

SEXUALITY HEALTH PROGRAMS CURRICULA ASSESSMENT

by

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Abstract

The alarming incidence of sex-related health problems among American adolescents has health educators searching for effective curricula-based programs aiming at behavioral changes. Such desire and urgent need to find or create programs and curricula that work have generated different approaches, philosophies, and educational strategies. However, this also may have produced a number of programs that have not benefited from a careful and thorough evaluation: neither evaluation of content, message, and cognitive and/or behavioral effect. The focus of this paper is on the curricula utilized in sexuality health programs in middle and high schools. Questions arise about the impact of these programs. Currently, abstinence-based programs are the only ones funded by the government. Research data does not convincingly show that abstinence-only sexuality education significantly decreases the number of adolescents engaging in sexual intercourse prior to marriage. This paper attempts to review current research about abstinence and comprehensive curricula. I begin by discussing the different approaches and their supporters. The importance of adolescent development and theory will be incorporated into my review. Effectiveness of each approach, as well as evaluation studies will be examined. From this review, I composed my own assessment of one abstinence-based curriculum and one comprehensive based curriculum.

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INTRODUCTION

When do adolescents in the United States begin to participate in sexual behaviors? Do they wait for “true love” and marriage before engaging in sexual intercourse? Data from 2002 show that the average ages at which women and men first have intercourse are 17.4 and 17.7 years of age, respectively, and the average ages at which they first get married are 25.3 and 27.1 years of age (Santelli, Ott, Lyon, Rogers, Summers, & Schleifer, 2006). These statistics show that many teenagers do not abstain from sexual intercourse.

What are some of the consequences of becoming sexually active during one’s teenage years? The Centers for Disease Control and Prevention released a Morbidity and Mortality Weekly Report (MMWR) which focuses on the sexual and reproductive health of young people aged 10-24. The report details trends and statistics regarding topics such as HIV and sexually transmitted infections (STIs), teen births, sexual assault, and health disparities for the years between 2002 and 2007 (<http://www.cdc.gov/mmwr/>, 2009). The MMWR indicated that negative health outcomes stemming from sexual risk behaviors are on the rise.

According to Hamilton, Joyce, Martin and Ventura (2009), between the years of 2005 and 2007 teenage birthrates in the U.S reported a 5% increase with 40.5 to 42.5 births per 1,000 women aged 15-19. Nearly half a million 15-19-year old women gave birth in 2007. Over half (52 %) of all mothers on welfare had their first child as a teenager (National Campaign to Prevent Pregnancy, 2002a). This is particularly distressing considering that adolescent pregnancy and childbearing have been associated with adverse health and social consequences for adolescents and their children. These consequences put adolescents at a risk for negative developmental outcomes, as well as have a huge impact on U.S. economy (Centers for Disease Control and Prevention, 2000).

In 2000, the cost of treating STIs among 15- to 24-year-old youth was \$6.5 billion (Chesson, Blandford, Gift, Tao & Irwin, 2000). These are children whose health and well-being are jeopardized when current policies and programs do not address adolescent needs. The prevention of teen pregnancy, HIV/AIDS and other sexually transmitted diseases is a complex issue and finding one effective solution is difficult. However, adolescents deserve respect and information in regards to this issue.

How does the U.S. compare to other industrialized Western countries in regards to sexual health information? According to the Advocates for Youth (2003), among industrialized countries, the United States has the highest rates of teen birth and STIs. European sexuality health programs differ greatly from the United States. Youth in Europe initiate sex around the same age that many U.S. youth do. However, they report fewer partners and use protection more consistently (Advocates for Youth, 2003). In many European countries, adults believe that adolescents have the right to complete and accurate information about sexual health, and have the right to be educated to protect themselves (Advocates for Youth, 2003). European adults also believe that society has the responsibility to provide adolescents with the tools to enable positive sexual development and health (Advocates for Youth, 2003). In Europe, one can see the effectiveness of strong programs that address adolescent sexuality health needs, which does not seem to be the case in the U.S.

Sexuality education is viewed as a major component of prevention targeting young people (Kirby, 2002). The debate lies in what educational method to use. There are generally two approaches to sexuality education: one based on abstinence, and one that is considered to be comprehensive. The different approaches to sex and sexuality mean that supporters of abstinence-based and comprehensive approaches to sex education see the problem of what to do

about young people and sex quite differently and therefore, reach quite different conclusions about the solution. It is generally accepted that sex education enables people to acquire knowledge and develop skills that they can use to protect and promote their sexual health through minimizing the risks that they might face in their sexual experiences. There has been discussion about what form sex education should take and the advantages and disadvantages of adopting an abstinence-based approach as an alternative to a more comprehensive approach (Kirby, 2002).

