HUMAN SEXUALITY EDUCATION IN THE MIDDLE GRADES CLASSROOM: A REVIEW OF CURRICULA IN A SAMPLE OF FLORIDA SCHOOL DISTRICTS

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Educational Studies
in the College of Education
at the University of Central Florida
Orlando, Florida.

Spring Term
2007

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ABSTRACT

This study examined the extent to which human sexuality topics are covered in Florida middle school science classrooms and the process by which curricular decisions are made regarding human sexuality education on a county-wide basis. Primary data included interviews with county-level administrators who oversee curricular decisions related to the middle-grades science curriculum or health curriculum in twelve school districts within the state. These districts represented four geographic locations and districts of various sizes. Administrators from four of the twelve studies in the sample chose to provide information regarding their human sexuality education curriculum. In two cases, teacher leads were identified and were interviewed to understand the implementation of the curriculum within the classroom.

Additional data were collected from the district curriculum guides for human sexuality education and the adopted middle-grades science textbook for each county. The interview and documentary data were analyzed by comparison to established criteria for a comprehensive human sexuality education curriculum.

The analysis revealed that the scope of human sexuality education varied considerably within the sample and that much of the curricula in place failed to include topics and activities that have been identified as important in a successful human sexuality education program. These findings are limited because few counties chose to fully participate. Additional research is clearly needed to examine the effectiveness of existing human sexuality education curricula in Florida. In

addition, research is needed to understand the characteristics, values, and beliefs of successful human sexuality education instructors across the state.

ACKNOWLEDGMENTS

I would like to thank the science and health educators in the state of Florida who participated in my study and contributed to this body of knowledge. It is these educators who make a difference each day and who strive to provide our youth with the knowledge necessary for them to lead long and healthy lives.

I would like to thank my advisor, Dr. David N. Boote for his support and assistance throughout this journey. Also, thank you to my committee members, Dr. Linda Walters, Dr. Grant Hayes and Dr. Jeffrey Kaplan for their time devoted to the completion of this research study.

Finally, thanks to my family who provided financial and emotional assistance throughout this process as well as the inspiration to succeed.

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LIST OF ACRONYMS/ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
AUM	Abstinence-Only Until Marriage
CBAE	Community Based Abstinence Education
ESOL	English for Speakers of Other Languages
GLBTQ	Gay, Lesbian, Bisexual, Transgender & Questioning
HIV	Human Immunodeficiency Virus
SIECUS	Sex Information and Education Counsel of the United States
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection

CHAPTER 1: INTRODUCTION

Although the first organized campaign for school-based human sexuality education in the United States was begun in the 1890s (Morris, 1994), more than a century later there is still rigorous debate about the place a human sexuality curriculum should hold in public schools in this country. In the wave of critical curriculum theory, equity issues in gender, race, social class, and sexuality are at the forefront of educational reform; however the conservatism that still underlies our Puritan-based government keeps the idea of teaching human sexuality-related topics in schools on the back burner. And although empirical research on human sexuality education programs has concluded again and again that programs of a comprehensive nature; those which feature a clear delineation of the risks associated with sexual behavior, methods of preventing those risks, and the encouragement of openness about sexuality; are positively associated with safer sexual practices among youth (Grunseit, Kippax, Aggleton, Baldo, & Slutkin, 1997; Landry, Darroch, Singh & Higgins, 2003), politics in the United States continue to focus on less effective abstinence-only-until-marriage (AUM) human sexuality programs (Landry et al., 2003; Milton et al., 2001).

In general, the value of human sexuality education is to provide our youth with the information necessary to make informed choices about sexual acts they choose to engage in and other aspects of their sexual health, and to encourage students to engage in lower-risk sexual behaviors when they do become sexually active. Comprehensive human sexuality education programs have been found to be associated with a delayed initiation of sexual intercourse; reduced rates of teenage pregnancy, abortion, or birthrates to teenagers; greater sexual monogamy; and consistent condom

use (Darroch, Singh, Frost & Study Team, 2001; Grunseit et al., 1997; Landry et al., 2003), as well as a decrease in homophobic attitudes (Buston & Hart, 2001).

Human sexuality-related topics are important in the science classroom because it is here that the full integration of human reproductive anatomy, decision-making skills, sexually-transmitted diseases, stages of human development, the endocrine system, the relationship between sexuality and genetics, genetic disorders, and the biology of sexual arousal could be linked to existing curricular elements. However in order to do so, the science instructor must have the freedom and desire to provide a comprehensive human sexuality education program for his or her students (Bowden, Lanning, Pippin, & Tanner, 2003). Assuming that the majority of science instructors hold a degree in a branch of science or in science education, their own education would have included at least a basic knowledge of biological processes, cytology, and sexual reproduction. Consequently, of instructors in all of the academic disciplines, science teachers seem to have the greatest advantage as facilitators of a human sexuality education curriculum. However, in order to get the big picture, these topics must be taught to students as a cohesive unit on human sexuality education (Morris, 1994), not spread throughout the year as they are in most science textbooks.

In the state of Florida, no state-adopted curriculum exists for the teaching of human sexuality education. The sixty-seven separate counties within the state each represent a distinct school district which is self-governing other than having to adhere to the standards set forth in the formal curriculum documents known as the Sunshine State Standards. The grades 9-12 Sunshine State Standards for science offer several strands in standards 1 and 2 under the heading

"Processes of Life" which could indirectly include human sexuality-related topics and a single strand (SC.F.2.4.1) which states that the student "understands the mechanisms of asexual and sexual reproduction and knows the different genetic advantages and disadvantages of sexual and asexual reproduction" (Florida Department of Education, 1998). The grades 6-8 science standards also offer a single curriculum strand (SC.F.2.3.1) related to the general knowledge of the benefits of sexual reproduction; however specific benchmarks for the teaching of human reproductive anatomy and disease acquired through sexual contact are excluded from Florida's formal science curriculum (Florida Department of Education, 1998). Florida also institutes standards for health education for grades 9-12 and grades 6-8 which state only that students "know strategies for health enhancement and risk reduction" (HE.B. 1.4.2), that students "know ways in which to reduce the risks related to the health problems of adolescents" (HE.A. 1.3.6), and "know how lifestyle, pathogens (germs), family history and other risk factors are related to the cause or prevention of disease and other health problems" (HE.A. 1.3.8) (Florida Department of Education, 1998). Due to the lack of specific curriculum standards for the state of Florida which focus on human sexual reproduction and sexual health, the decisions of how and when to teach topics related to human sexuality are explicitly left up to classroom teachers or their administrators on a county-wide or school-wide basis.

National statistics state that young men and women in the United States typically begin having sexual intercourse during late adolescence at a median age of 16.9 years for men and 17.4 years for women (Landry et al., 2003); however specific research on the sexual behavior of middle school students has found that one in eight middle-school-aged youth are sexually experienced, having engaged in sexual intercourse, oral sex, or both before the age of 14 (De Rosa et al.,

2006). For this reason, researchers suggest that formal human sexuality education in public school systems should begin earlier and target younger adolescents (Kalmuss, Davidson, Cohall, Laraque, & Casssell, 2003).

Florida's formal public school curriculum, in the form of the Sunshine State Standards, fails to focus on the understanding of general topics related to human sexual reproduction and aspects of human disease until grades 9-12, which consequently lends a great disservice to the students in the state when it comes to their exposure to information related to their sexual health and to maintaining a healthy lifestyle. In addition, school districts within state of Florida favor curricula which do not provide instruction on contraceptives despite the fact that researchers in the United States and abroad have repeatedly concluded that abstinence-only-until-marriage programs do not result in lower risk sexual behaviors among teenagers. The state of Florida reports that most monies which are secured annually through federal funding for the teaching of human sexuality topics are used to fund such abstinence-only-until-marriage programs which do not provide adequate, or in some cases accurate, information about human sexuality and reproduction (SIECUS, 2006).

Within the state of Florida, research to compare the success rates of existing comprehensive human sexuality education programs with those of abstinence-only-until-marriage programs is needed. However, to date, the full scope of the existing human sexuality curricula that have been developed and implemented within the state of Florida is unknown. In light of this fact and of current statistics which reveal that in many cases human sexuality instruction will only meet its specified goals if it is delivered at the middle school level (Kalmuss et al., 2003), a need was

identified by the researcher to examine the scope with which human sexuality topics are being covered in middle school science classrooms across the state of Florida.

Only by identifying the strengths and weaknesses of existing human sexuality curricula can measures be taken in the state of Florida to modify current programs to better target sexually active adolescents and to provide them with the knowledge and skills necessary to make informed choices relative to their sexual health. Once these curricula have been examined, then further research can be conducted to compare the effectiveness of the instruction in modifying the previously risky behaviors of Florida's youth and in influencing choices related to safer sexual activity for the wide diversity of students across the state.

This study sought to gain a better understanding of the extent to which human sexuality topics are covered in Florida middle school science curricula in a sample of Florida school districts and the process by which those curricular decisions were made.

Statement of Purpose

The purpose of this study was to examine the extent to which human sexuality topics are covered in Florida middle school science curricula in a sample of Florida school districts and the process by which those curricular decisions were made.

Specifically, the research sought to answer the following questions:

1. Which topics related to human sexuality are included in the district-level middle-grades science curriculum in a sample of Florida school districts?

2. How did school district personnel make decisions about the inclusion of topics related to human sexuality in their middle-grades science curriculum?

3. To what extent does the approach to teaching human sexuality in the middle-grades science curricula align with the expectations of a comprehensive human sexuality education curriculum (Barber & Murray, 2001; Boote & McGinn, 1998; Buston & Hart, 2001; Fine, 1988; Grunseit et al., 1997; Kalmuss et al., 2003; Kirby et al., 1994; Landry et al., 2003; Manlove, 2004; Milton et al., 2001; Morris; 1994; Santelli et al., 2006; Szirom, 1998)?

4. Do educators in this sample of Florida school districts feel that their district-implemented middle-grades science curriculum provides adequate instruction on human sexuality topics?

Research Design

In order to answer these questions, it was necessary for the researcher to identify and interview the individual responsible for making decisions related to the middle-grades science curriculum or health curriculum within a representative sample of Florida school districts. Of Florida's sixty-seven school districts, twelve districts were chosen as potential participants for the study

based on their geographic location within the state and the size of the school district. Each sample district was identified as being located in either west, north, central, or south Florida and was further categorized as urban, suburban, or rural based on the county's population size and whether the district included a major metropolitan center.

Each individual responsible for making curricular decisions related to the middle-grades science curriculum or health curriculum in the selected district was contacted and requested to consent to a face-to-face interview with the researcher by direct interviewing methods (Denzin & Lincoln, 2000). The line of questioning for the interview related to the creation of the human sexuality curriculum within the district, other methods by which human sexuality topics were included in the middle-grades science curriculum within the target county, and how the middle-grades science curriculum in the district fulfilled the curricular requirements for a comprehensive human sexuality education unit as identified by previously conducted research (Barber & Murray, 2001; Boote & McGinn, 1998; Buston & Hart, 2001; Fine, 1988; Grunseit et al., 1997; Kalmuss et al., 2003; Kirby et al., 1994; Landry et al., 2003; Manlove, 2004; Milton et al., 2001; Morris; 1994; Santelli et al., 2006; Szirom, 1998). Additional information from educators within the sampled school district with respect to the level of acceptance in the community toward teaching a human sexuality curriculum and how well the curriculum met the sexual health needs of the students in the school district's student body was collected through a series of follow-up questions which were e-mailed to specific middle-grades science instructors who were identified through the initial interview.

Interviewees were also asked to provide the researcher with a copy of their district's most current human sexuality education curriculum guide, if one existed; or the title, publisher, and copyright date of their districts' adopted middle-grades science textbooks. To analyze the curriculum for best practice elements which should be included in a comprehensive human sexuality education curriculum, qualitative techniques for content analysis of textbooks were utilized to identify the presence of pre-identified curricular components (Denzin & Lincoln, 2000; Mayring, 2000; Smelser & Baltes, 2001).

Sample Selection

Twelve counties were chosen to represent four regions within the state and three population size delineations, as listed in Table 1. For each of the selected school districts, the individual person or group of persons responsible for the adoption or creation of curriculum related to science or health education at the middle grades level was identified using public information published by the county or by the Florida Department of Education.

Table 1
Counties Contacted for the Purpose of this Study

Western Region	Urban	Leon
	Suburban	Walton
	Rural	Suwannee
Northern Region	Urban	Duval
	Suburban	Alachua
	Rural	Levy
Central Region	Urban	Orange
	Suburban	Brevard
	Rural	Pasco
Southern Region	Urban	Dade
	Suburban	Collier
	Rural	Glades

The specific job title of each individual identified as a possible participant for this study varied by county as did the span of their involvement with the curriculum within the school district. These titles ranged from "Superintendent" in a small rural county which lacked support staff for curriculum development and selection to "Secondary Science Specialist" in the larger suburban and urban school districts. Other titles included "K-12 Science and Health Coordinator", "Director of Secondary Education", and "Science Supervisor". The duties performed by each individual varied by title and presumably depended on the number of staff supported by the district. In some counties the individual's duties were restricted to a focus on the secondary

science curriculum, whereas in others, the individual in question was responsible for selecting and maintaining middle-grades curricula in all disciplines or even curricula at all levels and within all academic disciplines.

Data Collection

Interviews were voluntarily arranged and were conducted during the spring and summer of 2006. Interview questions were based on a synthesis of literature on effective human sexuality education and addressed five specific areas:

- Whether the school district had a formal human sexuality education curriculum in place which may have been implemented within the middle-grades science classroom.

- Whether the existing science curriculum included those topics which differentiate a comprehensive human sexuality education program from a abstinence-only-until-marriage one; including contraception, sexually-transmitted diseases, alternative lifestyles and sexual preferences, and sexual decision-making (Grunseit et al., 1997), discourse related to pregnancy alternatives (Kalmuss et al., 2003), and discourse on female desire (Barber & Murray, 2001; Fine, 1988).

- The process by which the human sexuality education curriculum was created in the school district and by whom.

- Whether the community within the school district was accepting of a human sexuality education program at the middle grades level.

- Whether or not educators within the school district felt that the human sexuality education curriculum in use met the needs of the district's student population.

If the school district did not have an adopted, formal human sexuality education curriculum guide, the curriculum contact was asked to provide the researcher with the title, publisher, and copyright date of the county adopted science textbooks utilized in the middle school classroom. Because human reproduction is a topic commonly included in integrated science or life science textbooks for the middle grades level, topics related to human sexuality would be included there in the absence of a formal curriculum guide for human sexuality education within that school district. In addition, each individual interviewed at the district level was asked to provide the researcher with the name and contact information of two middle-grades science teachers employed by the county who would have first-hand knowledge of the human sexuality education curriculum and who could answer questions related to the execution of this curriculum on a school-wide basis.

For the counties for which the district-level curriculum contact provided the requested materials, the middle grades human sexuality education curriculum or the adopted textbooks for middle-grades science in use in that county were analyzed for the presence of effective human sexuality curriculum elements which were identified from existing research on the quality of human sexuality education.

Finally, the researcher contacted the teacher leads, who were identified by the interviewee in each county, by e-mail with a series of follow-up questions relating to the implementation of the district's human sexuality education curriculum or the aspects of the district's science curriculum which related to human sexuality. Additional questions related to the level of acceptance by their community towards teaching human sexuality education at the middle grades level and the teacher's opinion about how the human sexuality curriculum could be changed to better meet the needs of the student clientele within the county in which he or she was employed.

Data Analysis

Information obtained through the interview process was summarized only and interpreted by the researcher to draw out an overall picture of the dissemination of information related to human sexuality to middle-school-aged students within the participating sample school districts. This was the case for both the interviews of the curriculum contact personnel and of the teacher leads who were identified by the curriculum contact in each of the selected counties.

The formal curriculum guides for middle grades human sexuality education and the county-adopted science textbooks, which were obtained by the researcher, were analyzed using qualitative textbook analysis methods to locate previously identified best practice curricular elements (Denzin & Lincoln, 2000; Mayring, 2000; Smelser & Baltes, 2001), which are characteristic of successful comprehensive human sexuality education curricula.

Assumptions

Prior to beginning the study, it was my assumption that very few counties within the state of Florida would have a formal, comprehensive human sexuality education curriculum in place at

the middle school level. This assumption was based on: (1) the lack of Sunshine State Standards for science or health and physical fitness that specifically addressed topics related to human sexuality and sexual health, (2) the lack of a curriculum figurehead specifically for science or health education in the smaller suburban and rural counties, (3) the number of federal funding dollars received by the state of Florida for the 2005 fiscal year for abstinence-only-until-marriage programs, and (4) the trend of conservative voting in the state. In addition, the researcher predicted that the majority of formal human sexuality education would be integrated with curricula for subjects other than science due to the recent adoption of the Florida Comprehensive Assessment Test (FCAT) for science, which would divert class time to topics specifically included in the Florida Sunshine State Standards curriculum documents. Due to these assumptions, it was necessary to collect data in order to verify if these assumptions were correct or falsely assumed.

Limitations

The design of this study was intended to obtain a broad assessment of the status of human sexuality education across the state of Florida; however that approach led to a number of limitations in the study. By focusing the level of analysis on the school district level, this study was unable to assess the taught curriculum at the school level or the classroom level.

Because the state of Florida lacks a formal curriculum for human sexuality education, it would have been necessary to sample a variety of classrooms at multiple middle-grades sites within each of Florida's sixty-seven school districts in order to understand the full scope of how human sexuality education is being implemented across the state. And even in counties for which a

formal curriculum guide for human sexuality education exists, the manner by which the curriculum is implemented on a school-wide basis varies from classroom to classroom. Once the curriculum has been passed on to the classroom teacher, which aspects of the curriculum are presented to the students and at what level of specificity is at the teacher's discretion.

The twelve target counties were selected to provide a regionally and demographically diverse spectrum for data collection within the state. Therefore, the information collected by the study for each of the participating school districts can be generalized only to the schools within the sample school district at best, and likely fails to describe the scope of human sexuality education at the regional or state-wide level.

Consequently, the limitations for this research study are as follows:

1. Information provided by the curriculum contact in each of the participating sampled counties by way of interview cannot be generalized to other school districts within the state of Florida.

2. Effective human sexuality curriculum elements included in or excluded from a sample county's human sexuality education curriculum or county-adopted middle-grades science textbook cannot be generalized to other school districts within the state of Florida.

3. Information provided by individual teachers in follow-up interviews regarding the acceptance of the community to teaching human sexuality topics at the middle school level and their opinion on how the curriculum is meeting the needs of the student clientele within that county cannot be generalized to other school districts within the state of Florida.

4. Similarities between counties with similar geographic location or population size with respect to the existence of a formal human sexuality education curriculum, strengths and weaknesses of the curriculum which relates to human sexuality, or level of acceptance by the community to teaching human sexuality topics at the middle school level can only be noted and can not be generalized to other school districts within the same geographic region or to school districts with a similar population size in the state of Florida.

Delimitations

Because the task of examining curricula related to human sexuality education or human sexuality-related topics within various classrooms of several middle-grades school sites within each of Florida's sixty-seven school districts was beyond the abilities of a single researcher within the length of time warranted for completing this research study, twelve counties were chosen by the researcher to represent the spectrum of geographic locations and population sizes across the state of Florida, leading to the following delimitations for this research study:

1. Only twelve school districts were chosen as possible participants in this research study of the sixty-seven possible school districts within the state of Florida.

2. For each school district selected as a possible participant in this research study, only one individual from each county was identified as the interviewee, due to the nature of their job description.

3. Only two classroom instructors within each participating school district were asked to provide follow-up information regarding the implementation of the human sexuality education curriculum identified by the curriculum contact, the level of acceptance of the community within the district to teaching human sexuality topics at the middle grades level, and the degree to which the classroom instructor felt that their district's human sexuality curriculum met the needs of the target student population.

4. Due to the nature of the research topic, some individuals were likely to choose not to participate in this research study.

Definition of Terms

The following list of definitions is presented in order to clarify significant terms that were used in this study.

