53% on STI's. On the knowledge scale, females scored higher than males, African-Americans and African-

Caribbeans scored higher than Latinos, participants with previous sexual experiences and previous sexuality education scored higher than those without previous sexual experience and education, and older participants scored higher than younger participants.

De Marzo (1998) and Synovitz et al. (2002) reported similar results in surveys of college students. Synowitz, Hebert, Kelley, and Carlson (2002) posed 27 multiple-choice questions related to sexual knowledge to 915 college students in four universities in the Southeastern United States. The sample included 602 females and 313 males, whom 77% were Caucasian, 17% were African American, and 5% identified as other. The mean score was 55% correct on the sexual knowledge test. Females scored higher than males, Caucasians scored higher than African-Americans, and participants who had previous sexuality education scored higher than those who did not. DeMarzo (1998) gave a 40 item sexual knowledge test to 338 community college students. The sample included 61% female and 39% male, whom 47% were Caucasian, 26% were African American and Caribbean Black, 6.9% were Hispanic/Latino, and 16% identified as other. A 40-item true/false/not sure sexual knowledge test was completed. Unfortunately, the results of the study did not reflect scores on the knowledge test but rather assessed differences between socio-cultural variables, so sexual knowledge could not be determined.

Two research studies assessed specific knowledge related to the timing of ovulation as part of a survey on emergency contraception and/or other reproductive health issues (Romo, et al., 2004; Van Royen, 2000). Romo, Berenson, and Wu (2004) surveyed 297 Latino women between the ages of 18-43 in a study analyzing the relationship between misconceptions and acceptance of emergency contraception in a

health clinic population. Sixty-nine women, a subset of the original sample, were asked when a woman is most likely to get pregnant during her menstrual cycle. Only 56% of the women had the correct answer that a woman was most likely to get pregnant during the middle of the cycle. Twenty-nine percent incorrectly responded at the beginning of the cycle and 13% said at the end of the cycle. Romo et al., found that misconceptions regarding the timing of ovulation during the menstrual cycle were related to unwillingness to use emergency contraception and increased a woman's likelihood of having unprotected intercourse in the middle of the cycle when a woman is most fertile. In another study that assessed knowledge of a women's fertile time, 302 military personnel were surveyed in a primary care clinic waiting room (Van Royen, 2000). The sample include 59% males and 41% females, 25.5% were under age 20 and 74.5% were over age 20 (maximum age or average age not available). In this survey, only 32% of the men and 51% of the women knew the correct timing of when a woman was most likely to get pregnant during her the menstrual cycle.

A different type of study conducted by Flowers-Coulson et al. (2000) reviewed questions that were posted on a website for teens ages 9-14 and their families as part of a campaign in Baltimore, Maryland to promote abstinence. The questions were culled from a two-month period and the study is included here to provide a qualitative snapshot of the lack of sexual knowledge. The website used an "Ask the Expert" spot that allowed individuals to ask anonymous questions. Many of the questions were related to risks associated with particular sexual behaviors and the likelihood of paternity, teen pregnancy, and relationship issues. For example, "What are the odds of getting pregnant if I didn't use a condom but I did not ejaculate inside?"(p. 3) "Is there a way to get

pregnant by oral sex?” (p. 5) “I am on the pill and have taken it religiously for 7 months.. . How do I know if I am pregnant?” (p. 5). A recent look at a popular Columbia University website called “Go Ask Alice,” reveals a multitude of questions related to sexuality on topics ranging from sexual identity, masturbation, pornography, sex toys, relationships, and orgasms (Columbia University Health Services, 2006). The apparent success of this website, and others like it, demonstrates the demand for information related to sexual health that can be obtained easily and in an anonymous manner.

In almost all of the studies reviewed, data were obtained through self-administered surveys, and most of the data are specific to the populations surveyed and may not be able to be generalized. However, taken together, the studies on the sexual knowledge of teenagers and young adults reveal a basic lack of understanding of reproductive health issues. Patterns can also be discerned revealing differences in knowledge based on gender, age, and ethnicity. Though not surprising, the information is not only disappointing but also worrisome. Having no information or misinformation regarding pregnancy, functioning of the reproductive anatomy, STD’s, and HIV/AIDS clearly impedes the prevention of unwanted pregnancy and sexually transmitted diseases.

School Sexuality Education Curriculums

This section reviews two major curriculum approaches that are taught in the public schools in the United States today: abstinence-only and comprehensive sexuality education programs. School-based sexuality education programs are offered as part of regular classroom curriculum and are designed to reduce sexual risk behavior or delay the onset of sexual activity (Kirby, 2000). The following sections identify the program

goals for each of the curriculum approaches and then compare the instructional approaches, program outcomes, and program support.

Abstinence Only-Program Goals

The welfare reform legislation signed into law by President Clinton in August 1996 defines “abstinence education” as an educational or motivational program which:

Has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;
 Teaches abstinence from sexual activity outside marriage as the expected standard for all school age children;
 Teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;
 Teaches that a mutually faithful monogamous relationship in the context of marriage is the expected standard of human sexual activity;
 Teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects;
 Teaches that bearing of children out-of-wedlock is likely to have harmful consequences for the child, the child’s parents, and society;
 Teaches young people how to reject sexual advances and how alcohol and drug use increase vulnerability to sexual advances; and
 Teaches the importance of attaining self-sufficiency before engaging in sexual activity (Daley, 1997, p. 3).

Comprehensive Sexuality Education Program Goals

The Guidelines for Comprehensive Sexuality Education: Kindergarten through 12th grade published by the SIECUS National Guidelines Task Force states four main goals to promote adult sexual health:

Information: Sexuality education seeks to provide accurate information about human sexuality, including growth and development, human reproduction, anatomy, physiology, masturbation, family life, pregnancy, childbirth, parenthood, sexual response, sexual orientation, gender identity, contraception, abortion, sexual abuse, HIV/AIDS, and other sexually transmitted diseases.
Attitudes, Values, and Insights: Sexuality education seeks to provide an opportunity for young people to question, explore, and assess their own and their community’s attitudes about society, gender, and sexuality. This can help young people understand their family’s values, develop their own values, improve critical-thinking skills, increase self-esteem and self-efficacy, and develop

insights concerning relationships with family members, individuals of all genders, sexual partners, and society at large. Sexuality education can help young people understand their obligations and responsibilities to their families and society.

Relationships and Interpersonal Skills: Sexuality education seeks to help young people develop interpersonal skills, including communication, decision-making, assertiveness, and peer refusal skills, as well as the ability to create reciprocal and satisfying relationships. Sexuality education programs should prepare students to understand sexuality effectively and creatively in adult roles. This includes helping young people develop the capacity for caring, supportive, non-coercive, and mutually pleasurable intimate and sexual relationships.

Responsibility: Sexuality education seeks to help young people exercise responsibility regarding sexual relationships by addressing such issues as abstinence, how to resist pressures to become involved in unwanted or early sexual intercourse, and the use of contraception and other sexual health measures (SIECUS National Guidelines Task Force, 2004, p. 19).

Instructional Approaches and Content

It is evident from the program goals above that there are great divides between the curriculum approach of the abstinence-only and comprehensive sexuality education programs (see Table 1). There is not one unified curriculum for each of these approaches, but rather multiple individual curriculums that have been developed by government agencies, school districts, religious organizations, and not-for-profit groups (SIECUS Report, 1998). The actual content, number and length of sessions, instructor preparation and comfort level, and recommended student grade level vary greatly from curriculum to curriculum. In a study entitled “Sex Education in America,” published by the Kaiser Family Foundation (2000), it was reported that 89% of public school students take sex education sometime between 7th and 12th grade. While some overlap in curriculum content was found, 58% of the curriculums were described as comprehensive, 34% abstinence-only and 8% unknown (Kaiser Family Foundation, 2000).

The abstinence-only programs take a narrower view of sexuality and emphasize the promotion of behavior and standards consistent with abstinence only before marriage. A “just say no” approach to sex is taken and abstinence is promoted as the only acceptable method for preventing pregnancy, sexually transmitted diseases, and HIV/AIDS. The abstinence-only curriculums are based on Fear Appeal Theory and use fear of the physical, psychological, and social consequences of sexual activity as the basis of the program (Witte, 1998). The underlying messages given to students regarding sexuality tend to be negative and rely on the emotions of shame, guilt, embarrassment, and fear. Fear appeal theory has been used in many public health campaigns in an

Table 1

Comparison of Sexuality Curriculums

Topic	Abstinence-only	Comprehensive
Purpose	To teach abstinence outside of marriage as the expected standard of behavior.	To promote sexual health by providing information for students to make good decisions.
Instructional Content	Teaches abstinence as a method to avoid pregnancy, and sexually transmitted diseases. Teaches harmful physical and psychological consequences of teen sexual	Teaches abstinence as one method to avoid pregnancy, and sexually transmitted diseases. Teaches about contraceptives and condoms as a method to avoid

Topic	Abstinence-Only	Comprehensive
	activity and teen pregnancy.	pregnancy and sexually transmitted diseases. Uses neutral, non-judgmental presentation
Implementation	May use fear/scare tactics to teach information. Approximately 34% of public schools in the U.S.	Uses neutral, non-judgmental presentation Approximately 58% of public schools in the U.S.
Outcomes	No evidence that the programs delay the initiation of sex or reduce the frequency of sex.	Delays the initiation of sex, reduces frequency of sex, and increases condom use.
Support	Approximately 20% public support.	Approximately 80% public support.
Funding	Dedicated Federal funding for abstinence-only programs.	No dedicated Federal funding for comprehensive programs.

attempt to influence health protective behaviors. The research suggests, overall that fear appeals do change behavior (Green & Witte, 2006; Witte & Allen, 2000).

There is variation in content from program to program; some of the programs purport the ideal of “chastity until marriage” while others encourage adolescents to postpone sex until they are older (Kirby, 2000). Instructional methods also vary in that some are more didactic and others involve participant discussion and interaction (Kirby,

2000). In general, there is limited, if any, discussion of human sexual response. If sexual activity and pregnancy prevention are addressed, the emphasis is on condom failure rates and oral contraceptive failure rates (Donovan, 1998; Mayer, 1997).

Messages tend to be fear or shame-based and the negative emotional and physical effects of sexual activity outside of marriage are stressed (Donovan, 1998; Mayer, 1997).

Abstinence-only programs are based on the assumption that adolescents should not be sexual, period. Therefore, discussions on topics such as sexual orientation, abortion, contraceptives, and masturbation are not entertained (Elia, 2000). In their passion to promote abstinence, abstinence-only programs have often been criticized for containing incorrect and misleading information about reproductive health that promotes religious teachings, censoring information related to contraception and sexual health, and being hostile to gay and lesbian youth (American Civil Liberties Union, 2007; U.S. House of Representatives Committee on Government Reform, 2004). A 2004 report by Democratic members of a congressional committee gives evidence that 80% of the abstinence-only curriculums contain false information about the effectiveness of contraception and the risks of abortion, blur religion and science, and contain scientific errors (U.S. House of Representatives Committee on Government Reform, 2004).

The comprehensive sexuality programs take a broader view of developing positive views of sexuality through providing information and assisting with personal skill building. These programs are based on the Health Belief Model, one of many health education theories, as well as Social Cognitive Theory (Bandura, 1986; Rosenstock et al., 1988). The Health Belief Model addresses behavior change by identifying individuals' perceived susceptibility and severity of the health issue as well as self-efficacy toward

changing a particular behavior. Self-regulatory and risk-reduction skills are then developed in relation to the intended health behavior change. These programs believe that the “just say no” campaigns do not work. The curriculums explore the benefits of abstinence, but also include contraceptive and safer-sex messages.

The content that is recommended by The National Guidelines Task Force includes six subject areas of learning: human development, relationships, personal skills, sexual behavior, sexual health, society and culture (SIECUS National Guidelines Task Force, 2004). Depending on the school district, some instructors discuss controversial topics such as sexual orientation, abortion, and masturbation within the context of course material. There is also a focus on personal skills training to improve decision-making, communication, and assertiveness (SIECUS National Guidelines Task Force, 2004). Comprehensive sexuality programs strive for scientific accuracy, up-to-date information, and the approach attempts to be non-judgmental in nature.

The instructional approaches of the abstinence-only and comprehensive sexuality programs are different not only in content but also in emotional tone, or specific feelings that are expressed during presentation. In general, the abstinence-only approach relies on the emotions of shame, guilt, and embarrassment to encourage abstinence while the comprehensive sexuality programs attempt to be fact based and non-judgmental. What does the research say on the effectiveness of abstinence-only vs. comprehensive sexuality education programs? The next section defines program effectiveness and reviews outcomes for the two different types of curriculums.

Program Outcomes and Program Support

There are at least one hundred, if not more, sexuality education curriculums currently used in the United States. As there is likely to be great variability within each of the two broad categories, it makes sense to rely on the most recent, well-respected, large-scale studies that have evaluated both the comprehensive and abstinence-only curriculums. Three reports have been conducted by Douglas Kirby as the lead research scientist under the auspices of the National Campaign to Prevent Teen Pregnancy and Family Health International (Kirby, 2002; Kirby, 2001; Kirby et al., 2005). The reports supported by the National Campaign to Prevent Teen Pregnancy are “Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy” and “Do Abstinence-Only Programs Delay the Initiation of Sex Among Young People and Reduce Teen Pregnancy?” (Kirby, 2002; Kirby, 2001). The third report, supported by Family Health International, is entitled “Impact of Sex and HIV Education Programs on Sexual Behaviors of Youth in Developing and Developed Countries” (Kirby et al., 2005). All three of these publications are not evaluations of programs themselves but reviews of research studies measuring the impact of individual curriculums. Most recently, in April 2007, Mathematica Policy Research Inc. published an evaluation of three federally funded abstinence-education programs.

Kirby defines program effectiveness as a “program that changes teenage sexual behavior” (Kirby, 2002; Kirby, 2001). *Emerging Answers* and *Abstinence-Only* evaluated changes in actual behavior (as opposed to attitudes or intentions) for each program in three areas related to teenage sexual behavior (a) delayed sexual initiation, (b) increased condom or contraceptive use, and (c) reduced teen pregnancy. As part of the

criteria for inclusion in the reports, the program evaluations were required to include a post-intervention data collection period (i.e., 6-month follow up to measure impact on delay in sexual initiation). In addition, the study must have been completed in 1980 or later, conducted in the United States or Canada, targeted at adolescents age 12-18, used an experimental or a quasi-experimental design, had a sample size of at least 100, and measured impact on behavior (Kirby, 2001). One of the major findings of the evaluation research on inclusive sexuality programs that was noted in *Emerging Answers* is that these programs *do cause change* in teenage sexual behavior and most importantly, *do not increase* sexual activity (Kirby, 2001).

Emerging Answers reviewed 28 curriculum-based programs that included both sexuality and HIV education programs. The sexuality programs were defined as covering topics related to pregnancy and STD prevention but were not necessarily "comprehensive" in covering the full spectrum of sexuality issues. The HIV education programs primarily focused on HIV and some STD's. Twenty-eight of the studies reviewed examined the impact of the program on initiation of intercourse: nine of the programs were found to delay initiation, 18 programs had no significant impact, and 1 program increased initiation of intercourse. Nineteen of the studies reviewed examined the impact of the program on frequency of intercourse: five of the programs found they reduced the frequency of sex, 13 found no significant impact, and 1 found an increase in frequency of intercourse. Ten of the studies reviewed examined the impact on number of sexual partners: three found a significant decrease in number of partners and none found an increase. Some of the studies evaluated the use of condoms and contraceptives as a result of the curriculum implementation. Eighteen studies were reviewed in this

category: 10 found a significant increase in condom use. Eleven studies measured contraceptive use: four of the studies found that the programs significantly increased contraceptive use and none of the programs reduced contraceptive use. While these findings are not a ringing endorsement of their effectiveness, taken together, the results are positive.

Emerging Answers evaluated three abstinence-only programs (these were the only ones that met the criteria for inclusion) and found no strong evidence for reducing teen sexual behavior. However, in 2002, a publication was produced by the Heritage Foundation that evaluated 10 programs that stated that abstinence-only programs were effective. In 2002, Kirby reviewed these 10 program evaluations using the same criteria as *Emerging Answers* (as opposed to the criteria used by the Heritage Foundation) and produced the publication “Do Abstinence-Only Programs Delay the Initiation of Sex Among Young People and Reduce Teen Pregnancy?” Of the 10 evaluations, Kirby found that nine of them did not delay the initiation of sex or reduce the frequency of sex. Abstinence pledges may delay the initiation of sex, but it may also decrease use of contraceptives for those who do have sex. The major conclusion reached by Kirby was:

There does not currently exist any abstinence-only programs with strong evidence that they either delay sex or reduce teen pregnancy. However, this does not mean that abstinence-only programs are not effective, nor does it mean that they are effective. It simply means that given the great diversity of abstinence-only programs combined with very few rigorous studies of their impact, there is simply too little evidence to know whether abstinence-only programs truly delay the initiation of sex (Kirby, 2002; p. 6).

The concern expressed by Kirby of few rigorous studies available to evaluate abstinence-only programs was resolved most recently by Mathematica Policy Research, Inc. In April 2007, they released the final results of a multi-year, experimental evaluation of

three federally funded Abstinence Education Programs (Mathematica Policy Research, Inc., 2007). The findings indicated no significant differences between program and control groups in abstinence rates, rate of condom use, age at first sexual intercourse, or number of sexual partners.

The publication “Impact of Sex and HIV Education Programs on Sexual Behaviors of Youth in Developing and Developed Countries” reviewed 83 program evaluations (Kirby et al., 2005). The curriculums primarily dealt with pregnancy and HIV/STD prevention, and not the broader issues of sexuality, so they were not specifically considered comprehensive sexuality programs. This review also included programs outside of the United States, of which 18 were from developing countries, and programs were community-based as well as school-based. Similar criteria were set for inclusion in *Impact* as in the *Emerging Answers* and *Abstinence-Only* reports. In general, of the programs reviewed, 65% of the studies found a significant impact in reducing sexual risk behaviors (ie., frequency of sex, use of condoms) while only 7% found a significant negative effect, that is, increasing sexual risk behaviors. While there were differences in program effectiveness, similar patterns of effectiveness were found regardless of country of origin with vastly different populations under different conditions. In addition to behavioral impact, overall knowledge and awareness of risk increased as well as changes in values, attitudes, self-efficacy, and intentions related to reduced sexual risk taking.

As part of the program reviews, a qualitative analysis was carried out to determine the common characteristics of the most effective programs in changing teen sexual behavior. Seventeen common characteristics were identified and of these eight were

related to content of the curriculum. Effective programs all talked explicitly about sex, condom use, and contraceptives. The most effective programs also gave clear behavioral messages -- programs designed for younger audiences placed a greater emphasis on abstinence as opposed to programs designed for older teens that placed a greater emphasis on condoms (Kirby et al., 2005). These eight characteristics related to curriculum content were ones most similar to the content found in comprehensive sexuality programs as opposed to abstinence-only programs.

The conclusion drawn from these three major reviews by Kirby is that sexuality and HIV programs as opposed to abstinence-only programs are more effective in reducing teen sexual risk behavior. Specifically, putting emphasis on abstinence as the best choice while also encouraging the use of condoms and contraceptives for teens who ignore that advice and become sexually active can reduce initiation and frequency of sex and increase condom use. Clearly, comprehensive sexuality education programs are more effective in encouraging healthier adolescent decision making and reducing sexual risk taking than abstinence-only programs.

The most recent national surveys of public opinion of school sexuality curriculum have overwhelmingly concluded that most Americans support a more inclusive sexuality curriculum (Bleakley et al., 2006; Kaiser Family Foundation, 2004). In a randomly selected national sample of United States adults (n = 1096), the Annenberg National Health Communication Survey, found that 80.4% of respondents supported sexuality education that includes abstinence as well as other methods of pregnancy and disease prevention and 68% of respondents supported teaching students how to use condoms in school (Bleakley et al., 2006). The Kaiser Family Foundation (2004) survey also used a

random national sample of United States adults ($n = 1,759$) and found that 46% of adults supported sexuality education that includes abstinence as well as other methods of pregnancy and disease prevention, 36% believed that abstinence was *not* the most important topic and students should be taught how to make good decisions about sexuality, and only 15% supported abstinence-only. Overall, 82% of the respondents supported a comprehensive approach to sexuality education. Similar support for comprehensive sexuality programs has been found in state-wide (Ito et al., 2006; Lindley, et al., 1998) and city-wide surveys (Lewis, et al., 2001), with public support ranging from 81 to 91 percent of those surveyed.

Even though strong support for comprehensive sexuality education exists and there is solid evidence of the effectiveness of these programs, abstinence-only programs are becoming more common across the United States. Over the past decade, there has been a shift toward abstinence-only education replacing comprehensive-based programs as political forces promoting such programs gained the upper hand (Guttmacher, 2006; Santelli et al., 2006). One of the reasons for the shift is that there is no dedicated Federal funding for comprehensive sexuality education programs while Federal funding for abstinence-only programs has been increasing. This shift in emphasis has become evident in classrooms across the country with more and more teachers teaching that abstinence is the only way to prevent pregnancy and STD's. There is less and less classroom instruction on topics related to contraception and sexual decision making (Guttmacher, 2006a). The next section turns to the other major approach for reducing adolescent sexual risk behavior: educational programs aimed at increasing parent-child communication about sexuality.

Parent-Child Communication about Sexuality

Community-based programs to improve parent-child communication about sexuality are grounded in the belief that the family plays an important role in the communication of sexual values and expectations, and models and shapes behaviors through parenting practices (Dittus et al., 2004). Parent-child communication programs aim to increase parent knowledge and comfort in talking about sexuality with their children as a way to reduce adolescent sexual risk taking (SIECUS, 2002a). Programs have been developed and implemented nationwide by governmental agencies, departments of health, schools, and community agencies (SIECUS, 2002a).

In an effort to improve parent-child communication about sexuality, several research approaches have been employed to study the subject. One approach has used quantitative analysis, with the majority of research focused on the impact of parent-child communication on sexual behavior (Baumeister et al., 2003; Clawson & Reese-Weber, 2003; Hutchinson et al., 2003; Miller, 2002; Pick & Palos, 1995; Taris & Semin, 1998; Taris & Semin, 1997). Another approach has been qualitative in nature, with research directed towards differences in the emotional tone and style of the parent-child interaction as well as cultural/ethnic variations. (Gilliam, 2007; Lefkowitz et al., 2002; Lefkowitz et al., 2000; Kahbaugh et al., 1997; Nwoga, 2000; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004). The following sections will review the current literature in each of these areas.

Quantitative Studies

The largest body of research on parent-child communication about sexuality focuses on the relationship between sexual communication and adolescent sexual

behavior. The literature related to this line of inquiry reveals contradictory findings. Intuitively, one would think that greater parent-child communication about sexual issues would be associated with a decrease in adolescent risk taking behaviors because the teenager would internalize parental standards. While this relationship was found in some studies (Baumeister et al., 1995; Hutchinson et al., 2003; Pick & Palos, 1995), a number of studies found the opposite relationship, with high quality adolescent-parent interaction actually associated with increased adolescent sexual behavior (Clawson & Reese-Weber, 2003; Taris & Semin, 1998; Taris & Semin, 1997), and other research is inconclusive (Miller, 2002).

Greater parent-child communication decreased adolescent risk taking in a number of studies (Baumeister et al., 1995; Hutchinson et al., 2003; Pick & Palos, 1995). Pick and Palos (1995) analyzed data on the impact of family communication on adolescent sexual behavior as part of a larger investigation on adolescents, contraceptive practices, and pregnancy. A representative sample of 1257 girls aged 12-19 was selected from low to middle SES populations in Mexico City. A questionnaire was used to determine family structure, relationships with the family, and frequency of communication. Three major variables were correlated with those teens who had the lowest probability of having sex: (1) they spoke frequently to their mothers, (2) they did not have a sister who became pregnant, and (3) their mother was married at the time of her (the mothers') first pregnancy. Pick and Palos also found that those girls who spoke to their mothers about sex had the highest probability of using contraceptives. Pick and Palos (1995) conducted a second study in Mexico City, but this time on 338 male adolescents (159 who had gotten their partner pregnant and 179 who had not). The male participants were selected

non-randomly through hospitals and family planning clinics and were given a questionnaire about family structure and the adolescents' relationship with the family to compare differences between young men who got their partners pregnant and those who did not. Pick and Palos found that young men who had better communication with both mothers and fathers were less likely to get their partner pregnant. Pick and Palos (1995) conducted a third survey on communication about sexuality between parents and children as part of a larger investigation on parental attitudes about sex education in Mexico City. A total of 1587 fathers, mothers and adolescents grades 8-12 were interviewed. They found that mothers reported higher communication about sexuality as compared to fathers, and that children rated communication with fathers lower than the fathers rated their own communication. These three studies taken together highlight the important role that the family plays in adolescent sexual behavior. In particular, greater sexual communication between parent and child *is* associated with less adolescent sexual risk taking behaviors. Limitations of the Pick and Palos studies are difficult to determine because the data presented were part of larger investigations and full methodology, results, and discussion sections were not presented.

Baumeister, Flores, and Marin (1995) found more parental communication lowered the incidence of teenage pregnancy. The participants were teens between the ages of 14-19 and consisted of 42 pregnant or parenting Mexican and Mexican-American teens recruited from prenatal clinics and community agencies in the San Francisco Bay Area, and a comparison group of a random sub-sample of 41 never pregnant Mexican and Mexican-American teens residing in California and Texas. Telephone interviews were conducted using a closed-ended questionnaire on a number of variables including:

parental communication with daughters about sexuality, adolescent perceptions of the parent-daughter relationship, sexual attitudes, sex information, norms and behaviors among Latina adolescents, and level of acculturation. Baumeister, Flores, and Marin (1995) found that more communication with parents about sexual topics and higher levels of acculturation were associated with not being pregnant. The most common topics parents discussed with their teens were menstruation, sexual intercourse, STD's, and body parts related to sex, and the most difficult topic of discussion related to birth control. The study limitations included a difference in the recruitment pool of the two groups, a small sample size, and the lack of a representative sample of pregnant/parenting teens.