The knowledge adolescents acquire, the values and attitudes they develop about sexuality, and the skills they learn will have enormous effect on their future well-being and also that of their societies. Education that utilizes evidence-based curricula can contribute to providing what young people need in a structured format with flexible approaches. Curriculum-based education is defined in this report as a set of activities or exercises ordered in a developmental style and designed to enable its target audience to obtain specific knowledge, skills, and/or experiences (SIECUS, 2006). With these features, curriculum-based approaches constitute an important strategy in addressing HIV/AIDS, STIs and unintended pregnancy. Curriculum-based programs can be implemented in schools, community agencies, health facilities, and other settings where young people assemble regularly. The focus of this paper is on curriculum-based education in high schools and middle schools, because this is where a majority of adolescents spend their time and most have been exposed to some type of sexuality health class or information (Kirby, 2002).

With the rise of sexual-related health problems of U.S. adolescents, Americans are looking for answers. Rather than using so many resources for dealing with the consequences of adolescent sexuality, how can we prevent these problems in the first place? Our country has

been involved in substantial efforts to educate our nation's youth about sexuality through the public school system (Kirby, 2002). Thus, the U.S. government attempts to decrease the pregnancy and STI rates and to reduce the number of adolescents participating in sexual intercourse prior to marriage by funding abstinence-only sexuality education programs in schools across the nation.

In the United States, sexuality federal money for education currently only supports abstinence-based education, which is unlike Europe's comprehensive approach. A 2007 national poll conducted by an independent research firm found that 73% of adults and 56% of U.S. teens believe that young people need more information about delaying sex and about using contraception in comparison to what they are currently learning (National Campaign to Prevent Pregnancy, 2007). Sexuality education should reduce the incidence of unwanted sexual health outcomes among youth and influence the sexual behavior of youth in a healthy manner.

Therefore, the question posed here is: what makes a strong sexuality health curriculum and how does that compare with what the government funds? In order to fully explore this question, adolescent development, theory, and methodology of studies are reviewed and considered to analyze the effectiveness of current popular curricula. Exploring both abstinence and comprehensive curricula and analyzing evaluation efforts is one of the central themes of this paper. I will then take this information and make my own recommendations for strong curricula, and apply this to two curricula, one from each perspective, then follow with recommendations and implications.

ADOLESCENT DEVELOPMENT

Adolescence, the transitional stage between childhood and adulthood, represents a period of time when a person experiences a variety of changes. Adolescents experience changes in physical appearance, strength and power, feelings, others' expectations, social pressures, and in the ways of thinking about the world and themselves (Irwin & Millstein, 1992). The following section discusses how and why these changes affect sexuality development and why they should be incorporated into curricula.

Biological Development

Adolescent sexuality is inextricably tied to the events of puberty, in which the adolescent's body changes from that of a child to an adult. Biological development emphasizes that these process are vital to understanding the whole picture of sexual development.

Around the age of 8 to 12 years individuals begin experiencing changes in their bodies. Menstruation in girls and first sperm production in boys can begin happening. In the United States, the average age for girls to begin menstruating is 12.5 years, with European American girls typically starting a bit later than African American girls (Brooks-Gunn & Reiter, 1990). Most girls (95% of the population) reach puberty between the ages of 9 and 16. Boys lag behind girls by a few years; boys' average age for reaching sexual maturity is 14 years. Most boys (95% of the population) enter puberty between the ages of 10 and 19 (Brooks-Gunn & Reiter, 1990). Puberty is associated with a growth spurt, the most significant one since postnatal life (Grumbach, Grave, & Mayer, 1974). Hormonal activity in the central nervous system begins to occur. This involves changes in the hypothalamus, the pituitary gland, ovaries and testes, with the hypothalamus regulating the sex drive (Tortora & Anagnostakos, 1987).

At the end of the hypothalamus is the pituitary gland, which controls hormone levels. The ovaries and testes are also significant in puberty, which are part of the endocrine system. These gonads experience growth during this period and their secretions regulate secondary sex characteristics, such as the growth of breasts in women and facial hair in men (Tortora & Anagnostakos, 1987). There are complex interactions between hormone levels, moods, behaviors, and other biological variables. For example, levels of testosterone in boys have a significant impact on sexual arousal, sexual activity, masturbation, thinking about sex and intentions with respect to sexual activity. For girls, androgens can impact sexuality activity and arousal as well (Udry, 1988).

Males develop secondary sex characteristics such as growth of pubic, underarm, and facial hair. Facial skin becomes thicker and courser, and fatty glands are activated which can cause acne. Boys' voices deepen around 13 years of age (Tanner, 1972). For girls, the onset of puberty is signaled by secondary sex characteristics such as changes in the size and shape of hips which grow wider and rounder with the increasing size of the pelvic bone. Breast development and pubic hair are other signs of puberty (Tanner, 1972). The physical changes of early adolescence can lead to new responses from others. In response to these physical changes, young adolescents begin to be treated in a new way by those around them. They may no longer be seen as merely children, but as sexual beings (Udry, 1988).

It is important to note the importance of social context which includes adolescent's attitudes, habits, beliefs, expectations of themselves and others, and past behaviors. This has the potential to moderate or accentuate the effects of these physical changes and in turn sexual activity (Udry, 1988). These contexts are also in a rapid state of change. Hormones affect behavior, but the impacts of hormones on behavior are likely to vary between individuals.