Human Sexuality Education: the explicit and implicit ways in which sexual information, attitudes, values, and behaviors have been taught and learned from time immemorial (Morris, 1994)

Comprehensive Human Sexuality Education: a sexuality education program which features a clear delineation of the risks of unprotected sex and methods to avoid those risks (Kirby et al., 1994), such a curriculum not only teaches students that abstinence is the best way to prevent unintended pregnancy and sexually transmitted diseases but also provides students with the information and skills they need to reduce their number of partners and to use contraceptive and disease prevention methods effectively when they become sexually active (Landry et al., 2003)

Abstinence-Only-Until-Marriage Sexuality Education: a sexuality education program which excludes advocating contraceptive use or teaching about contraceptive methods, except to stress failure rates (Landry et al., 2003)

The established need to understand the scope of human sexuality education currently existing at the district-level across the state of Florida and to learn whether this existing education was appropriate for the student population that received it led to the development of the research questions for this study. Data for the purpose of answering these questions was collected by way of interviews with district-level decision-makers and classroom-based instructors, as well as a content analysis of the curriculum existing within each district for human sexuality education. At the conclusion of this research study, the researcher was able to gain some insight into the existing curricula for human sexuality education at the middle school level being presented to

students across the state of Florida by way of their science instructor. These conclusions are in spite of limitations, which prevented the collection of data in each and every location where human sexuality education may vary, and delimitations, which included an initial interview pool of only twelve individuals and the nature of the research topic which led to possible non-participants.

In the following chapters, a complete review of literature on the history and quality of human sexuality education in the state of Florida, the United States, and abroad, as well as the complete methods of data collection, research findings, and conclusions drawn from data collected throughout this research study will be discussed.

CHAPTER 2: REVIEW OF LITERATURE

Much of the human sexuality education currently being offered to students within the state of Florida is skewed toward abstinence-only-until-marriage ideals and does not provide students with adequate information about contraceptives and how to prevent the exchange of sexually-transmitted infections. This trend is due to restrictions set forth by the federal government for human sexuality education programs that receive federal funding dollars (SIECUS, 2006). Furthermore, statistics on the sexual behavior of Florida's youth provides evidence that the state needs to examine the quality of its human sexuality education curricula on a wider scope, especially that instruction provided to its middle-school-aged students. Such statistical trends are not surprising, considering the history of human sexuality education in the United States which has consistently supported less-effective abstinence-only-until-marriage programs over comprehensive human sexuality education. In addition within the United States there is a lack of a complete understanding of how human sexuality education is handled on a state-wide basis, resulting in a disorganized front aimed at preventing teenage pregnancy and the transmission of sexually transmitted infections.

In the United States and abroad, comprehensive human sexuality programs have been closely correlated with lower rates of sexually transmitted disease among adolescents, lower rates of unintended teenage pregnancy, and higher rates of contraception use by individuals who have received this type of instruction (Landry et al., 2003). On the other hand, abstinence-only-until-marriage programs, which do not include instruction on contraception, have been favored by the United States federal government and the Florida state government, but do not correlate with

safer sex practices (Kirby et al., 1994; Manlove, 2004) and in many cases are flawed (Planned Parenthood, 2006; SIECUS, 2006; Waxman, 2004).

Human Sexuality Education in the United States

Since the initiation of human sexuality education in American schools at the turn of the twentieth century, discourse on human sexuality-related topics has continued to bring about social and political conflict in this country (Cassell, 1985; Irvine, 2000; Morris, 1994). To quote Irvine (2000), "since talk about sexuality is the medium of sex education, it is not surprising that school programs would be a field of enormous tension (p.58)." Campaigns and crusades in the United States have been ongoing for over a century with the intended goal of sheltering the innocent child from sexual talk in public schools (Cassell, 1985). The unfortunate result of this conflict has been the failure to create and implement a national curriculum for the teaching of human sexuality and sexual health in the United States.

As a result of the continued opposition to formalized human sexuality education in the United States, evidenced strongly by U.S. federal legislation which financially supports abstinence-only-until-marriage (AUM) programs (Nagy, Watts, & Nagy, 2002; Planned Parenthood, 2006; SIECUS, 2006), statistics have revealed that the sexual health of America's youth is in stark contrast to the sexual health of adolescents in other developed nations where there is an open, flexible approach to teaching about sexuality (Milton et al., 2001). In 2000, the teenage birthrate in the United States was reported as 49 per 1,000 individuals as compared with 7-9 per 1,000 individuals in Sweden and France, and 20-31 per 1,000 individuals in Canada. Chlamydia among American adolescents between the ages of 15-19 occurs at a rate nearly twice that in Canada and

Sweden, five times that in England, and twenty times that in France (Darroch et al., 2001) at a rate of 1578.6 per 100,000 individuals, as reported in 2004 (Irwin, 2006). The annual incidence of gonorrhea in the United States, recently reported at a rate of 472.7 per 100,000 individuals (Irwin, 2006), is ten or more times the level of occurrence in youth in Canada, Sweden, England and France (Darroch et al., 2001). In addition, the number of new Human Immunodeficiency Virus (HIV) infections in the United States has held steady at about 40,000 per year for the past decade and a half (Brown, 2006), with roughly half of those new infections (20,000 per year) occurring in people aged 25 and under (Sternberg, 2006), and 854 new cases recorded in the 13-19-year-old category in 2002 (Irwin, 2006).

The Centers for Disease Control and Prevention reports that 6.6% of American children begin their sex lives before the age of 13, and that more than 60% of America's youth are sexually active by the time they reach the twelfth grade (Sternberg, 2006). Therefore, in order to minimize the negative consequences of sexual activity, which include STD infections and unintended pregnancies in this country, human sexuality education programs within the United States should be designed for students in the middle grades in order to have the greatest impact.

Currently, human sexuality education is taught in almost all public secondary schools in the United States (93%), reaching more than 95% of the 15-19 year olds who live in this country (Landry et al., 2003). Therefore, the basis for the poorer sexual health of Americans compared to other developed nations, is not the quantity of human sexuality education programs in existence within this country, but the quality of those programs. While human sexuality education is almost universal in public school systems within the United States (Nagy et al., 2002; Landry et

al., 2003), with at least 80% of school districts in the United States offering, at a minimum, instruction on the prevention of sexually transmitted diseases, the content of these programs differs considerably (Landry et al., 2003). Human sexuality education programs vary from abstinence-only-until-marriage programs, which are forbidden to include any instruction on contraception, to abstinence-based programs, which provide information on contraception while maintaining that abstinence is the expected standard for school-aged children, to comprehensive human sexuality programs, which provide information on contraception and on making informed choices related to sexual health with the assumption that some who receive its instruction will not abstain from sexual activity (Landry et al., 2003). Each of these types of programs provides a different degree of instruction within the realm of human sexuality education, however only one type, comprehensive human sexuality education, has been repeatedly shown to reduce the unintended consequences of sexual activity in teenagers.

The Importance of Comprehensive Human Sexuality Education

In many Western developed nations with adolescent pregnancy and STD rates lower than U.S. rates a greater social acceptance of sexual activity among teenagers has been described. In these other countries, there is also a trend toward more comprehensive and balanced human sexuality education, as well as greater access to condoms and other forms of birth control (Landry et al., 2003). In a comparison of sexual behavior of teenagers in the United States versus those in France, Great Britain, Canada, and Sweden (Darroch et al, 2001), researchers found no significant difference in the variation of teenage sexual behaviors which could account for the contrast of STD infection rates and teenage pregnancy rates in the United States versus the other four countries. Instead, researchers suggested that the difference in these rates may be due to

more accepting societal attitudes toward adolescent sexual activity, which has led to greater access by teens to contraceptive services and supplies in the four countries other than the United States. In addition, these variations may be due to adolescents' attitudes toward contraception, the accuracy of their knowledge of how to use contraceptive methods, fear of the side effects of contraceptive methods by some adolescents, the level of confidentiality made available to them when seeking contraceptives, or the extent of parental support or opposition to using contraception (Darroch et al., 2001). Through a comprehensive human sexuality education program, these issues and fears might be diverted.

Research on the effectiveness of comprehensive human sexuality education has shown that the age of first intercourse is delayed, and the incidence of both sexually transmitted diseases and unwanted pregnancies is lower when young people have participated in human sexuality education programs that have met certain criteria (Milton et al., 2001), including behavioral and technical skills related to condom use and negotiation and refusal skills for use in social situations in which sexual activity could ensue (Kalmuss et al., 2003). Successful human sexuality education programs not only teach students that abstinence is the best way to prevent unintended pregnancies and sexually transmitted diseases, but also include information and skills that adolescents need to reduce their number of partners and to use contraceptive and disease prevention methods effectively (Landry et al., 2003; Robin et al., 2004). In 1994, Kirby and collaborators found that successful programs, those which resulted in reducing unwanted outcomes of adolescent sexual activity, featured a clear delineation of the risks of unprotected sex and instruction on the methods to avoid those risks; including in depth instruction on types of contraceptives, their failure rates, how to obtain them, and how to use them. Such studies have

demonstrated a resulting increase in the use of contraceptive devices and an increase in alternative and safer sex practices, such as masturbation, by adolescents following instruction on human sexuality education that is comprehensive in nature (Grunseit et al., 1997).

Reviews of studies conducted to compare changes in behavior and attitudes of youths after their participation in both comprehensive and abstinence-only-until-marriage human sexuality programs have been favorable for the former. Among 28 studies of comprehensive human sexuality education programs evaluated by Kirby and colleagues (1994), nine were able to delay initiation of sexual intercourse, 18 showed no change in behavior, and only one hastened the initiation of sexual activity amongst participants following instruction. Similarly in Manlove's (2004) more recent review of existing human sexuality education programs, six of nine comprehensive human sexuality education programs that were evaluated were found to delay the onset of sexual activity by adolescents, compared with a control group. These results are in contrast to Kirby's (1994) analysis of abstinence-only-until-marriage programs from which he identified no scientific evidence that the programs delayed the initiation of sexual intercourse in teenagers. Thomas (1999) reported the same after reviewing nine abstinence-only and abstinence-based curricula for human sexuality education.

Despite continued research in this area of study, results have consistently included that abstinence-only-until-marriage programs do not delay the initiation of sexual activity by America's youth (Santelli et al., 2006), do not decrease sexual behavior amongst adolescents (Manlove, 2004), and are morally problematic because they often withhold information and promote questionable and inaccurate opinions about human sexuality and sexual behavior

(Santelli et al., 2006; Waxman, 2004; Wilson, Goodson, Pruitt, Buhi, & Davis-Gunnels, 2005). Moreover, there is some evidence that abstinence-only-until-marriage programs may actually increase risky sexual behaviors amongst adolescents by failing to instruct students on the existence and proper use of contraceptive methods (Landry et al., 2003) and by encouraging "virginity pledges", which have been found to correlate with an increase in STD infection rates (Brückner & Bearman, 2005).

In a study conducted to examine the effectiveness of virginity pledges in reducing sexually transmitted infection (STI) rates among young adults, Brückner and Bearman (2005) found that students who pledged to remain virgins until marriage or to stop engaging in sexual intercourse until marriage were just as likely as non-pledgers to have contracted a sexually transmitted disease. Those who pledged were also less likely to use a condom at first intercourse, and were more likely than non-pledgers to engage in oral and anal sexual intercourse without vaginal penetration. Students who pledged to remain a virgin did initiate sexual intercourse at an older age than non-pledgers, but got married earlier. Regardless of their pledge, 88% of those students who made a virginity pledge engaged in vaginal intercourse before marriage, compared to 99% of non-pledgers.

This study and others like it (Santelli et al., 2006) have indicated that abstinence-only-until-marriage programs are in many cases being offered to teenagers who are already sexually experienced, therefore contradicting an important goal of human sexuality education programs. So when one considers the repeated research conclusion that abstinence-only-until-marriage human sexuality education does not decrease sexual activity amongst adolescents (Kirby et al.,

1994; Manlove, 2004), the fact that most Americans are becoming sexually active during their mid-teens (Landry et al., 2003), and the rationale that the purpose of human sexuality education is to prevent unintended pregnancy and the exchange of sexually transmitted infections (Landry et al., 2003), the question arises as to why the United States government and many state-appropriated funds for teaching human sexuality education require an abstinence-only-until-marriage standpoint in curricula which they foster.

The Prevalence of Abstinence-Only-Until-Marriage Curricula in the United States

Beginning in 2001, the United States federal government significantly boosted funding for abstinence-only-until-marriage human sexuality programs by creating the Community-Based Abstinence Education (CBAE) funding stream. In that fiscal year, $20 million was allocated to support the abstinence-only-until-marriage movement in public education in the United States through federally-funded grants (SIECUS, 2006) made available to agencies nationwide. This funding came in the wake of $250 million that was appropriated in 1996 to foster the development of human sexuality education programs in the United States that encourage the delay of sexual activity until marriage and an additional $50 million which was allocated in section 510 of the Social Security Act in 1998, also in support of abstinence-only-until-marriage programs (Nagy et al., 2002; Thomas, 1999). Since the inception of the abstinence-only movement, federal and state-matching funds totaling nearly $1 billion have been spent on educational programs for which the only purpose is to focus on the social, psychological, and health benefits that might be gained by abstaining from pre-marital sexual activity (Planned Parenthood, 2006).

In the 2006 fiscal year an additional $115 million was allocated for abstinence-only human sexuality education under the revamped CBAE program (SIECUS, 2006). The updated funding announcement for CBAE was issued in January of 2006 in which the Administration for Children and Families (ACF) and the United States Department of Health and Human Services (HHS) set forth guidelines for receiving these funding dollars to preclude "any discussion of risk reduction", which is a proven hallmark of the behavioral interventions which have reduced the number of pregnancies, abortions, sexually transmitted diseases, and HIV infections amongst teenagers in this country (SIECUS, 2006). This guideline was added to the application documents in addition to a change in the definition of abstinence to make it more rigid. In the most recent CBAE guidelines, abstinence was defined as "voluntarily choosing not to engage in sexual activity until marriage (SIECUS, 2006)." In the document, sexual activity was defined as "any type of genital contact or sexual stimulation between two persons including, but not limited to, sexual intercourse". All grantees of CBAE funding were required to use a definition of abstinence that was consistent with this definition in their curriculum and instruction (SIECUS, 2006). With these restrictions in place, human sexuality education programs that promoted the use of contraceptives or which included manual stimulation of a partner's genitals in the supporting curriculum or instruction consequently were not eligible for funding under CBAE. The funding announcement also made suggestions of how adolescents might be instructed to avoid sexual activity; which included telling them not to watch television, not to stay out too late, and to avoid parties where sexually active peers are likely to attend (SIECUS, 2006).

There is some evidence to support the assumption that sexual behavior is encouraged by watching television programming that is too often loaded with sexual references (Irwin, 2006;

Strasburger & Donnerstein, 1999); however this de facto human sexuality education offered by today's media is only sought out by our children in the absence of more acceptable forms of human sexuality education in their schools, and may lead to incomplete and skewed views of appropriate human sexual behavior (Zillman, 2000). Adolescents in the United States have turned to the sexual images and stereotypical gender roles offered by fictional television characters and pop culture personalities in order to understand their own sexuality because they have not been offered the opportunity to discuss healthy social and physical relationships within their own peer groups. These suggestions made by the Department of Health and Human Services seem to assume that the only way for teenagers to be abstinent from sexual activity is to isolate themselves from all media stimuli and to not participate in typical extra-curricular events enjoyed by American teenagers.

As a result of the limitations to receive funding under CBAE, programs that conform to the established guidelines consequently fail to provide our youth with the full range of information they need to protect themselves throughout their lives by excluding information on contraception and other methods of risk reduction. By doing so, these programs deny access to complete and accurate sexual health information which some researchers feel is a basic human right and is essential to realizing the highest attainable standard of health (Santelli et al, 2006). In addition, these limitations make it more likely that CBAE funds will be allocated to human sexuality education programs which utilize pre-existing curricula that have been identified by representatives from our own federal government to have definite problems and additional deficiencies, or to curricula developed using these flawed curricula as templates.

Problems with Existing AUM Curricula

Taking into consideration the large allocation of funds awarded annually by our federal government to agencies providing public or private education in human sexuality, it is difficult to imagine that there is virtually no investigation or regulation by the government in order to ensure the programs made possible by the funding are providing quality education in addition to upholding abstinence-only-until-marriage ideals.

In 2004, Representative Henry Waxman, a Democrat from California, completed a report appropriated by the United States House of Representatives Committee on Government Reform regarding the state of abstinence-only human sexuality education curricula that were in existence within the United States. The report, titled "The Content of Federally Funded Abstinence-Only Education Programs" (Waxman, 2004), found that the curricula used by more than two-thirds of government-funded abstinence-only-until-marriage programs contained misleading or inaccurate information about abortion, contraception, genetics, and sexually transmitted infections (Planned Parenthood, 2006; SIECUS, 2006). In several specific examples, *WAIT Training*, an abstinence-only-until-marriage curriculum, is cited for incorrectly stating that HIV can be transmitted through tears and sweat, while the *Why kNOw* curriculum incorrectly states that 24 chromosomes from each parent combine to form the fetus (actually 23 chromosomes from each parent combine to form the zygote) (Planned Parenthood, 2006). In addition, Waxman found that many abstinence-only-until-marriage curricula blur the line between religion and science and may treat gender stereotypes as scientific fact (NARAL, 2006; Planned Parenthood, 2006; Santelli et al., 2006; Wilson et al., 2005), including specific statements like "Men sexually are like microwaves and women sexually are like crock pots… A woman is stimulated more by touch and romantic

words. She is far more attracted by a man's personality while a man is stimulated by sight. A man is usually less discriminating about those to whom he is physically attracted (*WAIT Training*, 1996, p.196)."

Therefore, as a result of the loopholes in place for receiving federal funding for human sexuality instruction, public dollars are being diverted indiscriminately into CBAE and Title V programs that are not required to provide accurate information from legitimate sources or to be medically accurate, simply because they promote abstinence by failing to discuss the risks associated with sexual activity and ways to reduce these risks. In addition, many of these programs rely on scare tactics and messages of shame in the place of valid medical information, teaching adolescents that sexual activity is associated with decreased education and income attainment, an increase in depression and suicide, and a decrease in relationship stability later in life (SIECUS, 2006). The new CBAE guidelines suggest that teenagers who remain abstinent until marriage will never experience an STD or unintended pregnancy, will be financially secure, will be ensured a happy marriage, and will be good parents (SIECUS, 2006). The truth, however, is that most Americans initiate sexual intercourse before marriage as adolescents (Irwin, 2004) and that adolescents in the United States have the highest age-specific risk for many sexually transmitted infections and the highest age-specific proportion of unintended pregnancy (Santelli et al., 2006). These facts seem to make it blatantly clear that in the United States we would better meet the needs of our populace by offering comprehensive human sexuality education to our youth rather than instruction based on abstinence-only-until-marriage curricula.

Support for Comprehensive Human Sexuality Education in the U.S.

With the establishment of the CBAE funding stream and the strict limitations for curricular elements spelled out in the supporting documents for obtaining these funds, the United States government has laid the groundwork for the prevalence of abstinence-only-until-marriage human sexuality programs which are being implemented in this country today. And although these programs conform to the strict moral standards of past generations, statistics on sexually transmitted diseases and teenage pregnancy clearly show that these types of curricula do not meet the health needs of the American public in the current generation (Darroch et al., 2001; Santelli et al., 2004). The question of why we are not meeting these needs with an appropriate solution requires an answer.

Data show (Kaiser Family Foundation, 2000; Landry et al, 2003) that the lack of federal support for comprehensive human sexuality education in the United States does not seem to be due to a resistance to teaching sexuality-related topics from the majority public, as nationwide, parents have been shown to favor comprehensive human sexuality education. In the year 2000, a nationwide phone survey conducted by the Kaiser Family Foundation found that 85% of the parents who were surveyed wanted their children to learn about condoms, other forms of contraception, and how to talk about contraceptive devices with their partners if they chose to have sex, in school. Additional surveys of the American public have repeatedly revealed overwhelming support among adults for teaching adolescents to be abstinent (Landry et al., 2003). Therefore, the existing debate over human sexuality education in schools should not be whether abstinence should be included in the curriculum but over what topics should be taught to our youth in addition to abstinence within the realm of a human sexuality education curriculum.