Hutchinson et al. (2003) investigated the relationship between mother-daughter sexual communication and sexual risk behaviors in a prospective study of 219 sexually experienced 12-19 year old females. The participants were mostly African-American and Latino and were recruited from an inner city medical clinic where they served as a control group as part of a larger study on HIV risk reduction. The participants completed questionnaires about sexual risk behavior (number of male partners, number of episodes of sexual intercourse, and number of episodes of unprotected sex) at three, six, and twelve month follow-ups. A mother-teen sexual communication scale was correlated with the risk behaviors. A small negative correlation was found between more communication and fewer episodes of intercourse ($r = -.12$) and more communication and less unprotected intercourse ($r = -.22$). There was no significant finding between sexual communication and number of male partners. One concern raised by the authors was that the questionnaire only asked if communication occurred, not the extent of

communication, which might have provided greater discrimination between different levels of parent-child communication.

Other studies found that greater parent-child communication about sexuality actually was associated with *increased* adolescent risk taking (Clawson & Reese-Weber, 2003; Taris & Semin, 1998; Taris & Semin, 1997). Clawson and Reese-Weber (2003) surveyed 214 college students at a Midwestern University about the amount and timing of sexual communication with their parents and adolescent sexual risk taking behaviors. The participants were all volunteers and the majority were White, with approximately equal numbers of males and females filling out a questionnaire. Surprisingly, the amount of parent-child communication was positively related to increased adolescent risk behaviors. Teens who reported greater communication with fathers and mothers about sexuality were found to be younger age at first intercourse, have more lifetime sex partners, use more methods of birth control, and be more likely to be tested for HIV/STD's. Clawson and Reese-Weber also looked at the timing of conversations. Adolescents who discussed sexuality with their fathers prior to first sexual intercourse were older at first intercourse, had fewer sexual partners, but were more likely to have gotten someone pregnant. Adolescents who discussed sexuality with their mothers prior to first sexual intercourse also were older, had fewer sexual partners, used more contraception, but were also more likely to have gotten someone pregnant. There was an interaction found between timing of communication and age at first intercourse, only for the father. Fathers who had discussed sex with their teenage child prior to their first sexual activity correlated with the teen being older at first intercourse. The results of this

study were surprising to Clawson and Reese and they noted that the classification of timing in their survey may have been problematic and could have affected the findings.

Taris and Semin (1997) conducted a longitudinal study of 333 adolescent-mother pairs in England in 1989 and 1990 to ascertain characteristics related to intra-family conflict regarding sexual issues and how these variables relate to the timing of sexual initiation. A structured questionnaire was administered individually to a representative sample of mothers and their adolescents between the ages of 14-18 years old. A Likert scale questionnaire was used to determine the amount of disagreement/conflict between mother and child on sex-related issues, sexual permissiveness, mother-child interaction styles (including discipline and closeness), and demographic data. One year later, Taris and Semin obtained interviews with 255 adolescent mother pairs from the original sample. A comparison of the drop outs at Time Two to the scores of subjects in Time One revealed no systematic attrition rates that would confound the results. At Time One, Taris and Semin (1997) found a greater amount of intra-family conflict if the mother attached a greater importance to discipline and if the mother suspected her child was having sex. Less intra-family conflict was related to greater closeness between mother and adolescent and trying to understand one another. At Time Two it was hypothesized that good parent-child relationships would lead adolescents to internalize parental standards and reduce the incidence of sexual initiation. Contrary to their prediction, Taris and Semin found that stronger child-parental relationships were related to sexual initiation at a younger age. In addition, children of more permissive mothers were more likely to experience sexual intercourse than those of less permissive mothers.

Taris and Semin (1998) used the data from the 1997 longitudinal study to analyze the relationship between parenting styles and adolescents' sexual self-efficacy and sexual experience in 253 adolescents-mother pairs. Parenting styles were categorized as "control" and "care/involvement" and sexual self-efficacy was defined as the degree to which a person felt comfortable in asking a potential partner sexually sensitive questions. Taris and Semin predicted that children would develop greater levels of internal control and sexual self-efficacy if parents were more involved with their teens. The authors theorized that sexual self-efficacy would serve as a mediating variable in sexual experience; children who had greater sexual self-efficacy would then be better able to resist pressure to engage in sexual intercourse and thus be less sexually experienced. The first part of the theory was supported; good parent-child relationships increased children's self-efficacy, although these relationships were found to be more salient in younger teens (15-16yrs) than in older teens (17-18yrs). Contrary to expectations, it was found that more self-efficacious teens, in fact, were more sexually experienced. A number of limitations were cited by the authors in relation to non-standardized measurement of parenting styles and the failure to demonstrate longitudinal effects of parenting variables. The authors suggest parental relationships may become less important and less influential as teens get older because multiple variables influence adolescent initiation of sexual activity.

In a review of recent studies entitled "Family Variables that Affect Adolescent Sexual and Contraceptive Behavior," Miller (2002) found inconclusive evidence as to the relationship between family communication about sexuality and adolescent risk taking behaviors. Miller identified two factors that he called parent-child "connectiveness" and

parental behavioral monitoring, as being related to reducing adolescent pregnancy. Parents who provide closeness, support, and warmth may encourage their youngsters to delay intercourse but over controlling or intrusive parents may increase adolescent sexual risk behavior. Miller points out that the studies on parent-child communication about sexuality and the relationship to behavior are inconclusive, “apparently because closeness of the parent-child relationship, parents’ values, and communication have important interactive effects” (p. 25).

In summary, quantitative studies examining parent-child communication and adolescent sexual behavior have revealed complex relationships and contradictory findings. Some studies determined that greater parent-child sexual communication was associated with an increase in contraceptive use, delayed age of first intercourse, reduced sexual activity, and reduced risk of pregnancy (Baumeister et al., 1995; Hutchinson et al., 2003; Pick & Palos, 1995). Other research found the opposite relationship; parent-child sexual communication was associated with reduced age at first intercourse and increased number of sexual partners (Clawson & Reese-Weber, 2003; Taris & Semin, 1998; Taris & Semin, 1997). One study provided inconclusive results about parent-child communication and adolescent risk behavior (Miller, 2002).

Various factors may be responsible for modifying the effect of parent-child communication on adolescent sexual behavior including frequency, content, and timing of conversations as well as comfort level of the child and parent in discussing sexuality related issues (Pluhar & Kuriloff, 2004; O’Sullivan et al., 2001). It has been suggested that parents who provide closeness, support, and warmth may encourage their youngsters to delay intercourse, but over-controlling or intrusive parents may inadvertently increase

adolescent sexual risk behavior (Gilliam, 2007; Miller, 2002; Pluhar & Kuriloff, 2004). Reduced risk of pregnancy has also been associated with parental monitoring of their children's behavior (Miller, 2002).

The major limitation of all of the studies reviewed up to this point, except for the longitudinal study by Taris and Semin (1998) and prospective study by Hutchinson et al. (2003), is the inherent bias of cross-sectional research. Causation cannot be determined as no true experimental research was conducted with a control group. Of course, it would be difficult and unethical to conduct experimental research in this field of study so we must rely on associations between variables. Many of the correlations cited have been in the low to moderate range ($r < .40$; as noted in Hutchinson & Cooney, 1998). Another limitation of this line of research is that the variety of instruments used to measure parent-child communication and adolescent behavior have varying reliability and validity ratings that make it difficult to compare studies (Fisher, 1993). Finally, quantitative studies on parent-child communication about sexuality have relied on paper and pencil questionnaires or phone interviews that require participants to complete closed-ended questions. While this type of research can survey large groups of people, the responses are limited to recall of past events and do not address the intricacies of the communication process. The next section addresses this limitation in the research by reviewing qualitative studies on parent-child communication about sexuality.

Qualitative Studies

A number of more recent studies have attempted to overcome the limitations of survey data by looking at more subtle differences in *how* information is relayed, or parental communication styles (Gilliam, 2007; Lefkowitz et al., 2002; Lefkowitz et al.,

2000; Kahlbaugh et al., 1997; Nwoga, 2000; O’Sullivan et al., 2001; Pluhar & Kuriloff, 2004). These qualitative lines of inquiry reveal some interesting parental variations in terms of tone, affect, and style of communication that may account for differences in how adolescents perceive messages related to sexuality. A comparison of the qualitative studies can be found in Table 2.

Kahlbaugh, Lefkowitz, Valdez, and Sigman (1997) designed an observational methodology for understanding parent-child communication that was repeated in several later studies with different variables (Lefkowitz et al., 2002; Lefkowitz et al., 2000. The Kahlbaugh et al., (1997) study, however, was the only qualitative study identified that used a longitudinal design. The purpose of the study was to determine if there was

Table 2

Comparison of Qualitative Studies

Author	Method & Recruitment	Participants	Results
Gilliam (2007)	Focus groups (7 total). Gynecology clinic and community center; urban, Midwest	40 sexually active women; majority had experienced pregnancy; All Latino.	Barriers: lack of communication, misinformation about contraception, male refusal to wear condoms; Support: open communication, correct, information about contraception, maternal role models
Lefkowitz et al. (2002)	Observational (videotaped and audio taped). Schools; urban, Western, U.S.	50 mother-adolescent dyads 40% White, 18% Latino; 16% African-American or African; 14% Asian.	Boys reported fewer discussions than girls; no gender differences in quantity and content of observational data; stronger mutuality in conversations between mothers and daughters than mothers and sons.

Author	Method & Recruitment	Participants	Results
Kahlbaugh et al. (1997)	Observational videotaped Schools and newspaper ads; urban, Western U.S.	Time 1: 33 mother-child dyads; Time 2: 24 mother-child dyads; 79.2% White; 8.39% African-American; 4.2% Latino.	Mothers spoke more over time and became more affiliative; adolescents show more contempt and embarrassment over time, and became less affiliative ; individual stability in conversations over time.
Nwoga (2000)	Recorded interview Church, rural; Southern U.S.	11 mothers of daughters ages 12-19. All African-American.	Stories serve to teach daughters lessons about sexuality and relay cultural values.
O'Sullivan et al. (2001)	Focus groups (22 total) Flyers, referrals; urban, Northeast U.S.	72 mother-daughter dyads; African-American and Latino.	Most conversations initiated at puberty age or when daughters became sexually interested; African-American focus on contraception ; Latino focus on prevention of sexual contact.
Pluhar & Kuriloff, 2004	Observational (videotaped) Clinic and community center; urban, Southeastern, U.S.	30 mother-daughter pairs; All African-American.	Comfort and empathy facilitated communication, while anger and silence produced roadblocks; more interactive conversations were perceived more positively than didactic conversations.

stability or change in conversations over time between parents and children. The study was conducted though a large university in southern California and participants were recruited though schools and newspaper advertisements. At Time 1, 33 mother-child dyads participated (18 boys and 14 girls; ages 11 to 14) and at Time 2, two years later, 24 mother-child dyads participated (15 boys and 9 girls; ages 13-16). The sample included

an ethnic breakdown of 79.2% White, 8.39% African-American, 4.2% Latino, and 8.3% mixed ethnicity. Dyads were videotaped discussing three subjects which were everyday topics, conflicts, and sexuality. Nonverbal behavior was coded into three categories that included affiliation (affection and intimacy), embarrassment, and contempt. The results indicated affective differences between mothers and adolescents and differences over time and between topics. Overall, mothers showed more affiliation towards their children, while sons and daughters exhibited more contempt and embarrassment. At Time 2, adolescents were overall less affiliative than at Time 1. In terms of who spoke more during conversations, mothers dominated all the conversations and dominated conversations related to dating and sexuality more than the other topics. From Time 1 to Time 2, mothers spoke more and adolescents became less affiliative. The authors suggest that mothers may be more concerned as the child gets older or may dominate conversations more as a result of the child's being less responsive. Results of the analysis support the finding that individual differences remained stable across conversations – that is the nature of the communication did not change between topics related to everyday issues and more sensitive topics such as conflicts and sexuality.

Lefkowitz, Romo, Corona, Au, and Sigman (2000) conducted a study of 165 mother-adolescent dyads to determine ethnic differences in conversations about sexuality, conflicts, and AIDS. The researchers also set out to determine differences in conversation structure by age of adolescent, adolescent's perception of the relationship, and mother's knowledge of AIDS. Participants were recruited from schools and youth centers. The sample included 93 girls and 72 boys (ages 10.6 to 15.8) and their mothers (ages 26-59); seventy-three percent were Latino and 27% were White. Each dyad was

videotaped and audio taped discussing the following topics: everyday issues, conflict issues, dating and sexuality, and AIDS. A number of measures were used to examine the conversations that included conversational structure (conversational dominance – amount of speaking time) and maternal behaviors of responsiveness (confirmation, nodding yes, reassuring comments) or negative reaction (correcting, nodding no, disagreeing). The analysis revealed differences in conversational structure based on ethnicity and topic. There was greater maternal dominance in conversations within Latino-American dyads than White dyads, and there was greater maternal dominance in conversations related to sexuality and AIDS than about conflicts and everyday issues. Interestingly, there was stability found across conversations; if mothers were more dominant in one topic, they were dominant in other topics as well. White mothers demonstrated more responsiveness in conversations than Latino-American mothers but no significant differences were found in negative reactions. Lefkowitz et al. (2000) concluded that these ethnic distinctions were due to cultural differences in family relationships rather than due to socioeconomic factors. Latino-American mothers who dominated conversations also reported more satisfaction with their families and more family openness than mothers who dominated conversations less. Latino-American mothers may be less responsive than White mothers more as a function of the amount of conversation rather than being rejecting or negative – if they talk more, there is less time to be responsive.

Lefkowitz, Boone, Sigman, and Au (2002) used a methodology similar to the two previous studies discussed to examine gender differences in mother-adolescent conversations. Conversations between 50 mother-adolescent dyads about everyday issues, conflict issues, dating and sexuality, and AIDS were video-taped and audio-taped.

The sample was recruited from schools and included 25 boys and 25 girls (10.7 to 14.9 years), and had an ethnic breakdown of 40% White, 18% Latino, 16% African-American or African and 14% Asian. Gender differences were found in the self-report data and gender differences were partially supported in the observational data. Boys reported fewer discussions with their mothers than girls in the self-report questionnaire. There were no gender differences in the affective quality of conversations in the observational data but observers noted a stronger mutuality between mothers and daughters than mothers and sons – that is, more similarity in conversations. In mother-son conversations, one person often asked questions while the other answered, in mother-daughter conversations the interaction seemed more mutual. No gender differences were found in the amount or content of communication in the interactions between mothers and sons and mothers and daughters. Additional outcomes suggested that mothers spent more time talking than adolescents about all issues, and there was greater maternal dominance in conversations related to sexuality and dating than about everyday issues. This finding was also supported by Lefkowitz et al. (2000) and Kahlbaugh (1997), who noted greater maternal dominance in conversations related to sexuality than about conflicts and everyday issues.

Pluhar and Kuriloff (2004) videotaped conversations between African-American mothers and daughters to identify patterns in style and affect in conversations about sexuality. Participants were recruited from an adolescent clinic and community center in an urban location in the southeastern United States. A total of 30 mother-daughter pairs were observed; the daughters ranged in age between 12-18 years. The dyads were directed to have conversations about three subjects which were family rules such as

chores and curfews, opinions about teen sexual behavior, and using different methods of contraception. A follow-up meeting was conducted with each mother and daughter separately where the researcher reviewed the video-taped session with the participant to garner more information and have the participant share in the analysis. Analysis of the videotapes revealed two dimensions of the communication process; one was the affective or emotional dimension and the other stylistic. Four qualities were identified in the affective dimensions which were comfort, empathy, anger, and silence. The stylistic dimension included an interactive style characterized by shared conversations and a didactic style where mothers primarily controlled conversations. Mothers used a variety of methods to persuade daughters to make wise choices about sexuality. Common methods include storytelling (examples of what happened to parent or other people), fear/scare tactics (negative consequences of sexual activity), persistence (conversations from an early age), body language (consistent use of non verbal communication with connectedness of relationship), and setting (sexual communication takes place while engaged in other activities). Parents who exhibited comfort and empathy facilitated communication with their children, while anger and silence produced roadblocks. Communication that was more interactive between parent and child produced more comfortable and willing communication because children felt that their parent listened to them. More didactic conversations in which the parent dominated the communication were a turn off for children because they felt parents were not really listening to them.

Gilliam (2007) conducted seven focus groups ($n = 40$) with sexually active Latino women between the ages of 18 and 26 years old to identify factors that support prevention of pregnancy and factors that increase susceptibility to pregnancy.

Participants were recruited from a gynecology clinic and a local community center in an urban location. Almost all of the women who participated had experienced pregnancy previously. The women were asked questions relating to contraceptive methods such as knowledge of methods, comfort level, and perceived barriers to contraceptive use as well as questions regarding their attitudes towards childbearing and pregnancy prevention. Evaluation of the transcripts revealed major themes relating to the women's relationships with their mothers, fathers, and male partners. Mothers commonly used discussion of cultural values (emphasis on virginity and shamefulness of sex outside of marriage) and scare tactics (consequences of sex outside of marriage) to prevent pregnancy. A few participants reported that their mothers communicated about using contraceptives and emphasized higher education as a way to prevent pregnancy. Participants perceived open communication with their mothers and having mothers who were educational role models as being most effective in preventing pregnancy. Lack of communication and misinformation about contraception from mothers was thought to increase susceptibility to pregnancy. Fathers increased their daughters vulnerability to pregnancy by reinforcing mothers' teachings, reinforcing family cultural expectations, and being overly strict. Relationships with boyfriends increased girl's vulnerability to pregnancy by those men who did use condoms, made women responsible for pregnancy prevention, and had poor sexual communication that interfered with condom negotiation.

In another study that used focus groups, O'Sullivan et al. (2001) examined ethnic differences in cues/timing and approach of mother-daughter conversations about sexuality. Participants were recruited from an urban community through flyers, advertisements, and referrals. A total of seventy-two girls and their mothers participated

in separate focus groups for mothers and daughters; daughters were separated into two groups – ages 6-9 and ages 10-13, and participants were African-American and Latino. A number of interesting cultural differences were identified between the African-American and Latino families. In terms of timing/cues of discussions, most mothers initiated discussions at puberty age or when mothers became aware of daughters sexual interest, although some mothers paced discussions throughout childhood. In a few cases, some discussions were postponed indefinitely and this occurred more frequently in Latino families than African-American families. Content of communication was most likely to include information about the dire consequences of sexual activity and emphasis on girls avoiding or controlling sexual encounters. Latina mothers were more likely to talk negatively about male intentions than African-American mothers. Both African-American and Latina daughters responded to such communication by reassuring mothers that they planned to finish school and avoid sexual relations. Cultural differences were also apparent in approach to sex messages. While all mothers tried to gain information from daughters to prevent sexual experimentation and daughters tried to withhold information and avoid conversations, the content of the mothers' messages were different for African-American and Latina mothers. Latina mothers sought information on their daughters' relationships as a way to *prevent all sexual contact* while African-American mothers sought such information as a way to *prevent pregnancy*.

The last study reviewed in this section used a different approach. Nwoga (2000) asked African-American mothers to repeat stories that they tell their daughters, ages 12-19 about sexuality. Participants were recruited through churches and community leaders in a rural southern community in the United States and agreed to have their stories

recorded. Storytelling is a common method of communicating family values and cultural expectations in African American families. This communication method was also identified by Pluhar and Kuriloff (2004) in their study of African American mothers and their daughters. Interviews with the participants revealed that mothers often made “very deliberate and conscientious efforts to carefully select stories that their daughters could relate to in order to provide the necessary knowledge on a sexual topic or life lesson of interest during mother-daughter conversations” (p. 35). Analysis of the stories found that mothers discouraged teenage pregnancy and used common proverbs to convey information about sex-role expectations, contraception, independence, and future success. Some mothers believed in abstinence as a goal while others promoted use of contraceptives. Mothers often used stories about their own lives and fear or scare messages to discourage teenage pregnancy, but also used stories as a way to encourage independence and relay cultural values.

One of the findings that emerged from the qualitative literature is that the emotional tone and stylistic nature of conversations *may be just as important* as the content of the discussion. Rosenthal et al. (2001) attempted to develop a typology to describe the different types of parent communication approaches to sexuality. Effective communicators were identified as those who have open communication, try to make their child feel comfortable, and consider their child’s opinion. Less effective communicators were identified as those who have less open communication, are uncomfortable with sexual discussions, and do not consider their child’s opinion.

These patterns also emerged from reviewing the observational data; parents who exhibited comfort and empathy facilitated communication with their children, while

anger and silence produced roadblocks (Pluhar & Kuriloff, 2004). Communication that was more interactive between parent and child produced more comfortable and willing communication rather than more didactic conversations in which the parent dominated the communication (Gilliam, 2007; Pluhar & Kuriloff, 2004). The perception of “good communication” may be based in cultural/ethnic differences though. Lefkowitz et al. (2000) noted that White mothers demonstrated more responsiveness while Latino-American mothers dominated conversations more. Latino-American mothers who dominated conversations *also* reported more satisfaction with their families and more family openness than mothers who dominated conversations less. This finding suggests that the perception of open communication may be different for different populations and further research into this area is warranted.

Common patterns of communication were found across studies that included: storytelling (examples of what happened to parent or other people), fear/scare tactics (negative consequences of sexual activity), and emphasis on cultural values (Gilliam, 2007; Nwoga, 2000; O’Sullivan et al, 2001; Pluhar & Kuriloff, 2004). There was variation in parental communication regarding contraceptive use and pregnancy prevention. Some mothers adhered to abstinence as a goal while others promoted use of contraceptives as a “better safe than sorry” tactic (Nwoga, 2000). Some mothers talked about contraceptives openly, while others provided no information or misinformation (Gilliam, 2007). Some mothers talked about sexuality with their child from a young age (Pluhar & Kuriloff, 2004) while others avoided discussing the topic at all (Gilliam, 2007; O’Sullivan et al., 2001). Differences in communication patterns were identified within the same cultural/ethnic groups as well as between different cultural/ethnic groups so

generalizations about communication styles of particular populations are difficult to make.

A consistent finding was that mothers dominated conversations more than children and there was greater maternal dominance in conversations related to sexuality than about any other topic (Kahlbaugh et al., 1997; Lefkowitz et al., 2002; Lefkowitz et al., 2000). In addition, it was noted by Kahlbaugh et al. (1997) that as children got older, mothers seemed to talk more and their child talked less. Kahlbaugh et al. (1997) suggested that mothers may be more concerned about adolescent behavior as the child gets older or may dominate conversations more as a result of the child being less responsive. Overall, the observational analyses support the finding that individual differences remained stable across conversations – that is the nature of the communication did not change between topics related to everyday issues and more sensitive topics such as conflicts and sexuality. In other words, parental communication style is consistent between day-to-day conversations that are relatively innocuous and more emotion-laden conversations about sexuality. These differences in communication patterns have also been well documented in the parenting literature and are called “parenting styles.” Theory related to parenting styles will be presented in a later section under Parenting Styles Theory (p. 74).

Theoretical Basis

This section addresses the theoretical models that are used as the basis of this research study. The two sexuality curriculums, abstinence-only and comprehensive sexuality, are based on different theoretical models. The abstinence-only curriculums are based upon Fear Appeal Theory while the comprehensive curriculums are based upon

Social Cognitive Theory as well as the Health Belief model, one of the health education theories. Social Cognitive Theory is presented for the theoretical basis of comprehensive sexuality programs because it explains the basic concepts of modeling, self-efficacy, and self-regulation. Parenting Styles Theory is also addressed as this provides a model to understand parent-child communication about sexuality.

Fear Appeal Theory

Review of Fear Appeal Theory

In this section, a brief review of fear appeal theory and effectiveness will be presented and then research on cognitive processing of fear appeal messages will be reviewed.

Fear arousal messages have been widely used in many public health campaigns in an attempt to influence health protective behaviors (for example: smoking cessation, sunscreen use to prevent skin cancer, seat-belt use to prevent auto accidents, exercise behaviors, and condom use to prevent AIDS) (Salovey & Wegener, 2003; Witte, 1998). This method works by informing individuals of the health consequences of a particular behavior with intent of arousing a fear response. Recommended health changes are then suggested and encouraged as a way to reduce this fear. An example is a vivid description of a sexually transmitted infection that could be acquired through sexual activity and then advocating condom use as a way to avoid the health consequences.

The first fear appeal model was developed by Hovland, Janis, and Kelly in 1953, called the Drive Reduction Model. The basic premise of the model is that fear causes a negative drive state which will motivate individuals to take the recommended action to reduce the negative state. A curvilinear relationship between negative arousal and action

was postulated. Moderate fear appeals seem to work best because if the fear becomes too intense, then the recommended action would no longer be sufficient to reduce the fear, and maladaptive defenses would occur (Beck & Frankel, 1981; Witte, 1998).

Maladaptive defenses include not attending to the message, minimizing the health threat, or minimizing a person's perceived susceptibility to the threat. The drive theories were rejected in the 1970's because of lack of support for the curvilinear model and the hypothesis that when fear is reduced acceptance of the message occurs (Witte & Allen, 2000).

The Parallel Process Model, proposed by Leventhal in 1970, postulated that there were two parallel processes by which fear appeals work, an emotional process called the fear control process and a cognitive process called the danger control process (Beck & Frankel, 1981; Witte, 1998). In the emotional process, people use coping strategies to control their fear; in the cognitive process, people use protective actions to control the danger. The Parallel Process Model was never specifically tested but was used later as the basis for the Extended Parallel Process Model (Witte, 1998).

Rogers' Protection Motivation Theory (PMT) was developed in 1975 and later expanded in 1983. This theory focused on the cognitive reactions to fear appeals and stated that the fear appeals would be effective if (a) a person felt vulnerable to the threat – perceived susceptibility, (b) the threat was severe – perceived severity, (c) the recommendation to deal with the threat was perceived as effective – response efficacy, and (d) belief in ability to perform the recommended response – self-efficacy (Witte, 1998). If all four of the components are high, then the amount of protection motivation would be high, causing attitude or behavior change (protection motivation is the

intervening variable that motivates a person to action). Rogers gave a small role to fear in his model and thought it was related only to perceptions of severity. While PMT has been utilized frequently in health behavior research, it has been criticized for not specifying the conditions and moderators of the four predictor variables that facilitate change or under what conditions fear appeals fail (Salovey et al., 2003; Witte, 1998).