Once a child looks physically mature, he or she may be assumed to have greater mental and emotional maturity, regardless of whether or not this is true. Adolescents are acutely aware of their bodily changes. New body awareness may increase their sensitivity and interest in learning about the structure and function of their bodies. Curricula that address this need by giving accurate and up-to-date information about body changes and how to maintain their reproductive health are important, because adolescents are curious about this process (Udry, 1988). Peers, parents, teachers, and other adults who perceive the maturational process taking place may begin to behave differently towards the adolescents. These hormonal and physical changes are accompanied by cognitive and role changes which are described next.

Cognitive Development

Piaget (1974) developed a Theory of Cognitive Development which proposes that there are four distinct, increasingly sophisticated stages of mental representation that children pass through on their way to an adult level of intelligence. Piaget described four stages of cognitive development and relates them to a person's ability to understand and assimilate new information. An adolescent's way of thinking differs greatly than that of a child's. An adolescent's cognitive development has moved from a pre-operational stage in infancy through several stages eventually maturing to more intuitive thought called formal operational thinking. This usually emerges between 11 and 15 years of age. The adolescent has formal logical patterns of reasoning about abstract ideas and problems. Piaget stated that, by the end of adolescence, an individual's way of thinking is almost fully formed. Adolescents can think beyond the present by forming theories about everything. Adolescents can transcend the here and now and deal with abstract concepts and verbal propositions. They can reason with alternate hypotheses, thinking over the possible and probable as well as the concrete. Theoretical reasoning enables youth to

interact effectively in the environment (Piaget). Some adults never do demonstrate formal operational thinking, so it is important to address that not all individuals go through these stages (Giddens & Griffiths, 2006).

Because of these increases in cognitive skills, decision-making ability improves during adolescence. Adolescents' ability to reason, consider probabilities, and envision multiple alternatives is essential to making decisions about sexual relationships. Younger adolescents (10 to 13) tend to make sexual decisions based on immediate gratification, rather than on long-term consequences, and they are not able to generate alternatives or identify possible consequences as readily as adults (Levy, Perhats, Weeks, Handler, Zhu & Flay, 1995). Particularly younger teens (under age 14) may not have developed the cognitive maturity required to understand and implement some risk reduction strategies (Halpern, Joyner, Udry & Suchindran, 2000). Even as youth develop the ability to reason abstractly and consider cause-and-effect relationships, they have had little experience in applying these skills to decision-making (Irwin & Millstein, 1992). Therefore sexuality health programs need to address this need. Youth need curricula that offer them role playing scenarios to encourage decision-making skills when faced with these situations in real life.

Elkind (1967) another theorist, also asserted that children develop in stages related to age. His research was grounded in the development theories created by Piaget. Elkind (1967) emphasized the importance of egocentrism in adolescence, which includes a belief by teenagers that they are special and unique, which accompanies the attainment of new mental abilities. Specifically, Elkind proposed that adolescents construct an "imaginary audience," as a result of this heightened self-consciousness. Adolescents assume that since they spend a considerable amount of time thinking about themselves, others must be doing the same thing, namely,

thinking about and monitoring them. This accounts for adolescents' concerns that they are the focus of other people's attention. With this preoccupation, adolescents' are concerned with the audience that they believe is watching them. Adolescents going through puberty may feel self-conscious about their appearance and their wish for privacy could be associated with their perception that they are being evaluated. Elkind (1967) suggested that this is due, in part, to emerging formal operational thought, which allows adolescents to think about their own thinking and that of others.

Another adolescent thought process, according to Elkind (1967), is that of the personal fable. This involves adolescents' conviction that their own feelings are unique and that they are not subject to the risks and limitations of others. A teenager might believe that he/she is the only one who can experience whatever feelings of joy, horror, misery, or confusion he/she might encounter. Taken together, these theories have provided explanations to adolescent angst, self-consciousness, and susceptibility to peer pressure.

Elkind (1967) stated that adolescent egocentrism can have a significant impact on teenagers' decisions. This has an impact on their sexual behavior as well. Many adolescents believe in operating close to the sexual standard, and if they believe not using contraceptives is the standard of their peers, they may think it is normal not to use contraceptives. Although this is again all based on contextual factors, as adolescents may not feel obligated to operate close to the norm because they operate on a different set of values (Irwin & Millstein, 1992). Cognitive development plays a vital in an adolescent's social-emotional development, which will be explored next.