Strangely, some curricula that are categorized by curriculum developers as "abstinence-only" don't include the topic of abstinence at all. These curricula simply fail to discuss the specific human behaviors that can result in conception and pregnancy, resulting in the failure of many middle-grades students to be able to clearly explain the concept of abstinence (Stiles & Garner, 1993). Another problem with the concept of abstinence-only education is that abstinence means different things to different people. Some consider abstinence to mean refraining from all intimate contact except for kissing and holding hands, while others consider abstinence as anything except sexual intercourse (Devaney, Johnson, Maynard, & Trenholm, 2002, p. 37). Therefore even in the realm of existing abstinence-only education, instruction may vary widely.

Likewise, because the label "comprehensive" is applied broadly to curricula that contain information on contraception and pregnancy alternatives even comprehensive human sexuality curricula may fail to include progressive curriculum elements such as varying sexualities and female desire. However, it is instruction on contraception and how to obtain it that specifically has been found to reduce sexual activity among teenagers (Kirby, 1994).

Because there has been no movement toward the adoption of a national curriculum for human sexuality education in the United States, this debate over what topics should be included in human sexuality curricula is not making any ground at the national level but instead is affecting public-school curriculum decisions at the regional, state-wide, and district-wide levels. And because no national standards exist for the teaching of sex-related topics, extreme regional differences exist in this country with regard to what is actually being taught about human sexuality in America's public schools.

Regional Differences in Human Sexuality Education across the U.S.

In the United States, politics seem to differ by geographic region and consequently these differences affect the curriculum standards for public-school education in place across the country. Such trends have been identified by research (Landry et al., 2003) which examined how human sexuality education was taught in public school systems in different geographic regions of the United States.

In a study conducted by Landry and collaborators (2003) of human sexuality education curricula which existed by region, teachers in the southern, mid-western, and western regions of the United States were more likely than educators in the Northwest to emphasize the ineffectiveness of methods for preventing pregnancy and sexually transmitted diseases or not to cover them at all in their human sexuality education curricula. Similarly, teachers in the southern and mid-western regions of the country were more likely than teachers in the northeastern region of the United States to teach abstinence as the only option for preventing sexually transmitted disease and unintended pregnancy. Additionally, teachers in the South were significantly less likely than northeastern instructors to teach the importance of correct and consistent contraceptive use, or the proper way to use a condom, or to provide information on specific sources of birth control.

Of all geographic regions of the United States, adults living in the South have been found to have the least permissive attitudes about sexuality, as gauged by attitudes toward premarital and extramarital sex and homosexuality. These results may reflect the more traditional values and attitudes which generally occur among southern residents, and the relatively high proportion of

residents in the southern United States who belong to fundamentalist religious denominations (Landry et al., 2003).

School size was also found to be a factor in whether comprehensive human sexuality education, a program which included instruction on contraception, was offered, with teachers in the largest schools (more than 1,000 pupils) being less likely than those in the smallest schools (fewer than 300 students) to teach abstinence as the only option for preventing unintended pregnancy and the exchange of sexually transmitted disease (Landry et al., 2003).

These trends in human sexuality education which were observed by geographic region clearly reflect differences in the politics and lifestyles existing across each region, as the southern and mid-western regions of the United States are typically labeled as "conservative" in relation to political reform (Alderman & Hogan, 2005). As a result, citizens in these regions would be more likely to disapprove of teaching the topics encompassed within a comprehensive human sexuality program; such as contraceptives, how to prevent sexually transmitted disease, varying sexualities, and abortion. Larger schools are more likely to be located in urban centers where trends in younger sexual activity (Kalmuss et al., 2003), oral sex (Kalmuss et al., 2003), and high rates of unintended pregnancy and sexually transmitted disease (AVERT, 2006) have been documented and may be more socially relevant.

Regional politics have also affected how some states choose to respond to the guidelines for funds under CBAE. Legislators in California, for example, have completely refused to apply for federal funding for human sexuality education under CBAE because of the lack of federal

recognition of research findings in support of comprehensive human sexuality education over abstinence-only-until-marriage sexuality education (Sternberg, 2006). The state of Florida, however, has conformed to the restrictions necessary to receive federal dollars for the teaching of abstinence-only-until-marriage programs by their public schools and additional agencies, having received $2,521,581 in federal Title V funding in the 2005 fiscal year and having spent a total of $11,651,307, including matching funds, overall for abstinence-only-until-marriage programs (SIECUS, 2006) in the 2005 fiscal year.

The State of Human Sexuality Education in Florida

As a part of the conservative South, the lack of a state mandate for comprehensive human sexuality education in the state of Florida is not surprising. In fiscal year 2005, there were twenty-four Title V or CBAE grantees or sub-grantees operating specific programs for abstinence-only-until-marriage human sexuality education across the state of Florida (SIECUS, 2006). Ranging from county health departments to Catholic diocese, these organizations utilized abstinence-only curricula which have been documented to contain false information with little or no medical basis (Planned Parenthood, 2006; SIECUS, 2006; Waxman, 2004; Wilson et al., 2005), and which rely on scare tactics to deter teenagers from becoming sexually active (SIECUS, 2006). These programs exist in addition to human sexuality education that is being offered within public school settings. These public school programs may utilize unique curricula for human sexuality education, or may utilize a curriculum provided through a federal grantee.

Florida state guidelines for the teaching of human sexuality education state that in order for students to graduate from high school, they must receive one-half credit in "Life Management

Skills" in either the ninth or tenth grade. The course must include instruction in the prevention of HIV/AIDS and sexually transmitted diseases, family life, the benefits of sexual abstinence, and the consequences of teen pregnancy. It also states that "descriptions for comprehensive health education shall not interfere with the local determination of appropriate curriculum which reflects local values and concerns" (SIECUS, 2006). School boards may also decide on an individual basis to allow additional instruction on HIV/AIDS within the contingencies that abstinence from sexual activity outside of marriage is taught as the expected standard for all school-age students while teaching the benefits of monogamous heterosexual marriage and that abstinence is a certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems (SIECUS, 2006).

In Florida, required curriculum elements are described in a series of curriculum documents known as the Sunshine State Standards. The grades 9-12 Sunshine State Standards for science offer several strands in standards 1 and 2 under the heading "Processes of Life" which could indirectly include sexuality-related topics and a single strand (SC.F.2.4.1) which states that the student "understands the mechanisms of asexual and sexual reproduction and knows the different genetic advantages and disadvantages of sexual and asexual reproduction" (Florida Department of Education, 1998). The grades 6-8 science standards also offers a single strand (SC.F.2.3.1) (Florida Department of Education, 1998) which relates to general sexual reproduction; however all topics specifically included under the umbrella of human sexuality education are excluded from Florida's formal secondary science curriculum. Florida also institutes standards for health education for grades 9-12 and grades 6-8 which state only that students "know strategies for health enhancement and risk reduction" (HE.B. 1.4.2), that students "know ways in which to

reduce the risks related to the health problems of adolescents" (HE.A. 1.3.6), and that students "know how lifestyle, pathogens (germs), family history and other risk factors are related to the cause or prevention of disease and other health problems" (HE.A. 1.3.8) (Florida Department of Education, 1998). Consequently, the decisions of how and when to teach topics related to human sexuality in Florida's secondary schools are explicitly left up to teachers or their administrators on a county-wide or school-wide basis. Additionally, Florida has an "opt-out" policy, which gives parents the opportunity to remove their child from any or all human sexuality education or instruction related to HIV and AIDS (SIECUS, 2006).

Statistics that have been published concerning the sexual health of Florida's youth is telling evidence that the promotion of abstinence-only-until-marriage human sexuality education in the state is not meeting its intended goal of reducing sexual activity and unintended consequences of sexual activity among adolescents. In 2005, 47% of the female high school students and 54% of the male high school students in the state of Florida reported ever having sex, which exceeded the nationwide statistics of 46% for female high school students and 48% for male high school students (SIECUS, 2006). Of those high school students who were surveyed in the state of Florida, 4% of the female students and 14% of the male students additionally reported that their first sexual intercourse had occurred before the age of 13 (SIECUS, 2006). Such statistics justify the evaluation of Florida's human sexuality education programs on a wide scale.

To gain a better perspective of existing Title V abstinence-only-until-marriage programs, researchers in the state of Florida systematically evaluated these programs in 2003 through Florida State University and the Florida Department of Health. This review involved pre- and

post-test surveys and one behavioral survey of participants in various abstinence-only-until-marriage programs within the state. The results showed only small changes in participants' agreement with statements such as "I believe having sex as a young person could mess up my future" between the pretest and posttest administration; however the behavioral survey found reported increases in seven sexual behaviors, including an increase in the number of students who reported that they had engaged in sexual intercourse after receiving abstinence-only instruction (Florida State University, 2003). These results do not seem to place any confidence in abstinence-only-until-marriage programs as being able to modify sexual behavior and attitudes of adolescents in the state of Florida toward the positive.

Besides funding for abstinence-only-until marriage human sexuality education that is spent annually by CBAE grantees in the state of Florida (SIECUS, 2006), additional Florida dollars for abstinence-only education are annually appropriated to about 4,000 Crisis Pregnancy Centers (CPC) that are currently in operation within the state (Blumner, 2006). These centers, which are advertised to offer free pregnancy testing and pregnancy counseling, have received more than $30 million nationwide since the year 2001. Following an insider investigation by a Tampa-area newspaper reporter, the centers were accused of luring possible mothers requesting their services into a barrage of anti-abortion propaganda (Blumner, 2006) by referring the individuals who sought their services to religious organizations and adoption agencies when the individual plainly wished to terminate the pregnancy. The state of Florida also spends $2 million per year to maintain a "pregnancy support" hotline which directs women to the Crisis Pregnancy Centers for assistance, and some of Florida's "Choose Life" license plate money also goes to the administration of these centers (Blumner, 2006). Similar to the abstinence-only-until-marriage

curricula which are funded with federal dollars, the Crisis Pregnancy Centers have been documented to provide false medical information to clients, citing such ailments as "post-abortion syndrome", which has no medical basis (Blumner, 2006).

Finally, Florida funds its own abstinence-only supportive website titled *G2W: It's Great to Wait* (It's Great to Wait, 2006), which provides information for adolescents and parents about STDs, abstinence, relationships, statistics on adolescent sexual activity, peer pressure, refusal skills, and secondary virginity. Disappointingly, the site seems to fall into the abstinence-only modus operandi of slanting information towards the negative. When a visitor clicks on the "pregnancy" link, he is taken to a page headed by the picture of a young mother cradling a baby with one arm and grasping her head with the other. Information provided on the page includes the statistic that "Two out of three teenage mothers live in poverty." The page also states that "if the other parent is raising the child, you could pay a child support payment every month for 18 years" and describes abstinence as "fool-proof and cheap". Within the information provided about relationships, the website states that "studies show that married people live even longer lives, are physically healthier, and are wealthier." Also associated with the *Great To Wait* website are a series of statewide abstinence rallies for parents, adolescents, and potential abstinence-only educators that are free to participants, as they are funded by taxpayers.

Because there has not been a formal study conducted in the state of Florida to thoroughly describe district-by-district policies for instruction on human sexuality education, there is no literature which compares Florida's district-wide curricula with programs that have been proven as effective for modifying adolescent sexual behavior. Without this information, it must be

assumed that the abstinence-only-until-marriage programs that are in place in Florida have had similar results as those which have been implemented in other parts of the country. Likewise, if programs containing specific curriculum elements and skills training have been shown to reduce risk-taking sexual behaviors by teenagers in general (Burgess, Dziegielewski, and Green, 2005), then they would be expected to have the same impact on adolescents living in the state of Florida.

Clearly, the state of Florida has an obligation to its adolescent citizens to provide information through its human sexuality education that will enable teenagers to experience a life of better sexual health. However, in repeated reviews of abstinence-only-until-marriage human sexuality curricula, such curricula has not been found to modify adolescent sexual behavior, to decrease rates of sexually transmitted infection among adolescents, or to prevent unintended teenage pregnancy (Santelli et al., 2006; Thomas, 1999; Wilson et al., 2005). By not meeting the intended goals of human sexuality education, abstinence-only-until-marriage programs therefore constitute poor human sexuality education that does not meet the needs of the general American public. Comprehensive human sexuality education, on the other hand, has been characterized as good practice due to its ability to reduce the rates of unintended consequences of sexual activity in repeated studies.

An Explanation of Effective Human Sexuality Education

In a review of sexual risk-reduction programs published in the 1990s, Robin and collaborators (2004) identified key features of human sexuality education programs that effectively produced positive effects. Effective programs were those that included a focus on skills that reduce

specific sexual risk behaviors, a longer intensity and duration of the program's sessions, facilitation by trained adult instructors, mixed-gender group instruction, and instruction that occurred in schools. When a human sexuality education programs included these particular elements, delayed sexual intercourse, increased condom use, increased contraceptive use, and reduced frequency of sexual intercourse were reported by participants after receiving instruction. Kalmuss et al. (2003) have also identified a series of critical program issues that are necessary for the success of a comprehensive human sexuality curriculum including that the program should begin earlier and target younger adolescents; the program should use a variety of behavioral skills and an appropriate length of time to develop these skills including effective communication, negotiation and refusal skills, and technical condom use skills; the program should not assume that sexual behavior is volitional; the program should not assume that sexual activity among teenagers is limited to vaginal sex; the program should be designed to reach all learners, including those with learning disabilities and cognitive immaturity; and the program should focus on the sexual risks for males as well as females.

Other researchers who have focused on the content of human sexuality education curricula contend that programs designed for adolescents who have not yet engaged in coitus systematically ignore the reproductive health needs of sexually experienced adolescents (Santelli et al., 2006). In addition, because of federal laws which limit the definition of marriage to include heterosexual couples, abstinence-only-until-marriage programs are discriminatory against gay, lesbian, bisexual, transgender, and questioning (GLBTQ) youth (Buston & Hart, 2001; Santelli et al., 2006). For that reason, best practice human sexuality education should use terms like "partner" rather than "spouse" (Fletcher & Russell, 2001) and should refer to multiple

sexualities in order to reflect the diversity of sexual preference that is inherent even within members of the same gender (Barber & Murray, 2001). Best practice human sexuality education should be relevant to all pupils who receive it, whatever their gender, ethnicity, educational needs, or sexual identify and orientation (Buston & Hart, 2001).

Research contends that when considering comprehensive human sexuality education, the issue of holistic sexual health should be a factor, as well as the avoidance of instruction which focuses on the negative consequences associated with sexual behavior (Santelli et al., 2006). Human sexuality programs which have been associated with positive effects commonly utilize interactive and participatory approaches with students (Robin et al., 2006). Too often human sexuality education curricula exist in the form of a narrative of biological facts (Boote & McGinn, 1998); the teaching of reproductive anatomy and physiology, bacteria and viruses, and genetics and hormones. Such basic information does not enable students to make a connection between the "hard facts" and personal issues of sexuality, relationships, and sexual decision making, which are recommended topics within an adequate human sexuality education program (Barber & Murray, 2001; Fletcher & Russell, 2001; Szirom, 1988). Effective human sexuality education should model the specific skills necessary to make wiser choices, such as acting out the refusal of unwanted sex and instruction on the use of condoms (Robin et al., 2006).

When human sexuality education is presented simply in the form of the mechanics of reproductive biology and how to prevent pregnancy, it becomes heterosexist by definition (Buston & Hart, 2001). By failing to take the holistic approach to human sexuality, instruction that is based solely on human reproductive anatomy, pregnancy, and human development

disregards additional sexual aspects of human nature, such as sexual attraction, lust, and romantic love, which are feelings shared by all human beings regardless of their sexual orientation. Therefore, best practice human sexuality education has been characterized by researchers (Buston & Hart, 2001) as instruction which includes information about same-sex sexuality, defines sexual intercourse in terms other than heterosexual penetration and reproduction, and acknowledges that homosexuality is a valid emotional orientation (not solely a form of sexual behavior) (Buston & Hart, 2001). Additionally, a discourse on female desire should be included in human sexuality instruction in an effort to sway traditional human sexuality education from its heterosexist norms (Barber & Murray, 2001; Fine, 1988; Irvine, 2000).

If the research cited in this chapter holds true, much of the human sexuality education being offered to students within the state of Florida is skewed toward the abstinence-only-until-marriage vantage point and does not provide students within the state with adequate information about contraceptives and the prevention of sexually transmitted infections. Statistics show that the rates of unintended pregnancy and the transmission rates of sexually-transmitted infection amongst adolescents in the United States remain a problem, despite increased federal funding for abstinence-only-until-marriage curricula. In other developed nations in which there is a greater acceptance of adolescent sexual activity and in which human sexuality education is comprehensive in nature, these rates are a fraction of those within the U.S.

Literature on successful human sexuality education programs, those programs which result in measurable changes in adolescent sexual behavior and attitudes, suggest that instruction on

contraception, sexually-transmitted diseases, varying human sexualities, and female desire are necessary in addition to instruction on human reproductive biology, pregnancy, and development. In addition, successful programs for human sexuality education should include interactive activities related to the refusal of unwanted sex and how to use a condom. Because abstinence-only-until-marriage programs specifically address heterosexual unions between one man and one woman as marriage, they are heterosexist by nature and do not relate to the sexual lives of students of varying sexual orientations. Best practice human sexuality education should be relevant to all students who receive it, regardless of their age, race, gender, sexual identity, or emotional needs.

Statistics on the sexual behavior of Florida's youth provide evidence that the state needs to examine the quality of its human sexuality education curricula on a wider scope, especially that instruction that is being provided to its middle-school-aged students who may not yet be sexually experienced. However, in order to accomplish that task, some understanding must exist as to how sexuality-related topics are currently being taught to middle-school-aged children in the state of Florida and how the quality of that instruction correlates with best-practice curriculum elements for comprehensive human sexuality education, which have been identified in research conducted worldwide. And while the previously described literature exists, there has not been any comprehensive study conducted in the state of Florida, to date, in order to identify how human sexuality education is being implemented at the district-level in Florida's sixty-seven school districts. As a result, this is a critical area for research in order to provide Florida's middle-grades students with the best possible education in the area of human sexuality.

In the chapters to follow, a complete description of the research methods for data collection and analysis, research findings, and conclusions will be discussed as they relate to the initial research questions for this study.

CHAPTER 3: METHODS OF DATA COLLECTION AND ANALYSIS

The purpose of this study was to examine the extent to which human sexuality topics are covered in Florida middle school science curricula in a sample of Florida school districts and the process by which those curricular decisions were made. Guidelines for these curricula and contextual support are offered in the form of formal curriculum guides for human sexuality education and county-adopted science textbooks. To answer the research questions identified at the start of this research study, the individual who was responsible for making curricular decisions related to the science or health curriculum implemented within each sampled school district was contacted and interviewed. These individuals were also asked to provide the researcher with a copy of the support materials for human sexuality education, in the form of the district's formal curriculum guide for human sexuality education, or information related to the county adopted middle-grades science textbook.

Specifically, the research questions for this study were as follows:

1. Which topics related to human sexuality are included in the district-level middle-grades science curriculum in a sample of Florida school districts?

2. How did school district personnel make decisions about the inclusion of topics related to human sexuality in their middle-grades science curriculum?

3. To what extent does the approach to teaching human sexuality topics in the middle-grades science curriculum align with the expectations of a comprehensive human sexuality education curriculum?

4. Do educators in this sample of Florida school districts feel that their district-implemented middle-grades science curriculum provides adequate instruction on human sexuality topics?

The methods for data collection and analysis described in this chapter were carried out in an effort to answer these research questions and to gain a better perspective about the scope of human sexuality education that is being implemented within a sample of Florida's school districts at the middle grades level.

School District Sample Selection

In the state of Florida, each of sixty-seven counties represents a distinct school district which is self-governing and which is responsible for maintaining its own academic curriculum, and promotion and graduation requirements. To represent the diversity of school districts within the state, twelve counties were initially selected as potential participants in this research study based on their geographic location within the state of Florida and the published population demographics for the county. These counties included Walton, Leon and Suwannee in the western region; Alachua, Duval and Levy in the northern region; Brevard, Orange and Pasco in the central region; and Collier, Dade and Glades in the southern region. Suwannee County, Levy County, Pasco County and Glades County were characterized as "rural" counties for the purpose

of this study based on population size. The "suburban" counties included Walton County, Alachua County, Brevard County, and Collier County, and were districts with a growing student body and moderate population size. "Urban" counties included a major metropolitan center and had the largest population in each region. The urban counties for this study included Leon County, Duval County, Orange County, and Dade County.