The Extended Parallel Process Model (EPPM), the most recent model, expands on the three previous theories described above and looks at conditions where fear appeals work and where they fail (Witte, 1998). The basic framework of the model is that people make two appraisals when they encounter a fear arousing message, an appraisal of the threat and an appraisal of the efficacy of the recommended response. Individuals will first appraise the threat by determining how severe the threat is and how susceptible they are to the threat. After the initial appraisal of the threat, one of three actions will occur: (a) no response – the threat is not considered severe or they don't think they are at risk (b) acceptance – they feel at risk and also feel they can control the danger, or (c) rejection – they feel at risk but do not feel efficacious in controlling the danger. Thus, if people perceive the threat is severe, they will be motivated by the fear to take action in one of two ways, by controlling the danger (e.g., using condoms to avoid AIDS) or controlling their fear through coping responses to reduce the fear (I'm not bi-sexual so I'm not at risk for AIDS). As stated by Witte (1998) "perceived threat determines the strength or how much of a response there is to a fear appeal, whereas perceived efficacy determines the nature of the response – whether a fear appeal induces danger control or fear control processes" (p. 431).

Fear appeal theories are a useful framework in understanding the theoretical basis of abstinence-only curriculum. The major technique used in abstinence-only curriculum is the portrayal of negative consequences of sexual activity and the recommendation of abstinence to avert the expected arousal of fear. In the Medical Institute for Sexual Health (MISH) Guidelines for developing abstinence-only programs, numerous fear-based examples are used to convey the message that there is “no responsible sex for unmarried teenagers” (Mayer, 1997, p. 14). For example:

The destructive consequences of adolescent sexual activity include pregnancy and its consequences (400,000 teen abortions annually) sexually transmitted diseases (including possible long-term health consequences, such as loss of fertility), emotional hurt, potential difficulty in future relationships, and the development of disrespectful and irresponsible behavior pattern that are antithetical to good character. (Mayer, 1997, p. 14).

The effectiveness of abstinence-based programs was reviewed earlier (see Program Outcomes, p. 21) revealing no statistically significant differences in outcomes between abstinence-based programs when compared to control groups. The next section reviews the effectiveness of fear appeals used in public health programs.

Effectiveness of Fear Appeals

It is a widely held belief by public health educators and health care practitioners that fear appeals are not effective in changing health behaviors because they tend to backfire and do not have a long-term impact on behavior change (Green & Witte, 2006; Witte & Allen, 2000). According to Green and Witte (2006), in a recent article on fear arousal and public health campaigns to reduce HIV infection, the objection to fear-based messages by American experts has more to do with values and ideology than with objective analysis. They argue that the sexual revolution in the 1960's and 1970's in the United States instilled in the minds of many people the belief that sex should be thought

of as “positive.” Any fear-arousal linked with sexuality that causes “sex-negative” messages evokes strong resistance due to the connection with broader political issues such as sexual freedom, women’s rights, contraceptive rights, and abortion rights. The Uganda AIDS Control Program is used as an example of a successful campaign that utilized fear-related messages and saw a 66% decline in the HIV prevalence rate between 1992 and 2002. While it is unclear exactly what factors or combination of factors caused the dramatic decline, Green and Witte theorize that the fear messages played a large role in motivating people to change their sexual behavior.

Over the past 25 years, four meta-analyses on fear-arousal messages have been completed and have suggested, overall, that fear appeals do change behavior (Green & Witte, 2006; Witte & Allen, 2000). None of the meta-analyses supported the curvilinear model purported by the Drive Reduction Theories but instead consistently found that the stronger the fear-arousing messages, the greater the attitude, intention, and behavior change. The most recent meta-analysis by Witte and Allen (2000) is reviewed below.

Ninety-eight experimental and quasi-experimental studies were included in Witte and Allen’s (2000) meta-analysis of fear appeal studies. All of the studies were required to meet set criteria for inclusion, with one of the criteria being manipulation of fear or fear threat. The results indicated main effects for fear appeal message features on perceptions that included moderate effects for fear arousal, large effects for perceived severity, and moderately large effects for perceived susceptibility. No curvilinear relationship was found and in fact, the stronger the fear appeal, the greater the attitude, intention, and behavior changes. Similar relationships between the strength of the

individual factors' severity, susceptibility, response efficacy, and self-efficacy were found with attitude, intention, and behavior changes.

An interaction analysis was performed between threat and efficacy on 23 studies. To be included in the analysis, only one of the threat variables, severity or susceptibility, had to be measured and only one of the efficacy variables, response efficacy or self-efficacy, had to be measured. An analysis of variance revealed that the high threat-high efficacy (HTHE) group had significantly greater persuasive effect than the other three cells (categories). The high threat-low efficacy (HTLE) and low threat-high efficacy (LTHE) did not differ from one another and had less effects on persuasion than the HTHE group. The group with the least effect was low threat-low efficacy (LTLE). Witte suggests that this interaction finding supports an additive effects model in which higher levels of threat and higher levels of efficacy produced the greatest means and were thus the most persuasive in changing attitudes, intentions, and behaviors.

The major difference in Witte and Allen's (2000) meta-analysis from previous meta-analyses is the extent to which it measured fear control responses to fear arousing messages. Fear control responses can be considered any psychological defense that a person uses to resist the recommended prescription of the fear arousal message. Only thirteen studies were identified that examined the strength of a fear appeal and defensive response. The findings indicated that self-protective actions and defensive responses in reaction to a fear appeal are inversely related. That is, when presented with a fear appeal, a person will either respond with danger control (self-protective measures such as attitude, intention, or behavior change) or a defensive response (psychological defense such as denial) to control the fear. The results also indicated that the stronger the fear

appeal, the stronger the defensive response; and the weaker the efficacy message, the greater the defensive response. This finding is very relevant in terms of understanding a person's response to a fear-arousing message. If a person feels that he/she is not self-efficacious to perform the recommended action, then a defensive/psychological response such as rationalization will be used. Unfortunately, it is difficult to know which process is dominant (danger control or defensive response) unless perceived efficacy has been measured.

While Witte and Allen's (2000) meta-analysis suggested that fear appeals have positive effects on attitudes, intentions, and behaviors, it is important to note that the correlations between fear manipulation and attitude, intention, and behavior changes were overall very low (.14 for attitude, .11 for intention, .15 for behavior). They also found that individual differences such as trait anxiety were unrelated to persuasive outcomes, so practitioners should not concentrate on this factor in developing fear-arousing messages. The most central finding in terms of the effects of fear appeal messages was the importance of self-efficacy in the interaction between the message and the individual. Thus, the authors conclude the meta-analysis by recommending the use of strong fear appeals accompanied by equally strong efficacy messages to promote attitude, intention, and behavior change.

The evaluation of fear appeals has focused on the effect of fear on beliefs, intentions, and behavior change. The conclusions of the major meta-analysis of the effectiveness of fear appeals are that fear appeals can change behavior but must be accompanied by strong efficacy messages (Green & Witte, 2006; Witte & Allen, 2000). The following section focuses on individual cognitive processing of fear appeal messages

so that a better understanding of the influence of fear appeals and individual response can be made.

Cognitive Processing Studies

In the late 1980's and early 1990's, there was a theoretical shift in emphasis in the research studies, from outcomes to the actual processing of fear appeal messages. This section examines the studies most cited in the literature from that time period and includes the years 1990-1995 (see Table 3). More recent studies on cognitive processing of fear arousal messages have not been located.

The major question addressed by researchers examining cognitive processing of fear appeals is "does fear reduce or facilitate systematic processing of messages?" Based on fear appeal theory, if a person perceives the threat is severe, he/she will be motivated

Table 3

Type of Manipulation and Assessment in Fear Arousal Studies

Author	Topic	Assessment *	Result**
Baron et al. (1992)	Effect of dental fear on processing of persuasive information related to sales tax.	Argument quality	yes
Baron et al. (1994)	Effect of dental fear on processing of persuasive information related to fluoride.	Argument quality	no
Gleicher & Petty (1992)	Effect of expectations on cognitive processing of information related to crime and illness.	Argument quality	Yes
Hale et al. (1995)	Effect of fear arousing content related to ultraviolet radiation on cognitive processing.	Thought-listing	yes
Jepson & Chaiken (1990)	Effect of naturally occurring fear related to cancer on cognitive processing.	Thought-listing	Yes

* All studies used message quality manipulation

**Did Fear Reduce Message processing?

by the fear to take some sort of action. Two responses may occur: an individual may have a defensive-avoidance response, in which case systematic processing would likely be reduced; or an individual will increase systematic processing because of personal motivation to understand the message better (Baron et al., 1994; Jepson & Chaiken, 1990). The alternatives laid out here focus on motivation of the individual to process the fear-arousing message. Another possibility is that the fear itself might somehow diminish ability or capacity to engage in systematic processing because attention is divided so an individual may use “cognitive shortcuts” or peripheral processing of messages instead (Baron et al., 1994; Jepson & Chaiken, 1990;). The majority of the studies addressing this issue have found that fear inhibits systematic processing of information (Baron et al., 1992; Hale et al., 1995; Jepson & Chaiken, 1990) with the exception of one study that found an increase in systematic processing (Baron et al., 1994) and one study that found an increase in systematic processing in a particular situation (Gliecher & Petty, 1992).

Jepson and Chaiken (1990) evaluated the effects of chronic fear on processing of persuasive communications in 86 male and female college students. Participants were measured for their level of chronic fear (perceived susceptibility and perceived severity to cancer) and then given a text reading on the importance of cancer screening for young adults. The text reading was either a high quality reading that contained logical arguments about cancer screening or a low quality reading that contained weakness and illogical arguments. After the text reading, participants were asked to use a thought listing procedure to list the number of errors in the text, list their thoughts on the reading, rate their emotional reaction, and indicate their behavioral intention. As hypothesized,

there was a significantly negative correlation between participants who rated higher on chronic fear and the number of errors detected and the number of thoughts listed. Jepson and Chaiken (1990) concluded that chronic fear was associated with less systematic processing of messages due to habits of defensive avoidance. A significant positive correlation was found between chronic fear and behavioral intention. This is a counter-intuitive finding in that participants with higher levels of chronic fear, had lower levels of systematic processing, yet were more persuaded by the message. According to the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986), persuasion may have occurred through the peripheral route of processing, reducing the likelihood of long-term attitude and intention change. The stability of intentions is unknown in this experiment because data were collected immediately after the text reading without any lapse in time.

Hale, Lemiux, and Mongeau (1995) used a similar design to the Jepson and Chaiken (1990) study by using text reading of fear-arousing message content to test level of message processing. Two hundred college students were presented with either a high fear or low fear message related to ultraviolet radiation that contained three behavioral recommendations to reduce the risks of exposure. After the text reading, participants completed a questionnaire on perceived fear, trait anxiety, attitudes towards prevention measures, behavioral intentions, and cognitions (using a thought-listing technique). A path analysis was used to evaluate the effects of perceived fear on cognitions, attitudes, and behavioral intentions. The results indicated non-significant fear-attitudes path for the low fear group, but as perceived fear increased, there was an increase in the proportion of positive cognitions, positive attitudes towards the message's prevention recommendations, and attitudes were more likely to conform to behavioral intentions.

According to Hale et al., (1995) this finding indicated individuals were using more central processing in low fear groups and peripheral processing in the high fear groups. This is consistent with ELM theory that fear diminishes a person's ability to engage in systematic processing so he/she will accept the message on "face value" without in-depth cognitive processing.

In a variation of studying the effects of fear on message processing, Gleicher and Petty (1992) examined the effects of expectations of message content on level of processing. In a somewhat complicated 2x2x2x2 design, 367 college students listened to a taped message on crime or illness (low vs. high fear and irrelevant vs. relevant messages) and then read a newspaper article on crime prevention (clear vs. unclear assurance that the crime prevention program would work and strong vs. weak persuasive message). Gleicher and Petty hypothesized that if an individual believes that the information provided will help him to protect himself, he will engage in more in-depth analysis. If the individual already has reassurance by another means, he may avoid careful message processing and practice defensive avoidance. The results indicated that fear can influence persuasion by motivating a person to be reassured, and thus the individual would be more likely to accept information that reduces the threat without processing the information in an in-depth manner as defensive avoidance response. In this study, the argument that fear diminishes the ability to process information was only supported in the situation where a solution to the threat is unclear and systematic processing would enable individuals to make a decision that can help better protect themselves.

Baron et al. (1994, 1992) conducted two experiments using dental clinic patients to evaluate processing of information related to fear arousal. In the first experiment (Baron et al., 1992), 34 male and female dental patients (ages 19-75) from a university dental clinic listened to a taped message of the upcoming dental procedure (high fear message) or information on fluoride protection (low-fear message). The patients then listened to a taped message on increasing state sales tax. Prior to listening to the messages, the patients completed an anxiety scale and an assessment of attitude toward state sales tax. After the manipulation, message processing was assessed through a true-false recognition task, attitude towards sales tax, and rating of message quality. The results indicated no main effects with anxiety on attitude change, message quality, or memory task. There was an interaction effect found between fear instruction and initial anxiety. Patients in the high fear group rated message quality higher only when their initial anxiety was high. Baron et al. (1992) concluded that this finding supports the concept of less systematic processing of messages under fear arousal. Overall, the results of this experiment were rather weak and this was probably due to the small sample size.

A later study by Baron et al. (1994) using dental clinic patients had a larger sample size of 94 male and female patients (ages 18-80). This manipulation was slightly different in that two factors were being assessed, fear condition and message quality. First patients heard either a low-fear or high-fear tape on dentistry and then they listened to a high-quality or low-quality tape on fluoride and cancer. Prior to the taped messages, patients filled out a trait anxiety scale. Post measures included ratings of message quality, memory task on fluoride, and attitude towards fluoride. The results indicated an interaction effect, i.e., the high fear group significantly more likely to respond positively

to high quality messages on fluoride than the low fear group. This finding suggests more systematic cognitive processing by individuals exposed to a fear arousal condition and is not consistent with data from the other studies reviewed on message processing and fear arousal (Baron et al., 1992; Hale et al., 1995; Jepson & Chaiken, 1990). Baron et al. (1994) suggest high fear subjects were more motivated to process the information carefully due to the salient health message rather than use a defensive avoidance mechanism and process information peripherally. It is unclear why this study differs in results from the other fear arousal studies but if personal interest/motivation were assessed, then insight into the reason for this finding could be clarified.

In sum, the studies reviewed here suggest that fear arousal does have an impact on cognitive processing by inhibiting processing through the central route. It is still unclear in what situations or by what mechanism fear interferes with processing of information – is it through a defensive-avoidance response or diminished ability to process information? It is also unclear in what situations fear may increase processing, as suggested by Baron et al. (1994), by motivating an individual to understand the message better in an effort to implement recommended actions to reduce the fear. The fear studies reviewed did not use as a variable a measure of an individual's motivation or personal interest. It was assumed that participants were equally interested in reading or hearing the persuasive messages and that type of processing was directly related to the fear manipulation. It is quite possible that personal interest or disinterest in the communication could have played a role in how well individuals attended to the content and processed the information, rather than the fear arousing message itself. It is also important to note that the procedures used to manipulate fear were all artificial text or

audio messages. The persuasive communications were not actual messages used in real life but were manipulated by the experimenter in a controlled situation to reduce confounds to the study. Would the findings be consistent in real life situations such as public health campaign literature, advertisements or seminars?

Social Cognitive Theory

Comprehensive sexuality education programs use one or more theoretical models as the basis of their programs; these may include health education theories, social-psychological theories, and cognitive theories (Saunders, 2005). The model which will be discussed here is Social Cognitive Theory because most comprehensive sexuality programs include many of its constructs in program development. This section will include an overview of Social Cognitive Theory and then review sexuality related studies that use this theoretical perspective.

Review of Social Cognitive Theory

Social Cognitive Theory is based upon Bandura's Social Learning Theory (1977) which focuses on the social influences on an individual's behavior. Social Learning Theory explains behavior through a triadic model of interaction between cognitive, behavioral, and environmental influences. The basis of the theory is observational learning and modeling of the behaviors, attitudes, and emotional reactions of others. Modeled behavior is adapted through the component processes of attention, retention, motor reproduction, and motivation. Pregnancy prevention programs based upon Social Learning Theory would use a program leader or peer leader whose achievement and/or goals are thought to be appropriate for supporting the prevention of pregnancy. For instance, using a leader who is respected by other teens who can serve as an appropriate

role model (not having a child at a young age, completing school, successful) to persuade students to postpone pregnancy and parenting (Saunders, 2005).

Social Cognitive Theory, proposed by Bandura (1986), builds upon Social Learning Theory by incorporating the cognitive component of learning that includes self-efficacy and the process of self-regulation to manage one's behavior. Behavior is explained through a triadic model of interaction between personal variables and behavioral and environmental influences, and human functioning is viewed as occurring through deliberate actions of an individual (Schunk & Zimmerman, 1997). For example, if a student chooses tasks that are challenging, is persistent in his/her work and puts a lot of effort into an assignment (behavioral variables), the student will note his/her progress and will increase his/her self-efficacy (personal variable). A student who is high in self-efficacy (personal variable) will realize a distracting environment is not conducive to work and therefore manage the distraction (environmental variable).

One of the major components of Social Cognitive Theory is the concept of self-efficacy. Self-efficacy is defined as "personal judgments of one's capabilities to organize and execute courses of action to attain designated goals" (Zimmerman, 2000b, p. 83). In other words, it is personal beliefs about one's ability to learn or perform a behavior. It is a different construct than self-esteem or self-concept in that it is very task specific and focused on performance capabilities rather than personal characteristics. For instance, in terms of pregnancy prevention, an individual may have high self-efficacy in his ability to put on a condom (able to perform the task) but low self-efficacy in his ability to talk with his partner about using a condom. Self-efficacy can be promoted through direct teaching or instruction, using peer models performing the task, giving verbal encouragement,

providing challenging but manageable learning experiences, and reducing stress surrounding the performance of the activity. Development of self-efficacy is often an important component of comprehensive sexuality programs. Skills training is used in many programs to increase self-efficacy for specific tasks such as communication skills, using condoms and/or contraceptives, dealing with peer pressure, and using health resources (Kirby, 2001).

Self-regulation is another central component of Social Cognitive Theory and it can be described as “self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (Zimmerman, 2000a, p. 14). The process of self-regulation includes the interaction of three components: forethought, performance, and self-reflection. Forethought includes such things as setting goals, planning actions, and structuring the environment to make it conducive for learning; performance includes attention, self-instruction, and self-monitoring of behavior; self-reflection includes evaluating performance based on a set standard and self reactions. These components work together in a feedback loop so self-reflection will inform if goals were met, need to be modified, or if new goals need to be set. The self-regulatory model is often used in health education to assist individual behavior change for losing weight, stopping smoking, or increasing exercise (Watson & Tharp, 2002).

Social Cognitive Theory is a useful framework for understanding the theoretical basis for many comprehensive-based programs. In particular, the concept of self-efficacy is central to these curriculums so that adolescents may feel capable of managing their own sexuality and preventing pregnancy. The next section reviews studies related to sexuality that utilize Social Cognitive Theory.

Sexuality-Related Studies

This section will review a few recent program interventions that incorporate Social Cognitive Theory into program planning or program implementation (Coyle et al., 2006; DiIorio et al., 2006a; DiIorio et al., 2006b). Three different studies will be discussed: a school based intervention, a program promoting mother-child sexual communication, and a program promoting father-son sexual communication.

All4You is an intervention designed to reduce the risk of HIV, STD's, and pregnancy in students attending alternative schools (Coyle et al., 2006). Twenty-four schools located in urban counties in Northern California participated in the study; thirteen schools were randomly assigned to the intervention and 11 schools served as the control group. A total of 988 students participated in the baseline survey and 76% of the participants had at least one follow-up survey at 6, 12, or 18 months later. The ethnic breakdown of the intervention group was 29% African American, 27.6% Latino, 16.9% Asian American, 12.2% White, and 14.2% other. Sixty-one percent were male and 39% female (the control group had a comparable breakdown). The curriculum included 14 sessions (26 hours total) and was a skills-based program based on the Theory of Reasoned Action and Social Cognitive Theory. Skills such as negotiation, communication, and how to use condoms were included in the curriculum. The program outcomes showed that the intervention group was *less* likely to have intercourse without a condom in the previous three months and *more* likely to use a condom at last intercourse than the control group. While this outcome was encouraging, the effects of the curriculum did not continue at the 12 and 18 month follow-ups. The authors attribute the diminished effect, in part, to the nature of students who attend alternative schools.

Participant attrition was a problem and students who attend alternative schools tend to have complicated lives, which may put them at greater sexual risk than students attending regular schools.

SET the P.A.C.E. program is an intervention designed for mothers of children ages 6-12 years old to enhance communication skills of parents and prevent early initiation of sexual activity in their children (DiIorio et al., 2006b). The program was offered as a community-based intervention in eight sites in Atlanta, Georgia; the participants were 94% African-American. The content of the curriculum was based on Social Cognitive Theory and included skills training to promote parental self-efficacy in communicating with their children about sexuality. The curriculum topics included adolescent development, communication skills, peer pressure, and parental role in monitoring children. Ten sessions were offered once per week for 2 hours. The intervention was not offered as part of an experimental design so the program was evaluated by participant surveys at the conclusion of the program. Overall, 98% of the participants stated that they enjoyed and benefited from the program. Ninety-one percent of the participants felt the course content helped them communicate with their children and 89% felt their child benefited from their participation.

R.E.A.L. MEN is an intervention program designed for fathers and their sons, ages 11-14 years old, to increase the fathers' role in communication with their sons (DiIorio et al., 2006a). The program was offered as a community-based intervention in Atlanta, Georgia and included an intervention and control condition that focused on exercise and nutrition. A total of 277 fathers and sons participated in the study; the participants were 94% African-American. The program was based on Social Cognitive

Theory and included skills training to promote parental self-efficacy in communication with their sons with the intention of delaying the initiation of sex or promoting prevention practices for those already sexually active. The curriculum ran for seven sessions, 2 hours each session, and included adolescent development, communication skills, and HIV/STI transmission and prevention. The results indicated statistically significant differences between the intervention and control group at the 3 and 12 month follow-up periods. Fathers in the intervention group reported higher sex-based communication and self-efficacy for communication with their sons. The authors attributed the increases in communication to increases in self-efficacy, with self-efficacy serving as a mediator for increasing sex-based communication.

In sum, the three studies reviewed demonstrate the effective use of Social Cognitive Theory in program planning and implementation of sexuality related programs (Coyle et al., 2006; DiIorio et al., 2006a; DiIorio et al., 2006b). In particular, skill training was used in all of the programs to increase self-efficacy for communication and/or reducing sexual risk behaviors. These programs are comparable in design to comprehensive sexuality education programs which also aim to increase self-efficacy through skills training (Saunders, 2005).

The next section turns to parenting styles theory which will provide a model to understand parent-child communication about sexuality.

Parenting Styles Theory

Parenting styles are based upon the seminal work of Baumrind (1967) who studied child-rearing practices that were associated with different patterns of competence in young children. Baumrind's research approach was based on the assumption that

child development was, for the most part, directly related to parental practices. In recent years, Baumrind's theory has come under increasing criticism as other explanations for child cognitive and social development have been espoused, namely peer influence and the school environment (Harris, 1998; Steinberg; 1996). Even so, Baumrind's theory still holds broad appeal and is widely cited. Her discussion of three patterns of parenting -- authoritarian, authoritative (democratic), and permissive are particularly relevant to the parental communication patterns discussed in this research, therefore this theory will be reviewed.

Baumrind's (1967) parenting styles theory is based upon her study of preschool age children's behavior and the childrearing practices associated with the behaviors. Children were categorized into three patterns of competence and then the childrearing practices of parents of those three patterns were identified. The three patterns of parenting styles were identified as authoritarian, authoritative (democratic) and permissive. For ease of reference, authoritative parenting style will be referred to as democratic to prevent confusion between similar terms used in two of the parenting styles.

The major characteristics of authoritarian parents are discipline styles that are nonpermissive, nonnurturant, and controlling (Baumrind, 1967). Parents who are authoritarian are often very protective and concerned. The child is viewed as subordinate and obedience is valued and punitive measures are used for disobedience. There is little verbal give and take and parents believe children should follow their orders without questions. Children raised by authoritarian parents are characterized as being

moderately self-reliant and self-controlled but also dysphoric and disaffiliative (Baumrind, 1978).

The permissive style, often considered “laissez-faire,” is characterized by a parent who is affirmative and accepting of a child’s impulses and actions. The parent views his/her role as a resource for the child but not as an agent for shaping a child’s behavior. The child is given as much freedom as possible and is viewed as having rights similar to adults. Permissive parents may be very protective and loving or very self-involved. A child raised by permissive parents is characterized as having low self-control, low self-reliance, and being less organized than children of either authoritarian or democratic parents (Baumrind, 1978).

The democratic parent is characterized by being controlling and demanding but also nurturant, communicative, consistent, and loving (Baumrind, 1967). Parents who are democratic use rational, issue-oriented authority, recognize children’s opinions and individuality, allow verbal give and take, communicate parental policy, and set standards of behavior. Parents will take control when children disobey but they try to use reasoning to shape behavior. Children of democratic parents are characterized as being self-reliant, self-assertive, and self-controlled (Baumrind, 1978).

Even though Baumrind has been criticized for having a Western bias to her research, there are basic communication tendencies that seem to be stable in individuals. The original study (1967) was based on White, middle class families and there was a preference for individualization which is reflective of competence in American society rather than cooperation which is valued in many other cultures. Individual styles of communication are supported in research on the affective nature of mother-child

communication about sexuality (Kahlbaugh et al., 1997; Lefkowitz et al., 2000). In fact parental patterns of communication were found to be stable across conversations rather than as a function of the topic, indicating that parenting styles theory can be used to explore parent-child communication about sexuality.