Social-Emotional Development

Changes in social-emotional development that I will discuss involve three primary features: 1) a reconstruction of self-concept, 2) achieving new and more mature relationships, and 3) achieving some emotional independence from parents and other adults. Erickson (1963) did extensive work in the reconstruction of self (i.e, personality.) Erikson's psychosocial developmental theory examines the factors that impact human development. He believed that personality develops in a series of stages that describe the impact of social experiences across the entire lifespan. His eight stage theory were formulated through wide-ranging experience in psychotherapy, including extensive experience with children and adolescents from low, middle and upper social classes. Each stage is regarded by Erikson as a "psychosocial crisis" which arises and demands resolution before the next stage can be satisfactorily navigated. Satisfactory learning and resolution of each crisis is necessary to manage subsequent stages. He placed importance on the social and cultural components of an individual's developmental experiences. In Erikson's (1963) theory of psychosocial development, adolescence is associated with the fifth stage called identity versus role confusion. Emphasis is on a search for identity involving intense exploration of personal values, beliefs, and goals. In his book, *Childhood and Society* Erickson (1963) wrote:

“The adolescent mind is essentially a mind of moratorium, a psychosocial stage between childhood and adulthood, and between the morality learned by the child, and the ethics to be developed by the adult.” (p. 254)

Up to this stage, development is dependent upon what the child experiences in his/her interactions with others – with the others' behavior being most important. From this stage on, development is dependent on the individual's behavior and decisions. Adolescents struggle with

social interactions and grapple with moral issues. Their task is to discover who they are as individuals and separate from their family of origin and emerge as members of a wider society. “Moratorium” as Erickson describes it, is a period of withdrawal from responsibilities. If an adolescent does not successfully navigate this fifth stage identity formation, she/he will experience role confusion and upheaval. A significant task in this stage is to establish a philosophy of life, which can lead to experimentation (Erickson, 1963).

Erickson (1963) did not emphasize romantic relationships as a central part of adolescence. Instead, in his articulation of the psychological stages of development, he positioned the central role of romantic relationships in the period of early adulthood. According to this theory, intimacy development follows, rather than proceeds, identity formation. Psychosexual identity is the crucial achievement of adolescent years, and its resolution supports the development of intimacy in relationships in the next stage in the life span (Erikson, 1963).

Increasing autonomy during adolescence extends the range of social influences that impact sexual behavior (Fang, Stanton, Li, Feigelman & Baldwin, 1998). One of the greatest social changes for adolescents is the new importance of their peers. This change allows them to gain independence from their families. By identifying with peers, adolescents continue to develop moral judgment and values, and to explore how they differ from their parents. The peer group of adolescents has been described by Dunphy (1963). Dunphy (1963) first introduced the importance of social context in adolescents’ romantic development. Dunphy focused on the peer group, and he argued that the central function of peers was to solidify adolescents’ heterosexual roles. In early stages of adolescence, peer groups usually consist of single-sex cliques that isolate themselves from the opposite sex. In the second stage of adolescence, there is a move towards heterosexuality in the composition of groups. This leads to boys and girls being together

in unstructured situations that allows for the possibility of romantic activity. Popular youth lead the way in forging romantic relationships and encourage this involvement in their group members. Dunphy (1963) provided a valuable starting point for the investigation of romantic development in adolescents' and made important contributions in the area of adolescent peer groups.

Peers influence adolescents' attitudes, values, and sexual risk behavior as well as condom usage. Individuals within peer groups have been found to have similar rates of sexual activity (Fang et al., 1998). Having peers who engage in risk behaviors is associated with initiating sexual intercourse and other risk behaviors, such as alcohol and substance use (Guttmacher, Lieberman, Ward, Freudenberg, Radosh & Des Jarlais, 1997). Adolescents use condoms less frequently when they believe friends are not using condoms, and are more likely to use condoms when they perceive their friends use condoms (Norris & Ford, 1998). Teenagers obtain information about sex from friends, guiding their decision making about sex. Adolescents can accept peer attitudes about sexuality, which can be reflected in peer behavior. Since there is such a strong desire for adolescents to have acceptance and admiration among their peers, peers can have a heavy influence on adolescents' engagement in sexual behaviors. But it is important to address that peer influences are not always negative, as adolescent groups may express and model healthy behaviors which can also be shared among peer groups (Fishbein & Ajzen, 1975).

Implications of Adolescent Development

Adolescence is a time within the life course when one experiences a variety of changes. Adolescents are developmentally unique, and their needs and abilities must be taken into consideration when composing a developmentally appropriate sexuality curriculum. However, individual differences in rates of maturity can create a challenge for curricula creators, because children may be growing faster/slower than their peers and require different methods and

strategies to teach sexuality information. Younger adolescents require different strategies than do older adolescents because they are going through different developmental issues and have different developmental disabilities. Using one curriculum to address younger and older adolescents could be ineffective because of the different needs of teens at these stages.

Developing decision making skills is important for adolescents because of their limited real-world experience with making decisions. The social and emotional hallmarks of adolescence include increased dependence on peer group approval, a need for social acceptance, and a struggle to find individual identity.

Significant changes are occurring in the social contexts in which adolescents live, and social influences may interact with biological and behavioral processes that occur during adolescence. The way they perceive themselves, and the way others perceive them will continually change. Understanding adolescent development is important in the design and implementation of effective adolescent sexuality health curricula. Since sexuality is such a complex behavior, constant research is needed to analyze patterns and differences in adolescents to teach to the varying audiences. Next approaches to sexuality education will be analyzed.