Participant Selection

For each of the school districts chosen for the original sample, the individual person responsible for the adoption or creation of curriculum related to science education or health education at the middle grades level was identified using public information published by the county itself or the Florida Department of Education. The specific title of each individual, identified as a possible participant for this study, varied by county, as did the span of their involvement with the curriculum within the school district. These titles ranged from "Superintendent" in a small rural county which lacked support staff for curriculum development and selection to "Secondary Science Specialist" in the larger suburban and urban school districts. Other titles included "K-12 Science and Health Coordinator", "Director of Secondary Education", and "Science Supervisor".

Procedures

Methods for Contacting Participants

In November of 2005, each of the individuals identified as being the primary person responsible for making curriculum decisions related to either science education or health education in the twelve target counties was contacted by way of stamped mail. The first contact consisted of a preliminary cover letter explaining the purpose of the study, a consent statement agreeing to

participate in the research study, a stamped and addressed legal-sized envelope, and a large, pre-addressed postage-paid envelope. The individuals identified as curriculum contacts were asked to sign, complete, and return the consent agreement in either postage-paid envelope, along with a copy of the most current middle grades human sexuality education curriculum that existed within the county or the title, publisher and copyright date of the county-adopted textbooks for middle-grades science classes within the county. The consent statement authorized the researcher to contact the individual in the future for the purpose of setting up a phone interview at the participant's convenience.

In February of 2006, a second contact letter was mailed out to eleven of the twelve counties due to a lack of response to the initial contact. The second contact consisted of a cover letter explaining the purpose of the study and a second request for the voluntary participation of this individual in the research study, the same consent agreement included in the first contact, and a stamped and addressed, legal-sized envelope. The individual was asked a second time to sign, complete, and return the consent agreement in the postage-paid envelope. The cover letter gave the individual the option of contacting the researcher for a second postage-paid mailer in order to provide the researcher with a copy of the most current middle grades human sexuality education curriculum that existed for the school district. If the county in question did not have a formal human sexuality education curriculum, the individual was again asked to provide the researcher with the title, publisher and copyright date for the county-adopted textbooks for middle-grades science.

In mid-May, 2006, a third contact was attempted with nine of the twelve districts, for which the curriculum contact did not provide the researcher with a signed consent statement, by e-mail. The letter identified the name of the researcher, the name and a brief description of the research study, a reminder about the first two items the individual should have received from the researcher by mail, a request for the individual's participation, and a request for an e-mailed reply if the individual did not wish to participate in the study.

Also in mid-May 2006, the three individuals for whom consent statements were received were contacted by e-mail requesting to set up an interview by phone or in person. Arrangements were made to conduct the interviews during a time, in a manner, and at a place that was convenient for the participant. The participants were told that that interview would consist of a line of questioning related to the development and implementation of a human sexuality education curriculum in their county and that it would take approximately thirty minutes of their time.

From May-July 2006, interviews were conducted and initial personalized contacts were attempted on a per county basis as summarized in Table 2. A final contact was made by e-mail to non-participants in early October 2006 informing participants that the final document was in the process of being written and initiating a final request to participate in the research study.

Table 2
Summary of Contacts Made By County

County	Contact Made	Result
Alachua	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	Individual no longer employed by Alachua County, new information provided
	05/06 (Second E-mail)	No Response
	10/06 (Third E-mail)	No Response
Brevard	11/05	No Response
	02/06	Consent Form Returned
	05/06	Interview Scheduled
	06/06	Interview Conducted
	08/06	Two middle-grades science teachers provided e-mail responses to follow up questions, not the two teachers suggested by county contact (No Response)
Collier	11/05	No Response
	02/06	No Response
	05/23/06 (First E-mail)	Response by phone, individual is retiring, new information provided
	05/25/06 (Second E-mail)	Response, new individual will help
	06/01/06 (Third E-mail)	Yes, they do have abstinence-only education, no follow up
		Contacted two teachers recommended by contact by e-mail, no response

County	Contact Made	Result
	10/06 (Second E-mail to teachers recommended by contact)	One of two teachers responded with answers to questions; other teacher, no contact
Dade	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	Response, new name provided, will forward information
	05/06 (Second E-mail)	No Response
	10/06 (Third E-mail)	No Response
Duval	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	No Response
	10/06 (Second E-mail)	No Response
Levy	11/05	No Response
	02/06	Consent Form Returned
	05/06	Interview Scheduled
	06/06	Interview Conducted
Pasco	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	Response, new name provided
	05/06 (Second E-mail)	No Response
	10/06 (Third E-mail)	No Response
Glades	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	No Response
	10/06 (Second E-mail)	No Response

County	Contact Made	Result
Leon	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	Response, new name provided
	05/06 (Second E-mail)	No Response
	10/06 (Third E-mail)	No Response
Orange	11/05	Consent Form Returned
	05/06	Interview Scheduled
	07/06	Interview Conducted
		Contacted two teachers recommended by contact by e-mail, no response
Suwannee	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	No Response
	10/06 (Second E-mail)	No Response
Walton	11/05	No Response
	02/06	No Response
	05/06 (First E-mail)	Interview Scheduled
	06/06	Interview Conducted
		Contacted two teachers recommended by contact by e-mail, no response
	10/06	Second e-mail to teachers, no response

Content Analysis and Interview Questions

Based on my analysis which examined the curriculum elements which are present in effective human sexuality education programs (see Chapter 2), I developed the following checklist for the purpose of analyzing each human sexuality education curriculum or science textbook provided by the curriculum contact who chose to participate in the study. Recreated in Table 3, the checklist includes content that should be present in a human sexuality education curriculum that takes a comprehensive rather than an abstinence-only approach, specific subject matter that is suggested for the purpose of making a human sexuality curriculum more meaningful for marginalized students (gay, lesbian, bisexual, transgender, questioning, sexually abused), specific activities shown to reduce unwanted outcomes of adolescent sexual activity, specific skills correlated with the increased use of contraception, including condoms; basic biological facts about the human reproductive system, aspects of parental involvement in the curriculum, and female desire.

Table 3
Curriculum Analysis Checklist

Curriculum Element	Present?	Comments
Contraception- Failure rate		
Contraception- How to use		
Contraception- How to obtain		
HIV/AIDS		
STDs other than HIV		
How to put on a condom		

Curriculum Element	Present?	Comments
Condoms and Dental Dams as STD prevention		
Female Reproductive Anatomy		Picture?
Male Reproductive Anatomy		Picture?
Parenting		
Sexual Stereotyping/Roles		
The Menstrual Cycle		
Sexual Decision Making		
Refusal Skills		
Rape		
Spermatogenesis		
Menopause		
Fertilization-Penetration		
Origins of Sexual Orientation		
Homosexual		
Transsexual		
Transgender		
Sexuality Continuum		
Parental Consent		
Sex without Reproduction		
Monogamy		
Polygamy		

Curriculum Element	Present?	Comments
Abortion		
Homework w/Parental Involvement		
Masturbation (Mutual, Personal)		
Oral Sex (Fellatio, Cunnilingus)		
Anal Intercourse		
Abstinence		
Emergency Contraception/ How to Obtain it		
Pregnancy and Development		
Labor and Delivery		
Post-Natal Development and/or Care		
Puberty		
Anonymous Question Box		
Marriage		
Female Desire/Orgasm		
Role-playing- Discussing Sexual Options with a Partner		
Contacts to receive additional information on related topic		

These data were analyzed to draw out answers to the research questions identified for this research study. Due to limitations on the scope with which the information uncovered through these methods for data collection and analysis could be generalized, slight changes were made to interview questions for both the curriculum contacts per county and the classroom teachers

whose contact information was provided by the curriculum contact for each participating county. Additionally, slight modifications had to be made due to the failure on the part of one participating county's district-level contact to provide a copy of the existing human sexuality education curriculum guide for her school district or the title, publisher and copyright date of the county-adopted textbook for middle-grades science in her district.

Each set of interview questions is displayed in a separate table below. Table 4 includes the set of questions which were asked to the curriculum contact for health education in Brevard County. Table 5 displays the follow-up questions which were included in an e-mail sent to two middle-grades science teachers employed by Brevard County. Table 6 lists the set of follow-up questions which were e-mailed to two teacher leads identified by the curriculum contact within Collier County. Listed in Table 7 are the interview questions which were presented to the curriculum contact for science education in Levy County. Table 8 lists the set of interview questions which were asked to the curriculum contact for health education in Orange County. Finally, listed in Table 9 are the interview questions which were asked to the middle school education coordinator in Walton County.

Table 4
Brevard County Curriculum Contact Interview Questions

Question Number	Question
1	Could you explain the history of your county's human sexuality curriculum as you understand it?
2	In what year was this curriculum first adopted?
3	For what grades was this curriculum intended?
4	Does Brevard County require teachers in these grade levels to teach this curriculum?
5	When the curriculum was created, who (of the following) had input into its contents?
6	Were you a part of the curriculum development of this particular curriculum?
7	I understand the curriculum was just revised this year. What changes were made and for what reasons?
8	Have you ever been approached by a member of the community with a complaint about this curriculum?
9	Do you personally feel that this curriculum meets the needs of the student population in Brevard County?
10	What topics do you think could be added or removed so that it does meet the needs of your student population?

Question Number	Question
11	As a whole, do you feel like your community is open to the teaching of human sexuality topics at the middle school level?
12	After reviewing the curriculum, I have noticed the following items are excluded from the curriculum which published literature states are important in a comprehensive human sexuality curriculum. I would like to discuss whether these topics were considered to be included in the curriculum and whether or not they were excluded for particular reasons:
13	When does the county offer inservice for teachers to become more comfortable with this curriculum?
14	Is there any other information you would like to add about human sexuality education in Brevard County?

Table 5
Brevard County Teacher Follow-up Questions

Question Number	Question
1	Do you feel that the human sexuality education curriculum in Brevard County meets the needs of your student population? (please explain your response)
2	What topics do you feel could be added to or removed from the county curriculum to better meet the needs of your students?
3	When teaching human sexuality education topics in your classroom, do you: _____ Cover only the information in the Sunshine State Standards? _____ Cover only the information in the county adopted textbook? _____ Supplement the Sunshine State Standards and textbook with information for additional sources to adequately teach comprehensive human sexuality education topics? _____ Teach directly from the county-wide curriculum for human sexuality education?
4	Over how many class periods do you cover sex education topics in a typical school year?
5	As a whole, do you feel that your community is open to teaching human sexuality topics in the middle school grades (6-8)? (please explain)
6	Have you ever had a student "opt-out" of participating in a sex education unit during any school year?

Table 6
Collier County Teacher Follow-up Questions

Question Number	Question
1	Do you feel that the human sexuality education curriculum in Collier County meets the needs of your student population? (please explain your response)
2	Your county does not have a formal human sexuality education curriculum guide, so do you feel that your students would benefit by the development of such a curriculum?
3	When teaching human sexuality education topics in your classroom, do you: _____ Cover only the information in the Sunshine State Standards? _____ Cover only the information in the county adopted textbook? _____ Supplement the Sunshine State Standards and textbook with information for additional sources to adequately teach comprehensive human sexuality education topics?
4	As a whole, do you feel that your community is open to teaching human sexuality topics in the middle school grades (6-8)? (please explain)

Table 7
Levy County Curriculum Contact Interview Questions

Question Number	Question
1	Could you give me a general description of your county's school system and student body?
2	Has your county ever had a course, curriculum or program specifically focused on human sexuality education at any grade level? (please elaborate)
3	What is the primary focus of the middle-grades science curriculum in Levy County?
4	Has there ever been a public outcry by parents, teachers, or administrators to create and implement a formal human sexuality education program in Levy County?
5	If a program was created and implemented, do you feel that it would be well-received by the teaching staff, administration, and residents? (If no, why?)
6	Do you know of any middle-grades science teachers within your county who include a human sexuality unit in their curriculum beyond the small bit of information that may relate to the Sunshine State Standards?
7	Do you feel like the topics related to human sexuality and reproduction covered by the Sunshine State Standards and/or your textbooks offer your students the information they need to make responsible and healthy choices when it comes to their sexuality? Please explain.
8	Do you have any additional comments or information that may be helpful for me to gain a better understanding of how human sexuality topics are covered in Levy County?
9	Would you be able to provide me with the names and contact information of two classroom teachers to ask a few additional questions?

Table 8
Orange County Curriculum Contact Interview Questions

Question Number	Question
1	How does Orange County label its human sexuality curriculum (abstinence-only, abstinence-based, or comprehensive)?
2	Could you explain the history of your county's human sexuality curriculum as you understand it?
3	In what year was the curriculum first adopted?
4	For what grades was this curriculum intended?
5	Does Orange County require teachers in these grade levels to teach this curriculum?
6	When the curriculum was created, who of the following had input into its contents? Parents? Teachers? School board members? School based administrators? Superintendent? Health care providers? Students?
7	Were you a part of the curriculum development of this particular curriculum?
8	I understand that this curriculum was revised this year. What changes were made and for what reasons?
9	Have you ever been approached by a member of the community with a complaint about this curriculum?
10	Do you personally feel that this curriculum meets the needs of the student population in Orange County? Can you specifically state why you believe so or not?
11	Do you believe there may be a language barrier preventing some students from getting the information?
12	What topics do you think could be added or removed so that it does meet the needs of your student population?

Question Number	Question
13	As a whole, do you feel like your community is open to teaching human sexuality topics at the middle school level?
14	In my data collection, I have found that the following topics which are identified as crucial components of a comprehensive human sexuality curriculum to be missing from the curricula in many counties. Does Orange County include them? If not, why? How to use and where to obtain condoms? How to use and where to obtain contraceptives? Masturbation? Multiple sexual orientations? Female desire? Decision making and refusal skills? Parent involved homework? Spread of STDs by anal or oral intercourse?

Table 9
Walton County Curriculum Contact Interview Questions

Question Number	Question
1	Could you give me a general description of your county's school system and student body?
2	Has your county ever had a course, curriculum or program specifically focused on human sexuality education at any grade level? (please elaborate)
3	What is the primary focus of the middle-grades science curriculum in Walton County?
4	Has there ever been a public outcry by parents, teachers, or administrators to create and implement a formal human sexuality education program in Walton County?
5	If a program was created and implemented, do you feel that it would be well received by the teaching staff, administration, and residents? (If no, why?)
6	Do you know of any middle-grades science teachers within your county who include a human sexuality unit in their curriculum beyond the small bit of information that may relate to the Sunshine State Standards?
7	Do you feel like the topics related to human sexuality and reproduction covered by the Sunshine State Standards and/or your textbooks offer your students the information they need to make responsible and healthy choices when it comes to their sexuality? Please explain.
8	Do you have any additional comments or information that may be helpful for me to gain a better understanding of how human sexuality topics are covered in Walton County?
9	Would you be able to provide me with the names and contact information of two classroom teachers to ask a few additional questions?

Data Analysis

Information obtained through the interview process was summarized only and interpreted by the researcher to draw out an overall picture of the dissemination of information related to human sexuality to middle-school-aged students within the participating sample school districts. This was the case for both the interviews of the curriculum contact personnel and of the teacher leads who were identified by the curriculum contact, in each of the participating school districts.

The formal curriculum guides for middle grades human sexuality education and the county adopted science textbooks which were obtained by the researcher were analyzed using qualitative textbook analysis methods to locate previously identified curriculum elements (Denzin & Lincoln, 2000; Mayring, 2000; Smelser & Baltes, 2001), which are characteristic of successful human sexuality education curricula. Using Table 3 as a guide for content analysis, each curriculum was examined and specific content was identified as present or absent from the document. This procedure was carried out for both the formal human sexuality education curriculum guides and the county-adopted middle-grades science textbooks. The content analyses for human sexuality curricula implemented within the school districts which participated in this study are located in Appendix A. Those counties for which a content analysis was conducted included the following: Brevard County, Levy County, Orange County and Walton County.

The complete set of findings for this research study are summarized in Chapter 4, followed by a series of conclusions drawn from the research and recommendations for additional research related to the topic of human sexuality education, specifically in the state of Florida.

CHAPTER 4: FINDINGS

The methods of data collection and analysis described in Chapter 3 were conducted for the purpose of examining the extent to which human sexuality topics are covered in Florida middle school science curricula in a sample of Florida school districts and the process by which those curricular decisions were made. Specifically, the research questions for this study were stated as follows:

1. Which topics related to human sexuality are included in the district-level middle-grades science curriculum in a sample of Florida school districts?

2. How did school district personnel make decisions about the inclusion of topics related to human sexuality in their middle-grades science curriculum?

3. To what extent does the approach to teaching human sexuality in the middle-grades science curriculum align with the expectations of a comprehensive human sexuality education curriculum?

4. Do educators in this sample of Florida school districts feel that their district-implemented middle-grades science curriculum provides adequate instruction on human sexuality topics?

By conducting interviews with county figureheads, whose job it is to maintain curricula for middle grades science within their county of employment, and the content analysis of the county-adopted curriculum or textbook which included elements related to human sexuality, data was

collected and analyzed to provide answers to these research questions. For each sample school district which provided data, the scope of human sexuality education that is currently made available to students in the middle grades within that district was revealed.

Participating School Districts & Participants

Of the twelve school districts identified as possible participants at the beginning of the study, only five provided data in the form of an interview with the district-level curriculum contact, a copy of the district's formal curriculum guide for human sexuality education, publisher information for the county-adopted middle-grades science textbook, or feedback from classroom teacher leads in the form of e-mailed questions. These counties were Brevard, Collier, Levy, Orange and Walton.

The geographic and demographic delineations which these counties represented covered a span from western, northern, central, and southern Florida and included counties identified as urban, suburban and rural. The selected counties that did not participate in the study were Alachua, Duval, Glades, Leon, Dade, Pasco, and Suwannee.

Research Question 1

The first question the researcher sought to answer was "Which topics related to human sexuality are included in the district-level middle-grades science curriculum in a sample of Florida school districts?" The content of the science curricula which related to human sexuality was found to vary considerably among the sample school districts that chose to participate in the research study. The content analysis checklist for each curriculum that was provided for the purpose of

this study is included in Appendix A. A summary of the contents contained within each of the four sample curricula that were analyzed are displayed in Table 10.

Table 10
Summary of Content Contained in Human Sexuality Curricula by District

Content	Brevard County	Levy County	Orange County	Walton County
Types of contraception-failure rates			√	
How to use contraception			√	
How to obtain contraception (including emergency contraception)			√	
HIV/AIDS	√	√	√	√
STDs other than HIV	√		√	
How to put on a condom			√	
Condoms or dental dams for STD prevention			√	
Female reproductive anatomy	√	√	√	√
Male reproductive anatomy	√	√	√	√
Parenting	√	√	√	√
Sexual stereotyping and roles				
The menstrual cycle	√	√	√	√
Sexual decision making	√		√	
Refusal skills	√		√	
Rape				
Spermatogenesis				
Menopause	√	√	√	√
Fertilization and development	√	√	√	√
Origins of sexual orientation				
Varying sexualities and gender identity (including homosexual, transsexual and transgender)			√	
Sexuality continuum	√			
Sex without reproduction (including masturbation, oral sex, anal intercourse, and female desire)	√		√	
Abortion			√	
Abstinence	√		√	
Pregnancy	√	√	√	√
Labor and delivery	√	√	√	√
Puberty	√	√	√	√
Contacts to receive additional information	√		√	

The topics which were included in each of the four school district curricula which were made available to the researcher included HIV/AIDS, female reproductive anatomy with a diagram, male reproductive anatomy with a diagram, the menstrual cycle, menopause, fertilization and development, puberty, pregnancy, and labor and delivery. All four counties included a brief explanation of the role of parents; however, only the curriculum guides in Brevard County and Orange County included specific lessons that included the responsibilities of being a parent. In Brevard County and Orange County, information about twelve sexually-transmitted diseases other than HIV/AIDS was included in the formal curriculum guides for human sexuality education. In Levy County and Walton County, the only disease spread by intimate contact that was included in the county-adopted middle-grades science textbooks other than HIV/AIDS was a cold sore, which was not identified as a strain of the herpes virus.