Summary and Application

This research review focused on two major approaches that have been used to reduce adolescent sexual risk behavior: (1) implementation of school sexuality curriculums, and (2) educational programs for parents aimed at increasing parent-child communication about sexuality. Both research studies and theoretical models related to school-based sex education curriculums and parent-child communication about sexuality were examined. The next sections will summarize the major points of the literature review in relation to these two areas of research and then present the purpose and rationale of the current study.

School-based curriculums

School-based sexuality education programs are offered as part of regular classroom curriculum and are designed to reduce sexual risk behavior or delay the onset of sexual activity (Kirby, 2000). The objectives of school curriculums are to increase sexual knowledge and to impact individual factors that are related to sexual behavior such as communication skills and self-efficacy (Dittus et al., 2004). In the United States, most curriculums fall within two major categories: abstinence-based education, which promotes abstinence as the only acceptable alternative for young people; and comprehensive sexuality education, which includes a broader range of information and includes discussion of contraceptives and condoms.

The abstinence-only curriculums are based on Fear Appeal Theory and use fear of the physical, psychological, and social consequences of sexual activity as the basis of the program. The underlying messages given to students regarding sexuality tend to be negative and rely on the emotions of shame, guilt, embarrassment, and fear. If sexual activity and pregnancy prevention are addressed, the emphasis is on failure rates of condoms and oral contraceptives (Donovan, 1998; Mayer, 1997). In addition, abstinence-only programs have been criticized for containing incorrect and misleading information about reproductive health, promoting religious teachings, censoring information related to contraception and sexual health, and being hostile to gay and lesbian youth (American Civil Liberties Union, 2007; U.S. House of Representatives Committee on Government Reform, 2004). The abstinence-only approach is characterized by being very controlling and directive when presenting information. This type of communication is comparable to the authoritarian parenting style described by Baumrind (1967). In fact, qualitative studies on parent-child communication demonstrate similarities between the approach of abstinence-only curriculums and parents who use authoritarian communication styles. Parents with these patterns tend to use fear/scare tactics, shame, and misinformation about contraception when interacting with their children (Gilliam, 2007; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004).

Reviews of abstinence-only programs have been limited because assessments of the programs have not been based on scientific evaluation criteria (such as random assignment of groups and sufficient follow-up). The data that are available reveal no evidence that the programs delay the initiation of sex or reduce the frequency of sex (Kirby, 2002; Kirby, 2001; United States Government Accountability Office, 2006).

Most recently, in April 2007, the final results of a multi-year, experimental evaluation of the federally funded Abstinence Education Programs were published (Mathematica Policy Research, Inc., 2007). The findings indicated no significant differences between program and control groups in abstinence rates, rate of condom use, age at first sexual intercourse, or number of sexual partners.

The comprehensive sexuality programs take a broader view of developing positive views of sexuality through providing information and assisting with personal skill building. They are based on Social Cognitive Theory and the Health Belief Model, a health education theory, as the basis of program development (Rosenstock et al., 1988; Saunders, 2005). These programs argue that the “just say no” campaigns do not work. The curriculums explore the benefits of abstinence, but also include contraceptive and safer sex messages. There is also a focus on personal skills training to improve decision-making, communication, and assertiveness (SIECUS National Guidelines Task Force, 2004). Comprehensive sexuality programs strive for scientific accuracy, up-to-date information, and the approach attempts to be nonjudgmental in nature. The comprehensive approach is characterized by being open to various opinions and interactive in nature when presenting information. This type of communication is comparable to the democratic parenting style described by Baumrind (1967). Qualitative studies on parent-child communication demonstrate similarities between the approach of comprehensive curriculums and parents who use democratic communication styles. Parents with these styles tend to be more interactive in nature and to exhibit openness, comfort, and empathy when communicating with their children (Pluhar & Kuriloff, 2004; Rosenthal et. al, 2001).

Reviews of comprehensive sexuality education programs have found consistent evidence that these programs work (Santelli et al., 2006). Programs that emphasize abstinence as the best choice but also encourage condoms and contraceptives for teens who decide to become sexually active reduce initiation and frequency of sex and increase contraceptive use once teens become sexually active (Guttmacher, 2006; Kirby, 2001). Comprehensive sexuality education programs are more effective than abstinence-only programs in encouraging healthier adolescent decision making and reducing sexual risk taking.

Even though strong evidence of the effectiveness of comprehensive programs exists and health professionals, parents, and teachers support comprehensive sex education, abstinence-only programs became more common during President Bush's administration (2000-2008) (Guttmacher Institute, 2006a; Santelli et al., 2006). One of the reasons for the shift in emphasis was that there was dedicated Federal funding for abstinence-only programs while no such funding existed for comprehensive sexuality education programs. This shift in emphasis became evident in classrooms across the country where more and more teachers were teaching that abstinence is the only way to prevent pregnancy and STI's. There was less and less classroom instruction on topics related to contraception and sexual decision making (Guttmacher Institute, 2006a). The tide seems to be shifting towards more comprehensive-based programs as a result of the publication by Mathematica Policy Research Inc., in April 2007 of an evaluation of abstinence-based programs that found no significant differences in teenage sexual activities when compared to control groups. The election of President Obama in 2008 is expected to bring with it with it shifts in sex education policies (The White House, 2009).

Parent-child communication

Community-based programs to improve parent-child communication about sexuality are grounded in the belief that the family plays an important role in the communication of sexual values and expectations as well as modeling and shaping behaviors through parenting practices (Dittus et al., 2004). Parent-child communication programs aim to increase parent knowledge and comfort in talking about sexuality with their children in an effort to reduce adolescent sexual risk taking (SIECUS, 2002). Studies examining parent-child communication about sexuality have focused extensively on the impact of communication on adolescent sexual behavior, revealing complex relationships and contradictory findings. Some studies suggest that greater parent-child sexual communication is associated with an increase in contraceptive use, delayed age of first intercourse, reduced sexual activity, and reduced risk of pregnancy (Baumeister et al., 1995; Hutchinson et al., 2003; Hutchinson, 2002; Pick & Palos, 1995; Somers & Vollmar, 2006). Other research suggest the opposite relationship: parent-child sexual communication was associated with reduced age at first intercourse and increased number of sexual partners (Clawson & Reese-Weber, 2003; Taris & Semin, 1998; Taris & Semin, 1997). One study provided inconclusive results about parent-child communication and adolescent risk behavior (Miller, 2002).

Various factors may be responsible for modifying the effect of parent-child communication on adolescent sexual behavior including frequency, content, and timing of conversations as well as comfort level of the child and parent in discussing sexuality related issues (Eisenberg et al., 2006; Hutchinson, 2002; Pluhar & Kuriloff, 2004). There is evidence that parents who provide closeness, support, and warmth may

encourage their youngsters to delay intercourse, but over-controlling or intrusive parents may inadvertently increase adolescent sexual risk behavior (Miller, 2002). Parents who monitor their children's behavior may also reduce the risk of adolescent pregnancy (Miller, 2002).

Most of the studies on parent-child communication about sexuality have relied on paper and pencil questionnaires or phone interviews that require participants to complete closed-ended questions. While this type of research can survey large groups of people, the responses are limited to recall of past events and do not address the intricacies of the communication process. A number of more recent studies have attempted to overcome this limitation by looking not just at quantity, frequency, and content of communication, but also at more subtle differences in *how* the information was relayed, or parental communication styles. These more qualitative lines of inquiry reveal parental variations in terms of affect (emotion) and style of communication that may account for differences in how adolescents perceive the messages related to sexuality (Gilliam, 2007; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004; Rosenthal et. al, 2001).

One of the findings that has emerged is that the affect and stylistic nature of conversations may be just as important as the content of the discussion, and that the emotion and style tends to be consistent across topics. The affect, or emotional tone, refers to the specific feelings that accompany conversations about sexuality. The communication style refers to the "distinct manner of expression" used to communicate about sexuality (Pluhar & Kuriloff, 2004, p. 309). In a qualitative analysis of observational data between mothers and daughters, parents who exhibited the emotions of comfort and empathy facilitated communication with their children, while parental

emotions of anger and silence produced roadblocks (Pluhar & Kuriloff, 2004). Communication that was more interactive between parent and child produced more comfortable and willing communication, perhaps because children felt that their parent listened to them. More didactic conversations in which the parent dominated the communication may have been a turn off for children, perhaps because they felt parents were not really listening to them (Pluhar & Kuriloff, 2004). Similar findings emerged in a study by Rosenthal et al. (2001) who attempted to develop a typology to describe the different types of parent communication approaches to sexuality. Effective communicators were identified as those who have open communication, try to make their child feel comfortable, and consider their child's opinion. Less effective communicators were identified as those who have less open communication, are uncomfortable with sexual discussions, and do not consider their child's opinion.

Research by Kahlbaugh et al. (1997) and Lefkowitz et al. (2000) on the affective nature of mother-child communication supports the notion that individual styles of communication are stable across conversations rather than varying as a function of the topic. In other words, parental communication style is consistent between day-to-day conversations that are relatively innocuous and more emotion-laden conversations about sexuality. These differences in communication patterns have also been well documented in the parenting literature and are called "parenting styles." Much of the discussion of parenting styles is based upon the work of Baumrind (1967), who noted three patterns of parental control and parental support which are authoritarian, democratic (authoritative), and permissive styles (Bailey, 2005). When communicating about sexuality, parents who are authoritarian in style are expected to be more directive, negative, and

judgmental. This communication style is similar to techniques used in abstinence-only sexuality education. When communicating about sexuality, parents who are democratic in style are expected to be more interactive, positive, and non-judgmental. This communication style is similar to techniques used in comprehensive-only sexuality education.

Purpose

The purpose of this study was to extend and expand upon previous research by using a population that is underrepresented in the literature and is disproportionately affected by health problems related to adolescent sexual activity. Specifically, this study (1) identified what parents think schools should include in sexuality education curriculum, (2) identified either democratic or authoritarian parenting styles, and (3) explored how parents respond to common questions children ask about sexuality.

This research utilized quantitative (Study A) and qualitative methods (Study B). The quantitative methods used in this research contrast to previous research in three ways: method of administering questionnaire, source of study population, and demographics of population. The most recent quantitative research surveying parental views of school sexuality curriculum have been two national surveys (Bleakly et al., 2006; Kaiser Family Foundation, 2004), two statewide surveys in the Southern United States (Ito et al., 2006; Lindley, et al., 1998) and a survey in a city in the Midwest United States (Lewis, et al., 2001). All of these surveys were conducted over the telephone, except for Bleakly et al., (2006) who conducted an on-line survey. This study collected data through a self-administered questionnaire because of the inconsistent availability of phone service and computer usage in the study population. The source of the study

population was an urban community college and the participants were parents from diverse backgrounds.

The qualitative portion of this study also used a different approach in obtaining data. The methodology used in previous qualitative studies has been focus groups or observational research of parent-child communication interactions (Gilliam, 2007; Kahlbaugh et al., 1997; Lefkowitz et al.; 2000 O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004). This study interviewed parents individually by asking them how they responded to common questions their children asked about sexuality. This interview technique enabled the researcher to code responses in a manner that reflected their communication and parenting styles as well as their attitudes toward sexuality. In addition, individual interviews reduced social desirability effects and allowed participants to give responses unaffected by other respondents.

The source of the study population was an urban community college, in contrast to previous studies that recruited participants from health clinics (Gilliam, 2007; Pluhar & Kuriloff, 2004), elementary/middle schools (Kahlbaugh et al., 1997; Lefkowitz et al., 2000) or through local community outreach efforts (O'Sullivan et al., 2001). This population has not been considered in previous research; parents who are attending a community college are focused on upward social mobility for their family and wish to serve as positive role models for their children (Maddox, 2006). Thus, both the content and style of their communication with their own children were examined through the lens of parents who have high aspirations for their children.

The demographic characteristics of this study population were also very different than the characteristics of participants in other related research with respect to income

level, race, country of origin, and religious affiliation. In previous quantitative research on parental opinion of sexuality education, the majority of respondents were Caucasian (over 70%) and earning incomes of over \$25,000 per year (Bleakly et al.; Ito et al., 2006; Kaiser, 2004). In contrast, the current study population was diverse and low income. Only 35.5% of the students surveyed at the college have family incomes over \$25,000 while 64.5% earn less than \$25,000 per year (n = 270; CIRP Institutional Summary, 2003).

The racial breakdown of this study population is 52% Hispanic, 37% Black, 3% White, 3% Asian/Pacific Islander and 5% other (n = 8,935; BCC Institutional Research, 2007). While several studies examining parent-child communication have specifically examined diverse populations, differentiation was based solely on race/ethnicity, not country of origin (Gilliam, 2007; Nwoga, 2000; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004). A recent survey of students in the study population identified 43% of the respondents as having been born outside of the United States, with 25% of that number arriving after the age of 12 years (n = 348; CIRP Institutional Summary, 2003). Students born outside of the United States represent countries from all over the world including those in the Caribbean, South America, Central America, Africa, Asia, Middle East, and Europe. English is *not* the native language of 38.6% of the respondents (n = 342). The participants' religious affiliation includes 31% Roman Catholic, 20% other Christian, 7% Baptist, 5% Islamic, 19% none, and 18% other religion, suggesting a very diverse student body (n = 317; CIRP Institutional Summary, 2003).

This study is particularly relevant because of the increasing prevalence of immigrant populations residing in the United States. These populations have been

underrepresented in the literature and have been disproportionately affected by teenage pregnancy, sexually transmitted infections, and AIDS. According to the Centers for Disease Control and Prevention (2006), Black and Hispanic teenagers have higher rates of sexual activity when compared with White teenagers, thus increasing risks for unintended pregnancy and sexually transmitted infections. Pregnancy rates for teenagers between the ages of 15-19 are 134.2 per 100,000 for Blacks and 131.2 for Hispanics as compared to 65.0 for Whites (Guttmacher Institute, 2006b). Black and Hispanic young adults between the ages of 13-24 are also disproportionately affected by HIV, making up more than half (55%) of all reported cases in 2004 (Centers for Disease Control and Prevention, 2006).

In sum, this research study is important because the sample is diverse, including many new immigrants who are underrepresented in the literature and are disproportionately affected by teenage pregnancy, sexually transmitted infections, and HIV/AIDS. There is an increasing prevalence of immigrant populations residing in the United States and it is important to understand their opinion of what topics they think schools should teach their children, particularly since their traditional and cultural norms may be at odds with American teaching methods. This study is also important because little qualitative information is available on what parents are actually saying and how they are saying it when they speak to their children. It is important to understand *how* diverse groups of parents are actually responding to questions children ask at home about sexuality and if the messages are consistent or conflict with outside influences. Understanding the relationship between these factors will be important for gaining

parental support for school-based sexuality education programs as well as for the development of appropriate programs to assist parents with sexuality education at home.

Chapter 3: Study A

Research Design

This research study was correlational and used cross-sectional data collected through quantitative measures. The quantitative data were collected through self-administered questionnaires. Parents of children between the ages of 6 and 17 years old were asked to fill out a questionnaire that contained a closed-ended Likert-scale questionnaire indicating what content they think school sexuality curriculum should include (School Sexuality Education Questionnaire), a parenting styles questionnaire (Parenting Styles and Dimensions Questionnaire), and background information.

Hypotheses and Rationale

Hypothesis 1 through Hypothesis 6 comprise the quantitative portion of the study and entail the responses on the self-administered questionnaires. Data from the School Sexuality Education Questionnaire (SSEQ) are examined in relation to the demographic characteristics of the participants and the responses on the Parenting Styles and Dimensions Questionnaire (PSDQ).

According to the most recent National and state-wide surveys of public opinion of school sexuality curriculum, the majority of respondents overwhelmingly support a more comprehensive curriculum, i.e., includes contraception and condom use (Bleakley et al., 2006; Ito et al., 2006; Kaiser Family Foundation, 2004; Lewis, et al., 2001; Lindley, et al., 1998). The sample population in this study differs substantially from these other surveys; in other samples, over 70% of respondents were White, while this sample population is diverse in terms of ethnicity and country of origin. The majority of students

at BCC are from diverse cultural backgrounds and from religious upbringings which are generally characterized as “socially conservative” (BCC Institutional Research, 2007; CIRP Institutional Summary, 2003). Therefore,

H1: Parents drawn from this population will be less likely to endorse the teaching of various “key topics” in sex education as defined by their responses to the SSEQ. Specifically, the proportion, or percentage, of the study sample who believe that each topic is “somewhat” or “very” important to teach will be significantly less than 51%, a figure consistent with the idea of a majority point of view.

In order to test this hypothesis, a series of binomial tests will be conducted to determine whether the proportion of the sample which endorses the teaching of each topic is significantly different from the 51%, again, a figure selected because it operationalizes the idea of a majority point of view.

Studies related to religion and secular beliefs generally show patterns of how religious views affect other aspects of life and that more frequent participation in religious activities serves to reinforce religious morals and views (Smith, 2007). Based on data from other studies of parental opinion of school sexuality education (Bleakley et al., 2006; Lindley et al., 1998), it has been found that individuals who attend religious services more frequently are less likely to endorse sex education. Therefore,

H2: Parents drawn from this population who report more frequent attendance at religious services will report lower levels of endorsement of teaching sex education topics as defined by their mean scores on the SSEQ.

In order to test this hypothesis, a Pearson correlation will be used to estimate the magnitude, direction, and statistical significance of the relationship between attendance at

religious services and the level of endorsement of teaching sex education in the study sample of parents.

Studies related to teaching sex education have found that the majority of parents support school sex education commencing in the middle school as compared to elementary or high school (Ito et al., 2006). In addition, teaching sex education at puberty age is relevant because of a child's physical and emotional development (O'Sullivan et al., 2001). Therefore,

H3: Of those parents who endorse teaching sex education in New York City public schools, the majority (> 51%) will identify middle school as the time to initiate sex education rather than either elementary school or high school.

In order to test this hypothesis, a univariate frequency distribution will be re-expressed as percentages in order to determine whether the majority of parents in the sample who endorse the teaching of sex education in New York City public schools believe it should commence in middle school.

Studies related to parent-child communication about sexuality have found differences in the amount and type of parental communication based on race/ethnicity (Hutchinson, 2002; Lefkowitz et al., 2000; O'Sullivan et al., 2002). However, these studies did not distinguish between individuals born in the United States and individuals who immigrated from other countries (e.g., African-American can include Black parents born in the United States, Africa, or the Caribbean). Immigrants may approach sexuality education differently than those born in the United States. Immigrants may also be less acculturated into the appropriateness of sexuality as a school subject because they

originate from countries considered more “socially conservative” than the United States. Therefore,

H4: Parents born in the United States will report higher mean levels of endorsement of teaching sex education as measured by the School Sexuality Education Questionnaire (SSEQ) than will parents born outside of the United States, irrespective of race/ethnicity.

In order to test this hypothesis, a two-way analysis of variance will be calculated.

Based on Hypothesis 2 and Hypothesis 4, an exploratory analysis of the relative contributions of religious affiliation and country of origin will be calculated. Hypothesis 2 predicts that parents who attend religious services more frequently will score lower on the SSEQ, but it is unknown if religious affiliation has any impact on parental views. Hypothesis 4 predicts that parents born in the United States will score higher on the SSEQ than parents born outside of the United States, but we do not know if there is any relationship between specific countries of origin and parental views of sex education.

Therefore,

H5: There will be a relationship between the level of endorsement of teaching sex education and the following independent variables: (1) religion, and (2) country of origin.

This hypothesis will be evaluated by conducting an additive, two-way analysis of variance in which the two independent variables will be used to predict the level of endorsement of teaching sex education. (It may be necessary to collapse categories of both religion and country of origin in the event that some of the categories of these variables have small sample sizes).

Research suggests that individual parental communication styles are stable across conversations rather than as a function of the topic (Kahlbaugh et al., 1997; Lefkowitz et al., 2000). Therefore, it is hypothesized that parental communication style should remain consistent for conversations related to sexuality. Based on Baumrind's (1967) research on parenting styles, parents who are identified as having democratic parenting styles are expected to communicate with their children about sexuality in an open, positive, and interactive manner and would thus, be more likely to endorse teaching of sex education topics in school. Parents who are identified as having authoritarian parenting styles are expected to communicate with their children about sexuality in a less open, negative, and directive manner and would thus, be less likely to endorse teaching of sex education topics in school. Therefore:

H6: Parents who express a relative preference for democratic parenting styles as compared with authoritarian parenting styles will more strongly endorse teaching sex education topics.

The relative preference for democratic parenting styles will be operationalized by subtracting each parent's level (mean) of endorsement of authoritarian parenting styles from their level (mean) of endorsement of democratic parenting styles. The difference will then be correlated with their mean score on the SSEQ.

Participants

Participants were students attending Bronx Community College/CUNY during the Spring 2008 and Fall 2008 semesters. A total of 207 students participated in the research study. The criteria for inclusion in the study were that the student had to be the parent of a child between the ages of 6 and 17. If the parent had several children, the oldest child

could not be older than 17. To participate, the parent had to live with his/her oldest child. Initially, participants were recruited through the Introduction to Psychology (PSY 11) subject pool. This subject pool represents a cross-section of students who attend the college. Approximately 1,000 students were enrolled in the Introduction to Psychology classes each semester and all students were required to participate in a research study to complete their course requirements. After 2 months, recruitment was expanded to upper level Psychology classes as well as the Health, Physical Education, and Wellness Department, and the Nursing Program.

Procedure

Institutional Review Board (IRB) approval was obtained at Bronx Community College and The City University of New York Graduate Center. A flyer describing the research study (previously approved by the IRB and Psychology Department Research Coordinator) was posted on the Psychology Department's Research Bulletin Board (see Appendix A for recruitment flyer). Sign-up sheets for the research study were also posted on this bulletin board (this was a requirement of the Psychology Department) which included the date, time, and room the study would take place. Various time slots were offered during the day, evening, and weekend hours to make participation in the study accessible for as many students as possible. Sign-up sheets were then removed from the bulletin board prior to the session. In addition to posting the information, psychology instructors were contacted through email and flyers distributed to their mailbox requesting that they advertise the study in their classes. The researcher also visited psychology classes to advertise the research study.

After two months, recruitment was expanded to upper level Psychology classes as well as the Health, Physical Education, and Wellness Department, and the Nursing Program. The researcher made arrangements with individual instructors to visit their classes at the end of the class session. An effort was made to visit day, evening, and weekend classes. An announcement was made by the researcher about her research study and students were asked to volunteer if they met the study criteria. The researcher would stay after class so that volunteers could complete the questionnaire.

The questionnaires were all numbered on the first page and the same number appeared on the contact page at the end of the survey. The contact page was optional for students who wished to volunteer for the second part of the research study (Study B) where participants would be paid \$20 for being interviewed by the researcher. When students completed the questionnaire, the contact page was separated from the questionnaire to maintain confidentiality. The consent forms, questionnaire, and contact information were kept in separate folders and locked in an office file cabinet.

Once the volunteers were ready to complete the questionnaire (recruitment either through class announcements or bulletin board sign up), they were reminded of the criteria for participation (see Appendix A for verbal instructions). Any participant who did not meet the criteria for the study was excused. Consent forms were distributed and read by the participants. The researcher then described the study briefly and answered any questions. Consent forms were signed and collected. The questionnaires were distributed, verbal instructions were given, and participants were asked to complete the forms. Upon completion of the questionnaire, students who were receiving psychology research credit were given a signed "receipt" to give to their professor (this was a form

provided by the Psychology department). All students were thanked for their participation.

Instruments

Background Information – A total of 13 demographic questions were included to describe the characteristics of the sample population. Questions 1-4 collected data on participant gender, age, marital status, and ages and sex of children. Questions 5 and 6 pertained to ethnic category and country of origin. The ethnic categorization was the same as survey instruments used by the Bronx Community College (BCC) Office of Institutional Research. The country of origin categories (Dominican Republic, Ghana, Jamaica, Nigeria, Puerto Rico, United States) included the top six countries where BCC students originate from as identified by the BCC Office of Institutional Research. Questions 7 and 8 pertain to religious affiliation and attendance at religious services. The categories for religious affiliation were obtained from survey data from BCC Institutional Research and included the most common categories identified by students (CIRP Institutional Summary, 2003, p. 110). Question 8 asked the participants to check how often they attend religious services; this item has been used by Bleakley (2006) in sex education opinion research.

Question 9 asked the participants if their first language is English. If the response was no, the participant was asked to complete questions 10-13 which pertained to level of acculturation. These four items were recommended by the authors of the Short Acculturation Scale for Hispanics to be used as a shortened version of the 12 item scale without reducing validity or reliability of the instrument ($\alpha = .90$) (Marin et al., 1987). In a communication with Gerardo Marin (personal email communication,

October 31, 2007), he gave permission to use the four item scale and stated that wording could be changed from the original version which states “Spanish” to “Other” language. Scoring of the items is calculated by averaging responses across items. A score between 1 and 2.99 indicates less acculturated and a score between 3.00 and 5.00 indicates more acculturated.

School Sexuality Education Questionnaire (SSEQ) – The sex education topics included on the SSEQ were adapted from the Kaiser Family Foundation Sex Education in American Survey (2004, 2000) and a recent study of parental opinions of sexuality education in North Carolina conducted by Ito et al. (2006). The Likert scale format that was used in this questionnaire was adapted from Ito et al. (2006). Both of these research studies used their instrument in a telephone survey while in the current study, this instrument was used as a self-administered questionnaire (see Appendix C for more information on Kaiser, 2004 and Ito et al., 2006).

The SSEQ included a total of 18 sexuality education topics (for example, reproduction, HIV/AIDS, birth control methods). Participants were asked to rate the importance of each curriculum topic on a Likert scale from 1 to 5. The range of answers includes: 1-opposed to teaching, 2-not at all important, 3-not too important, 4-somewhat important and 5-very important. Mean scores were calculated by adding up each item response for a total score and then dividing the total score by the number of items answered (range from 1 to 5). All items were scored in a positive direction so that the higher the mean score, the more in favor of school sexuality education; and the lower the mean score, the less in favor of school sexuality education.