SEXUALITY EDUCATION APPROACHES

History of Sexual Education Funding

In the past decade, sex education programs have had popular support as an approach to sexual health education. According to Salkind and Rasmussen (2008), the first federal funding for abstinence programs was created in 1981. The Adolescent Family Life Act (AFL) as Title XX of the Public Health Service Act was created to promote abstinence from sexual activity among adolescents while also providing education, health care and social services to pregnant or adolescent parents. The AFL program also funded grants to support research on the consequences and causes of premarital sexual relations. In 1996, the government narrowed the definitions of abstinence when Section of the Title V of Social Security Act was signed by President Bill Clinton. United States Congress passed the Personal Responsibility and Work Opportunity Reconciliation Act, also known as Welfare Reform, creating stream funding and new guidelines for abstinence-only education. Under these guidelines, states that receive federal funding for sexuality education have to adhere to specific criteria. The states can spend this money in schools, community-based organizations, health districts, media campaigns or faith-based organizations (Salkind & Rasmussen, 2008). In the 2008 Fiscal Year, the federal government spent \$176 million through three separate funding streams in support of abstinence-only education. For fiscal year 2009, \$160 million was allocated (SIECUS, 2008).

Federal funding for abstinence-based programs requires that states match three state dollars for every federal four dollars. Under these programs guidelines, instructors cannot educate about or promote contraception use (Trenholm, Devaney, Fortson, Clark, Quay, & Wheeler, 2008). The following are the “A-H guidelines” for abstinence education according to the Social Security Act (1996). A program receiving federal funding must:

- A. Have as its exclusive purpose teaching the social, psychological and health gains to be realized by abstaining from sexual activity.
- B. Teach abstinence from sexual activity outside of marriage as the expected standard for all school-age children.
- C. Teach that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems.
- D. Teach that a mutually faithful, monogamous relationship in the context of marriage is the expected standard of sexual activity.
- E. Teach that sexual activity outside the context of marriage is likely to have harmful psychological and physical effects.
- F. Teach that bearing children out of wedlock is likely to have harmful consequences for the child, the child's parents, and society.
- G. Teach young people how to resist sexual advances and how alcohol and drug use increase vulnerability to sexual advances.
- H. Teach the importance of attaining self-sufficiency before engaging in sexual activity. (Social Security Act, 1996, p. 109)

These guidelines must be met in order to receive federal funding for abstinence programs in schools. There are a variety of ways to deliver abstinence programs. The variety is discussed in the following section.

Abstinence Program Variations

The A-H guidelines define abstinence as “voluntarily choosing not to engage in sexual activity until marriage.” The guidelines broadly define sexual activity as “any type of genital contact or sexual stimulation between two persons including, but not limited to, sexual

intercourse” (Dailard, 2006, p. 1). Abstinence, when used by program planners and policy makers, is not always a clearly defined term. In understanding the ongoing debates about abstinence education, it is important to understand that many who advocate for the use of abstinence-only education programs are primarily concerned with issues of character and morality (Santelli, Ott, Lyon, Rogers, Summers, & Schleifer, 2006).

According to Advocates for Youth (2009), abstinence-only education/curricula teach that abstinence is the only moral choice, teach specific values, and allow abstinence as the only correct option for adolescents. Abstinence-only curricula usually omit controversial topics such as abortion, masturbation, and sexual orientation. Abstinence-only often use fear tactics to promote abstinence and to limit sexual expression. Abstinence-only censors information about contraception and condoms for the prevention of STIs and unintended pregnancy. Abstinence-only-until-marriage education teaches that abstinence is the only moral option for those who are unmarried. Therefore, programs funded under the 1996 Welfare Reform Act must not include information about contraception and condoms for the prevention of STDs and unintended pregnancy

(http://www.advocatesforyouth.org/index.php?option=com_content&task=view&id=1310, 2009).

Supporters of Abstinence Education

Abstinence-based approaches have gathered political and financial support in the United States where they have become strongly associated with the moral and religious inclinations of the Republican Party and the Presidency of George W. Bush (Kaiser Family Foundation, 2002). Many supporters of abstinence-based sex education have a background in or connection to conservative Christian organizations that have strong views about sex and sexuality. Not only do

they often believe that sex should take place only in the context of marriage, but some are also opposed to same-sex relationships and abortion (Maher, 2005). As a result of the strong faith basis for their beliefs about sex, supporters of abstinence education often see the main objective as equipping (and encouraging) young people to refuse or avoid sex altogether, and they may exclude from their curricula any other information that they believe conflicts with this view (Maher, 2005).

Even when supporters of abstinence-based sex education do not have a strong religious basis for their beliefs about what young people should be taught; they often highlight issues about fidelity to one partner, and reject disbursement of information about steps young people can take to protect themselves against disease and unintended pregnancy (www.choosingthebest.org/why_abstinence/index.html., n.d.).