The formal curriculum guides for human sexuality education which were in use within the middle schools in Brevard County and Orange County also contained information related to decision making and refusal skills in sexually charged situations, the importance of abstinence in preventing the unwanted consequences of sexual activity, and additional contact information for agencies which could provide support in order to obtain contraceptive devices or to receive counseling related to becoming sexually active, including county health departments, clergymen, and medical personnel.

Brevard County was the only sample school district that included a sexual activity continuum in the formal curriculum guide for human sexuality education. The continuum included “manual stimulation” which was the closest reference to masturbation in any single lesson in any of the

sampled curricula. Orange County was the only school district for which the formal human sexuality education curriculum was labeled as "comprehensive", therefore the curriculum guide for this district was the only curriculum which was analyzed and included information about types of contraceptive devices, failure rates of contraceptive devices, how to obtain contraceptive devices (including emergency contraception), and how to use a condom. Brevard County's curriculum guide for middle grades human sexuality education did include information on types of contraception and their failure rates; however this information was included in the teacher's appendix only and teachers were instructed not to share this information with their students.

Research Question 2

The second research question for this study asked "How did school district personnel make decisions about the inclusion of topics related to human sexuality in their middle-grades science curriculum?" To some degree, the answer to this question related to the acceptance of the community within the sample school district to teaching topics related to human sexuality at the middle grades level. If the community within the district did not accept a formal human sexuality education curriculum, the district was not likely to have a formal curriculum guide in place for teaching these topics. For the districts which did not have a formal curriculum guide for human sexuality education in place, the researcher was not able to obtain specific information about which individuals acted as decision-makers to include or exclude topics under the umbrella of human sexuality education within the middle-grades science curriculum within the district. It can only be assumed that the individuals who were responsible for the scope of the human sexuality curriculum in these districts were the same individuals who served on the county textbook

adoption committee, as the human sexuality education in these counties was specifically limited to the subject area included in the county-adopted science textbook. Traditionally, textbook adoption committees include district-level administrators, school board members, school-based administrators, classroom teachers, parents, and in some cases, students.

In 1990, in accordance with a state mandate, Brevard County assembled a group of interested parties in order to develop a set of formal curriculum guides for human sexuality education for grades K-12 to be utilized in all public schools within the district. The original curriculum guides were developed over a two-year period by a panel of 25 individuals; representing educators, parents, school board members, health care providers, students, religious figures, and school-based administrators. Orange County began developing their formal curriculum guides for human sexuality education in 1985, in response to a growing HIV epidemic across the nation. Orange County educators determined a need for HIV education and began the development of a set of curriculum guides for use in all Orange County public schools, grades K-12, which were then adopted in 1991. The interviewee for Orange County was a member of the original decision-making team which consisted of educators, parents, school board members, health care providers, students, religious figures, and school-based administrators who developed and approved the content for the curriculum. This committee of individuals also developed a series of guidelines for educators about how the curriculum should be implemented, which includes the statement that "Respect for all people shall be affirmed," during the same time period. Brevard County and Orange County were in the process of revising their original curriculum documents in the summer of 2006 at the time this research study was ongoing.

Because the district-level curriculum contact for Collier County was never formally interviewed, the researcher was unable to learn how curricular decisions related to human sexuality were made, and by whom, within that school district. Levy County reported using an abstinence-only human sexuality education curriculum which was taught at the seventh-grade level by nurses from the county health department; however the curriculum contact for this district did not provide the researcher with a copy of the curriculum. Therefore, the researcher cannot report with accuracy which individuals within Levy County specifically made curricular decisions about which topics were included in or excluded from the district's human sexuality education curriculum. Despite reporting the existence of this curriculum, the district-level interviewee in Levy County reported that the community within his district was "conservative 'church going' people" who would not approve of a formal curriculum guide for comprehensive human sexuality education.

In Walton County, no formal curriculum guide for human sexuality education was being utilized. Therefore, the individuals responsible for making decisions related to which human sexuality topics were integrated into the science curriculum were, by default, those individuals who served on the textbook selection committee for the county's middle-grades science textbook.

Research Question 3

Research question number three asked "To what extent does the approach to teaching human sexuality in the middle-grades science curriculum align with the expectations of a comprehensive human sexuality education curriculum?" Of the four curricula which were analyzed, only one curriculum, in Orange County, was characterized as "comprehensive" in nature. In Brevard

County, the formal curriculum for human sexuality education was labeled “abstinence-based” and the individuals who provided the researcher with information regarding human sexuality education in Collier County, Levy County and Walton County all referred to the curriculum within their district as “abstinence-only”; however in all three cases abstinence was not an element which was contained in the curriculum.

The content analysis checklist created for the purpose of this study included those curriculum elements which were identified within research on effective human sexuality education as best-practice and most likely to result in instruction that led to safer sexual practices among youth who received the instruction. The curricula received from Brevard County, Levy County, Orange County and Walton County that related to human sexuality were analyzed for content based on this checklist. Each district’s curriculum included a different number of best-practice curriculum elements for human sexuality education. Table 11 summarizes the content of each of the human sexuality education curricula with the addition of activities which should be included in an effective human sexuality curriculum by school district.

Table 11
Best-Practice Human Sexuality Education Curriculum Elements by District

Content	Brevard County	Levy County	Orange County	Walton County
Types of contraception-failure rates			√	
How to use contraception			√	
How to obtain contraception (including emergency contraception)			√	
HIV/AIDS	√	√	√	√
STDs other than HIV	√		√	
How to put on a condom			√	
Condoms or dental dams for STD prevention			√	
Female reproductive anatomy	√	√	√	√
Male reproductive anatomy	√	√	√	√
Parenting	√	√	√	√
Sexual stereotyping and roles				
The menstrual cycle	√	√	√	√
Sexual decision making	√		√	
Refusal skills	√		√	
Rape				
Spermatogenesis				
Menopause	√	√	√	√
Fertilization and development	√	√	√	√
Origins of sexual orientation				
Varying sexualities and gender identity (including homosexual, transsexual and transgender)			√	
Sexuality continuum	√			
Sex without reproduction (including masturbation, oral sex, anal intercourse, and female desire)	√		√	
Abortion			√	
Abstinence	√		√	
Pregnancy	√	√	√	√
Labor and delivery	√	√	√	√
Puberty	√	√	√	√
Contacts to receive additional information	√		√	

Activity	Brevard County	Levy County	Orange County	Walton County
Homework with parental involvement	√		√	
Refusal skills and decision making in sexual situations	√		√	
Anonymous Question Box	√		√	
Role-playing	√		√	

Brevard County

When analyzed for content, Brevard County's adopted curriculum guide for middle-grades human sexuality education included many curriculum elements and activities that are characteristic of an effective human sexuality education curriculum. In addition to basic information on male and female reproductive anatomy, fertilization and development, and pregnancy, the curriculum focused on sexuality as one element of a person's individuality, refusal skills and decision-making in sexual situations, characteristics of healthy relationships, and a progression of physical intimacy (sexuality continuum). The lessons contained in the curriculum guide offered numerous opportunities for students to involve their parents in the unit, including parent interviews and questionnaires. The curriculum guide also included detail on the biological cause and symptoms of twelve different sexually transmitted diseases, including HIV/AIDS. In addition, instruction on parenting skills was emphasized along with statistics on teenage pregnancy. The curriculum guide suggested that the classroom instructor make an "Anonymous Question Box" available for students so that they would feel more comfortable asking questions.

Because the curriculum was categorized as "abstinence-based", the contraception information that was included in a teacher's appendix of the curriculum, although very thorough and up to date, could not be shared with students. The teacher's portion of the curriculum guide specifically stated that contraception is not to be discussed in detail with students and that "any discussion of birth control and birth control methods should stress that none of the methods, except abstinence, is totally reliable (p.ix)." In addition, teacher instructions for utilizing the curriculum guide stated that abortion, masturbation, and homosexuality were not to be elaborated upon. If these topics were initiated by a student during classroom instruction, the classroom instructor was given a specific scripted response that they were expected to use.

If asked about abortion, a classroom instructor must define abortion as "the surgical termination of pregnancy and not a means of contraception" without elaboration. If a student questioned about masturbation, the instructor was expected to reply that "masturbation usually means touching one's own genitals for sexual satisfaction. The choice about masturbation is personal and should be evaluated against one's own principles and values." If questioned about the issue of homosexuality, the instructor must respond that "it is undetermined what causes people to become homosexuals, at what age a person becomes homosexual, or whether a person is born homosexual."

Brevard County's formal curriculum guide for human sexuality education included a list of phone numbers and contact information for students in order to learn additional information about issues related to their sexuality and sexual health. Students were referred to several local private organizations, the county health department, their parent, a clergyman, a teacher or

counselor, a dean or principal, or their family doctor to gain additional information or advice about sexually-related topics or how to obtain contraception.

In summary, the facets of an effective human sexuality education curriculum, which the literature identified as effective for lowering rates of the unintended consequences of sexual activity among teenagers, that were excluded from Brevard County's middle-grades human sexuality education curriculum guide were: types of contraception (failure rates), how to obtain contraception (including emergency contraception), how to use contraception, condoms and dental dams for STD prevention, rape, origins of sexual orientation and gender association, varying sexualities, sexual contact without reproduction (including masturbation, oral sex, anal intercourse, and female desire), sexual roles and stereotypes, monogamy and polygamy, and abortion.

Collier County

The district-level curriculum contact for Collier County did not provide the researcher with a copy of any curriculum guide for human sexuality education or the county-adopted textbook information for middle-grades science classes; therefore it can only be assumed from a participating classroom teacher's responses that Collier County does not have a formal curriculum guide for human sexuality education in place. The seventh grade science curriculum in Collier County is life science, and therefore any instruction related to human sexual reproduction would be integrated in to this curriculum and would predominantly include curriculum elements common to basic science textbooks. These topics may include the following: the male and female reproductive systems, gamete formation (meiosis), fertilization

and development, the endocrine system, and general information related to bacteria and viruses, although not specifically sexually transmitted agents. Although these topics have been identified as important in a comprehensive unit on human sexuality, many curriculum elements are missing.

Therefore, Collier County's curriculum for human sexuality education that is included within the scope of the science curriculum does not include the following curriculum elements which are characteristic of effective instruction on human sexuality education: types of contraception (failure rates), where to obtain contraception (including emergency contraception), how to use contraception, sexually-transmitted infections other than HIV/AIDS, condoms and dental dams for STD prevention, parenting skills, sexual roles and stereotyping, rape, origins of sexual orientation and gender association, varying sexualities, a sexuality continuum, sexual contact without reproduction (including masturbation, oral sex, anal intercourse, and female desire), monogamy and polygamy, abortion, abstinence, and contacts to receive additional information. Types of activities that are indicative of effective instruction on human sexuality education that were excluded from Collier County's middle grades instruction on human sexuality included the following: parental involvement in the unit, refusal skills and decision making in sexual situations, an anonymous question box, how to put on a condom, and role-playing.

Levy County

For Levy County, the district-level interviewee did not provide the researcher with an example of the human sexuality education curriculum guide or a copy of the lesson which he reported was taught to the seventh-grade students in the district by the school nurse; however the textbooks

that were used in the middle-grades science classrooms for instruction on life science were obtained from the publisher and analyzed by the researcher. The district utilized four small, bound titles published by Prentice Hall (2007). Two of these books, titled *Animals* and *Human Biology & Health*, included topics related to reproduction in general. Topics specifically related to human sexual reproduction were covered in the second title only.

As expected, the curriculum elements contained in the textbooks utilized by Levy County's middle-grades science teachers were strictly biological facts which were identified in a simplistic manner. In *Human Biology & Health* (Prentice Hall, 2007) HIV/AIDS infection was discussed in a small section of text contained within a chapter titled "Fighting Disease". The text explained that the virus could be spread through blood and other fluids produced in the human body, but did not specifically use the terms "semen" or "vaginal secretions". The text only alluded to the fact that HIV/AIDS is a sexually-transmitted disease by stating that "sexual contact is one way in which this (fluids from an infected person come into contact with those of an uninfected person) can happen"; however no additional detail was given. To a student who is not educated in human sexuality, kissing may be inferred as a form of sexual contact, and this text did not provide information which clarified that saliva is not one of the bodily fluids in which HIV can survive. The only other virus mentioned to spread through intimate contact in the text was a "cold sore", which was not identified as a form of the herpes virus.

In *Human Biology & Health*, an entire section was dedicated to the study of the endocrine system and human reproduction, including the male and female reproductive systems, and pregnancy and development. As with the chapter on fighting disease, this section of text lacked

many details and only covered topics related to human reproduction in the form of a brief narrative.

The topics included in Levy County's science curriculum that related to effective instruction on human sexuality were limited to the following: the male and female reproductive systems, fertilization and development, the menstrual cycle, puberty, pregnancy, labor and delivery, and menopause. Although the textbook included detailed descriptions of the male and female reproductive systems, no connection was made between how the sperm produced by the male reproductive system which "leaves the body through the penis" and the egg produced by the female reproduction system "which can be fertilized if sperm are present in the fallopian tube" may come to be in the same place at the same time. The text explained what a virus was and that a virus could be transmitted from person to person, but the information in the text did not clearly link sexually-transmitted infections with specific sexual behaviors, nor did the text make any mention to how the spread of disease could be prevented other than avoiding fluid to fluid contact.

Therefore, Levy County's curriculum for human sexuality education that is included within the scope of the science curriculum does not include the following curriculum elements which are characteristic of effective instruction on human sexuality education: types of contraception (failure rates), where to obtain contraception (including emergency contraception), how to use contraception, sexually transmitted infections other than HIV/AIDS, condoms and dental dams for STD prevention, parenting skills, sexual roles and stereotyping, rape, origins of sexual orientation and gender association, varying sexualities, a sexuality continuum, sexual contact

without reproduction (including masturbation, oral sex, anal intercourse, and female desire), monogamy and polygamy, abortion, abstinence, and contacts to receive additional information. Types of activities that are indicative of effective instruction on human sexuality education that were excluded from Levy County's middle grades instruction on human sexuality included parental involvement in the unit, refusal skills and decision-making in sexual situations, an anonymous question box, how to put on a condom, and role-playing.

Orange County

The formal curriculum guide for middle-grades human sexuality education in Orange County was very comprehensive and included almost every curriculum element and activity suggested by literature on effective human sexuality education to be important for lowering rates of the unintended consequences of sexual activity, including pregnancy and the exchange of sexually-transmitted infections, among teenagers. Only four curriculum elements were completely absent from the curriculum received by students between Kindergarten and the twelfth grade. The curriculum elements that were excluded from Orange County's curriculum guides for human sexuality education included polygamy, dental dams, a sexuality continuum, and the female orgasm.

Topics to which single lessons were not completely devoted at the middle grades level included the origins of sexual orientation and gender identity, varying sexualities, abortion, masturbation, and sexual roles and stereotyping. The origins of sexual orientation were omitted from the curriculum guide for human sexuality education because there was no conclusive research to provide an explanation for why homosexuality occurs. And although varying sexualities,

abortion, and masturbation were not covered in specific lessons, middle- school teachers in Orange County were provided with information about and definitions of these topics to provide to students if questions arose. Teachers were asked to define terms such as homosexual, transsexual, and transgender using medical terminology and to sway students away from using slang terms. Teachers in Orange County were permitted to define and explain masturbation and abortion if they were knowledgeable enough to provide accurate information and felt comfortable doing so; however they were cautioned by county administrators to do so without judgment.

Other topics were omitted from the middle school curriculum for human sexuality education but were covered in either the elementary or high school curriculum. Puberty was covered in the fourth and fifth grade curricula, so elements related to this topic were not included in the middle-grades curriculum guide for human sexuality education. Information on puberty was also repeated in the ninth grade county-adopted textbook for biology. Instruction on sexual stereotyping and roles was considered a part of the high school curriculum for Life Management Skills and was also absent from the middle grades curriculum guide for human sexuality education.

The middle-grades human sexuality education curriculum guide for Orange County was found to be extremely thorough and included most curriculum elements and activities that are characteristic of effective instruction on human sexuality education with positive results. At the middle grades level, the curriculum included the following topics which are characteristic of effective human sexuality education: types of contraception (failure rates), how to use

contraception, how to obtain contraception (including emergency contraception), instruction on HIV/AIDS, instruction on additional sexually transmitted diseases, condoms as STD prevention, male and female reproductive anatomy, parenting, the menstrual cycle, menopause, fertilization and development, explanations of varying sexualities and gender identities (including homosexual, transsexual, and transgender), sexual contact without reproduction (including masturbation, oral sex, anal intercourse, and female desire), monogamy and polygamy, abortion, abstinence, pregnancy, labor and delivery, and contacts to receive additional information. Activities that are included in successful human sexuality education instruction that were also included in Orange County's middle grades curriculum guide for human sexuality education included the following: how to put on a condom, refusal skills and decision making in sexual situations, parental involvement in the unit, an anonymous question box, and role-playing.

Walton County

Similar to Levy County, Walton County's adopted textbook for middle-grades science contained very few curriculum elements which are characteristic of effective instruction on human sexuality. Instruction on HIV/AIDS and sexually-transmitted disease was limited to a single statement in the seventh grade textbook that identified AIDS as a disease caused by virus particles and the mention of cold sores (which was not identified as a form of the herpes virus) in the same section of text. Cause of transmission of HIV and symptoms of HIV infection were completely absent, and no other sexually transmitted diseases were identified.

Topics related to human reproduction were contained in the eighth grade edition of the middle-grades science textbook for Walton County and only included the following curriculum elements that are included in effective instruction on human sexuality education: the male and female

reproductive systems, the menstrual cycle, fertilization and development, pregnancy, labor and delivery, changes that occur during puberty, and menopause. In this case, the male and female reproductive systems were explained in very biological terms. Semen was identified to leave the male's body through the urethra, and a sperm fertilizing the egg was the attributed cause of pregnancy; however how the sperm and egg may come to join was not discussed. The menstrual cycle was explained and diagramed in detail; however it was never linked to puberty in females. Menopause was identified as the end of a woman's ovulation and menstruation periods, and a picture of a post-menopausal woman hula-hooping with an adolescent girl was accompanied by the caption, "menopause does not inhibit a woman's ability to enjoy an active life."

The textbook adopted by Walton County (Biggs, 2006) presented topics related to human sexuality in a series of disconnected biological facts and did not include the following curriculum elements which are characteristic of effective instruction on human sexuality education: types of contraception (failure rates), where to obtain contraception (including emergency contraception), how to use contraception, sexually transmitted infections other than HIV/AIDS, condoms and dental dams for STD prevention, parenting skills, sexual roles and stereotyping, rape, origins of sexual orientation and gender association, varying sexualities, a sexuality continuum, sexual contact without reproduction (including masturbation, oral sex, anal intercourse, and female desire), monogamy and polygamy, abortion, abstinence, and contacts to receive additional information. Types of activities that are indicative of effective instruction on human sexuality education that were excluded from Walton County's middle grades instruction on human sexuality included parental involvement in the unit, refusal skills and decision making in sexual situations, an anonymous question box, how to put on a condom, and role-playing.

Research Question 4

Finally, the researcher desired to answer the question, "Do educators in this sample of Florida school districts feel that their district-implemented middle-grades science curriculum provides adequate instruction on human sexuality topics?" Overall, the interviewees who provided data for this research study did not feel that the curriculum for human sexuality education that was being implemented within their school district met the needs of the middle grades student population within the district.

In Brevard County, Levy County, Orange County, and Walton County, the researcher asked this question directly to the district-level curriculum contact whose job it was to maintain curricula related to middle-grades science or health within their district. In Collier County, a middle-grades science teacher provided a response and in Brevard County, the district-level interviewee's response was supported by two middle-grades science teachers who answered the question as well. The reason that the curriculum was not justified for its intended audience differed with each person who provided information; however, the consensus across all districts that were sampled was that the curriculum currently in place needed revision.