An additional four items (#19-22) were included at the end of the SSEQ to check

the consistency of responses to the SSEQ as well as offer additional information which may affect individual responses. Items #19 and #20 refer to the presentation of material and messages that parents think schools should offer. These items were adapted from Kaiser (2000) survey that dealt with the messages students received from teachers. Item #21 asked parents if sex education should be taught in New York City public schools and if so, at what grade level. Item #22 asked what type of school their child attends and if sexuality education is taught in their child's school.

Parenting Styles and Dimensions Questionnaire (PSDQ) – The PSDQ was developed by Robinson, Madleco, Olsen, and Hart (PSDQ) in 1995 (Robinson et al., 2001). The scale measures authoritative (democratic), authoritarian, and permissive parenting styles for parents of children up to the age of 12 years. The original PSDQ is a 62-item self-administered questionnaire that was developed using exploratory factor analysis. A shortened version of the original instrument was developed by the researchers using structural equation modeling/confirmatory factor analysis and includes a 32-item measure. The reported Alphas for the 32-item questionnaire on the three parenting styles are .83, $n = 1414$ (authoritative/democratic), .81, $n = 1414$ (authoritarian), and .65, $n = 1414$ (permissive). Numerous research studies have utilized the PDSQ to investigate relationships between parenting style and child behavior (for example, Porter et al., 2005), examine cross-cultural differences in parenting (for example, Coolahan, et al., 2002; Wu et al., 2002), and study parenting behavior (Chipman et al., 2000). To date, no publications appear to have examined the relation between the PSDQ and responses to a parental attitude scale, as done in the current research study. (see Appendix D for more details on use of the PSDQ).

This research study utilized items from the 32 item PSDQ to measure only authoritative (democratic) and authoritarian parenting styles. Since permissive parenting styles were not included, the questionnaire contained only 23 items as per recommendation and permission from the author (personal email communication with Clyde Robinson, April 30, 2007). The permissive parenting style was not included because there was no analogous sexuality education curriculum for comparison. The PSDQ has three forms of the questionnaire: a Mother's Form, a Father's Form, and a One Parent Form. The Mother's and Father's Forms ask the parent to rate themselves and to rate their spouse on each item. The One Parent Form was used in this research study because answers were examined in relation to individual answers on the SSEQ and the qualitative interview. Participants were asked to answer questions based on their oldest child so that all measures in this research study consistently refer to the oldest child.

The PSDQ used a Likert scale to rate "how often you exhibit certain behaviors towards your child." The rating scale included 1-never, 2-once in awhile, 3-about half of the time, 4-very often, 5-always. The 23-item scale included 11 democratic items and 12 authoritarian items. Scoring of the PSDQ was calculated as described by Robinson et al. (2001); mean scores of the Democratic and Authoritarian items were calculated separately to obtain a mean Democratic score and a mean Authoritarian score. The mean score of the 11 Democratic items (#1, 3, 5, 7, 9, 11, 13, 15, 17, 20, 22) was calculated to obtain the overall Democratic Parenting Style score. A mean score of above 3 on Democratic Parenting Style items indicates that a parent is more democratic (as per Robinson et al., 2001). In addition to calculating the overall mean of the Democratic Parenting Style score, the individual means of the sub-factors of the Democratic scale

were also calculated. The sub-factors include (1) connection dimension (warmth and support) -- items 1, 9, 11, 7, (2) regulation dimension (reasoning/induction) – items 22, 17, 20, 5, and (3) autonomy granting dimension (democratic participation)– items 13, 15, 3.

The mean score of the 12 Authoritarian items (#2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23) was calculated to obtain the overall Authoritarian Parenting Style score. A mean score of above 3 on Authoritarian Parenting Style indicates that a parent is more authoritarian (as per Robinson et al., 2001). In addition to calculating the overall mean of the Authoritarian Parenting Style score, the individual means of the sub-factors of the Authoritarian scale were also calculated. The sub-factors include (1) physical coercion dimension -- items 2, 6, 23, 14, (2) verbal hostility dimension – items 12, 10, 16, 21, and (3) non-reasoning/punitive dimension – items 8, 19, 18, 4 (see Appendix D for more information on coding of the PSDQ).

Results

Demographic Characteristics

Out of 207 completed questionnaires, 191 were included for analysis. Sixteen questionnaires were eliminated because the respondents did not meet the study criteria (age of the oldest child was not between 6-17). The demographic characteristics of the participants are presented in Table 4. The majority of the participants were mothers (85.8%) and half of the sample reported being married or living with a domestic partner (50.3%), 39.3% were single, and 9.9% were divorced/separated. The mean age of participants was 32.7 years (SD = 6.60) with a range of 22 to 60 years. Children ranged in age from 6 to 17 (M = 10.97, SD = 3.59); 56% were females and 44% were males.

Almost half of all participants were from Latino/Hispanic backgrounds (48.2%) with the second largest group being Black/non-Hispanic (44.5%); the remainder of participants included White/non-Hispanic (3.7%), 1% Asian or Pacific Islander (1%) and Other (2.6%). Country of origin included Dominican Republic (22%), Puerto Rico (18.3%), United States (16.8%), Jamaica (13.1%), Ghana (5.2%), Nigeria (2.6%), and Other (21.5%). The 41 participants categorized as Other included a total of 26 different countries (See Appendix E for a complete list of countries of origin).

The majority of participants identified as Roman Catholic (41.4%) or Other Christian (33.5%) with smaller percentages for Baptist (7.3%), Islamic (2.6%), other religion (3.7%), and none (11%). Of the participants identifying as Other Christian, the largest group were Pentecostal ($n = 20$) with the remainder being fifteen Other Christian religions (see Appendix F for a complete list of religions). Many participants reported attending religious services regularly with 13.1% attending more than once a week, 24.6% attending once a week, 15.2% attending once or twice a month; other participants reported less regular attendance with 23% attending a few times a year, 14.7% once a year or less and 9.4% never. English was a first language for 66% of the participants and not a first language for 34% of participants.

Table 4**Study A: Summary of Participant Characteristics***(n = 191)*

Characteristics	n	%
Parent Gender		
Female	164	85.8
Male	27	14.1
Marital Status		
Single	75	39.3
Married/domestic partner	96	50.3
Divorced/separated	19	9.9
Child Gender		
Female	107	56
Male	84	44
Ethnicity		
Latino/Hispanic	92	48.2
Black/non-Hispanic	85	44.5
White/non-Hispanic	7	3.7
Ethnicity		
Asian or Pacific Islander	2	1
Other	5	2.6
Country of Origin		
Dominican Republic	42	22

Study A: Summary of Participant Characteristics continued

Characteristics	n	%
Puerto Rico	35	18.3
United States	32	16.8
Jamaica	25	13.1
Ghana	10	5.2
Nigeria	5	2.6
Other	41	21.5
Religion		
Roman Catholic	79	41.4
Other Christian	64	33.5
Baptist	14	7.3
Islamic	5	2.6
Other Religion	7	3.7
None	21	11

Questionnaire Data

The next section addresses the analysis of the *School Sexuality Education Questionnaire (SSEQ)*. A frequency analysis was calculated for all 18 sex education topics (see Table 5). The range of responses included: 1-opposed to teaching, 2-not at all important, 3-not too important, 4-somewhat important, and 5-very important (see Table 5) The Likert-scale items 4 and 5 were collapsed (4- somewhat important, 5 - very important) and were counted as having been endorsed. Overall, results revealed that the majority of parents were supportive of teaching most of the sexuality education topics in

school. Specifically, 11 out of 18 topics were supported by 80% or more of parents, while support for 4 of the topics ranged from 62.9% to 70.1%, and only 3 topics received 50% or less support. The topics that received 50% or less support are considered controversial topics -- masturbation (50.8%), oral sex (49.7%), and anal sex (48.1%).

These data seem to be consistent with two survey questions related to the message and emphasis of school sexuality education; the majority of respondents endorsed a harm reduction, rather than abstinence-only approach to school sexuality education. They thought that the main message of school sex education should be “Teaching that young people should wait to have sex, but if they don’t they should use birth control and practice safe sex” (86%), rather than “Teaching abstinence until marriage” (12%). In addition, 89% of respondents thought that sexuality education should emphasize “Sex is a healthy and normal part of life” rather than “Sex is something to avoid and fear” (8%).

The finding that most parents were in support of sex education was contradictory to Hypothesis 1 which stated that parents drawn from Bronx Community College would

Table 5

Frequency of Endorsement of Topics on the SSEQ

n=191

Topic	Endorsement of Teaching				
	1-opposed to teaching n (%)	2-not at all important n (%)	3-not too important n (%)	4-somewhat important n (%)	5- very important n (%)
1. Basics of reproduction***	0	2 (1)	8 (4.2)	44 (23)	136 (71.2)
2. Transmission & prevention of HIV/AIDS***	0	1 (.5)	2 (1)	11 (5.8)	177 (92.7)
3. Transmission & prevention of STI's***	0	1 (.5)	6 (3.1)	10 (5.2)	174 (91.1)

Frequency of Endorsement of Topics on the SSEQ

Topic	Endorsement of Teaching				
	1-opposed to teaching	2-not at all important	3-not too important	4-somewhat important	5- very important
	n (%)	n (%)	n (%)	n (%)	n (%)
4.How to get tested & treated for HIV/AIDS & STI's***	4 (2.1)	2 (1)	8 (4.2)	25 (13.1)	152 (79.6)
5. How to prevent sexual abuse***	0	1 (.5)	5 (2.6)	18 (9.4)	165 (86.4)
6. How to use birth control methods ***	9 (4.7)	4 (2.1)	15 (7.9)	48 (25.1)	112 (58.6)
7. Effectiveness and failure rate of birth control***	9 (4.7)	5 (2.6)	23 (12)	45 (23.6)	108 (56.5)
8. Where to get birth control**	15 (7.9)	8 (4.2)	30 (15.7)	34 (17.8)	103 (53.9)
9. How to use condoms***	13 (6.8)	8 (4.2)	15 (7.9)	36 (18.8)	117 (61.3)
10. How to deal with the pressure to have sex***	2 (1)	2 (1)	7 (3.7)	20 (10.5)	160 (83.8)
11. How to talk with parents about sex ***	1 (.5)	1 (.5)	3 (1.6)	21 (11)	163 (85.3)
12. How to talk with partner about birth control, STI's****	12 (6.3)	7 (3.7)	15 (7.9)	20 (10.9)	135 (70.7)
13. Abortion**	37 (19.4)	4 (2.1)	23 (12)	42 (22)	83 (43.5)
14. Masturbation *	40 (20.9)	17 (8.9)	36 (18.8)	45 (23.6)	52 (27.2)
15. Oral Sex*	44 (23)	18 (9.4)	33 (17.3)	36 (18.8)	59 (30.9)
16. Anal Sex*	58 (30.4)	17 (8.9)	24 (12.6)	35 (18.3)	57 (29.8)
17. Sexual Orientation**	21 (11)	11 (5.8)	25 (13.1)	43 (22.5)	91 (47.6)
18. Classroom demonstrations of how to use condoms**	32 (16.8)	12 (6.3)	26 (13.6)	49 (25.7)	71 (37.2)

* **>80% parental support

** 50% to 80% parental support

* < 50% parental support

be *less likely* to endorse the teaching of various “key topics” in sex education. A series of binomial tests was calculated to determine whether the proportion of the sample that endorsed the teaching of each topic is significantly less than 51%, a figure selected because it operationalizes the idea of a majority point of view. Hypothesis 1 was not supported; none of the 18 items were found to be statistically less than the test proportion of .51 (51%). In fact, in all but 3 cases, the observed proportions were significantly *greater* than .51 (range from .61 to .99, i.e., from 63%-99% support; all $p < .001$), that is, in the opposite direction than predicted. In the 3 cases that were not statistically significant (no difference between the majority view point of 51% and percentage of parents endorsing each item), the items were very close to the test value of .51 (51%) -- masturbation (51%), oral sex (50%), and anal sex (48%).

Hypothesis 2 tested whether parents who reported more frequent attendance at religious services would report lower levels of endorsement of teaching sex education as operationalized by their mean score on the SSEQ. Attendance at religious services was rated on a scale from 1 to 6 (1- never, 2- once a year or less, 3- a few times a year, 4- once or twice a month, 5- once a week, and 6- more than once a week). A Pearson correlation was calculated between the frequency of attending religious services and the mean score on the SSEQ. A statistically significant negative correlation ($r = -.20$, $p < .05$) was found. While the correlation is modest, it supports Hypothesis 2. That is to say,

parents who attend religious services more frequently were less likely to endorse sex education.

Hypothesis 3 tested whether the majority of parents who endorse teaching sex education in New York City public schools identify middle school as the time to initiate sex education rather than either elementary or high school. A univariate frequency distribution analysis supported this hypothesis. One hundred and eighty five parents out of 191 responded “yes” to the question “Should sexuality education be taught in New York City public schools?” Of these 185 respondents, 60.2% (n = 115) selected middle school as the time to initiate sex education while only 19.4% (n = 37) selected elementary school and 17.3% (n = 33) selected high school.

Given the diversity of the student population at Bronx Community College, it was anticipated that parents who originate from more “socially conservative” countries would be less likely to support the teaching of sex education in school. Based on this assumption, Hypothesis 4 stated that parents born in the United States would report higher mean levels of endorsement of teaching sex education than parents born outside of the United States. To test this hypothesis, a two-way analysis of variance was conducted using “birth country” and “race” as the independent variables and the SSEQ as the dependent variable (see Table 6). Birth country was operationalized as parents born in the United States (n = 29) and parents not born in the United States (n = 147). Race was operationalized as Latino (n = 91) and Black (n = 85) (see Table 7). The findings from this analysis indicate that there are no statistically significant main effects for either birth country ($F = .034$, $df = (1, 172)$, $p = .854$) or race ($F = 1.465$, $df (1, 172)$, $p = .228$). There

is also no statistically significant interaction between birth country and race ($F = 1.132$, $df(1, 172)$, $p = .289$) regarding support of school sex education.

Table 6 Two-Way Analysis of Variance for Birth Country and Race

Source	df	F	<i>p</i>
Birth Country	1	.034	.854
Race	1	1.465	.228
Birth Country * Race	1	1.132	.289
Error	172		

Table 7 Comparison of Means on the SSEQ for Birth Country and Race

Race	Birth Country	Mean	SD	n
Latino	Born in U.S.	4.20	.740	4
	Not Born in U.S.	4.37	.636	87
	Total			91
Black	Born in U.S.	4.17	.686	25
	Not Born in U.S.	3.94	.723	60
	Total			85
Total	Born in U.S.	4.178	.680	29
	Not Born in U.S.	4.19	.704	147
	Total			176

Hypothesis 5 explored the relative contributions of country of origin and religion to scores on the SSEQ. This analysis was not conducted using a conventional multiple regression program but rather using a conventional analysis of variance program because

the two predictors, country of origin and religion, are multi-categorized predictor variables. By using an analysis of variance program to conduct this analysis it is easier to compare each category of each predictor with the other categories of that same predictor. The general linear models program of SPSS (GLM) was used to conduct the analysis.

Before conducting the analysis, it was necessary to collapse categories in the country of origin variable in order to eliminate categories with insufficient sample sizes for this analysis. The operational definition of country-of-origin contains the following “broad-banded” categories: (a) Africa ($n = 17$), (b) Caribbean and Latin America ($n = 120$), and (c) United States ($n = 30$). The same logic was used to collapse categories in Religion into (a) Roman Catholic ($n = 78$), (b) Other Christian ($n = 78$), and (c) no religion ($n = 21$).

As seen in Table 8 below, there are no statistically significant effects for country-of-origin ($F = 1.467$, $df = (2,158)$, $p = .234$), religion ($F = 1.617$, $df = (2,158)$, $p = .202$), or their interaction in terms of support for sex education ($F = 0.831$, $df (4, 158)$, $p = .507$).

Table 8 Two Way Analysis of Variance

Source	df	F	<i>p</i>
Country	2	1.467	.234
Religion	2	1.617	.202
Country * Religion	4	0.831	.507
Error	158		

The *Parenting Styles and Dimensions Questionnaire (PSDQ)* was used to determine if a parent expressed a relative preference for democratic parenting styles as

compared with authoritarian parenting styles. The PSDQ has only been validated for use with children under age 12, so the participants were sorted into an under age 12 group and an over age 12 group. Out of the 191 participants who completed the PSDQ, 118 (61.8%) were parents of children under age 12 and 73 (38.2%) were parents of children over age 12.

The PSDQ used a Likert scale to rate “how often you exhibit certain behaviors towards your child.” The rating scale included 1-never, 2-once in awhile, 3-about half of the time, 4-very often, 5-always. Table 9 lists the range of scores for the overall means

Table 9 Scores on the PSDQ for Parents of Children Under age 12

(n=118)

Scale	Minimum	Maximum	Mean	Std. Deviation
DEM MEAN	2.27	5.00	4.1737	.46106
D 1 connection	3.00	5.00	4.5932	.47004
D2 regulation	1.25	5.00	4.4018	.61321
D3 autonomy	1.00	5.00	3.3023	.90869
AUTH MEAN	1.08	3.11	1.7941	.42073
A1 physical	1.00	2.75	1.5727	.41753
A2 verbal	1.00	4.00	1.9379	.64708
A 3 punitive	1.00	3.75	1.8545	.66953
NET PREFERENCE	-.31	3.64	2.3796	.72589

on Democratic and Authoritarian scales as well as their subscales. Net Preference is also listed in Table 9 which is the difference between the mean Democratic scores and the mean Authoritarian score. The mean scores on the Democratic scale were higher (range from 2.27 to 5.0) than the mean scores on the Authoritarian scale (1.08 to 3.11). When each parent's "level" (mean) of endorsement of Authoritarian Parenting styles was subtracted from their "level" (mean) of endorsement of Democratic Parenting styles, all but one parent expressed a net preference for Democratic Parenting. When scores were broken out for the Authoritarian subscales, slightly higher scores were seen for the verbal hostility dimension and the non-reasoning punitive dimension than the overall Authoritarian mean. The higher overall scores on the Democratic Scales are consistent with results reported by the authors of the measure (Robinson et al., 1995; see Appendix D for more information on the PSDQ).

Hypothesis 6 stated that parents who express a relative preference for democratic parenting styles as compared with authoritarian parenting styles will more strongly endorse teaching sex education topics. Only data from the under age 12 group was used to analyze this hypothesis ($n = 118$). To analyze this hypothesis, each parent's "level" (mean) of endorsement of authoritarian parenting styles was subtracted from their "level" (mean) of endorsement of democratic parenting styles. This "net balance" score was then correlated with their mean score on the SSEQ using a Pearson correlation coefficient. The findings from this analysis do not support the claim made in this hypothesis. That is, there is no relationship between the degree of relative preference for democratic parenting styles and support for teaching sex education topics ($r = -.05$, $df = 116$, $p = .61$).

Discussion

Demographic Data

The demographic characteristics of the study sample were comparable to college-wide surveys conducted at Bronx Community College in terms of ethnicity, country of origin, and religion (CIRP Institutional Summary, 2003; BCC Institutional Research, 2007). College-wide surveys indicated that English was *not* the native language of 38.6% of the respondents (n = 342), in this sample, English was not a first language for 34% of participants (n = 65). In the most recent survey published by Bronx Community College Institutional Research, 66% of students were married and 27% of students live with children under age 18 (BCC, Institutional Research, 2008). In this sample, 85% of the participants were women and all participants were parents of children between ages 6-17.

School Sexuality Education Questionnaire and Parent Interview

Results from the *School Sexuality Education Questionnaire* (SSEQ) were consistent with results from national (Bleakly et al., 2006; Kaiser Family Foundation, 2004) and state-wide surveys (Ito et al., 2006) that found 80% of parents support the inclusion of “key” topics in sex education. In this study, 11 out of 18 topics were supported by 80% or more of parents, while support for 4 of the topics ranged from 62.9% to 70.1%, and only 3 topics received 50% or less support.

This was a surprising finding because it was hypothesized that there would be much lower support for sex education in this study population because of demographic differences in the sample when compared to other published studies (Bleakly et al., 2006; Ito et al., 2006; Kaiser Family Foundation, 2004) . In other research, the majority of

respondents were Caucasian, while this sample was from diverse cultural backgrounds and religious backgrounds which are generally characterized as “socially conservative.” In particular, it was thought that participants born outside of the United States may be less acculturated to the appropriateness of sexuality education as a school subject, and less likely to support the teaching of more sex education topics. When scores on the School Sexuality Education Questionnaire (SSEQ) were compared for parents born in the United States to parents born outside of the United States, there were no statistically significant differences. There were also no statistically significant differences between racial groups (Latino and Black), and no interaction effects between country of origin and race in support for school sex education.

While there was broad support in this population for sex education in the schools, there was variation in support for coverage of the more controversial topics, which is also consistent with findings from previous research (Lindley et al., 1998; Kempner, 2000; SIECUS Report, 2004). The topics which received 50% or less support are considered controversial topics -- masturbation (50.8%), oral sex (49.7%), and anal sex (48.1%). Interestingly, the items related to contraceptive use were not statistically different in terms of parental support. The critical difference between supporters of abstinence-based programs and supporters of comprehensive-based sexuality programs is in teaching of contraception, which indicates that this sample population is more supportive of sex education than hypothesized (Kirby, 2000; SIECUS, 1998). Two additional survey questions related to the message and emphasis of school sexuality education support this conclusion. The majority of respondents felt that the main message of school sex education should be “Teaching that young people should wait to have sex, but if they

don't they should use birth control and practice safe sex" (86.4%) rather than "Teaching abstinence until marriage" (12%). Eighty-nine percent of respondents felt that sexuality education should emphasize "Sex is a healthy and normal part of life" rather than "Sex is something to avoid and fear" (8.4%).

Additional hypotheses related to the SSEQ were supported and consistent with previous research. A higher percentage of parents supported sex education starting in the middle school 60.2% (n = 115) which is consistent with Ito et al. (2006) who found that 55% of parents thought sex education should start in the middle school. Increased attendance at religious services was significantly associated with lower scores on the SSEQ, although the correlation was rather small ($r = -.20$). This finding corroborated data from Lindley et al., (1998) and Bleakley et al. (2000).

Overall, these findings demonstrate consistency between previous research samples and "diverse" populations in terms of support for school sexuality education. In fact, the support for school sex education was not correlated with any of the obvious demographic factors including: race/ethnicity, country of origin, or religion. The only dependent variable that the responses on the SSEQ were correlated with was frequency of attendance at religious services, which is consistent with previous research. The wide support for school sex education in this study population may be for similar reasons that support is found in surveys of the general population (Bleakly et al., 2006; Kaiser Family Foundation, 2004). That is, support for school sex education may be most related to the perceived need for sex education in a "sexualized" American culture, and the perception that American "values" may be inconsistent with parental teaching and values in the

home. In addition, if the school teaches sex education, then it relieves parents of the difficult and embarrassing job of talking with their child about sexuality,

Parenting Styles and School Sexuality Questionnaire

The mean scores on the *Parenting Styles and Dimensions Questionnaire* (PSDQ), indicated that all of the parents, except for one, expressed a relative preference for democratic parenting styles as compared to authoritarian parenting styles. While these results are consistent with results reported by the authors of the measure (Robinson et al.1995; see Appendix D for more information), the possibility of respondent bias exists. Participants may tend to give “correct” answers because they have been influenced by societal norms in the United States as to what is considered “appropriate” parenting behaviors and their responses may reflect these biases. The scores on the Democratic scale were concentrated near the top of the scale, indicating a potential ceiling effect. Another possibility for the high democratic scores may be because the category of Permissive parenting style was not included in the survey. The lack of a third parenting label may have caused a forced choice between authoritarian and democratic parenting styles, and parents who would have been labeled as “Permissive” were labeled as Democratic instead.

It was hypothesized that there would be a relationship between the responses to the PSDQ and the *School Sexuality Education Questionnaire* (SSEQ). Specifically, parents who expressed a relative preference for democratic parenting styles as compared with authoritarian parenting styles would more strongly endorse teaching sex education topics. However, no relationship was found between the PSDQ and the SSEQ. This may be due to a number of factors. First, this was an unusual use of the PSDQ scale; the focus

of previous work has been directed toward child temperament and aggression in a pre-school age children by comparing one population to another population (Porter et al., 2005; Wu et al., 2002). This research used the PSDQ to compare scores for the same individual parent, not in comparison to other parents. Also, the inclusion of the PSDQ in this study was exploratory in nature as no research has been identified that investigated the relationship between parental opinion of school sexuality education and parenting styles.

As reported in the previous section, the majority of parents in this study supported comprehensive sexuality education. This support was unrelated to the demographic factors identified in this study, except for frequency of attendance at religious services. The PSDQ measures a parents style of communication with their child, such as if they explain good and bad behavior, or use threats or punishment. Therefore, it would be unlikely that support for school sex education would be related to how a parent communicates with their child as measured by the PSDQ. The broad support for school sex education seems to be most related to the fact that parents perceive the need for sex education in American society, and that they are relieved of the difficult and embarrassing job of communicating with their child about sexuality.

Study Limitations

The obvious limitation of this research study was the generalizability of the sample population to other populations. The sample consisted of an ethnically and culturally diverse group of parents attending an urban community college. The sample included individuals from 28 different countries of origin, many considered culturally conservative and from varied religious backgrounds. This population was studied

because it was underrepresented in the literature; however, it was not really diverse in terms of gender, education, and race. The majority of participants were female (85%), all of the participants were educated at the community college level, and the sample included a very small percentage of Whites (3.7%). Thus, the extent to which the findings can be generalized to other parent populations is limited.

Another limitation was the use of recall and self-reports for collection of some of the data. The determination of parenting styles was based exclusively on self-report, which is subject to distortions of perception and social desirability. Future research should seek to confirm self-reported parenting style with some type of behavioral data. The parent interviews were also based on recall and may be subject to the same issues as discussed above. Also, the extent and frequency of parent-child conversations about sexuality were difficult to determine. Future research may want to corroborate parent-self report with child interviews or some type of behavioral data.