One of the more powerful groups supporting abstinence-only education is *Focus on the Family*, headed by James Dobson. Its position on abstinence-based education is found on the organizational webpage:

Only relatively recently has the act of sex commonly been divorced from marriage and procreation. Modern contraceptive inventions have given many an exaggerated sense of safety and prompted more people than ever before to move sexual expression outside the marriage boundary. When adhered to strictly, marital fidelity has always protected society. This site is dedicated to calling society back to the sure and safe boundary of abstinence until and faithfulness within marriage. (www.focusonthefamily.com, 2009)

Often times abstinence-only curricula use terms like abstinence and virginity, and hold them as their highest priority. This creates a problem when these terms are not defined, which will be explored in the next section.

Varying Definitions

Sexual abstinence is defined in different ways by different people, organizations, cultures, and religions. Many of those who support abstinence-only education are primarily concerned with issues of character and morality (Santelli et al., 2006). Adolescents may have differing understandings of the terms “abstinence” and “virginity” in comparison to adults and professionals. This can cause problems for evaluators of sexuality health programs if the terms are not clearly defined. Evaluations may reveal that teens report abstaining, but a teen’s idea of abstaining may include refraining only from vaginal intercourse. Abstinence could be defined in behavioral terms, such as delaying sex or never having had vaginal sex, or refraining from further sexual intercourse for those who are sexually experienced. People who identify themselves as “virgins” may engage in a variety of activities such as touching, kissing, mutual masturbation, oral sex, and anal sex (Schuster, Bell, & Kanouse, 1996). In government policies and local programs, abstinence may be defined in moral terms using terminology such as “chaste” or “virgin” and framing it as an attitude or commitment. There is a grave importance for curricula developers to define these terms clearly for educators and for students. If these are not clearly defined, students become confused about what is what, and have the possibility of not thoroughly understanding issues when there are not clear definitions.

Bersamin, Fisher, Walker, Hill and Grube (2007) took an in-depth look at how adolescents of different ages, demographics, genders, and sexual experience levels define virginity and abstinence. Results indicated that adolescents define abstinence and virginity in a variety of ways. Findings suggest that a majority of adolescents believe that they are still virgins even if they participated in genital touching and oral sex. Sixteen percent believed they were virgins if they had engaged in anal sex, and 5.8% of adolescents believed that they were still virgins if they had engaged in vaginal intercourse. Females were more likely than males to say

that a virgin was someone who had engaged in genital touching or oral sex. Forty-four percent of adolescents believed that an individual is abstinent even if s/he engaged in genital touching, 33.4% of adolescents believed that an individual is abstinent if s/he engaged in oral sex. These findings indicate that virginity and abstinence mean different things to adolescents. For many of the participants, vaginal or anal intercourse is the marker for losing one's virginity, but abstinence is a category one can float in and out of. Bearman and Brückner (2005) also found that virginity pledgers were more likely to have engaged in both oral and anal sex than their non-pledging peers, suggesting a desire to maintain their technical virginity.

In order for sexual health programs to be effective, discussion of these concepts must take place. If terminology is not clearly defined, evaluation and sexual behavior studies reveal flawed results on teens' actual sexual experiences. Vague information about virginity and abstinence definitions create varied understandings of what these concepts constitute for participants in sexual health programs. These programs hold virginity up as a goal and suggest abstinence will prevent pregnancy and disease often without defining these terms. Having discussed the varying terms and their importance, we can now delve into the actual content of curricula where these terms are used frequently.

Content of Abstinence-Only Curricula

A faithful, monogamous relationship within the context of marriage is the expected standard of human sexual activity according to abstinence-based curricula. Abstinence-only curricula come in a variety of packages, with a variety of topics and methods of teaching. This type of education includes discussion of values, character building and in some cases refusal skills. In accordance with guidelines for abstinence-only education programs, there should be no promotion of sex outside of marriage. They do not acknowledge that many teens will be sexually active, do not teach about contraception or condom use, avoid discussions of abortion,

and cite sexually transmitted infections and HIV as reasons to remain abstinent. Abstinence-only curricula cannot advocate contraceptive use. If the program has a provision that allows abstinence-only education programs to discuss this, only condom failure rates of usage can be discussed. There has been concern over the curriculum content in abstinence-only education programs. Some have accused abstinence-based curricula of overstating condom failure rates, exaggerating the risks of infection with HIV and other STIs, reinforcing gender and sexuality stereotypes, and presenting sex and sexuality in overly negative ways (Blake & Frances, 2001).

Below are quotes taken from popular abstinence-only education curricula cited by SIECUS (2005). The quotes were included because they are actual content of popular AOE curricula, and exhibit what is being taught to many students in the United States.

Condom Usage

“Condoms sometimes have holes in them or break during use” (Duran, 2002, p. 131 as cited in SIECUS, 2005).

“Couples who use condoms for birth control experience a first-year failure rate of about 15% in preventing pregnancies. This means that over a period of five years, there could be a 50% chance or higher of getting pregnant with condoms used as the birth control method” (Cook, 2003, p. 18, as cited in SIECUS 2005).