In Brevard County, both the district-level curriculum contact and middle-grades science teachers that were interviewed felt that the district's adopted curriculum for human sexuality education was strong; however the three individuals felt that a full disclosure of information related to contraception would be additionally valuable to the middle-grades students within the school district. One of the teachers who was interviewed specifically answered "No, abstinence is not realistic for a small percent of the population" when asked if he felt that the curriculum for

human sexuality education in place within his school district met the needs of his students. The second teacher interviewed in Brevard County provided a similar response saying, “Our district does not allow us to teach about contraception, but offers free daycare services and parenting classes to high school students who have babies. I just don’t understand the reasoning behind this.”

The middle-grades science teacher in Collier County who provided a response to this question also was not satisfied with the quality of the human sexuality education curriculum in place within her school district. When asked if she felt that the human sexuality education curriculum in place within Collier County met the needs of her student population, she responded “No, we teach an abstinence-based education program. Although I believe that the information they are getting is very important, I also know that some of our students are sexually active. They are not getting the information that they need.” To make up for these shortcomings, this teacher explained that she taught from the county-adopted science textbook for the middle grades and the grades 6-8 Sunshine State Standards for science when it came to topics related to human sexuality; however she also stated that she tried to “answer their (her students’) questions and discuss issues without crossing any of those political/problematic lines.”

Information that was learned about the degree to which the human sexuality curriculum in Levy County met the needs of the student population was non-committal at best. The district-level interviewee from Levy County explained to the researcher that there was no perceived need for a comprehensive human sexuality education curriculum within the district and that he did not feel that the community within the district would be open to teaching a human sexuality education

unit that was comprehensive in nature at the middle grades level, due to the fact that the people within the community were "conservative" and "church-going". When asked specifically if this individual felt that the topics related to human sexuality and reproduction covered in the Sunshine State Standards or the county-adopted textbooks offered his students the information they needed to make responsible and healthy choices when it came to their sexuality, he provided the following response: "I believe that the standards are there to be taught or be mastered by the students. Teachers are responsible to teach those standards and to follow the state guidelines governing curriculum and instruction in their classrooms."

Because the formal curriculum guide for middle-grades human sexuality education in Orange County was so thorough, the interviewee in this district had few complaints about the quality of the instruction offered to students within the Orange County school district. In general the interviewee felt that the curriculum met the needs of the student population within her district and that the population of Orange County was very open to teaching human sexuality topics at the middle school and other levels. Although she felt that the curriculum was weak when it came to gay and lesbian issues, she felt that the topics were too politically charged to be included in the general curriculum manual. To account for this weakness and to be more equitable to all students, the curriculum guide that was developed for Orange County students used the term "partner" rather than "spouse" when referring to sexually active couples. The interviewee also explained that some high schools within Orange County had gay, lesbian, bisexual, transsexual, and questioning organizations (GLBTQ) in place as an extracurricular option for high school students.

Information gathered about Walton County with respect to this research question came by way of the district-level curriculum contact who shared that the public in Walton County had never requested the development of a formal curriculum for human sexuality education and that she did not feel that such a curriculum would have been well received by the community. She felt that because of the rural nature of the district that a human sexuality curriculum would be met with opposition, in a similar manner to the struggle faced when debating about a curriculum which includes instruction on evolution.

To her knowledge no middle-grades teacher within her school district was teaching a formal unit on human sexuality education other than the information that was included in the county-adopted textbook for middle-grades science and the grades 6-8 Sunshine State Standards for science that related to reproduction in general. Although the interviewee did not feel that those brief references to reproduction would provide her students with the information they needed to make healthy decisions related to their sexuality, she felt that an in depth unit on human sexuality, by way of a textbook, would be too controversial and would not be accepted by the parents of her students.

Summary of Findings

Despite the fact that only five of the original twelve counties selected as potential participants for this research study provided data, the researcher was able to answer each of the research questions. As a result of the data collected, a broad perspective on the scope of human sexuality education existing within a sample of school districts across the state of Florida was gained. Of the districts that provided data, only one, Orange County, had a comprehensive human sexuality

education program in place; one county, Brevard, labeled their program as “abstinence-based”; and three school districts, Collier County, Levy County, and Walton County, described their human sexuality education as “abstinence-only”, although the curricula that were analyzed for these districts did not include any reference to abstinence in the middle-grades classroom instruction on human sexuality.

In both Brevard County and Orange County, a committee of curriculum developers, including educators, parents, school board members, health care providers, students, religious figures and school-based administrators, were assembled more than a decade ago to develop a set of formal curriculum guides to teach human sexuality topics within all K-12 public schools within the two districts. These guides were both being revised during the summer of 2006 during the time this research study was being conducted. In Collier County, Levy County, and Walton County, no formal curriculum guides existed for human sexuality education. Instead, the instruction on human sexuality that occurred within the middle schools in those districts was based on the county-adopted textbook for middle-grades science. By default then, the individuals who were responsible for determining which topics were included in human sexuality education instruction in Collier County, Levy County, and Walton County were those individuals who served on the textbook adoption committees within those school districts. Traditionally, textbooks are reviewed and chosen for adoption by such individuals as district-level administrators, school board members, school-based administrators, classroom teachers, parents, and in some cases, students.

Of the four curricula that were obtained by the researcher and analyzed for content, only two (Brevard County and Orange County) contained curriculum elements and activities that were characteristic of effective instruction on human sexuality education in addition to basic topics related to human reproduction. The topics which were included in each of the four school district curricula made available to the researcher included HIV/AIDS, female reproductive anatomy with a diagram, male reproductive anatomy with a diagram, the menstrual cycle, menopause, fertilization and development, puberty, pregnancy, and labor and delivery. The additional activities that were contained in the formal curriculum guides for human sexuality education in Brevard County and Orange County included parental involvement in the unit, refusal skills and decision making in sexual situations, an anonymous question box, how to put on a condom, and role-playing.

By inclusion of the topics common to all four of the curricula, to some degree each of these four curriculum were aligned with best-practice standards for human sexuality education; however much additional content on human sexuality and the inclusion of specific supplemental activities are necessary in order for a human sexuality education program to promote healthy sexual practices among all youth who receive the instruction. The formal curriculum guides for human sexuality education within Brevard County and Orange County contained such additional curriculum elements and supplemental activities and were better aligned with the standards for effective human sexuality instruction. Of the four curricula analyzed for this research study, the formal curriculum guide for Orange County contained the most curriculum elements and activities that were identified in the literature as characteristic of effective human sexuality education.

Individuals in four of the five districts felt that the curriculum for human sexuality education that was in place within their district did not provide the middle school students within that district with the information necessary to make wise decisions related to their sexual health. The reason that the curriculum was not justified for its intended audience differed with each person who provided information; however, the consensus across all districts that were sampled was that the curriculum that was currently in place needed revision.

In the final chapter of this paper, the researcher will interpret these findings and draw additional conclusions from the data collected through this research study. In addition, this summary will be revisited and additional information will be provided regarding how these research findings support the subject-related literature. Finally, recommendations by the researcher for additional research related to human sexuality education in the state of Florida will be provided.

CHAPTER FIVE: CONCLUSIONS

The research study described in the previous chapters was conducted for the purpose of examining the extent to which human sexuality topics were covered in Florida middle school science curricula in a sample of Florida school districts and the process by which those curricular decisions were made. Specifically, the research questions for this study were stated as follows:

1. Which topics related to human sexuality are included in the district-level middle-grades science curriculum in a sample of Florida school districts?

2. How did school district personnel make decisions about the inclusion of topics related to human sexuality in their middle-grades science curriculum?

3. To what extent does the approach to teaching human sexuality in the middle-grades science curriculum align with the expectations of a comprehensive human sexuality education curriculum?

4. Do educators in this sample of Florida school districts feel that their district-implemented middle-grades science curriculum provides adequate instruction on human sexuality topics?

Through the data provided by district-level figureheads who maintained the middle-grades science or health curricula within the participating counties and middle-grades science teachers within each of the sample school districts, the researcher was able to draw conclusions about the

scope of middle-grades human sexuality education that was in place, at the district level, within the state of Florida.

An Interpretation of Research Findings

Had more of the sample school districts chosen to participate in this research study, perhaps more generalizations could have been made by the researcher regarding the quantity and quality of human sexuality education within the state of Florida. With data from only five counties (Brevard, Collier, Levy, Orange, and Walton), a state-wide summary was not possible; however, due to the spectrum of the participating counties with respect to geographic location and population size, some patterns were observed.

The urban (Orange County) and suburban (Brevard County) school districts located in central Florida both participated in the research study and had created and implemented formal curriculum guides for human sexuality education for all K-12 public schools within the two school districts. This was due to an acceptance by these communities to teaching human sexuality topics to adolescents, a perceived need by the district for instruction on human sexuality education, and the availability of human resources for the development and writing of the curriculum and the writing of grants to procure funds for human sexuality instruction. The formal curriculum guides for human sexuality education that Orange County and Brevard County made available to their middle grades educators and students contained the majority of curriculum elements that were identified in the literature as important for effective human sexuality instruction. The few best-practice curriculum elements that were not covered by either of these school districts included female desire, varying sexualities, polygamy, and dental dams.

Female desire was possibly omitted from the curriculum guides for human sexuality education because its inclusion may be perceived by the community to encourage sexual activity, making the curriculum guide seem like more of a "how to" manual for sexual activity rather than formal instruction on the prevention of the unintended consequences of sexual activity, which is a common argument against comprehensive human sexuality education (Irvine, 2000). However, by its omission, the human sexuality education instruction in Brevard County and Orange County introduced elements of a hidden curriculum which depicted the female as a passive participant in the process of sexual reproduction (Martin, 1991). Polygamy may have been omitted for the same reason, as this type of mating system is marginalized and is not considered a mainstream human sexual behavior in the United States.

The omission of varying sexualities from the Orange County middle grades curriculum guide for human sexuality education was due to the inconclusive nature of how and why homosexual orientations exist in humans and other animals. In Brevard County, this topic was omitted from the formal human sexuality curriculum guide for middle grades because such instruction was, in the opinion of the district-level interviewee, too politically charged within that community. Somewhat related, dental dams are predominantly associated with the lesbian community because they exist to prevent the spread of sexually-transmitted infection by oral to genital contact. Because the topic of varying sexualities was omitted from both of these districts' middle grades curriculum guides for human sexuality education, the omission of dental dams from the curricula is understandable.

Since Brevard County had implemented a human sexuality education curriculum that was "abstinence-based", all references to contraception were also omitted from instruction received by its middle-grades students. As a result, discourse on types of contraception (failure rates), how to use contraception, how to obtain contraception (including emergency contraception), and how to put on a condom was also excluded from the formal curriculum guides for middle school human sexuality education.

The school districts located in the western, northern, and southern regions of Florida (two rural and one suburban) that provided data for this research study did not have a formal human sexuality education program in place, and instead relied on information contained in the county-adopted science textbooks. The middle-grades science textbooks for these districts were conservative with respect to the human sexuality information that was included and reflected the values and beliefs of the community within the district. Consequently, the human sexuality curricula in Collier County, Levy County, and Walton County lacked many critical elements that were identified in the literature as characteristic of effective instruction on human sexuality education. Most notably, the human sexuality education curricula in these school districts lacked instruction related to abstinence, contraception, decision making and refusal skills in sexual situations, sexually-transmitted diseases other than HIV/AIDS, varying sexualities, and healthy relationships. Also, these curricula did not include opportunities for parental involvement.

In Brevard County and Orange County where a formal curriculum guide for middle grades human sexuality education existed, the decision-makers for the scope and sequence of the curriculum included a mixture of individuals such as educators, parents, school board members,

healthcare providers, students, religious figures and school-based administrators. In the case of both of these school districts, the curriculum guides for human sexuality education were written and revised over a two-year period before being distributed to school personnel, which gave each group of individuals a stake in the final product. For the participating counties that lacked a formal curriculum guide for human sexuality education (Collier County, Levy County, and Walton County), it can only be assumed that the individuals who made the final decision about which human sexuality topics were included in or excluded from the adopted curriculum were those individuals who served on the most recent textbook adoption committee for middle-grades science, as their human sexuality curriculum was limited to the information contained in their county-adopted science textbooks. Traditionally, the textbook adoption process for public school districts include several groups of decision-makers such as: educators, school board members, county-based administrators, school-based administrators, parents, and students.

Data on how well the county-adopted human sexuality education curriculum in each sample district met the needs of the middle school students within that district was obtained by interviewing the district-level curriculum contact or a middle-grades science educator in the sample school district. In four of the five cases, regardless of the county the individual represented or the job position held by the interviewee, the individual did not feel confident that the instruction on human sexuality within the school district was adequate to provide the student population within the district with the information necessary to make responsible decisions related to their sexual health. This was the case for the school districts in Brevard County, Collier County, Orange County, and Walton County. The district-level interviewee in Levy County felt that the Sunshine State Standards for science should be the main focus of instruction in the

science classroom, regardless of the omission of specific topics related to human sexuality education.

Orange County was the only participating school district for which contraception was included in the curriculum; however the county's curriculum contact for health education still felt that the curriculum could do better in reaching its gay, lesbian, bisexual, transgender, and questioning students. Individuals who were interviewed in Brevard County, Collier County, and Walton County felt that by taking an abstinence-based or abstinence-only approach to human sexuality education, their students were not being provided the with the best possible instruction related to sexuality and sexual health as many middle grades students in their district were already sexually active. In Brevard, Collier, Levy, and Walton counties these same individuals also felt that the community within the school district would not accept a middle-grades curriculum that included instruction on contraception.

A trend of conservatism within a community seemed to be mirrored by its schools with respect to human sexuality education. In the participating school districts for which the interviewee reported resistance by the community to teaching about contraception, the curriculum in place did not include such instruction. In the sampled urban district where the community had perceived a need for formalized HIV/AIDS education, the curriculum in place was the most liberal and comprehensive of the four human sexuality education curricula that were examined.

Findings that Confirm Prior Research

The data collected in this research study which described the scope of human sexuality education curricula that was in place within a sample of school districts in the state of Florida lends credibility to facts published in previous literature which identified that abstinence-only-until-marriage programs are the norm for public schools in the state (SIECUS, 2006) and are not reasonable for middle-school-aged students because such instruction often presumes that students in the middle grades are not yet sexually active (Irwin, 2006). Three of the five districts (Collier County, Levy County, and Walton County) that provided data for this research study implemented a middle-grades science curriculum which did not contain curriculum elements that have been specifically identified as critical for effective human sexuality education; instruction that has been shown to delay the age of first intercourse and to decrease rates of teenage pregnancy and STD transmission amongst teenagers. The curriculum elements that were omitted included behavioral and technical skills related to condom use and negotiation and refusal skills in sexual situations (Kalmuss et al., 2003). Four of the five participating school districts (Brevard County, Collier County, Levy County, and Walton County) did not include information on contraception. When included in a human sexuality education curriculum, this topic has resulted in reducing the unwanted outcomes of adolescent sexual activity (Kirby et al., 1994).

Because of the lack of a complete understanding of what district-level curricula for human sexuality education existed across the state of Florida, it was difficult to tie the findings of this research study directly to previously published literature. No previous research studies have specifically examined the quality of human sexuality education curricula at the district-level

across the state. As a result, the findings of this research add to a previously non-existent area of study.

Findings that Add to Prior Research

Because the sample size for this research study was limited, a complete analysis of the human sexuality education that existed at the district level across the state of Florida was not possible; however some findings of the research study were noteworthy.

Regionally, central Florida was the most liberal geographic region with respect to the human sexuality education offered to its middle-grades students. Both counties within this region that provided data for this research study, Brevard and Orange, had formal curriculum guides implemented for middle-grades human sexuality education that contained many of the curriculum elements that have been identified as characteristic of effective human sexuality education programs.

The three counties in the research study with the smallest populations did not have formal curricula for middle-grades human sexuality education in place within the school district. One of these districts, Walton County, was located in west Florida; Levy County, in north Florida, and Collier County was located in south Florida. In each of these sample school districts a representative who was interviewed identified that the community within the district would not approve of a middle-grades curriculum with a focus on human sexuality topics or a curriculum that contained information on contraception.

Finally, educators and district-level decision-makers in the state of Florida did not feel confident that the human sexuality education that each of the school districts was providing to its middle-grades students would result in a decrease in rates of teenage pregnancy and STD transmission.

Limitations of the Study

The limitations for this research study included the following:

1. Information provided by the curriculum contact in each of the participating sampled counties by way of interview cannot be generalized to other school districts within the state of Florida.

2. Effective human sexuality curriculum elements included in or excluded from a sample county's human sexuality education curriculum or county-adopted middle-grades science textbook cannot be generalized to other school districts within the state of Florida.

3. Information provided by individual teachers in follow-up interviews regarding the acceptance of the community to teaching human sexuality topics at the middle school level and their opinion on how the curriculum is meeting the needs of the student clientele within that county cannot be generalized to other school districts within the state of Florida.

4. Similarities between counties with similar geographic location or population size with respect to the existence of a formal human sexuality education curriculum, strengths

and weaknesses of the curriculum which relates to human sexuality, or level of acceptance by the community to teaching human sexuality topics at the middle school level can only be noted and not generalized to other school districts within the same geographic region or school districts with a similar population size in the state of Florida.

Because the human sexuality education curricula within the central region of Florida that were analyzed for the study were both greatly aligned with the characteristics of effective human sexuality education, the researcher found this similarity to be noteworthy; however due to the limited sample of school districts that were chosen as possible participants and the even smaller sample of school districts for which data was collected, this similarity cannot be viewed as a general characteristic of all school districts located in the central region of Florida. The three participating school districts that had smaller rural or suburban populations were similar in their approach to instruction on human sexuality education to middle-grades students; however it cannot be generalized that all human sexuality education in the smaller school districts within the state is limited to the curriculum elements provided in the Sunshine State Standards for science and the county-adopted textbook for middle-grades science.

The delimitations for this research study included:

1. Only twelve school districts were chosen as possible participants in this research study of the sixty-seven possible school districts within the state of Florida.

2. For each school district selected as a possible participant in this research study, only one individual from each county was identified as the interviewee, due to the nature of their job description.

3. Only two classroom instructors within each participating school district were asked to provide follow-up information regarding the implementation of the human sexuality education curriculum identified by the curriculum contact, the level of acceptance of the community within the district to teaching human sexuality topics at the middle grades level, and the degree to which the classroom instructor felt that their district's human sexuality curriculum met the needs of the target student population.

4. Due to the nature of the research topic, some individuals were likely to choose not to participate in this research study.

Based on these delimitations the initial sample size for this study included a total of 36 interviewees, including one district-level curriculum contact and two middle-grades science instructors from each of twelve sample school districts across the state of Florida. The actual number of individuals who consented to answering interview questions for the purpose of this research study was seven; three from Brevard County, one from Collier County, one from Levy County, one from Orange County, and one from Walton County. Although the researcher initially realized the sensitive nature of the research topic, a participation rate this low was unexpected and led the researcher to believe that there is an even greater social stigma attached

to teaching topics related to human sexuality at the middle school level than previously considered.

The lack of participation in the study despite repeated contact from the researcher is a testament to the fact that most persons who are responsible for making curriculum decisions related to human sexuality education topics in the school districts throughout the state of Florida felt uncomfortable sharing information or were unable to share information related to the human sexuality education in place within their county. This could have been for one of several reasons.

First of all, the school district in question may have lacked a curriculum for human sexuality education altogether. With the development of the Florida Comprehensive Assessment Tests for reading, writing, mathematics and science, many schools in the state have shifted the focus of their curriculum to include only instruction related to the curriculum strands found within the curriculum documents known as the Sunshine State Standards, which are assessed on these standardized tests. Even related-arts curricula in art, music, and physical education are being reduced or eliminated from schools in order to achieve test score goals and to receive "passing" school score grades assigned by the Florida Department of Education. With standardized testing pressure applied throughout the public school system at all grade levels, perhaps human sexuality education is being put on the back burner as well.

A second possibility was that the school district in question was understaffed at the district level, and the potential participant simply did not feel that he or she had the time to respond to the researcher's requests for contact, much less participate in the study. For some counties identified

as potential sources of data for this research study, a single person or pair of persons was responsible for maintaining curricula in all four major academic disciplines at the middle school level. Such counties tended to be smaller and rural.