Another limitation was not including the category of Permissive parenting style in the *Parenting Styles and Dimensions Questionnaire*. The lack of a third parenting label may have caused a forced choice between authoritarian and democratic parenting styles, and parents who would have been labeled as “Permissive” were labeled as Democratic instead.

Finally, the use of the term “frequency of attendance at religious services” may not have fully captured the broader construct of religiosity which includes depth of faith.

Chapter 4: Study B

Research Design

This research study was correlational and collected data through qualitative measures by using in-depth interviews.

Hypotheses and Rationale

An exploratory analysis will consider parental responses to questions children ask about sexuality in relation to authoritarian and democratic patterns of communication identified by Baumrind's (1967) research on parenting styles. In general, parents identified as "democratic" are expected to answer questions completely and correctly, be empathetic, provide positive messages, and be more interactive in their communication style. Parents identified as "authoritarian" are expected to not answer questions or answer incompletely, be fearful, provide negative messages, and be more directive in their communication style. Parental responses will also be considered in relation to the particular demographic characteristics of the sample population, which includes a very diverse group of parents from various cultural backgrounds and countries of origin.

Participants

Twenty parents were recruited in January 2009 from the participants included in Study A, who had volunteered to be contacted for an interview. Study A participants were students attending Bronx Community College/CUNY during the Spring 2008 and Fall 2008 semesters. Out of the 191 participants in Study A, 146 (76.4%) volunteered to be contacted for the interview and 45 (23.6%) did not volunteer.

The criteria for inclusion in the study were that the student had to be the parent of a child between the ages of 6 and 17. If the parent had several children, the oldest child could not be older than 17. To participate, the parent had to live with his/her oldest child. Initially, participants were recruited through the Introduction to Psychology (PSY 11) subject pool. This subject pool represents a cross-section of students who attend the college. Approximately 1,000 students were enrolled in the Introduction to Psychology classes each semester and all students were required to participate in a research study to complete their course requirements. After 2 months, recruitment was expanded to upper level Psychology classes as well as the Health, Physical Education, and Wellness Department, and the Nursing Program.

Procedure

Institutional Review Board (IRB) approval was obtained at Bronx Community College and The City University of New York Graduate Center. The self-administered survey used in Study A contained an optional contact page for students who wished to volunteer for the second part of the research study, Study B. Participants who were interested in being interviewed about how they respond to questions children ask about sexuality were asked to give their name, phone number, and email address. The contact sheet stated that students would be paid \$20 for being interviewed by the researcher. The questionnaires were all numbered on the first page and the same number appeared on the contact page at the end of the survey. When students completed the questionnaire in Study A, the contact page was separated from the questionnaire to maintain confidentiality. The consent forms, questionnaire, and contact information were kept in separate folders and locked in an office file cabinet.

At the completion of Study A, all quantitative data were entered into SPSS 16 for analysis. The scores on the *Parenting Styles and Dimensions Questionnaire* (PSDQ) were used to determine which participants would be selected to interview in Study B. Each parent's quantitative data contained a score on the Democratic scale and a score on the Authoritarian scale. The mean scores for each scale were ranked in descending order (from highest to lowest). The top ten highest scorers for each scale who agreed to participate, were then contacted to be interviewed (contacts were made in descending order until the sample was obtained). Extreme scores were intentionally selected because of the small sample size ($n = 20$, 10 in each group). If an association existed between data obtained from Study A and the interview responses in Study B, it would be more apparent when comparing scores at either extreme.

Almost all of the parents in the study expressed a relative preference for democratic parenting styles as compared with authoritarian parenting styles. To identify participants for the Authoritarian group, individual subscales of the Authoritarian score had to be used to obtain a sample, since the overall Authoritarian mean did not identify enough participants.

Initially, only parents of children under age 12 who volunteered to participate were contacted because the PSDQ was validated for use with parents of children under age 12. However, the subject pool of volunteers for the Authoritarian pool was very small, which necessitated contacting parents of children over 12 years old to obtain a sample of 10 participants. To create comparable groups, parents of children who were older than age 12 were also contacted in the Democratic group. To obtain a total of 20 participants to interview, individual contacts were made by email and/or telephone to

arrange a convenient time to meet. A total of 43 individuals were contacted to obtain a sample of 20 participants (10 Democratic and 10 Authoritarian).

Participants were interviewed in the researcher's office at Bronx Community College. Participants read and signed a consent form prior to the initiation of the interview (see Appendix B). All interviews were audio-taped and transcribed by the researcher. At the conclusion of the interview, the interviewer answered any questions the participant asked about the study and/or specific questions related to discussing sexuality with their child. Each participant was given \$20 in cash for their participation. All of the participants were given three brochures developed by the Sexuality Information and Education Council of the United States (SIECUS) related to talking with their children about sexuality. The titles were "Adolescents would prefer parents as primary sexuality educators," (SIECUS, 2001) "What is puberty?" (SIECUS, 2002b) and "What is normal childhood sexual development?" (SIECUS, 2004).

Instruments

Parent Interview Questions – The interview questions were developed by the researcher and were based on the examination of three common trade books written for parents on how to communicate with their child (Madaras, 2000; Planned Parenthood, 1986; Stoppard, 1997). Three different forms of interview questions were developed based on the age of the oldest child (6-9 years, 10-13 years, 14-17 years), and each age grouping included 5 open ended questions on the same topics (see Appendix B). The topics were pregnancy/reproduction, condoms, AIDS, puberty/body changes, and sexual orientation. If a parent had more than one child, he/she was asked to answer questions based on the age of his/her oldest child. The rationale was that conversations with a first

child may be different than conversations with subsequent children. Children who have older siblings may obtain sexuality information from them, and thus affect the content of conversations with parents about sexuality. Parental conversations with a first child would be uncontaminated by sibling effects.

Coding Procedure for Parent Interview Questions -- A pilot test of the interview and coding procedure was conducted with six parents recruited from the study population to refine the procedure (see Appendix G for details of the pilot study). The interview data were coded by categorizing parental responses as either comprehensive/democratic or abstinence-only/authoritarian (see Appendix B). Four categories were used to code each response which included: *communication style, emotion, information, and underlying message*. The patterns of the *communication style* and *emotion* were based on several communication approaches of parents that have been previously identified in the qualitative research on parent-child communication about sexuality (Gilliam, 2007; Lefkowitz et al., 2002; Lefkowitz et al., 2000; Kahbaugh et al., 1997; Nwoga, 2000; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004). The communication style refers to the "distinct manner of expression" used to communicate about sexuality (Pluhar & Kuriloff, 2004, p. 309). The communication style of a parent was coded as comprehensive/democratic if the parent was more interactive, asked questions, encouraged discussion, and respected their child's point of view. The communication style of a parent was coded as abstinence-only/authoritarian if the parent was more directive, did not ask questions, discouraged discussion by dominating the conversation, and disregarded their child's point of view. The emotion dimension refers to the specific feelings that accompany conversations about sexuality and was inferred based on parental emotional tone

expressed during the interview. The emotion dimension was coded as comprehensive/democratic if the parent was more positive, and/or expressed compassion, reassurance, and empathy. The emotion dimension was coded as abstinence-only/authoritarian if the parent was more negative, and/or expressed contempt, fear, and anger.

In addition, two other categories, called *information* and *underlying message*, were used to code the responses. Information was considered the actual spoken content of the communication. It was coded as comprehensive/democratic if it was correct, complete, age-appropriate, and included information related to condoms and/or contraceptives; information was coded as abstinence-only/authoritarian if it was incorrect, incomplete, not age appropriate, and included information related to abstinence as a goal. The underlying message was unspoken and signified the parents' attitude regarding views of adolescent sexuality and communication about sexuality. The underlying message was inferred by the coder and was coded as comprehensive/democratic if the message in the communication relayed that it was alright to ask questions about sexuality and empowered the young person to make good decisions regarding sexual activity. The underlying message was coded as abstinence-only/authoritarian if the message in the communication relayed that it was not appropriate to discuss sexuality and fear and scare tactics were used to prevent sexual activity.

All audio taped interviews were transcribed by the researcher and each interview response was coded by two coders, based on the following system. The response to each of the 5 topic areas (1-pregnancy/reproduction, 2-condoms, 3-AIDS, 4-puberty/body changes/body parts, 5-sexual orientation) was coded with the number of the topic next to the best description of the response, in each of the four coding categories (communication

style, emotion, information, and underlying message). The total possible number of codes was 20 (5 topics x 4 categories = 20). Topics/responses that emerged during the interview that were not originally included in the interview questions were not coded. The grid coding sheet (see Appendix B) was used to code each interview. The parental response was coded as either comprehensive/ democratic or abstinence-only/authoritarian based upon which column contained the greatest number of coded responses. Responses that did not show a clear pattern were labeled “unable to code.” Any discrepancies in the coding between the 2 coders were resolved by discussion and review of the transcript.

Results

Table 11 summarizes the demographic characteristics of the 20 participants based on their initial labeling using the PSDQ from Study A, and then how they were coded based on their interview responses using a researcher developed coding sheet (See Appendix B). The PSDQ labeled participants as either Democratic (D/PSDQ) or Authoritarian (A/PSDQ) based upon their scores on the PSDQ. The Interview designated participants as either Democratic (D/Interview) or Authoritarian (A/Interview) based upon the coding of their responses to the interview using the researcher designed coding sheet. It is important to note that two approaches were used to constitute the groups. First, parents were labeled based on PSDQ scores; then, based on coding of their interview responses.

Table 10**Study B: Summary of Participant Characteristics by Labeling Method**

(n = 20)

Characteristic	Labeling Method			
	PSDQ		Interview	
	D/PSDQ n (%)	A/PSDQ n (%)	D/Interview n (%)	A/Interview n (%)
Parent Gender				
Mothers	10 (100)	8 (80)	4 (100)	12 (86)
Fathers	--	2 (20)	--	2 (14)
Total	10	10	4	14
Parent Age Range				
Mean	34	34	33.25	35.38
SD	8.7	8.6	8.26	9.18
Marital Status				
Single	5 (50)	3(30)	3 (75)	5 (36)
Married/Domestic Partner	5 (50)	7 (70)	1 (25)	9 (64)
Total	10	10	4	14
Child Age Range				
Mean	12.1	12.4	13.5	12.0
SD	4.04	3.78	4.35	3.98
Gender				
Female	5 (50)	7 (70)	2 (50)	9 (64)
Male	5 (50)	3 (30)	2 (50)	5 (36)

Total	10	10	4	14
Ethnicity				
Latino/Hispanic	5 (50)	5 (50)	3 (75)	6 (43)
Black/non-Hispanic	4 (40)	5 (50)	1 (25)	7 (50)
Asian or Pacific Islander	1 (10)			1 (7)
Total	10	10	4	14
Country of Origin				
Dominican Republic	3 (30)	4 (40)	1 (25)	5 (36)
Puerto Rico	1 (10)	2 (20)	2 (50)	--
United States	2 (20)	--	1 (25)	1 (7)
Jamaica	--	1 (10)	--	1 (7)
Ghana	1 (10)	1 (20)	--	2 (14)
Other	3 (30)	2 (20)	--	5 (36)
Total	10	10	4	14
Att. at Religious Services				
Never	1 (10)	--	--	1 (7)
Once a year or less	1(10)	1 (10)	--	1 (7)
A few times a year	2 (20)	2 (20)	1 (25)	3 (21)
Once or twice a month	3 (30)	--	2 (50)	1 (7)
Once a week	--	3 (30)	--	2 (14)
More than once a week	3 (30)	4 (40)	1 (25)	6 (43)
Total	10	10	4	14

As can be seen in Table 11, D/PSDQ and A/PSDQ each contained parents with 10 children between the ages of 7-17 years old. The mean child age for D/PSDQ was 12.1, (SD = 4.04) and the mean child age for A/PSDQ was 12.4 (SD = 3.78). Ten mothers were in the Democratic group (D/PSDQ) and 8 mothers and 2 fathers were in the Authoritarian group (A/PSDQ). The demographic characteristics of the Democratic and Authoritarian groups in the PSDQ Group were similar for parent age (D/PSDQ mean = 34, A/PSDQ mean = 34), ethnicity, and country of origin. The groups differed on demographic characteristics: marital status, child gender, and attendance at religious services. Parents in D/PSDQ were equally divided between being single (n = 5, 50%) and being married/domestic partner (n = 5, 50%), while only 30% (n = 3) of the parents in A/PSDQ were single and 70% (n = 7) were married/domestic partner. The child gender for D/PSDQ was divided evenly between males (n = 5, 50%) and females (n = 5, 50%), while child gender in A/PSDQ was greater for females (n = 7, 70%) as opposed to males (n = 3, 30%). Parents in D/PSDQ attended religious services once a week or more 30% (n = 3) of the time, while parents in A/PSDQ attended religious services once a week or more 70% (n = 7) of the time.

Table 11 also lists participants grouped based on the coding of their interview responses. There was a shift in parents being labeled as Democratic by the PSDQ and then subsequently coded as Authoritarian by the Interview coding. Six parents were initially labeled democratic using the PSDQ, of these 4 had interview responses labeled as Authoritarian and 2 had interview responses that could not be coded as conforming to either style. Of the 18 responses, the majority of the parents were Authoritarian (12 mothers and 2 fathers, 78%) as opposed to being Democratic (4 mothers, 22%). The

parent age range (D/INTERVIEW, mean = 33.25; A/INTERVIEW, mean = 35.38) and child age range (D/INTERVIEW, mean = 13.5; A/INTERVIEW, mean = 12.0) appear to be similar to each other and also similar to the age ranges in the PSDQ method.

Differences in marital status, child gender, and attendance at religious services between D/INTERVIEW and A/INTERVIEW seem to emerge in the same pattern as found in the PSDQ method. Parents in D/INTERVIEW were more likely to be single ($n = 3$, 75%) than married/domestic partner ($n = 1$, 25%) while only 36% ($n = 5$) of the parents in A/INTERVIEW were single and 64% ($n = 9$) were married/domestic partner. The child gender for D/INTERVIEW was divided evenly between males ($n = 2$, 50%) and females ($n = 2$, 50%) while child gender in A/INTERVIEW was greater for females ($n = 9$, 64%) as opposed to males ($n=5$, 36%). Parents in D/INTERVIEW attended religious services once a week or more 25% ($n = 1$) of the time while parents in A/INTERVIEW attended religious services once a week or more 57% ($n = 8$) of the time.

The next section analyzes the actual interview responses. Each parent was asked questions related to the same 5 sexuality topics (see Appendix B) based on the age of his or her child. Interviews lasted between 10-30 minutes and generated a typed transcription record of an average of 4 typed pages (range 2-7 pages, approximately 1500 words). There was a range of responses that included everything from correct and complete information to incomplete information, misinformation, or no information. Many parents exhibited compassion, empathy, and reassurance when talking with their child while others were very negative, fearful, and embarrassed. Some parents encouraged discussion by allowing their child to ask questions and being respectful of their child's responses, while other parents were more directive in their responses, and

did not encourage further discussion of the topic. Excerpts from the interviews are included below that display the variety of responses, followed by a summary of the major findings.

Topic 1: Pregnancy/Reproduction

Children commonly ask questions related to pregnancy and reproduction at an early age (Madaras, 2000; Planned Parenthood, 1986; Stoppard, 1997). The majority of the responses to this question were coded as Authoritarian (15 out of 18). Parents whose responses were coded as Authoritarian were uncomfortable with the topic, hesitant about what to say or what words to use, gave incomplete explanations, or gave inaccurate responses. Three of the parents were coded as Democratic and were very comfortable talking about the topic.

This mother seemed to be comfortable talking with her daughter but the information she gave was not exactly correct or complete so the response was coded as Authoritarian.

Mother, daughter age 8:

I said that it is a natural process that the woman goes through and it develops 9 months in the stomach and then it comes out through where we pee pee and I left it like that. Because she understands that the urine comes out through the vagina so I guess she understood where the urine comes out through so I kind of left it alone. She had a confused look on her face, but she left it alone. I guess she put it together in her head.

This mother also had a young child, but she intentionally gave misinformation about where babies come from. The answer below seems to indicate that the parent probably does not know how to respond to the question.

Mother, daughter age 7:

I told her that I ate a star and the star become a baby and that's how she came to be. But, she asked me when she was 3 or 4. . . . She told me that her cousin told her that a bird dropped them all, and now she is questioning more and I haven't really sat down to talk with her about it.

A very different sort of response to came from a father who displayed displeasure and outright anger at his daughter even asking a question related to sex.

Father (from Ghana), daughter age 7:

But I remember one day she did ask me 'what is sex?' I frowned at the question. To ask a question at this age being in the first grade. . . I told her 'don't ask such question again.' You know, my face was frowned, I was pissed off. I told her, 'Who taught you that who told you about sex?' She told me it was one girl in the class who mentioned sex. I told her do not associate with that girl again. I told her for you to know about sex now it is not good. For you at this age to know that. That sex is bad. For you to know what it means at this age. When you grow up, I will let you know.

The following excerpts are from an interview with a mother whose son was raised in the African country of Ghana until age 15. It wasn't until the son came to the United States that the parents spoke with him about pregnancy. The reason they spoke with him at age 15 was because the mother stated that the culture in the United States is very different than in Ghana. Traditionally, people in Ghana are not open about sexual topics. It is unclear from the conversation if the actual mechanics of getting pregnant were discussed or just a warning about what can happen if you have contact with a woman.

Mother, son age 17

Like in Africa, parents don't talk much about nothing about what normally happens here. My husband sat him down and told him everything and if you have contact with a lady you can get a girl pregnant so its best to stay away from all those things, that's what -- pregnancy and also he didn't actually ask that but we sat him down and told him about pregnancy and all that stuff. We told him . . . 'no sex, no girlfriend until he is out of high school' So, that's the extent of it. When I was growing up it was like a taboo, we don't talk about it much. We don't talk about it with our parents, our friends and that kind of stuff. When I was

growing up my mother didn't tell me anything. We just got to church and they just advise us on all that stuff."

The following response was coded as Democratic because the mother gave an open and honest answer to a question from a 12 year old boy related to pregnancy.

Mother, son age 12:

He asked me 'Can a girl get pregnant the first time with a boy?' and I said yes, it only take one time and sometimes she can be lucky enough and it can be on the first time that she has sex and he was just like 'really mom?' And I was like yeah, and I explained to him how important it was to always be protected . So he was just like a little shocked to know that it can happen on the first time. And then to have my son, you know, from time to time he'll ask certain questions and then I'll just answer. And I don't show that he's asking me any wrong questions, I just answer.

Topic 2: Condoms

There was a range of responses to the topic of condoms. Again, most responses were categorized as Authoritarian (12 out of 18). Some parents did not discuss condoms for cultural reasons and others did not address the topic because their child never brought it up. A few parents knew that the topic was covered in school, so they felt they didn't have to explain too much to their child. Two of the parents felt that that child was too young for the information, so the topic was not discussed at all. Four of the responses were categorized as Democratic; these parents brought up the topic to their child and answered questions in detail.

The following response was from a mother of a child age 9, who felt her daughter was too young for the information. This response was not coded as either Authoritarian or Democratic.

Mother, daughter age 9:

No, I don't see the need as of yet. Like, it's out there in the media but she don't question like that because some of the stuff I don't let her like [pause] When she gets older, like, maybe about 12 then I'll tell her as she gets older cause the body

is beginning to develop. Then I will sit down and talk with her. Now I don't see the need right now.

Here is another example of a parent of a younger child, but the reason for not discussing condoms had to do more with the culture than the age of the child. This response was coded as Authoritarian.

Father (from Haiti), daughter age 7

All right, I come from a different country [pause] anyway, ok [pause]. there's nothing on TV in my country dealing with birth control or condoms. I think the way we teach our children is very different than the United States. I think that she's not going to ask her mother or me as her father, what a condom is.

This parent was concerned about her son's school policy on having condoms available for high school students. She was very angry when her son came home from school with condoms after she refused to sign the consent form for him to receive them.

Mother, son age 17:

One day I went to his school and they gave me a form that they were giving condoms for free and I said no, I'm not going to sign for that because I already told him the consequences of that and if he does anything and also being a little a boy and having a condom, he might have the urge to try because maybe other friends are doing that. So he might try it. But anyhow, one day I saw him having condoms in his book bag. I randomly check his book bag. I asked him and he said it was given to him at school and I took it and threw it away.

Other responses were coded as Democratic; these parents were very straightforward with their child and answered their questions clearly and fully. They also stressed the importance of preventing disease. This mother of a younger child was asked directly about condoms by her daughter and engaged in a conversation about using them.

Mother, daughter age 8:

Yes, she asked me. She heard me talking to my boyfriend and I said you know we need to buy those things and she said condoms? I said What do you know about condoms? And she said I know guys wear them not to have babies. And I said, really who told you that? And she said, 'I just hear it on TV. I said, what

TV, not TV in our house? Oh, you know kids pick up stuff. I said do you know what a condom is for? She said so women don't have babies and I said exactly and also to prevent to infection and disease that can cause you harm to your health and your other partner's health.

Here is very specific response by a mother to a question that her child asked her about using condoms.

Mother, son age 12:

He asked me mom 'Are you able to use a condom more than once, the same condom more than once' and I was like, no, you're not supposed to use them more than once. I said even if you don't fully perform your duties you're not supposed to put it back on. He's like 'why' I said, one you can catch an infection, you can probably get sick, it's already been used and I said it's not healthy. You're supposed to use one every time you're having intercourse.

Topic 3: AIDS

Twelve out of 18 responses were scored as Authoritarian. These parents avoided the topic altogether, or spoke about it in an incomplete manner, and one gave misinformation. Others spoke about it in terms of warnings and fear of their child's risk of becoming infected with HIV. A number of parents knew that the schools were teaching about HIV/AIDS and seemed to be pleased that they were getting the knowledge at school. This allowed them not to have conversations regarding HIV/AIDS at home. The topic of AIDS also brought up some very personal responses from parents who had friends or family members who currently have HIV/AIDS, or have died of complications of AIDS. Five of the parents gave responses that were coded as Democratic, and one parent did not discuss the topic at all because she felt her child was too young.

A few of the parents of younger children did discuss the topic but seemed unsure of how much information to give. This response was coded as Authoritarian because the parent put off answering her daughter until she was older.

Mother, daughter age 8:

She says how does AIDS start? I said it has to do with the immune system when it dies out and when you are a little bit older like 10, I actually said an age, age 10 we'll go over it more thoroughly but for now we'll just leave it like that.

This response was also coded as Authoritarian because the mother (son age 15) gave her child misinformation about transmission of HIV when discussing AIDS: "You can also get it sexually even from kissing someone, because there is a saliva test for HIV you can get it, that's how you get it. I constantly remind him." It is unclear if the parent was misinformed about how HIV is transmitted (no cases of transmission from kissing) or if she was trying to use a scare tactic.

Another parent discussed the negative consequences of sexual activity and used scare tactics and fear as way to teach her daughter about avoiding infection with HIV.

Mother, girl age 16:

I told her, I said, when you see a boy, he's not gonna come out and tell you I have AIDS. So I tell her, I said, when the boy comes to say whatever he wants to say to make you feel good, he only wants one thing. He's not going to tell you that he has AIDS or an STD, once he gets what he wants that's it. And you have to live with that forever.

This response was coded as Democratic and is from a parent who lost two family members to AIDS.

Mother, son age 17:

And as time went by and I learned more and more of it I wanted to share more, and make him more aware of it. It's something that is very open and I want him to always be open minded to it and not point fingers and not say this or that. I want him to be very open that it can happen to anyone that doesn't protect themselves. It doesn't target just specific groups. Um, it's something that we talk about when it comes up.

Topic 4: Puberty/body changes

Parents were asked if they had discussed puberty or body changes with their child.

These responses were more evenly divided between Authoritarian (10) and Democratic (8) responses. Some parents did not address the subject at all, and others were very compassionate and offered reassurance to their child. A few parents gave some information but were unsure how to proceed because they felt they lacked enough knowledge to talk about the topic correctly.

This mother did not discuss any body changes with her son until he was age 12 and had to have surgery for an undescended testicle. The response was coded as Authoritarian.

Mother, son age 17:

When I give birth to him he had undescended testicles so the doctor said it would come down. At the age of 12 it hasn't come down yet so he had to have surgery. So the last time I went to Ghana that was 2001, so it was told that he was having that pain and why was he having that pain. So I told him it was that one of the testicles has to come down [pause] and there has to be a surgery. So we went and we did the surgery and that was the only time.

Another parent wanted to talk more about puberty and body changes with her daughter but was unsure about the correct information.

Mother, daughter age 13:

I don't want to put myself in this position of being awkward. Even though I'm a mother of 3 I don't know that much about that. I never really learned that. So when I get more knowledge of it then I'll be able to talk.

This response was coded as Democratic. The mother responded to her daughter's concerns about development in a clear and reassuring manner.

Mother, daughter age 10:

I told her that everybody's different. That it's somehow your body – your um. . genes. I had to go into genes. So I told her that it depended on you inherit from your mom and dad how your gonna look and everything like that. So that has to do with your family and what you eat. So that then you develop that way. And there is nothing good or bad about developing earlier or later.

Here is another Democratic response. This mother had a great sense of humor when talking with her son about his body changes and you could tell that she had developed an interactive communication style with him by the type of questions he asked.

Mother, son age 12:

He's like 'mom, is my penis ever going to get bigger?' And I said yes, in time, not everybody's body parts are the same. Some people are bigger than others, and some it takes longer and he asks 'am I going to grow hair?' Sometimes I have to laugh because 'I'm like why are you asking me?' He says 'I'm just curious, because I'm 12 years old and I'm in my puberty stage, and nothings going on with me mom' And I'm like, it takes time, it doesn't happen over night.