“At the least, the chances of getting pregnant with a condom are 1 out of 6” (Roach & Benn, 1998, p. 257, as cited in SIECUS, 2005).

“Condoms provide no proven reduction in protection against Chlamydia, the most common bacterial STD” (Cook, 2003 p. 18, as cited in SIECUS, 2005).

Vague or incorrect statements about condoms do not equip adolescents with the knowledge they need in making decisions regarding their sexual health. In contrast to these statements, when used consistently and correctly, condoms are 98% effective in preventing

pregnancy (<http://www.avert.org/condoms.htm>, 2009). Many errors in using condoms often occur when adolescents are not knowledgeable about how to effectively use this method of contraception. Also, when used consistently and correctly, condoms reduce the risk of STIs, including Chlamydia (<http://www.avert.org/condoms.htm>, 2009). Instead of discussing the failure rates of condoms, curricula should equip students with information about how to use condoms correctly, so if they decide to use them, they have a lower likelihood of user failure.

AIDS/HIV

“AIDS can be transmitted by skin-to-skin contact” (Duran, 2002, p. 519, as cited in SIECUS, 2005).

“That means the virus [HIV] may be in your body a long time (from a few months to as long as 10 years or more) before it can be detected, either by a test or by physical symptoms” (Mast, 2001a p. 60, as cited in SIECUS, 2005).

Having accurate information about how to prevent AIDS/HIV, and how to detect AIDS/HIV is important in sexuality curricula. Ninety-five percent of cases HIV are detectable by a test within three months of infection (<http://www.gmu.edu/student/health/stdhiv.htm>, n.d). This implies that anyone participating in any behavior that puts him/her at risk for HIV infection should be tested. Sexuality education programs should make this clear in order to prevent the spread of the disease. AIDS/HIV cannot live undetectable in one’s body for 10 years (<http://www.gmu.edu/student/health/stdhiv.htm>, n.d). This is a community health concern, as well as a concern for individuals. Information about the way HIV can be contracted is also important information. HIV is transmitted through blood, semen, vaginal fluid, and breast milk. HIV can be prevented and is not transmitted through casual contact (hugging, sharing an apartment, playing basketball, etc. (<http://www.gmu.edu/student/health/stdhiv.htm>, n.d.).

Use of Biased Language about Abortion

Many abstinence-based curricula teach that carrying a pregnancy to term and making an adoption plan is the only morally correct option for pregnant teens. Below are examples of abstinence-based curricula explanation of abortion:

“Abortion is not the best choice...because it unfairly penalizes the baby for the bad decision the baby’s parents made” (Mast, 2001b, p. 7, as cited in SIECUS, 2005).

Teacher’s Question: “What are the possible consequences of choosing to have an abortion?”

Suggested Answers: “Feelings of regret, shame, sadness, guilt; physical complications for girl; continued feelings of shame, sadness, regret; death of fetus”

(Cook, 2003, p. 31, as cited in SIECUS, 2005).

Many people have moral beliefs about abortion, and allowing only one way of thinking about the situation does not help adolescents learn about their choices. Adolescents have the right to complete and accurate information. If we cut information out of curricula because of the creator’s moral beliefs or agendas, we do not provide adolescents with the education that helps them make the best choice for them.

More than 80% of abstinence curricula reviewed by the Special Investigations Division contained false, misleading or distorted information about reproductive health in a congressional report that evaluated federally funded abstinence-only curricula (Special Investigations Division, 2004). The curricula misrepresented the effectiveness of contraception in preventing STIs and pregnancy. It contained false information about risks of abortion, blurred the line between religion and science, had basic scientific errors and promoted gender stereotypes (Special Investigations Division).

Promote Gender Stereotypes as Fact

“A young man’s natural desire for sex is already strong due to testosterone...females are becoming culturally conditioned to fantasize about sex as well” (Mast, 2001a, p. 11, as cited in SIECUS, 2005).

“Girls need to be aware they may be able to tell when a kiss is leading to something else. The girl may need to put the brakes on first in order to help the boy” (Duran, 2002, p. 96, as cited in SIECUS, 2005).

“A guy who wants to respect girls is distracted by sexy clothes and remembers her for one thing. Is it fair that guys are turned on by their senses and women by their hearts?” (Duran, 2002, p. 94, as cited in SIECUS, 2005).

These comments reflect gender biases that promote stereotypes and do not educate about gender issues. Many social scientists now advocate for critical thinking skills and gender issues to be prevalent in sexuality education (Rogrow & Haberland, 2005). Programs can assist youth in critically reflecting on gender norms, values present within society, and an understanding of the social issues that can affect their behavior. Having these tools would allow young people to discuss reasons for having sex, pressure for men to have masculinity as the norm, and the lack of power faced by girls when making sexual decisions. Abstinence-based methods fail to address these issues, leaving participants without a diversified view that enhances their well being (Silverman, Decker, Reed, Rothman, Hathaway, Raj & Miller, 2006).