Another reason that a school district may have failed to participate in the research study was that the district-level curriculum contact did not wish to have information about their county's human sexuality education curriculum published because he or she personally felt that the information would be damaging to the public image of the school system due to deficiencies in the curriculum that was in place or because that person felt that the research study may draw unwanted attention to the school district from the public. Because of the values and beliefs of the community in that county, the possible participants may have declined to draw attention to human sexuality education within the district as it may have caused unnecessary controversy. In most of the sample school districts the general public felt that topics related to human sexuality should not be covered in the public school curriculum, but instead should be left up to parents.

At the conclusion of this research study, the researcher felt that most counties failed to keep human sexuality education curricula updated and visible in their schools due to the overwhelming pressure to improve standardized test scores on a year-to-year basis. Because the state mandate for human sexuality education is not enforced in every district, school-based administrators are able to diminish instruction related to curriculum standards that are not included on the FCAT. As the standards for science and health education identified by the state only loosely apply to human sexuality topics, human sexuality education may not be seen as a priority within most school districts. If a particular county was identified by the researcher as

being neglectful of teaching the required human sexuality standards, it may be an embarrassment to the figureheads of the county. In addition, any teacher who felt as if the human sexuality education in his county was deficient may feel that he would be putting his job in jeopardy by saying as much in a follow-up interview.

Finally, the researcher felt that non-participants may have been the result of the taboo nature of human sexuality topics. The two counties for which face-to-face interviews were conducted and full disclosure of the curriculum guides for human sexuality education were offered to the researcher were counties in which the curriculum contact for health education was a former healthcare provider and classroom teacher. Both Brevard and Orange Counties had one individual in charge of human sexuality education curriculum for secondary schools, and both women were former nurses who also worked as classroom instructors, one in health education and one in physical education. These women were very comfortable with the jargon associated with human sexuality topics and were very knowledgeable about the curricula in place within their counties for human sexuality education because they had collaborated on the original production of the curriculum or on recent revisions. In contrast, Collier, Levy, and Walton counties were more rural and were made up of a populace that was more conservative and less open to a public forum on the improvement of the human sexuality curricula for their student populations. Perhaps the district-level decision-makers in these three school districts felt that incomplete instruction on human sexuality education was better than none at all.

An additional limitation in this research study that was unexpected was that one district-level interviewee declined to provide the researcher with the names and contact information of two

middle-grades science educators working within his school district. This individual provided the researcher with contrite answers to the interview questions related to the human sexuality education within his school district; however refused to provide the researcher with teacher leads who may have provided data about the implementation of the curriculum at the school-level. In other school districts the teacher leads made the personal decision not to participate in the research study by their failure to reply to the researcher; however the district-level curriculum contact in those cases allowed the classroom teacher to make that decision on his or her own.

In a related sense, the researcher expected a higher participation rate from classroom educators who were asked to provide answers to follow-up questions about the implementation of human sexuality education curricula out of a sense of professional courtesy. In the final contact that requested the individual's participation in the research study, the researcher asked the interviewee to simply reply in an e-mail that he or she did not wish to participate in the study; however none of the classroom educators even provided this response.

Suggestions for Future Research

Without a larger set of data, more generalized parallels between the findings of this research study and published literature on the quality of human sexuality education programs in other parts of the United States and abroad cannot be drawn. In retrospect, the researcher in this case would have initially included a larger number of school districts in the initial sample in order to collect a larger set of data for analysis. Although some non-participants were expected, the participation rate in this case was surprisingly low. A larger initial sample size may have made it

possible for the researcher to make better generalizations of how human sexuality education is being implemented in the middle grades across the state of Florida.

Additionally, the researcher would have made attempts to contact more classroom educators within each sample school district by means other than through the initial interview with the district-level curriculum contact. Though county-based websites, classroom educator e-mail addresses are now public information. Perhaps if the classroom educator did not feel that the district-level personnel was aware of his participation in the research study he may have felt more comfortable providing his opinions about and insights into the implementation of human sexuality education in his school district. Also, the researcher would have suggested a phone conversation with the classroom educator during personal time rather than instructional-hours to add additional confidentiality to the interview responses.

In this particular research study, the interviews conducted through e-mail were much more impersonal and did not provide the depth of information provided by the face-to-face interviews with district-level personnel; however, it is important to remember that the two individuals for whom face-to-face interviews were conducted had medical backgrounds and had previously taught a health-related curriculum at the middle grades level. The response rate for a research study of this type may be higher if the background of the interviewee could be considered in choosing potential participants; however that is not a realistic expectation.

Due to the lack of a state-wide curriculum for human sexuality education in the state of Florida, decisions of how and when human sexuality-related topics are covered within the middle grades

classroom in this state are ultimately left up to the classroom teacher. Even in cases for which a district-level curriculum guide for human sexuality education exists, the classroom teacher makes the final determination about which topics from the curriculum she chooses to cover in any given school year. State-mandates only require that classroom instructors cover the grade specific Sunshine State Standards that loosely relate to sexual reproduction. Previous research has shown that classroom teachers will only discuss those aspects of human sexuality with which they are personally comfortable (Buston & Wright, 2001) and that do not conflict with their personal values and beliefs (Bowden et al., 2003; Buston & Wright, 2001).This is another intriguing area of research related to human sexuality education.

In order to get a more accurate overview of how well Florida middle-grades science teachers are instructing their students on topics within the realm of human sexuality education, a study of those successful teachers would have to be conducted. Through future research, the degree to which human sexuality education topics are covered on a school-wide basis within the state could be uncovered. Based on the identification of such successful human sexuality education instructors, recommendations could be provided by the researcher for future teacher inservice instruction in order to develop these traits in other classroom educators within Florida's school districts.

Finally, if a greater sample of school districts with in the state of Florida were to provide copies of their curriculum guides for human sexuality education or middle-grades science textbooks, a quantitative analysis of the content included within this text could be conducted in order to gain a

better understanding of the way the critical curriculum elements for successful human sexuality education are being included in middle-grades science curricula within the state of Florida.

Implications for Practice

The results of this study have several implications for practice within Florida's middle school classrooms. Within those school districts which made it a priority to develop a set of formal curriculum guides for human sexuality education, middle school students were more likely to receive human sexuality instruction that included the topics and activities that have been determined by multiple research studies to result in lower rates of teenage pregnancy and lower transmission rates of sexually transmitted infection in adolescents. In contrast, school districts which relied on the county-adopted science textbooks to provide human sexuality instruction were providing a deficient curriculum to their middle grades students that only contained biological facts related to basic human reproductive biology. These curricula did not include specific activities that are associated with effective human sexuality education such as decision making and refusal skills, technical use of a condom, parental involvement, and role-playing.

It is the suggestion of the researcher that each of Florida's sixty-seven school districts make it a priority to develop a set of formal curriculum guides for human sexuality education that reflect the values and beliefs of the community while still providing the students within the school district with adequate information and skills to make healthy decisions related to their sexual health. If the state of Florida made it a priority to develop a state-wide curriculum for human sexuality education that contained the curriculum elements and activities that are characteristic of effective human sexuality education, this burden would not be put on the school districts on an

individual basis. By setting such a goal, the state of Florida would be providing a great service for its adolescent population, which would lead to better sexual health for its citizens in the future.

Information provided by the interviewees in this research study suggested that the human sexuality education that is being provided to the middle school students across the state of Florida did not provide adequate information and instruction to allow adolescents in the state to make more healthful choices related to their sexuality. Only one district that participated in the research study (Orange County) provided instruction on contraception in the district's human sexuality education curriculum guide. The three classroom educators who were interviewed for this research study felt that a science curriculum that contained the full disclosure of information related to contraception would better meet the needs of their middle-grades student population, as a small percentage of their middle grades students were already sexually active. Therefore, middle school educators across the state should make comprehensive human sexuality education a goal in their school district and support initiatives that may result in the implementation of such curricula.

The data provided in this research study depicted a great variation in the quantity and quality of human sexuality education curricula for middle-school-aged students within the state of Florida. In the worst case scenario, sample school districts only covered the grades 6-8 Sunshine State Standards for science which generally relate to the difference between sexual and asexual reproduction and how disease can spread, in addition to brief sections of text contained in the county-adopted science textbooks in their human sexuality instruction. These curricula only

covered the biological facts of human reproduction and development in the form of a brief narrative without relating the subject matter back to the students own lives and bodies. And despite the fact that district-level curriculum decision-makers in these cases categorized the districts' human sexuality education curricula as abstinence-only, the curricula that were implemented did not include the concept of abstinence at all.

In two of the five counties that participated in this research study (Orange and Brevard), a formal curriculum guide for middle school human sexuality education had existed for over a decade and had recently been revised and updated to provide more accurate information to the teachers and students who utilized the guides. These curricula were better aligned with the characteristics of effective human sexuality education because they considered the social and psychological implications of teenage sexual activity in addition to the physical consequences of poor decisions related to an individual's sexual health. Only Orange County's curriculum guide for human sexuality education combined instruction on contraception with activities that have been shown to reduce the unwanted consequences of sexual activity among teenagers, including pregnancy and the exchange of sexually-transmitted infections.

Through this research it has become evident that the public school curricula adopted at the district-level seems to mirror the values and beliefs of the population within the community. The more conservative rural and suburban school districts that participated in the study were less likely to implement a comprehensive curriculum guide for human sexuality education while the more progressive urban district's curriculum included many politically charged curriculum elements and activities based on social learning techniques. And although the more conservative

communities did not recognize a need for a comprehensive program in human sexuality education, published data on the number of births to teenaged mothers suggest that some of these districts should make such a curriculum a priority.

In Table 12 the percent of total births to unwed teenaged mothers by district that participated in this research study are compared to the type of human sexuality education offered within that district, according to census data for the year 2000 (State of Florida, 2006). Most notable was the percent of births to unwed teenaged mothers in Levy County which was published at 14.9% compared to 9.6% for the state of Florida. According to the district-level curriculum contact in this school district, his community was not open to teaching about contraception in public schools and did not perceive a need to develop a formal human sexuality education program for middle-grades students. For a small, rural county, this rate is alarmingly high.

Table 12
Comparison of Births to Teenaged Mothers to Type of Human Sexuality Education by School District

Name of District	Percent of Births to Unwed Teen Mothers (2000)	Type of Human Sexuality Education Offered
State of Florida	9.2%	----------
Brevard County	9.7%	Abstinence-based
Collier County	9.1%	Abstinence-only
Levy County	14.9%	Abstinence-only
Orange County	9.4%	Comprehensive
Walton County	9.2%	Abstinence-only

As the population of Florida continues to increase and urban centers within the state continue to expand outward, the teaching of human sexuality topics will continue to become more important in order to improve the sexual health of Florida's populace and to reduce unwanted and unintended pregnancy to unwed teenaged mothers. With the nationwide acknowledgement that HIV/AIDS transmission rates have not decreased over the past two decades, perhaps a nationwide campaign for comprehensive human sexuality education will be put into place in the near future. Through this research study the researcher found that state-wide, Florida educators do feel that more comprehensive human sexuality education is needed. Whether involved in a rural, suburban, or urban school district, individuals in the sample school districts acknowledged that a percentage of the middle-grades students in their district were sexually active and would benefit from instruction that provides a complete disclosure of information on contraception and disease prevention.

In general, this research study provided useful information to begin to understand the spectrum of existing human sexuality education programs that are currently being implemented to instruct middle-grades students in the state of Florida. Until a full understanding of the programs and curricula that exist at the district-level and are being utilized within the state is realized, it will not be possible to systematically determine the strengths and weaknesses of these programs. Because the state of Florida lacks a state-wide curriculum for human sexuality education and because of the great degree of variation in how human sexuality topics are covered from school-to-school and classroom-to-classroom within Florida's public schools, such data may never be attainable.

In conclusion, the researcher feels that further exploration into this topic is crucial and that additional information related to the quality and quantity of human sexuality education existing across the state of Florida should be pursued more vigilantly. Additionally, an examination of successful human sexuality educators within the state should be conducted in order to fully understand the methods of classroom instructors who are able to communicate information related to human sexuality to their students in a way that makes a measurable impact. Human sexuality education for the middle grades students within the state of Florida should be a priority for all of its sixty-seven school districts.

Through publicly acknowledged statistics related to teenage pregnancy rates, transmission rates of sexually-transmitted infections, and the steady rate of new HIV/AIDS infections within the United States, the need for a structured state-wide program on human sexuality education should be realized in spite of the taboo traditionally associated with teaching human sexuality education in public schools. The public funding that has been devoted to teaching abstinence-only-until-marriage ideals is money spent in vain, as programs that stress abstinence as the only way to prevent the unintended consequences of sexual activity have been revealed through research on effective human sexuality education to be ineffective. District-level representatives who make curriculum decisions on an everyday basis must make comprehensive human sexuality education a priority in their school districts or face the negative consequences of their failure to act. Such consequences could include a rise in the rate of unintended teenage pregnancy and STD transmission rates in their districts' adolescent populations. District representatives have identified weaknesses in current curricula and should begin efforts to revise these curricula so that they do meet the needs of the districts' student populations.

Through the continued study of existing programs for human sexuality education and those educators who are instructing them, continued modifications can be made to the curricula in order to ensure that the instruction educators within the state of Florida are providing to middle-grades students meets the needs of the state's ever-changing student population. It is the duty of society to provide our youth with the information they need to make informed choices, no matter what that choice is in reference to. Through additional research studies that focus on the deficiencies and triumphs of Florida's human sexuality education curricula, perhaps this social responsibility will be realized by Florida's citizens.

APPENDIX A: CONTENT ANALYSIS RESULTS

Brevard County Curriculum Analysis

Curriculum Element	Present?	Comments
Contraception- Failure rate	NFS	Included in appendix for teachers
Contraception- How to use	NFS	Appendix of information for teachers included on contraceptives
Contraception- How to obtain	NS	Health Department phone number listed on "Where to get Help" page under "Birth Control" along with "Private Physician"
HIV/AIDS		General notes on cause, symptoms and treatment, AIDS stats as of 3/1997, surgeon general's 1993 report on AIDS notes in teacher appendix only
STDs other than HIV		Notes on symptoms of STDs, disease transmission activity, clymydia, vaginitis, genital herpes, genital warts, gonorrhea, hepatitis, crabs, syphilis, trichomoniasis, non-gonococcal urethritis in teacher notes only
How to put on a condom		Good description of how to use female condom included in teacher appendix on contraceptives
Condoms and Dental Dams as STD prevention	NS-DD	States latex condoms are highly effective in the prevention sexually transmitted diseases in the teacher appendix on contraceptives
Female Reproductive Anatomy		Picture? Y (Hand drawn front view) Notes and vocabulary
Male Reproductive Anatomy		Picture? Y (Hand drawn, flaccid, cross section side view) Notes and vocabulary
Parenting		Student handout "A New Responsibility" on teenage pregnancy suggests teacher emphasize that physical maturity which makes one able to create a new life does not mean that an individual has the emotional maturity that is needed to be a parent, great responsibility in parenting
Sexual Stereotyping/Roles		How men and women differ in attitudes toward sex

Curriculum Element	Present?	Comments
The Menstrual Cycle		Notes on transparency, no hormonal control discussed, hormonal control is detailed in science textbook
Sexual Decision Making		General decision-making skills with role play and model, responsibility in dating situations, taking responsibilities for one's own actions, decision-making self-test
Refusal Skills		Refusal skills suggested on list, group activity to discuss situations in which a teenager may have to say "no".
Rape	N	Not specifically stated, implied that a healthy relationship doesn't include a person who doesn't respect your limits
Spermatogenesis	N	The formation of sperm is not specifically covered in this curriculum but is covered in the Meiosis section of the science textbook 7th grade
Menopause		Defined in pregnancy vocabulary notes as "menstruation stops in the female, and she is no longer able to reproduce. Usually occurs between the ages 40-50", covered in science textbook section on fertilization and development (7th grade Science Voyages)
Fertilization-Penetration		Refers teacher to science textbook to cover this topic; teacher appendix notes covers conditions that must be present for pregnancy to occur, and where and how fertilization occurs
Origins of Sexual Orientation	NS	Alternate sexualities are not discussed and relationships between members of the opposite sex are implied and stated throughout; homosexuality is specifically identified as a sensitive topic, and the teacher is told not to discuss it in detail; in homosexuality "disclaimer" it is stated that it is undetermined how homosexuality occurs

Curriculum Element	Present?	Comments
Homosexual		In appendix section for teachers states that men who have sexual relations with other men are especially at risk of contracting HIV and that 60% of people living with AIDS in the US were homosexuals and bisexuals; homosexuality is specifically identified as a sensitive topic and the teacher is told not to discuss it in detail.
Transsexual	N	
Transgender	N	
Sexuality Continuum		Explanation of sexuality, progression of sexual feeling with increased physical intimacy (p.76), setting sexual limits "The line"
Parental Consent		Suggested, sample letters provided, preview of curriculum to parents suggested
Sex without Reproduction		Implied throughout: "healthy lifestyle" stressed, but in "A New Responsibility" handout states that the act of intercourse should be viewed as a unique expression of committed love and this type of expression is ideally suited for married couples who have pledged their futures to one another and not having sex before marriage is a healthy, responsible choice
Monogamy	NS	In "A New Responsibility" handout states that the act of intercourse should be viewed as a unique expression of committed love and this type of expression is ideally suited for married couples who have pledged their futures to one another and not having sex before marriage is a healthy, responsible choice
Polygamy	NS	In teacher appendix section on surgeon general's 1993 AIDS report states that the more partners a person has, the greater the risk of becoming infected with HIV

Curriculum Element	Present?	Comments
Abortion		Specifically identified as a sensitive issue and the teacher is told not to discuss the topic in detail.
Homework w/Parental Involvement		Decision-making skills worksheet, parent interview to practice talking about sexual issues w/parent
Masturbation (Mutual, Personal)	NS	In "The Line: Setting Limits" transparency and discussion, petting, heavy petting, and mutual sex play are described as "male genital feeling aroused", "female genital feeling aroused", and "female genital feeling aroused"
Oral Sex (Fellatio, Cunnilingus)	N	
Anal Intercourse	N	
Abstinence		Gives instructions to stress that abstinence is the ONLY way to prevent transmission of STDs and unwanted pregnancy; specific lesson on abstinence stresses that abstinence means voluntarily doing without something. "In this case we are talking about premarital sex" "Abstinence is healthful and safe" "Abstinence is legal", p. 70 "Abstinence shows respect for yourself and others" "Abstinence follows your parents guidelines", p. 71
Emergency Contraception/ How to Obtain it	N	
Pregnancy and Development		Teenage pregnancy stats, the problem with teenage pregnancy, refers teacher to science textbook to cover this topic, vocabulary on pregnancy notes; teacher appendix material covers development, pregnancy, multiple births, gestation, pregnancy quiz
Labor and Delivery		Refers teacher to science textbook to cover this topic; teacher appendix material covers labor and delivery

Curriculum Element	Present?	Comments
Post-Natal Development and/or Care		Refers teacher to science textbook to cover this topic.
Puberty		Changes during adolescence, appearance of sexual characteristics, notes on puberty
Anonymous Question Box		Suggests having each student put one question in at the beginning and spend time during each class period answering questions that apply to the day's lesson
Marriage		In "A New Responsibility" handout states that the act of intercourse should be viewed as a unique expression of committed love and this type of expression is ideally suited for married couples who have pledged their futures to one another and not having sex before marriage is a healthy, responsible choice
Female Desire/Orgasm	N-FO	In teacher appendix on pregnancy and development explains that "sexual excitement is necessary for pregnancy to occur", "symptoms in female-vaginal secretions", movement brings on ejaculation so that the sperm is deposited near or in the vagina
Role-playing- Discussing Sexual Options with a Partner		No role play, but offers advice for refusing sexual involvement, using behavior to reinforce your decision; how to discuss your limits with a partner, suggests breaking off a relationship if the person does not respect your limits
Contacts to receive additional information on related topic		Lists parents, clergy, teacher, counselor, dean or principal, nurse, family doctor, list of phone numbers and organizations (local), list of disease intervention organizations
NOTES		Curriculum goals stated Specifically states that abortion, masturbation, birth control, and contraceptives, and Homosexuality are not to be discussed in detail. Statements are provided to guide teacher if these issues arise p. ix