Parents were also asked what words they used to describe the male and female genitals. A range of responses emerged from the clinical terms “vagina” and “penis” to made-up words, or “cute” words, and some parents used no words at all. A common word used by Latinos for the female vulva was “toto.” Other words for the female vulva included: “birdie,” “shushum,” and “fumfum.” Many of the mothers had a word for the female genitals when they were talking to their daughters but did not use any word for the male genitals. Words for the male penis included: “pee pee,” “willy,” “taggy waggy,” “man part” and “pigeon” (used in Haiti).

This response was coded as Authoritarian. The parent gave the following response when asked what words he used at home for the male and female genitals.

Father (from Ghana), daughter age 7:

In our house, we don't talk that. We don't discuss that at all. We don't mention anything like that. We control the TV. Any mention of that, we turn it off. If there is a kiss on TV we turn it off. They turn it off themselves.

This father did not explain the correct names of the parts of the body for cultural reasons and fear of what other parents at school may think of his child.

Father (from Haiti), daughter age 7:

I don't want to explain her that if in case she meets other kids, the same age, if in case she tries to explain to them what Daddy said to her about female part or male part. I don't want to get in trouble with other parents because they are going to say, I'm not going to let my kids play with, umm, these kids because this father is too open.

Another parent used the clinical terminology; she wanted her child to learn the correct words because her parents didn't teach her those words when she was growing up. This response was coded as Democratic.

Mother, son age 17:

I'm not like my parents. They used another word. No, I'm not like my parents, no, I'm different. I use the word that the doctor use, you know, the term the doctor use because my son is going to school and I go to school too. No, I'm not changing any words no, because I think that would confuse him.

Topic 5: Sexual Orientation

The majority of parents were very vocal about the topic of sexual orientation, and had strong opinions. Eleven of the responses were coded as Authoritarian and 7 were coded as Democratic. Some reactions were extremely negative; these parents spoke of religion and the teachings that homosexuality was a sin. In general, most parents saw being gay or lesbian as a choice, and not something that is an orientation which cannot be changed. Other parents had family members or friends who were gay, bi-sexual or

transsexual, and were very compassionate towards them. They were concerned about their children being respectful of other lifestyles.

The following 2 responses were coded as Authoritarian. They were very negative.

Father, daughter age 7

But I told her that being gay is not natural. I told her that. From my own understanding it is not natural. I told her that it is sick. That if someone is gay from my knowledge, that person is sick. [laugh] I told her. From what I read from the bible, that gay is bad. God made man and woman so that man should love a woman sexually and not a man loving a man sexually. That's what I told her. I've not seen a gay in my bible.

Mother, son age 17:

When he goes to the youth program at times he talks to his younger brother about it, they said they um, there is a passage in the bible about um, someone about his brother's wife who gets killed or something and he said having sex with someone who is not your wife and having, um being 'gayism' is not good because God created man and woman to be wife and husband and he did not create man and man or woman and woman so it is an abomination against God so gay is not good and that is what they are being taught.

These 2 responses were coded as Democratic and were more positive.

Mother, son age 17

He knows I'm a very opened-minded person. I've always made it a point to always show him and let him know that no matter what a person's sexual orientation, you should always respect it. He doesn't have to necessarily agree with it but he has to respect everybody's choice. And because they choose to be whatever they want to be he has no right to judge them by it. That doesn't make them a bad person, that's just a choice that they have. It's a personal choice that becomes a public choice if they choose to share it. And he respects that. I do have friends that are gay, bisexual, transsexual. He actually has a transsexual uncle.

Mother, daughter age 8

I told her gay means happy and she said No, mommy, 2 guys and 2 girls. So I said, when 2 girls like each other and they have an intimate bond they are called lesbians and when 2 guys like each other and they have an intimate bond they are

called homosexuals. But we're not supposed to judge anybody, those people are happy the way they are that's what they chose.

The interviews proved to be revealing of how parents respond to common questions children ask about sexuality. A number of themes emerged when the interviews were analyzed that include:

- **Sexual Orientation** – Four of the parents revealed that they had family members and/or friends who are gay, bi-sexual, or transsexual. This made them understanding and compassionate towards issues related to homosexuality. While many parents talk with their child about being accepting of others lifestyles, they don't really seem to understand that it is an orientation not a preference. In addition, 5 of the respondents voiced very strong religious opposition to homosexuality.
- **HIV/AIDS** – Four of the parents discussed having a family member or friend who died of complications of AIDS or is HIV positive. This is a health issue that is very salient in New York City, particularly in minority populations. It makes parents much more aware of the dangers of unprotected sex, and fearful of their child becoming infected. It seems that it is still difficult for many parents to discuss this issue in an effective manner with their child. The fact that schools are teaching information on HIV/AIDS allows the parent to be "let off the hook" and feel that they may not have to educate their child at home. Information that was discussed at home was often incomplete and at least in one case, incorrect.
- **Culture** – Culture was a re-emerging theme that played a major factor in the type and quantity of communication parents have with their child about sexuality. Depending on a person's country of origin and family upbringing, the

topic of sexuality may not even be on their “radar.” It seemed to be something that was thought of as embarrassing or dirty. Some parents also felt that discussing the issues with their child will increase sexual risk taking rather than providing their child with knowledge for appropriate decision making.

- **Lack of information** – Several parents expressed how they want to talk with their child about sexually related topics but they just don’t know how. This may be because their parents did not discuss sexuality with them, so they don’t have any examples of how to talk with their own child. Other parents lack basic information and are afraid to give incorrect information. Many parents feel uncomfortable with using correct words for the male and female genitals, which makes conversations embarrassing and difficult.
- **School Education** – Five of the parents talked about school sexuality education and how their child was learning the information in school. Rather than using this as an opportunity to start discussion with their child, it seemed that parents felt relieved from the burden of having a discussion at home. They thought that their child learned everything already so they didn’t have to explain the information.
- **Books and Resources** – All of the parents were asked at the conclusion of the interviews if their child has read books on any of the topics discussed and if the books were owned or if they got them from the library. Only one of the parents said they owned any related books and two of the parents said their children had read books from the library. Three of the parents said that they had brought

pamphlets home from a clinic for their child to read. The lack of available reading material on the subject was apparent.

Discussion

Cultural Differences

Differences based on country of origin (born in the U.S. vs. not born in the U.S.) emerged only in the qualitative analysis. Previous quantitative and qualitative research related to parent-child communication about sexuality identified differences in communication patterns based upon ethnicity (Hutchinson, 2002; Lefkowitz et al., 2000; O'Sullivan et al., 2001), but not country of origin or any other measure of ethnic identity. Lefkowitz et al. (2000) reported that Latino mothers dominated conversations related to sexuality with their children more than White mothers. O'Sullivan et al., (2001) found that the messages Latino mothers gave their daughters about preventing pregnancy were different than messages given by African-American mothers. Survey data has reported greater parent-child communication about sexuality among African-American families than Latino/Hispanic families and White families (Hutchinson, 2002). These differences in communication patterns were identified within the same ethnic groups as well as between different ethnic groups, so it is difficult to attribute a particular pattern to a particular group. The difficulties of making distinctions based upon ethnic group membership alone have been noted in other psychological research (Akiba & Garcia Coll, 2004; Phinney, 1996; Phinney & Ong, 2007; Ponterotto & Mallinckrodt, 2007).

Akiba and Garcia Coll (2004) discuss the issues related to making cultural generalizations based on ethnicity in a chapter entitled "Effective Interventions with Children of Color and their Families: A Contextual Developmental Approach" in the

book *Practicing Multiculturalism* edited by Timothy Smith. They define “pan ethnicity” as “grouping individuals who have little in common yet are perceived to belong together in mainstream of American Society” (p. 128). In other words, one cannot just generalize about an individual based upon membership to a particular group. For example, the term “African-American” may include a Black person born in the United States, a Black person born in Africa who immigrated to the United States, or a Black person born in the Caribbean who immigrated to the United States.

Differences based upon country of origin were noted in the analysis of the qualitative interviews. The influence of culture on the appropriateness of communication about sexuality was particularly salient in interviews with two parents who originated from the country of Ghana, in Africa. One mother said that in Ghana, the topic of sexuality was considered taboo and any teaching of sexuality takes place within the confines of the church. It was apparent from the interviews that these parents did not discuss sexuality, and also did not have the vocabulary to communicate with their children. When asked what words he uses at home to describe the male and female genitals, a father of a 7 year old daughter stated “In our house, we don’t talk that. We don’t discuss that at all”.

The issue of cultural appropriateness was also addressed by a father from Haiti. He said he did not explain the correct names of the parts of the body for cultural reasons and fear of what other parents at school might think of his child. He stated:

I don’t want to explain her that if in case she meets other kids, the same age, if in case she tries to explain to them what Daddy said to her about female part or male part. I don’t want to get in trouble with other parents because they are going to say, I’m not going to let my kids play with, umm, these kids because this father is too open.

This same father acknowledged that life in the United States was different in terms of sexual experimentation of young people. He said:

To me we bring to avoid or to not let her see some books. Even in my country we don't even have movie channel that show everything. At that age – for me – from zero to 15 we are going to avoid some such questions. But teenage girl you can see 14 or 15 pregnancy in this country [United States]. This is a very different country I can explain to her at age 12-13 because in American children are very open and very smart and they ask a lot of questions about sex.

The qualitative data suggest that cultural upbringing and country of origin are major influences on a parent's attitudes toward sexuality education in the home, and communication with their child about sexuality. The interview responses revealed information related to "cultural appropriateness" or the acceptance and permission to discuss sexuality.

Coding of Parent Interviews

Two approaches were used to designate parents as Democratic or Authoritarian. First, parents were labeled based on their scores on the *Parenting Styles and Dimensions Questionnaire* (PSDQ); then, the same parents were labeled a second time using a researcher developed coding sheet (see Appendix B). There was a shift, with parents who were labeled as Democratic based on their PSDQ scores subsequently labeled as Authoritarian when their interview responses were coded. A total of 10 parents were labeled as Democratic based on their PSDQ scores; 4 of these parents were then designated as Authoritarian, and 2 could not be coded because they did not conform to either style. The content and coding of these 6 interviews were analyzed and no patterns were identified to explain this shift.

A likely explanation for the shift in parents being designated as Democratic by the PSDQ and then coded as Authoritarian by the Interview was the nature of the two coding

methods. Each method elicited a different type of information in a different manner. The PSDQ was a forced-choice, self-administered questionnaire. It focused on behavior of the parent. For example, the PSDQ asked parents to “rate how often you exhibit this behavior with your child,” on a 5-point Likert scale. The scale measured various dimensions of parenting behavior (e.g., encourage, praise, explain consequences, scold, criticize, hit, and punish). The forced choice format may have increased the likelihood of bias related to social desirability because it made cultural norms more apparent.

The Interview method elicited information through open-ended questions. For example: “Has your child ever asked you anything related to pregnancy? How did you respond?” These responses revealed the actual content that was communicated, parental attitude, as well as additional information related to culture and religion. The interview provided more complete and “richer” information that may account for the differences in labeling.

Another explanation for the shift in parents being categorized as Democratic in the PSDQ method, and then categorized as Authoritarian in the Interview method may be the age of the child. The PSDQ was used to identify parents to interview and was intended for use only with parents of children age 12 and under. The sample of parents designated as Authoritarian was too small, which necessitated including parents of children over age 12 in the sample. Since the PSDQ was not intended for use with parents of children older than 12 years, the initial categorization was not valid. It is worth noting however, that the age distribution of the children were matched to obtain the sample and were comparable in both the PSDQ and Interview methods.

The qualitative data coding sheet (see Appendix B) that was developed to code

the interview transcripts proved to be a useful mechanism for analyzing the responses, although some categories were easier to code than others. The categories of communication style and emotion were fairly easy to determine. Distinct patterns of communication style and emotion emerged which have been previously identified in other qualitative research (Gilliam, 2007; Lefkowitz et al., 2002; Lefkowitz et al., 2000; Kahbaugh et al., 1997; Nwoga, 2000; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004). These patterns included "comprehensive/democratic", described as a parent who was comfortable, nurturing, respectful, and encouraging of discussion, and "abstinence-only/authoritarian" described as a parent who was uncomfortable, controlling, and directive. The majority of responses to the 5 interview topics were coded as Authoritarian. The only topic where responses were more evenly divided between Authoritarian and Democratic responses was puberty/body changes. This may be because the parents could not ignore apparent physical changes in the child when he/she started to go through puberty.

Determining parental emotion was also unproblematic in coding. Again, two patterns emerged, comprehensive/democratic parents demonstrated compassion, reassurance, and even humor when discussing sexuality with their children while abstinence-only/authoritarian parents were clearly embarrassed, negative, or even angry. In the future, additional probes during the interviews could help in revealing feelings by the interviewer asking "how did you feel when you discussed this information with your child?"

The categories of information and underlying message were more difficult to code. Information was considered the actual spoken content of the communication. An

unanticipated issue arose in relation to the difference between complete vs. incomplete information. For example, a parent may have stated that she talked about condoms with her child but the extent of the communication was unclear. Even though correct information may have been provided, a framework had not been developed to identify the components of complete vs. incomplete information for each topic. For example, does complete information include telling a child what a condom is used for, and that it prevents pregnancy, STI's, and HIV, or does complete information include additional discussion of how to use the condom, obtain the condoms, and negotiate condom use with their partner. Of course, the level of detail would be based on the age of the child. This could be solved in the future by including a few more probes in the interviews and having detailed guidelines as to what constitutes complete vs. incomplete information.

Another unanticipated issue arose during interviews with parents of younger children (ages 7-9). Some of the topics, such as condoms and AIDS, may not have been brought up by a younger child. The parent did not discuss the topic because she felt her child was too young to be exposed to the information. It was unclear how to code these responses. The only applicable category was listed under abstinence-only/authoritarian which was "no information." It was not the appropriate coding because this would only apply if the topic came up but the parent provided no information. These responses ended up not being coded. In the future, this could be resolved by having a third column that states "age inappropriate." Finally, the coding of the category "underlying message," had to be inferred. While the two coders agreed upon the coding in most cases, including this category in the coding sheet increased the subjectivity of the analysis. The

underlying message category did not add anything additional to the analysis, and could be easily eliminated in the future.

Several themes emerged from the qualitative analyses that were consistent with previous research findings (these will be discussed in the next section), and support the integrity of the methodology (individual interviews) used in this study to collect qualitative data. Previous qualitative studies either used focus group interviews or videotaping of parent-communication interactions (Gilliam, 2007; Kahlbaugh et al., 1997; Lefkowitz et al., 2000; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004) where effects of social desirability may emerge. Parents seemed to be very comfortable with the interview format and overall, the response to the interview process was positive. While parents were happy to receive the \$20 incentive for participating, it was clear that it was not the main reason why they agreed to be interviewed. Parents felt that the research was important and they wanted to be a part of the study. They seemed to enjoy the conversations and were grateful for the opportunity to speak with the researcher at the end of the formal interview. In particular, several parents asked specific questions about their own child.

Communication Patterns in Parent Interviews

Differences in communication patterns emerged that showed clear distinctions between individual parental styles of communication with their child about sexuality. The interviews revealed individual patterns of communication; several parents were waiting until their child was older to discuss certain topics, some parents were more proactive and discussed sexuality from an early age, and other parents had little conversation at all. These patterns of communication have been noted in previous

research studies (Gilliam, 2007; O'Sullivan et al., 2001; Pluhar & Kuriloff, 2004) which found that timing of discussions was often related to the initiation of puberty, although some parents paced discussion throughout childhood and others did not address the topics at all. This analysis also identified a range of parental responses when communicating about sexuality with children that have been identified in other research studies (Baumeister et al., 1995; Gilliam, 2007; Pluhar et al., 2006). Some parents used the correct medical terms for the male and female genitals while other parents were more comfortable with using euphemisms. Some parents provided clear, correct information while other parents gave misinformation or no information.

Several themes emerged in the parent interviews that have not been identified in previous research and seem to be specific to this sample population. A number of parents discussed the impact of having a family member or friend with HIV infection, or dying from complications of AIDS. This made parents more conscious of the dangers of unprotected sex and fearful for their child becoming infected. Another theme was having friends or family members who are gay, bi-sexual, or transsexual. While this made parents understanding, compassionate, and tolerant, it seemed that additional information related to issues of gay rights and discrimination was not provided to their children. The parents also talked of homosexuality as a lifestyle choice, and they seemed uneducated of the fact that homosexuality is an orientation and not a preference. A related theme that arose that seems to be specific to this population was strong religious opposition to homosexuality. For many of the parents, religion was an integral part of their family life. Religious teachings, in addition to cultural upbringing, seemed to be the basis for their strong opinions, thus making belief changes a difficult task.

Another theme that emerged from the interviews was related to school education. Several parents expressed relief that their child's school was teaching information related to sexuality. Rather than using this as an opportunity to start discussions with their child, it seemed that parents felt it was a replacement for having their own discussion at home. For example this mother of a 17 year old son replied to a question about discussing condoms with her son:

I never talked to him about that, no because, um, I remember when he was in 8th grade, 7th grade, he was telling me that he was taking a class about sex in school. So, I didn't have to explain much to my son because he know already because of school.

Thus, parents may view the teaching of sexuality education as the purview of the school because they are either uncomfortable, lack knowledge, or feel it is culturally inappropriate. Alternatively, support for school sex education may be based on the cultural idea that the school is the "authority" and parents may think that they should not interfere with school education (Akiba & Garcia Coll, 2004).

A related area to school education was sex education literature in the home. It was surprising how few parents supported reading about these topics at home, considering the fact that all of the parents were attending community college themselves, and they were accustomed to purchasing and borrowing books. It is unclear if the parents were unaware of the availability of these resources, or if they felt books on the subject were inappropriate. At the end of the interviews, literature related to talking with their child about sexuality and resources for their children were given to each parent. Most of the parents enthusiastically received these materials and seemed anxious to share the information with their partners and/or children. Parent education regarding sexuality

issues is the responsibility of the health educator, and these findings highlight the need for health educators in this vital area.

Study Limitations

One of the limitations of this research study was the use of the researcher developed Qualitative Data Coding Sheet. Even though the interviews and coding process were pilot tested, several unanticipated issues emerged that put into question the validity and reliability of the coding process. These issues were coding complete vs. incomplete information and coding responses of parents with young children (between 7 - 9 years), who may not have discussed a topic because they felt their child was too young to be exposed to the information. A framework had not been developed to identify the components of complete vs. incomplete information for each topic. The level of detail would have to be based on the age of the child. This could be solved in the future by including a few more probes in the interviews and having detailed guidelines as to what constitutes complete vs. incomplete information.

The other coding issue was coding responses of parents with younger children (ages 7-9), who may have not brought up topics such as condoms and AIDS. In some cases, the parent did not discuss the topic because she felt her child was too young to be exposed to the information. It was unclear how to code these responses and they ended up not being coded at all. In the future, this could be resolved by having a third column that states "age inappropriate."

Finally, the use of the PSDQ to identify participants to be interviewed caused some difficulties due to a possible ceiling effect and age limitation. Almost all of the parents in the study expressed a relative preference for democratic parenting styles as

compared with authoritarian parenting styles. The scores were concentrated at the top of the democratic scale, indicating a ceiling effect. In addition, the PSDQ was validated for use with parents of children under age 12. Since most parents scored as democratic, parents of children over age 12 needed to be contacted for the interview to obtain the sample of authoritarian parents. To remedy this discrepancy, and create comparable groups, parents of children who were older than age 12 were also contacted in the Democratic group. Future qualitative research using interviews should aim to identify participants using a more discerning instrument or another valid method.

Chapter 5: Recommendations and Directions for Future Research

The majority of the sample population for this research study was found to support sexuality education in the schools, but to be conservative in personal handling of topics. While these findings cannot be generalized to other diverse populations in urban communities, it is good news for administrators of public schools surrounding the community college from which the sample was obtained. The challenge now is for schools to engage parents as partners in their child's education and for parents to take on the role of being their child's primary sexuality educator. While many communities offer programs that aim to improve parent-child communication about sexuality through schools and community groups (SIECUS, 2002), the community college may be one population that has gone untapped. Community college students tend to be older, working full or part-time, and many have families (Maddox, 2006). The fact that students are already exposed to new ideas and different points of view may make community college students particularly amenable to new ways of thinking (Maddox, 2006). It may be an opportune time to challenge cultural ideals related to sexuality, and expose students to new approaches in communicating with their children about sexuality. Many colleges offer courses in Human Sexuality, an ideal educational opportunity to get the message out to young adults who will be parents some day, and to those who are already parents. Information that is perceived to be from a respected source has been shown to be more powerful than information from a non-respected source (Petty & Cacioppo, 1986). Thus, a college professor may hold particular weight in challenging traditional beliefs regarding parent-child communication about sexuality.

Here are some recommendations for talking with parents:

- *Parents need to understand the importance of talking with their child about sexuality.* Parents may want to protect their children or keep them innocent by not talking with them about sexuality. Parents need to be taught that more information, not less information, will make their children smarter and safer. Talking with their child at an early age, in a developmentally appropriate manner, will make conversations easier and more natural as the child grows up.
- *Parents need to be given permission to talk with their children about sexuality.* A parent won't talk about it if they grew up in a culture where it is not discussed or if their parents never spoke with them. They also might feel embarrassed to talk with their child. Parents need to be informed that it is their parental responsibility to talk with their children and empower themselves as the "permission giver." In other words, the parents need to allow themselves to talk with their child.
- *Parents need to learn how to talk with their children about sexuality.* Parents must be given the words and the correct factual information to use when talking with their children. They need to understand that it is acceptable to use correct biological terms for the male and female reproductive organs. Parents must educate themselves about what information is age appropriate for their child, and how to bring up subjects even if their child doesn't ask them questions.
- *Parents need to know that if their child asks a question about sexuality they must give an answer.* Parents should be taught to answer their child's question without negative underlying messages that discourage a child from asking more questions. Parents should give the answer to the best of their ability at the time it is asked

and be clear that they can revise their answers when necessary. They should also be taught to encourage more discussion by asking the child questions.

- *Parents need to learn the benefits of talking with their child about sexuality.*

Parents who speak with their child about sexuality are able to give information related to their own culture and values that cannot be obtained from school or anywhere else. Children want their parents to talk with them about this subject and by doing so it will make their relationship with their child closer.

Future research in the area of parent-child communication about sexuality should aim to further study the variables related to “ethnic identity.” There have been many challenges to operationalizing the constructs of racial and ethnic identity over the past decade within the field of multicultural psychological counseling (Ponterotto & Mallinckrodt, 2007). It needs to be clarified whether new measurement techniques should be developed or if existing measures are sufficient to clarify the meaning of ethnic identity. Understanding the impact of “ethnic identity” on family values and family relationships will help educators in developing appropriate parent programs. The aim of these programs should be to increase parental efficacy in being active and ongoing participants in their child’s education about sexuality.

Appendix A

Instruments Study A

Recruitment Posting

Verbal Instructions

Consent Form

Parent Opinion of School Sexuality Education Questionnaire

This questionnaire lists topics that some people have described as important for a school-based sexuality education program. For each of the topics listed, please indicate in the column to the right of the statement (on the 5-point scale provided) whether or not you view the topic as **important for your child to learn about at any point during 6th through 12th grade. Answer each question based on your oldest child.**

Instructions: In the column to the right of the topic listed, indicate (circle) the importance of each topic by using the following scale:

1	2	3	4	5
opposed to teaching	not at all important to teach	not too important to teach	somewhat important to teach	very important to teach

Topic	Rating
1. The basics of reproduction	1 2 3 4 5
2. Transmission and prevention of HIV/AIDS	1 2 3 4 5
3. Transmission and prevention of sexually transmitted infections	1 2 3 4 5
4. How to get tested and treated for HIV/AIDS and sexually transmitted infections	1 2 3 4 5
5. How to prevent sexual abuse	1 2 3 4 5
6. How to use birth control methods	1 2 3 4 5
7. Effectiveness and failure rates of birth control	1 2 3 4 5
8. Where to get birth control	1 2 3 4 5
9. How to use condoms	1 2 3 4 5
10. How to deal with the pressure to have sex	1 2 3 4 5
11. How to talk with parents about sex	1 2 3 4 5
12. How to talk with a partner about birth control and sexually transmitted infections	1 2 3 4 5
13. Abortion	1 2 3 4 5
14. Masturbation	1 2 3 4 5
15. Oral sex	1 2 3 4 5
16. Anal sex	1 2 3 4 5
17. Sexual orientation	1 2 3 4 5
18. Classroom demonstrations of how to use condoms	1 2 3 4 5

Parent Opinion of School Sexuality Education Questionnaire continued

19. I think the main message of school sex education should be: (please check one)

Teaching abstinence until marriage (waiting to have sex until marriage).

Teaching that young people should wait to have sex, but if they don't they should use birth control and practice safer sex.

20. I think sexuality education should emphasize that: (please check one)

Sex is a healthy and normal part of life.

Sex is something to avoid and fear.

21. Should sexuality education be taught in NYC public schools? yes no

If yes, what grade level should sexuality education start? elementary school
 middle school
 high school

22. My **oldest** child attends public school private school parochial school

Is sexuality education taught in the school your **oldest** child attends? yes no

Parenting Questionnaire

Directions:

This questionnaire is designed to measure *how often* you exhibit certain behaviors towards your child. Please answer each question based on your **oldest child**.

Example:

Please read each item on the questionnaire and think about *how often* you exhibit this behavior and place your answer on the line to the left of the item.

I EXHIBIT THIS BEHAVIOR:

- 1 = Never
- 2 = Once in Awhile
- 3 = About Half of the Time
- 4 = Very Often
- 5 = Always

 3 1. I allow my child to choose what to wear to school.

Parenting Questionnaire

REMEMBER: Answer each question for your **oldest child**.

For each item, rate how often you exhibit this behavior with your child.