NOTES		**Abortion** is the surgical termination of a pregnancy and not a means of contraception. **Masturbation** usually means touching one's own genitals for sexual satisfaction. The choice about masturbation is personal and should be evaluated against one's own principles and values. Any discussion of **birth control and birth control methods** should stress that none of the methods, except abstinence, are totally reliable. **Homosexuality** is having sexual attraction for people of the same sex. It is undetermined what causes people to become homosexuals, at what age a person becomes homosexual, or whether a person is born homosexual. Just how it happens is not clear. Starts with ground rules for classroom during unit. Identifies qualities of a loving person. Role play on solving problems and responsible decision making. Decision making model. How to talk to parents about sexual issues. Different types of relationships and how to distinguish a healthy relationship from an unhealthy one. **Curriculum Title:** Human Sexuality

NS = Not Specifically, NFS = Not For Students, N = Not Present

Levy County Curriculum Analysis

Curriculum Element	Present?	Comments
Contraception- Failure rate	N	
Contraception- How to use	N	
Contraception- How to obtain	N	
HIV/AIDS		p. 150-151 (HH) can survive in body fluids produced by the male and female reproductive systems; sexual contact is one way this can happen
STDs other than HIV		p. 143 (HH) can get cold sore by kissing someone with a cold sore
How to put on a condom	N	
Condoms and Dental Dams as STD prevention	N	
Female Reproductive Anatomy		Picture? P. 228-229, front view and size view cross-section, no hair P. 218 ovaries identified as an endocrine gland, p. 219 location of ovaries, role of estrogen and progesterone, p.228-229 female reproductive system described role to "produce eggs and if an egg is fertilized, to nourish a developing baby until birth"
Male Reproductive Anatomy		Picture? P. 226-227, front view and side view flaccid, no hair P. 218 testes identified as an endocrine gland, p.219 location of testes, role of testosterone, p. 226-227 description of male reproductive system… ejaculation not mentioned or erection, simply states semen leaves the body through the penis, tube running through penis is called the urethra
Parenting		p. 235 says that pregnant women should not smoke, drink alcohol or take any drug without a doctor's approval
Sexual Stereotyping/Roles	N	
The Menstrual Cycle		p. 229-231 "prepares the woman's body for pregnancy, which begins after fertilization" again, makes no mention of how fertilization might come to occur… can be fertilized if sperm are present in the fallopian tube; picture on p. 231 does not show hormone levels
Sexual Decision Making	N	

Curriculum Element	Present?	Comments
Refusal Skills	N	
Rape	N	
Spermatogenesis	NS	Glands produce sex cells
Menopause		States around the age of 50 the production of sex hormone drops and ovaries stop releasing mature eggs, but does not use the word “menopause”
Fertilization-Penetration		p. 225, picture “sperm are swarming around the large egg” “Sperm has penetrated the egg” p 225, fertilization described
Origins of Sexual Orientation	N	
Homosexual	N	
Transsexual	N	
Transgender	N	
Sexuality Continuum	N	
Parental Consent	N	
Sex without Reproduction	N	
Monogamy	N	
Polygamy	N	
Abortion	N	
Homework w/Parental Involvement	N	
Masturbation (Mutual, Personal)	N	
Oral Sex (Fellatio, Cunnilingus)	N	
Anal Intercourse	N	
Abstinence	N	
Emergency Contraception/ How to Obtain it	N	

Curriculum Element	Present?	Comments
Pregnancy and Development		p. 217 caption "Endocrine glands also regulate changes that occur as a baby grows", p. 232-240
Labor and Delivery		p. 235-236
Post-Natal Development and/or Care	N	
Puberty		p. 226 male secondary sex characteristics identified and attributed to testosterone, p. 227 production of sperm begins in males sometime during the teenage years; p. 228 female secondary sex characteristics only widening of hips and breast development, says nothing about how an egg might come to be fertilized; p. 239 puberty is defined
Anonymous Question Box	N	
Marriage	N	
Female Desire/Orgasm	N	
Role-playing- Discussing Sexual Options with a Partner	N	
Contacts to receive additional information on related topic	N	
NOTES		No formal curriculum. Four bound books by Prentice Hall used. Human Biology and Health and Animals applicable. Other two are physical and earth science related. Human Health and Biology- Chapter 7 Endocrine System and Reproduction Animals, p. 9 sexual reproduction defined

NS = Not Specifically, NFS = Not For Students, N = Not Present

Orange County Curriculum Analysis

Curriculum Element	Present?	Comments
Contraception- Failure rate	Y	Student activity in which they calculate it themselves
Contraception- How to use	Y	
Contraception- How to obtain	Y	
HIV/AIDS	Y	
STDs other than HIV	Y	Students research STDs and complete table, matching game
How to put on a condom	Y	Cannot demonstrate, but allowed to show diagrams in middle school and high school
Condoms and Dental Dams as STD prevention	Y	Condoms
Female Reproductive Anatomy	Y	Picture? Yes, to label
Male Reproductive Anatomy	Y	Picture? Yes, to label
Parenting	Y	
Sexual Stereotyping/Roles	N	High school only, Life Management Skills class
The Menstrual Cycle	Y	
Sexual Decision Making	Y	
Refusal Skills	Y	
Rape	Y	
Spermatogenesis	N	Process covered through science curriculum on cell division in science textbook
Menopause	Y	
Fertilization-Penetration	Y	
Origins of Sexual Orientation	NS	Information provided that "scientists don't know the specific cause of homosexuality"
Homosexual	NS	Teachers may define and dissuade students from using slang terms, no specific lesson provided
Transsexual	NS	Teachers may define; definition in teacher resource, no specific lesson provided
Transgender	NS	Teachers may define; definition in teacher resource, no specific lesson provided
Sexuality Continuum	N	Not enough time
Parental Consent	Y	Required, opt out option given
Sex without Reproduction	Y	Anal and oral intercourse defined
Monogamy	Y	Yes, included in discussion on prevention of STDs

Curriculum Element	Present?	Comments
Polygamy	N	
Abortion	NS	Teacher can define and explain procedures if he is knowledgeable and feel comfortable, warned not to make judgment
Homework w/Parental Involvement	Y	Every lesson intended to go home; some lessons include extra credit for parent signature
Masturbation (Mutual, Personal)	N	Defined, no specific lesson
Oral Sex (Fellatio, Cunnilingus)	Y	Defined, included as a risk for STD contraction
Anal Intercourse	Y	Defined, included as a risk for STD contraction
Abstinence	Y	
Emergency Contraception/ How to Obtain it	Y	Contraception lesson
Pregnancy and Development	Y	
Labor and Delivery	Y	
Post-Natal Development and/or Care	N	Attributes of good parenting but not specifically related to this topic
Puberty	N	Included in 4th and 5th grade curricula
Anonymous Question Box	Y	If teacher chooses
Marriage	NS	Committed relationships, not specifically marriage, to be open to all relationships
Female Desire/Orgasm	N	
Role-playing- Discussing Sexual Options with a Partner	Y	
Contacts to receive additional information on related topic	Y	
NOTES		CDC grant allows for greater resources. Baby Think it Over program in some schools. Teachers must have additional resources and guest speakers approved through county Health Curriculum office.

NS = Not Specifically, NFS = Not For Students, N = Not Present

Walton County Curriculum Analysis

Curriculum Element	Present?	Comments
Contraception- Failure rate	N	
Contraception- How to use	N	
Contraception- How to obtain	N	
HIV/AIDS		7th grade p. 334 "…AIDS (is) are diseases caused by nonliving particles called viruses"
STDs other than HIV		Cold sores 7th grade p. 334-335
How to put on a condom	N	
Condoms and Dental Dams as STD prevention	N	
Female Reproductive Anatomy		Picture? Y (side view cross section, front view uterus) 8th grade p. 441, ovaries, uterus, vagina, cervix, oviduct
Male Reproductive Anatomy		Picture? Y (flaccid side view cross section) 8th grade p. 440, testes, scrotum, seminal vesicle, sperm, semen
Parenting		8th grade p. 450 "Unlike the newborns of some other animals, human babies depend on other humans for their survival"
Sexual Stereotyping/Roles	N	
The Menstrual Cycle		8th grade p. 442-443 begins with "How does the female body prepare for having a baby?"
Sexual Decision Making	N	
Refusal Skills	N	
Rape	N	
Spermatogenesis		8th grade p. 440 testes are where sperm are produced, greater number of sperm produced at lower temps, p. 382-387 Meiosis
Menopause		8th grade p. 443 "menopause does not inhibit a woman's ability to enjoy an active life"
Fertilization-Penetration		8th grade p. 445
Origins of Sexual Orientation	N	

Curriculum Element	Present?	Comments
Transsexual	N	
Transgender	N	
Sexuality Continuum	N	
Parental Consent	N	
Sex without Reproduction	N	
Monogamy	N	
Polygamy	N	
Abortion	N	
Homework w/Parental Involvement	N	
Masturbation (Mutual, Personal)	N	
Oral Sex (Fellatio, Cunnilingus)	N	
Anal Intercourse	N	
Abstinence	N	
Emergency Contraception/ How to Obtain it	N	
Pregnancy and Development		8th grade p. 446-448
Labor and Delivery		8th grade p. 448-449
Post-Natal Development and/or Care		8th grade p. 450-453
Puberty		8th grade p. 452 in section on Adolescence
Anonymous Question Box	N	

Curriculum Element	Present?	Comments
Marriage	N	
Female Desire/Orgasm	N	
Role-playing- Discussing Sexual Options with a Partner	N	
Contacts to receive additional information on related topic	N	
NOTES		Glencoe Florida Science 7th and 8th grade Overtone is clinical. No behavior included. How the sperm enter the vagina is never stated… p. 445 (8th) "Although 200 million to 300 million sperm can be deposited in the vagina at one time, only several thousand reach an egg in the oviduct"; p. 440 "semen leaves the body through the urethra"

NS = Not Specifically, NFS = Not For Students, N = Not Present

APPENDIX B: CONTACTS

Contact 1: November 2005

Dear (Curriculum Contact),

My name is Melinda Myrick and I am a doctoral candidate at the University of Central Florida in affiliation with the College of Education. I am conducting research to examine the development and implementation of middle grades human sexuality curricula in the state of Florida for the purpose of comparing existing curricula with best practices, as spelled out by previously conducted research. I also plan to examine the decision making process and key players in the development of county-wide human sexuality curricula that currently exist and are being used statewide, drawing out demographic and regional trends.

Because you hold the position of curriculum contact for science education within (Insert County) County, Florida, you have been identified as a contact in my study to examine the human sexuality curriculum that currently exists and is being implemented in your county and others in the state of Florida. I need your help as a participant in my research and would like to request the following items from you if you choose to participate:

1. That you provide me with a hard copy or document file of the existing human sexuality curriculum within your county that relates specifically to the middle grades (grades 6-8) by returning it in the postage paid envelope that I have enclosed.

   If no formal human sexuality curriculum exists within your county, please send me an e-mail at biochik27@aol.com which states so and provides the name and publisher of the middle-grades science textbook currently adopted by your county.

   If a formal human sexuality curriculum exists within your county but is directed toward older or younger students, please provide me with a hard copy or document file of this curriculum.

2. That you sign and return the enclosed consent form to participate in a phone interview in the near future by including it in the postage paid envelope that I have enclosed.

In advance, I would like to thank you for your participation in this study and for contributing to the body of knowledge I will be using to draw conclusions about the scope of human sexuality curricula as they exist in Florida today.

If you have any questions about my research, my supervisor at UCF is Dr. David Boote and you can reach him at 407-823-4160 or dboote@mail.ucf.edu. If you have any questions about research participant's rights, you can contact the University of Central Florida's Institutional Review Board at 407-823-2901 or irb@mail.ucf.edu.

Sincerely,

Melinda D. Myrick
321-453-4765 or 321-537-5115
Biochik27@aol.com

Written Consent Form

Before I begin the actual interview, I would like to obtain your formal consent.

As you know, my name is Melinda Myrick and I am a doctoral candidate in the College of Education at the University of Central Florida. Through my research I am hoping to draw some conclusions about existing middle grades human sexuality curricula in our state.

You have been identified as a potential participant in my study because you are responsible for science and/or health curriculum decisions in your county OR are familiar with the middle grades human sexuality curriculum in your county. I would like to ask you some questions that I have in regard to the middle grades human sexuality curriculum I have received from your county. The discussion may last up to 30 minutes.

By signing this consent form, you are verifying that you are 18 years of age or older and as such are able to provide consent to participate in a phone interview on your own accord.

Your name will not be identified in the papers I submit to the University and this interview will not be audiotaped. I will be taking written notes of your responses which will be kept in a locked filing cabinet during the course of my study and will be destroyed at the conclusion of my research.

In order to conduct the interview, I will contact you by phone at the number you provide me and at the time that we schedule that is best for you. Again the phone interview may take as long as 30 minutes, but most likely will not take that much of your time.

During the interview process, if you do not wish to answer a specific question, please let me know. You do not have to answer every question and you will not be penalized for refusing to answer any of my questions. If some of the questions during the interview make you uncomfortable due to their content, you are free to pass on that question or to discontinue the interview process at any time.

The answers you give to my questions will not affect your job in any way and will remain completely anonymous. The responses you give to my questions will be reported as the opinion of a group and not yours personally. If at any time during the interview you find it necessary to take a break or are unable to continue, I will be glad to reschedule with you for another time.

Unfortunately I cannot compensate you for your time, but your participation is greatly appreciated. As a research participant you will not benefit directly from this research, besides

learning how your county compares with others within the state of Florida where human sexuality education is concerned.

If you have any questions about my research, my supervisor at UCF is Dr. David Boote and you can reach him at 407-823-4160 or dboote@mail.ucf.edu. If you have any questions about research participant's rights, you can contact the University of Central Florida's Institutional Review Board at 407-823-2901 or irb@mail.ucf.edu.

Thank you,

Melinda Myrick
Principle Investigator

321-453-4765 or 321-537-5115
Biochik27@aol.com

Consent Statement

By signing this consent form, I am agreeing to participate in the research study previously described and titled "Middle Grades Human Sexuality Education Trends in the State of Florida: An Examination of Curriculum Design and Best Practices". I also give the principle investigator in this study, Melinda Myrick, permission to contact me at the number provided for a phone interview at a time that is convenient to me.

Name of Participant (Printed) _____
Print Name Here

Signature of Participant _____
Sign Name Here

Contact Phone Numbers:

Office Phone Number: _(____)_____
Write Office phone # with Area Code Here

Mobile Phone Number: __(_____)_____
Write Mobile phone # with Area Code Here

E-mail Address: _____
Write your E-mail address Here

Second Contact: January 2006

Dear Curriculum Contact,

Approximately six weeks ago you should have received a packet of information requesting your participation in a doctoral research study titled "Middle Grades Human Sexuality Education Trends in the State of Florida: An Examination of Curriculum Design and Best Practices".

I would like to again invite you to participate in this study which is attempting to draw some conclusions about existing middle grades human sexuality curricula in our state. You have been identified as a potential participant in my study because you are responsible for science and/or health curriculum decisions in your county OR are familiar with the middle grades human sexuality curriculum in your county. I would like to ask you some questions that I have in regard to the middle grades human sexuality curriculum I have received from your county and would like to examine the existing middle grades human sexuality curriculum currently being utilized in your county.

I need your help as a participant in my research and would like to request the following items from you if you choose to participate:

1. That you provide me with a hard copy or document file of the existing human sexuality curriculum within your county that relates specifically to the middle grades (grades 6-8) by returning it in the postage paid envelope that I have previously provided for you. If you no longer have the envelope in your possession, I can provide you with another.

   If no formal human sexuality curriculum exists within your county, please send me an e-mail at biochik27@aol.com which states so and provides the name and publisher of the middle-grades science textbook currently adopted by your county.

   If a formal human sexuality curriculum exists within your county, but is directed toward older or younger students, please provide me with a hard copy or document file of this curriculum.

2. That you sign and return the enclosed consent form to participate in a phone interview in the near future by including it in the postage paid envelope that I have enclosed.

Once again I would like to thank you for your participation in this study and for contributing to the body of knowledge I will be using to draw conclusions about the scope of human sexuality curricula as they exist in Florida today.

If you have any questions about my research, my supervisor at UCF is Dr. David Boote and you can reach him at 407-823-4160 or dboote@mail.ucf.edu. If you have any questions about

research participant's rights, you can contact the University of Central Florida's Institutional Review Board at 407-823-2901 or irb@mail.ucf.edu.

Thank you,

Melinda Myrick
Principle Investigator
321-453-4765 or 321-537-5115
Biochik27@aol.com

Verbal Consent Agreement

Before I begin the actual interview, I would like to obtain your formal consent. Please bear with me as I read a verbal consent statement.

As you know, my name is Melinda Myrick and I am a doctoral candidate in the College of Education at the University of Central Florida. Through my research I am hoping to draw some conclusions about existing middle grades human sexuality curricula in our state.

You have been identified as a potential participant in my study because you (are responsible for science and/or health curriculum decisions in your county OR are familiar with the middle grades human sexuality curriculum in your county). I would like to ask you some questions that I have in regard to the middle grades human sexuality curriculum I have received from your county. The discussion may last up to 30 minutes. Are you still willing to participate in my study? (If the answer is yes, continue. If the answer is no, thank the individual for his/her time and ask if there is someone else whom I might speak with.)

At this time, would you please confirm that you are 18 years of age or older. Please confirm this by saying "Yes" or "No". (If the answer is yes, continue. If the answer is no, say "I'm sorry I didn't realize you were not of age to consent to this interview. Thank you for your time.")

Thank you very much for working with me. Your name will not be identified in the papers I submit to the University **and this interview is not being audio taped. I will be taking written notes of your responses which will be kept in a locked filing cabinet during the course of my study and will be destroyed at the conclusion of my research.** If you do not wish to answer a specific question, please let me know. **You do not have to answer every question and you will not be penalized for refusing to answer any of my questions. If some of the questions during this interview make you uncomfortable due to their content, you are free to pass on that question or to discontinue the interview process at any time.**

The answers you give to my questions will not affect your job as an educator in any way and will remain completely anonymous. The responses you give to my questions will be reported as the opinion of a group and not yours personally. If at any time we need to pause the interview, I will be glad to reschedule with you for another time. Unfortunately I cannot compensate you for your time, but your participation is greatly appreciated. **As a research participant you will not benefit directly from this research, besides learning how your county compares with others within the state of Florida where human sexuality education is concerned.**

If you have any questions about my research, my supervisor at UCF is Dr. David Boote and you can reach him at 407-823-4160 **or dboote@mail.ucf.edu**. If you have any questions about research participant's rights, you can contact the University of Central Florida's Institutional Review Board at 407-823-2901 **or irb@mail.ucf.edu**.

It is okay if I begin the interview now? (If no, reschedule for a more convenient time)*

*** I am assuming the participant is already cooperating as I would have had much contact with them prior to the interview in order to obtain the curriculum and to set up the interview time.**

APPENDIX C: IRB APPROVAL

THE UNIVERSITY OF CENTRAL FLORIDA

INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

PRINCIPAL INVESTIGATOR(S): **Melinda D. Myrick-Lupo; David N. Boote, Ph.D.** **IRB #: 05-2811**

PROJECT TITLE: Middle Grades Human Sexuality Education Trends in the State of Florida: An Examination of Curriculum Design and Best Practices

[X] New project submission
[ ] Resubmission of lapsed project #_____
[ ] Continuing review of lapsed project #_____
[ ] Continuing review of #
[ ] Study expires _____
[ ] Initial submission was approved by expedited review
[ ] Initial submission was approved by full board review but continuing review can be expedited
[ ] Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____

Chair

[X] Expedited Approval
Dated: 11/4/2005
Cite how qualifies for expedited review:
minimal risk and #7

[ ] Exempt
Dated: _____
Cite how qualifies for exempt status:
minimal risk and _____

[X] Expiration Date: 11/3/2006

IRB Co-Chairs:

Signed: _____
Dr. Sophia Dziegielewski

Signed: _____
Dr. Jacqueline Byers

Complete reverse side of expedited or exempt form

[ ] Waiver of documentation of consent approved
[ ] Waiver of consent approved
[ ] Waiver of HIPAA Authorization approved

NOTES FROM IRB CHAIR (IF APPLICABLE): SENSITIVE TOPIC, needs clarifications before approval. Consent form needed see attached for additional clarifications.

19 August 2005

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