I EXHIBIT THIS BEHAVIOR:

- 1 = Never
- 2 = Once in Awhile
- 3 = About Half of the Time
- 4 = Very Often
- 5 = Always

- _____ 1. I am responsive to my child's feelings and needs.
- _____ 2. I use physical punishment as a way of disciplining my child.
- _____ 3. I take my child's desires into account before asking her/him to do something.
- _____ 4. When my child asks why he/she has to conform, I state: because I said so, or I am your parent and I want you to.
- _____ 5. I explain to my child how I feel about the child's good and bad behavior.
- _____ 6. I spank when my child is disobedient.
- _____ 7. I encourage my child to talk about his/her troubles.
- _____ 8. I punish by taking privileges away from my child with little if any explanations.
- _____ 9. I give comfort and understanding when my child is upset.
- _____ 10. I yell or shout when my child misbehaves.
- _____ 11. I give praise when my child is good.
- _____ 12. I explode in anger towards my child.
- _____ 13. I take into account my child's preferences in making plans for the family.
- _____ 14. I grab my child when my child is being disobedient.
- _____ 15. I allow my child to give input into family rules.
- _____ 16. I scold and criticize to make my child improve.
- _____ 17. I give my child reasons why rules should be obeyed.
- _____ 18. I use threats as punishment with little or no justification.
- _____ 19. I punish by putting my child off somewhere alone with little if any explanations.
- _____ 20. I help my child to understand the impact of behavior by encouraging my child to talk about the consequences of his/her own actions.
- _____ 21. I scold or criticize when my child's behavior doesn't meet my expectations.
- _____ 22. I explain the consequences of the child's behavior.
- _____ 23. I slap my child when the child misbehaves.

Thank you for your assistance by completing this questionnaire.

I (Janet Heller) will be conducting a second part of this research study that involves parent-child communication about sexuality. Parents will be asked how they respond to common questions children have about sexuality. The interview will be about **15-20 minutes**. You will **receive \$20** for participating in this study.

Interviews will be **arranged** around **your schedule**. If you are interested in meeting with me, please complete the following information:

Name _____

Phone _____

Email _____

Please note that *not* everyone who is interested in participating in the interview will be contacted.

Recruitment Posting

PSY 11 Students needed for a research study on **sexuality education**. Looking for **BCC parents** to answer questions related to teaching their child about sexuality.

Requirements for Participation

You **must** be a parent of a child between the ages of 6 and 17 years old. If you have more than one child, your **oldest child cannot be older than 17** years old. You must currently live with your oldest child.

What the Study Involves

You will be asked to fill out a questionnaire. There are 3 parts: your opinion of topics that should be included in school sexuality education, how you interact with your child and background information. It should take about **20-30 minutes** to complete.

Your Rights

Your responses to the questions will remain confidential. Taking part in this research is voluntary. You will receive credit for your PSY 11 class. This research has been approved by the BCC Institutional Review Board.

The Researcher

Janet Heller, Department of Health, Physical Education and Wellness, is conducting this study to better understand issues involved in teaching children about sexuality related subjects. For more information, please contact Janet Heller at 718-289-5902, Loew 308 or janet.heller@bcc.cuny.edu.

Sign Up

Sign up on the posted sheets. If you would like to participate at a time other than posted sessions, see contact information above.

Verbal Instructions

Thank you for signing up to participate in this research study. My name is Janet Heller. I am conducting this research to find out how parents feel about school sexuality education. I also am interested in finding out how you communicate with your child. To participate in this study, you must have a child between the ages of 6 and 17. Is there anyone here who does not have one or more children between the ages of 6 and 17? (If yes, participant will be excused) If you have more than one child, the oldest child cannot be over the age of 17. Is there anyone here who has a child over the age of 17? (If yes, participant will be excused) To participate in this study, you must also live with your oldest child. Is there anyone here who does not currently live with their oldest child? (If yes, participant will be excused)

I am going to distribute the consent forms for this research study. (Consent form will be read out loud). Does anyone have any questions? If you understand the consent form and are willing to participate, please sign and date the form. I will collect the forms now.

I will distribute the questionnaire now. Please take a look at it with me before completing it. The first page is the Parent Opinion of School Sexuality Questionnaire. There are 18 topics and you are asked to rate how important you think the topic is for your child to learn about at any point during 6th through 12th grade, that is middle through high school. Think of your oldest child when you answer these questions. Keep in mind that the survey asks if you think your

child should learn this topic at any point from 6-12th grade. Even if your oldest child is 10 right now and you think the topic may not be appropriate, do you think it would be appropriate for him or her to learn when they are older? The second part is a Parenting Questionnaire and it asks you how often you exhibit or show certain behaviors towards your child. Again, base your answers on your oldest child. The last part of the questionnaire asks you some basic questions about yourself.

If you are disturbed or concerned about any of the issues covered in the questionnaire and would like to speak with someone about them, please contact Mr. Vincent Walker, from the BCC Psychological Counseling Department, at 289-5727.*

Are there any questions?

* The contact information will also be written on the blackboard.

Consent Form for Questionnaire

BCC/CUNY Contact

Janet Heller , Loew Hall, Room 308

718-289-5902

email: janet.heller@bcc.cuny.edu

Protocol# 0708-6

Study Description:

1. This study will be conducted by Janet Heller, a doctoral student in the Educational Psychology Department at the City University of New York Graduate Center. The purpose of this study is to collect data relating to parental opinion of school sexuality education and to find out how parents communicate with their children. The information will be used to better understand issues involved in teaching children about sexuality related subjects.
2. The study asks participants to fill out a questionnaire. The questionnaire includes three parts: your opinion of topics that should be included in school sexuality education, how you interact with your child, and background information. It should take about 20-30 minutes to complete.
3. At the completion of the self-administered questionnaire, you will be asked if you wish to participate in an additional interview with the researcher. You do not have to participate, but if you would like to, you will be asked to give your name and contact information. Your name and contact information will be handed in separately from the questionnaire.

Your Rights, Privacy and Welfare:

1. The questionnaire is confidential. Your name or ID will not appear anywhere on the questionnaire. Questionnaires will only be identified by anonymous subject numbers. No one will see the completed questionnaire except for the researcher.
2. The questionnaire is strictly voluntary. You will receive credit for your PSY 11 class if you participate but there will be no penalty if you decide not to participate.
3. You are free to withdraw your consent and to discontinue participating in this study at any time. You do not have to answer any questions that you prefer not to answer.
4. If you have any questions or concerns about this study or your rights as a participant please, contact the researcher at the contact information at the top of the page.

I have read this consent form and I understand the procedure to be used in this study. I freely and voluntarily choose to participate. I understand that I may discontinue my participation at any time without penalty.

Print Name

Signature

Date

Appendix B

Instruments Study B

Qualitative Data Coding Sheet

Consent Form

Interview Questions for Parents of children ages 6-9

Children ask a lot of questions about health and family matters. I'm trying to get a better understanding of how parents handle these questions. Your oldest child is a (boy or girl) _____ and he/she is _____ years old.

I'm going to mention 5 topics that many children ask about and I'd like you to tell me about how you've handled them with (your oldest son/daughter).

1. Has your child asked you anything related to pregnancy/reproduction such as . . . How are babies made? How does the baby get in? How does the baby get out? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
2. Has your child asked you anything related to condoms such as . . . What is a condom or what's this? (if they've seen a condom) How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
3. Has your child asked you anything related to AIDS such as . . . What is AIDS? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
4. Has your child asked you anything related to body changes, body parts or puberty such as . . . Why are girls and boys body's different? What are the pads (sanitary napkins) that are in the bathroom? How did you respond? What sort of words do you use when describing body parts?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
5. Has your child asked you anything related to sexual orientation such as Do men ever marry each other? Why are two girls or two boys holding hands? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
6. Has your child read any books related to these topics? Have you read the books together? Did your child read the book alone? Do you own the book or did you borrow the book?

Interview Questions for Parents of children ages 10-13

Children ask a lot of questions about health and family matters. I'm trying to get a better understanding of how parents handle these questions. Your oldest child is a (boy or girl) _____ and he/she is _____ years old.

I'm going to mention 5 topics that many children ask about and I'd like you to tell me about how you've handled them with (your oldest son/daughter).

1. Has your child asked you anything related to pregnancy/ reproduction such as: What is sexual intercourse? How old should a person be to have sex? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
2. Has your child asked you anything related to condoms such as . What is a condom? How do you use it? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
3. Has your child asked you anything related to AIDS such as . . How do you get AIDS? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
4. Has your child asked you anything related to body changes, body parts or puberty such as : What's a period? What's ejaculation (ask based on sex of child) How did you respond?
What sort of words do you use when describing body parts?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
5. Has your child asked you anything related to sexual orientation such as . .What does it mean if you are gay?
How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
6. Has your child read any books related to these topics? Have you read the books together? Did your child read the book alone? Do you own the book or did you borrow the book?

Interview Questions for Parents of children ages 14-17

Children ask a lot of questions about health and family matters. I'm trying to get a better understanding of how parents handle these questions. Your oldest child is a (boy or girl) _____ and he/she is _____ years old.

I'm going to mention 5 topics that many children ask about and I'd like you to tell me about how you've handled them with (your oldest son/daughter).

1. Has your child asked you anything related to pregnancy/reproduction such as
How does a person avoid getting pregnant? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
2. Has your child asked you anything related to condoms such as . . .
Are condoms effective? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
3. Has your child asked you anything related to AIDS such as . . .
How do you prevent AIDS? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
4. Has your child asked you anything related to body changes, body parts or puberty such as . . .
Can a girl get pregnant if she hasn't gotten her period? Or has she/she asked you anything about body changes while they were going through puberty? How did you respond?
What sort of words do you use when describing body parts?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
5. Has your child asked you anything related to sexual orientation such as
Is it good or bad to be gay? How did you respond?
(If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?
6. Has your child read any books related to these topics? Have you read the books together? Did your child read the book alone? Do you own the book or did you borrow the book?

Qualitative Data Coding Sheet

Participant # _____

Parent: Mother/Father (circle one)

Child: Boy/Girl (circle one), age _____

Topic 1 pregnancy/reproduction

Topic 2 condoms

Topic 3 AIDS

Topic 4 puberty/body changes

Topic 5 sexual orientation

Instruction: Use one form for each participant. Code by placing the number of the topic next to the best description of the response, in each of the four coding categories.

	Comprehensive/democratic	Abstinence-only/authoritarian
Information	Correct information Complete information Age-appropriate Answers question Acknowledges question Refers to other sources if answer not known Discussion of condom use and/or contraceptives Positive aspects of sexuality	Misinformation Incomplete information No information May not be age appropriate Does not answer question Ignores question Changes subject Abstinence as goal – no discussion of condoms/contraceptives Negative consequences of sexual activity besides pregnancy and HIV/STD's
Emotion	Positive/Neutral Compassionate Reassurance Empathy Not embarrassed	Negative Fearful Anger Contempt Embarrassed (no eye contact, facial expression, uncomfortable laugh)
Underlying Message	It's ok to ask these questions More in control of life Will not be pregnant Will be more educated, more options Will be able to say no, empowerment for decision making Self-confidence Respect for others	It's not ok to ask these questions Fear/scare tactics to avoid sexual activity Consequences of premarital sex or sex outside of marriage Punitive Unable to make decisions themselves Not respectful of others
Communication Style	More interactive, asks questions Encourages discussion Respects child's opinion Comfortable Nurturing Open	More directive, does not ask questions Discourages questions Does not respect child's opinion Uncomfortable Controlling Avoidant

Total # of comprehensive/democratic _____ (highest is 20)

Total # of abstinence-only/authoritarian _____ (highest is 20)

Did child read any books? Yes/no, if yes, on own ___ given to by parent ___ source _____

Consent Form for Interview

BCC/CUNY Contact

Janet Heller, Loew Hall, Room 308

718-289-5902

email: janet.heller@bcc.cuny.edu

Protocol # 0708-6

Study Description:

1. This study will be conducted by Janet Heller, a doctoral student in the Educational Psychology Department at the City University of New York Graduate Center. The purpose of this study is to collect data relating to how parents answer questions children have about sexuality. The information will be used to better understand issues involved in teaching children about sexuality related subjects.
2. The study involves being interviewed by the researcher. Participants will be asked how they respond to common questions children ask about sexuality. The interview will be audio taped. It should take about 15-20 minutes to complete.

Your Rights, Privacy and Welfare:

1. The interview is confidential. This means that only the researcher and any other coders of the taped interview will have access to the information. Your name will not be revealed to anyone other than the researcher. Any journal articles or publications produced based on the interview will use different names so individuals can not be identified.
2. The interview is strictly voluntary. You will receive \$20 for participating in this study. There will be no penalty if you decide not to participate.
3. You are free to withdraw your consent and to discontinue participating in this study at any time. You do not have to answer any questions that you prefer not to answer.
4. If you have any questions or concerns about this study or your rights as a participant please, contact the researcher at the contact information at the top of the page.

I have read this consent form and I understand the procedure to be used in this study. I freely and voluntarily choose to participate. I understand that I may discontinue my participation at any time without penalty.

 Print Name

 Signature

 Date

I consent to be audio taped.

 Print Name

 Signature

 Date

Appendix C

School Sexuality Education Questionnaire (SSEQ)

Additional Information

The sex education topics included on the SSEQ were adapted from the Kaiser Family Foundation Sex Education in American Survey (2004, 2000) and a recent study of parental opinions of sexuality education in North Carolina conducted by Ito et al. (2006). The Likert scale format that was used in this questionnaire was adapted from Ito et al. (2006).

The Kaiser (2004) survey included 1001 interviews with parents of children in grades 7 through 12. The sample was obtained from a random national sample of 1,759 respondents over age 18, including an oversampling of parents of children in grades 7 through 12.

The Ito (2006) survey conducted interviews with 1,306 parents of North Carolina public school students in grades K-12. The sample was obtained through a purchased list of phone contacts that were targeted to parents of school age children. A total of 4,000 phone numbers were called to obtain the sample of 1,306.

Appendix D

Parenting Styles and Dimensions Questionnaire (PSDQ)

Additional Information

According to an e-mail communication with Dr. Clyde Robinson, author of the PSDQ on April 30, 2007, the 32-item version has been used with “good construct validity” with families in Russia, China, Australia, Canada, and Japan as well as being translated into Spanish. In addition, Dr. Robinson has sent out well over 100 forms of the PDSQ to various researchers within the U.S., Canada, Asia, and Europe (email communication with Clyde Robinson, September 12, 2007). The PDSQ has been piloted on 1200 parents of children between the ages of 4 and 12 (email communication with Dr. Clyde Robinson, July 3, 2008; telephone conversation with Clyde Robinson on July 22, 2008).

According to Clyde Robinson (telephone communication, July 22, 2008), parents generally score higher on the democratic scale because it is more positive, but the authoritarian scale is still predictive. He suggested that the authoritarian scale be broken out into sub-dimensions as there may be significance found in the individual sub-dimensions but not in the overall mean. For example, a parent may score as authoritarian in the verbal hostility dimension but not in the physical coercion dimension.

Appendix E**Countries of Origin for Participants in Study**

(n = 191)

- | | |
|--------------------------------|----------------------------|
| 1. Albania (n = 2) | 16. Jamaica (n = 25) |
| 2. Antigua (n = 1) | 17. Italy (n = 2) |
| 3. Bulgaria (n = 1) | 18. Liberia (n = 2) |
| 4. Cuba (n = 3) | 19. Nigeria (n = 5) |
| 5. Dominica (n = 1) | 20. Peru (n = 1) |
| 6. Dominican Republic (n = 42) | 21. Puerto Rico (n = 35) |
| 7. Ecuador(n = 2) | 22. Senegal (n = 1) |
| 8. Gambia (n = 1) | 23. Sierra Leone (n = 1) |
| 9. Ghana (n = 11) | 24. St. Kitts (n = 1) |
| 10. Grenada (n = 1) | 25. Suriname (n = 1) |
| 11. Guatemala (n = 2) | 26. Trinidad (n = 3) |
| 12. Guyana (n = 1) | 27. United States (n = 32) |
| 13. Haiti (n = 4) | 28. Virgin Islands (n = 1) |
| 14. Honduras (n = 2) | 29. West Indies n = 1) |
| 15. India (n = 1) | 30. Unknown (n = 5) |

Appendix F

Religions for Participants in Study

1. Anglican (n = 1)
2. Apostolic (n = 1)
3. Baptist (n = 14)
4. Catholic (n = 79)
5. Charismatic (n = 1)
6. Church of God (n = 1)
7. Evangelical (n = 3)
8. Islamic (n = 5)
9. Hindu (n = 1)
10. Jehovah Witness (n = 3)
11. Jewish (n = 1)
12. Methodist (n = 2)
13. Mormon (n = 1)
14. Muslim (n = 1)
15. Orthodox Christian (n = 1)
16. Pentecostal (n = 20)
17. Seventh Day Adventist (n = 4)

Appendix G

Pilot Test of Interview

Purpose

The purpose of this research was to pilot test the interview instrument, and coding schema that will be used as part of a larger study related to sexuality education. The qualitative data collection entailed interviewing parents about how they respond to common questions children ask about sexuality. It was important to make sure that the interview questions were worded in a manner that generated enough information to allow for coding of the data. This pilot test allowed the researcher to practice the interview format, code the answers, and permit a second coder to check for reliability.

Research Design

This research study was qualitative in nature. Data was collected through interviews with parents about how they respond to common questions children ask about sexuality.

Participant Selection

Participants were a convenience sample of students at Bronx Community College. Students enrolled in health classes were asked to volunteer to be interviewed by the researcher. These were not students currently enrolled in the researchers own classes, but were students referred to her by other faculty. Volunteers were parents of children between the ages of 6 and 17 (the oldest child not older than 17 years), and the parent resided with their oldest child. Six students were recruited and included: 2 parents of a

child in each of the age categories (ages 6-9, 10-13, and 14-17). Five mothers and one father were interviewed with children ranging in age from 6-17 (3 boys and 3 girls).

Procedure

In December 2007, students were approached by the researcher through Health Education classes and asked if they would be interested in participating in a study related to parent-child communication about sexuality. The students were told that questions will be asked about how they respond to common questions children have about sexuality, and that the interview would be audio-taped. Students who expressed interest were told of the requirements (must have children between the ages of 6-17, oldest child not older than 17, must live with oldest child). If students did not meet the requirements, they were thanked for their interest but told they could not participate.

If a student was interested and he/she met the criteria, he/she was accompanied to the researchers' office for the interview. Participants were given a consent form to read and the content was explained verbally before the participant signed the form. If a parent had more than one child, he/she was asked to answer questions based on the age of his/her oldest child. All interviews were audio-taped. At the conclusion of the interview, parents were given literature from Sexuality Information and Education Council of the United States (SIECUS) related to talking with their children about sexuality.

Instruments

Parent Interview Questions – The interview questions were developed by the researcher and were based on three common trade books written for parents on how to communicate with their child (Madaras, 2000; Planned Parenthood, 1986; Stoppard,

1997). Three different forms of interview questions were available based on the age of the child (6-9 years, 10-13 years, 14-17 years), and each age grouping included 5 open ended questions on the same topics. The topics were pregnancy/reproduction, condoms, AIDS, puberty/body changes, and sexual orientation. A sixth question was asked about reading sexuality related books.

Results

The interviews averaged 10-15 minutes each and generated a typed transcription record of an average of 4 typed pages (approximately 1400 words). To check coding, all interviews were coded by 2 coders. Four of the interviews were coded as comprehensive/democratic and two were coded as abstinence-only/authoritarian. Based upon the pilot interviews, the coding schema and interview questions were modified.

The coding schema was modified to add a few descriptive coding phrases for the categories of information, underlying message, and communication style. One parent provided no information at all about any of the sexuality related topics to his daughter. So, the phrase “no information” was added to the information category, and “avoidant” was added to the communication style category under abstinence-only/authoritarian. The phrase “open” was added to communication style as the opposite of “avoidant” under comprehensive/democratic.

Three parents of older children (ages 11, 15, 17) discussed the negative consequences of sexual activity such as pregnancy, HIV, and STD's (coded under abstinence-only/authoritarian) with their children but were coded on all other communication as comprehensive/democratic. The information the parent provided was correct, complete, and age-appropriate (comprehensive/democratic) so it was unclear

which category the communication should be coded. It was determined, after much discussion, that most parents do discuss negative consequences of sexual activity within the context of responding to questions about sexuality. Thus, the complete phrase “negative consequences of sexual activity besides pregnancy, HIV/STD” was listed in the communication category as abstinence-only/authoritarian, and the phrase “positive aspects of sexuality” was listed as comprehensive/democratic. Thus, if a parent gives age-appropriate information, complete, and correct information *and* also discusses negative consequences of sexuality activity the response will be coded as comprehensive/democratic in the information category.

Three of the parents spoke to their children about respecting other people’s lifestyles when discussing sexual orientation. Under the category of underlying message the phrase “respect for others” was added under comprehensive/democratic, and “not respectful of others” was added under abstinence-only/authoritarian. Under the category of underlying message, “positive/neutral,” and “negative” were removed as this duplicated wording used under the category of emotion.

The actual coding sheet (not the categories) was also modified to include identifying information on each coding sheet that includes the subject number, gender of the parent, age of the parent, gender of the child, and age of the child. A summary of the coding was also included to add the total number of topics discussed, and number of topics coded as comprehensive/democratic and abstinence-only/authoritarian.

Based upon the pilot interviews, the interview questions were also modified. The original questions included common questions that children ask parents in three different age categories (ages 6-9, ages 10-13, ages 14-17) on five different topics, plus one

question related to reading of sexuality related books (1-pregnancy/reproduction, 2-condoms, 3-AIDS, 4-puberty/body changes/body parts, 5-sexual orientation, and 6-books). It was found during the interviews that if a child had not asked the specific question (such as “what is a condom”) then the parent would reply that the topic was not discussed. If the interviewer got a negative response, she followed up with the question “has your child asked you anything related to the topic?” One participant stated that her child had not asked her any questions but she brought the topics up with him. So the interview questions were modified to include:

Has your child asked you anything related to (add topic) such as . . . (follow with original question). How did you respond? (If no) Have you brought up the topic? (If yes) What was the circumstance? How did you deal with the issue?

During the interviews, three of the parents discussed the words for sexual organs that they use when talking with their children about sexuality. This was not originally included in the interview questions, but type of vocabulary used provides important information about how parents respond to questions. So, under the topic puberty/body changes/body parts, this question was added at the end of the original questions: “What sort of words do you use when describing body parts?”

The original interview questions provided enough information to code the data, and it is believed that these additional modifications will ensure that parental responses will be able to be coded completely and accurately.

Qualitative Data Coding

	Comprehensive/democratic	Abstinence-only/authoritarian
Information	Correct information, complete information Age-appropriate Answers question Acknowledges question Refers to other sources if answer not known Discussion of condom use and/or contraceptives	Misinformation, incomplete information May not be age appropriate Does not answer question Ignores question Changes subject Abstinence as goal – no discussion of condoms/contraceptives Negative consequences of sexual activity
Emotion	Positive/Neutral Compassionate Reassurance Empathy Matter of fact	Negative Fearful Anger Contempt Embarrassed (no eye contact, facial expression, uncomfortable laugh)
Underlying Message	Positive, it's ok to ask these questions More in control of life Will not be pregnant Will be more educated, more options Will be able to say no, empowerment for decision making Self-confidence	Negative, not ok to ask these questions Fear/scare tactics to avoid sexual activity Consequences of premarital sex or sex outside of marriage Punitive Unable to make decisions themselves
Communication Style	More interactive, asks questions Comfortable Nurturing	More directive, does not ask questions Uncomfortable Controlling

Interview Questions for Parents of children ages 6-9

Children ask a lot of questions about health and family matters. I'm trying to get a better understanding of how parents handle these questions. Your oldest child's name is _____ and he/she is _____ years old.

I'm going to mention 5 topics that many children ask about and I'd like you to tell me about how you've handled them with (name of oldest child).

For each question interviewer asks "Has your child ever asked you about (Q1 . . . Q5)" If yes, how did you handle the question? If no, how would you handle the question if she/he asked? After each question (Q1 . . . Q5), interviewer asks "Has your child asked you any other questions related to these topics? How did you handle it?"

4. How are babies made? How does the baby get in? How does the baby get out?
5. What is a condom?
6. What is AIDS?
4. Why are girls and boys body's different? What are the pads (sanitary napkins) that are in the bathroom?
5. Do men ever marry each other?
6. Has your child read any books related to these topics? Have you read the books together? Did your child read the book alone? Do you own the book or did you borrow the book?

Interview Questions for Parents of children ages 10-13

Children ask a lot of questions about health and family matters. I'm trying to get a better understanding of how parents handle these questions. Your oldest child's name is _____ and he/she is _____ years old.

I'm going to mention 5 topics that many children ask about and I'd like you to tell me about how you've handled them with (name of oldest child).

For each question interviewer asks "Has your child ever asked you about (Q1 . . . Q5)" If yes, how did you handle the question? If no, how would you handle the question if she/he asked? After each question (Q1 . . . Q5), interviewer asks "Has your child asked you any other questions related to these topics? How did you handle it?"

1. What is sexual intercourse? How old should a person be to have sex?
Is it wrong to have sex?
2. What is a condom? How do you use it?
3. How do you get AIDS?
4. What's a period? What's ejaculation? (use only one question, based on sex of child)
5. What does it mean if you are gay?
6. Has your child read any books related to these topics? Have you read the books together? Did your child read the book alone? Do you own the book or did you borrow the book?

Interview Questions for Parents of children ages 14-17

Children ask a lot of questions about health and family matters. I'm trying to get a better understanding of how parents handle these questions. Your oldest child's name is _____ and he/she is _____ years old.

I'm going to mention 5 topics that many children ask about and I'd like you to tell me about how you've handled them with (name of oldest child).

For each question interviewer asks "Has your child ever asked you about (Q1 . . . Q5)" If yes, how did you handle the question? If no, how would you handle the question if she/he asked? After each question (Q1 . . . Q5), interviewer asks "Has your child asked you any other questions related to these topics? How did you handle it?"

7. How does a person avoid getting pregnant?
8. Are condoms effective?
9. How do you prevent AIDS?
10. Can a girl get pregnant if she hasn't gotten her period?
11. Is it good or bad to be gay?
6. Has your child read any books related to these topics? Have you read the books together? Did your child read the book alone? Do you own the book or did you borrow the book?

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