Exclusion of Gay, Lesbian, Bisexual, Transgender, and Questioning Youth

By excluding information about safe sex practices and teaching about sex only in the context of marriage, abstinence-only programs stigmatize gay and lesbian teens and undermine efforts to educate them about relevant sexuality issues. Kemper (2001) found that many abstinence-only curricula are overtly hostile to lesbians and gay men. This may have adverse

impacts on the well being of gay, lesbian, bisexual, transgender and questioning (GLBTQ) youth. For example, homophobia contributes to health problems such as suicide, feelings of isolation and loneliness, HIV infection, substance abuse, and violence among GLBTQ youth (Garofalo & Katz, 2001).

Abstinence-only sex education classes are unlikely to meet the health needs of GLBTQ youth, because they largely ignore issues surrounding homosexuality (except when discussing transmission of HIV/AIDS), and often stigmatize homosexuality as deviant and unnatural behavior. Although some curricula have removed the blatant anti-gay biases, the subtle bias is always there. They are teaching abstinence until marriage, and if a young person knows s/he is gay, s/he also knows s/he is not allowed to get married. Such hostility violates the rights of these students to attend school free of discrimination (Kemper, 2001).

Curriculum Focus

A commonality among abstinence-based curriculum is an outcome goal that focuses on nonsexual antecedents. Goodson, Pruitt, Suther, Wilson, and Buhi (2006) examined the theory bases for several abstinence programs in the state of Texas. They found that many program directors and instructors placed a heavy emphasis on building youth's self esteem, so much so that staff was beginning to equate it with abstinence. Below is an excerpt from an actual interview with a program staff member:

Interviewer: Well, what do they (youth) think abstinence is then?

Program staff: I think they think abstinence is an empowerment of, of stability, motivation....Yes, it's motivating and, you know, everybody is talking about self-esteem. So abstinence means self esteem for youth. (Goodson et al., 2006).

After doing interviews with program staff and instructors, this self-esteem factor was observed across nearly every program (93% of the program directors mentioned self esteem). Many wanted to help students build self esteem, which they equated with an ability to resist sexual activity; however, research does not show this connection (Baumeister, Campbell, Krueger, & Vohs, 2003). Therefore, the entire program emphasis on self esteem is unsubstantiated.

Summary

If the actual content of the curricula is full of false, misleading, and medically incomplete information, students will not benefit, and may even be harmed by participating in these programs. The statistics, information, and program emphasis needs to be up to date with the latest research on how to affect sexual behavior of students. How does this compare to comprehensive curricula? We will take a look at the content of comprehensive programs and how they are different than abstinence-based programs in the next section.

Comprehensive Programs

According to the Sexuality Information and Education Council of the United States (SIECUS):

Sexuality education is a lifelong process of acquiring information and forming attitudes, beliefs and values about identity, relationships and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image and gender roles. Sexuality education addresses the biological, socio cultural, psychological and spiritual dimensions of sexuality from a cognitive, affective and behavioral domain including skills to communicate effectively and make responsible decisions.

(SIECUS, 1991)

The International Planned Parenthood Federation (IPPF) (2006) stated that the field of sexuality has witnessed heated debates between those who advocate an abstinence-only approach and those who promote a comprehensive, gender sensitive, and rights-based sexuality education for all young people, regardless of age, marital status, sexual orientation and economic background. Abstinence-based education plus includes issues that are prevalent across the life span, but emphasizes abstinence for adolescents as a goal (Advocates for Youth, 2003). Comprehensive programs can start in kindergarten and continue until the 12th grade. Comprehensive education provides a curriculum that examines such subjects as human development, relationships, personal skills, sexual behavior, sexual and reproductive health, and society and culture. This approach encourages youth to understand their rights and gain knowledge to address issues in their daily lives. It also addresses needs of marginalized youth, promotes gender equality, dignity, respect and awareness and freedom from discrimination and violence. It fosters critical thinking skills, and advocates for healthy sexuality choices in the future (IPPF, 2006).

Supporters of Comprehensive Education

Eisenberg, Bernat, Bearinger and Resnick (2008) examined public views in a survey about sexuality education. The results indicated that 89.3% of participants supported comprehensive education with a focus on abstinence. The participants were parents of school-aged children in Minnesota. Support of comprehensive sexuality education was prevalent across all demographics. Parents thought most topics should be incorporated into middle school sexual education curricula. Parents held slightly more favorable views of comprehensive education in comparison to abstinence-only education. Parents expressed that the education taught in our schools should use multiple strategies to help prevent pregnancy, knowledge of STIs, while also

teaching about abstinence. This study highlights the mismatch between parents' actual views about sexuality education and the abstinence-based funding in the U.S.

Ito, Gizlice, O'Dowd, Foust, Leone and Miller (2006) also examined whether policy matched parental preference. The objective of this study was to gather information about parents' opinions about sexuality education in North Carolina, a state where abstinence-education is federally funded. The participants were parents of children in public school systems in North Carolina, and their opinions were collected from telephone surveys. Ninety-one percent of North Carolina parents supported sexuality education in schools, and 89% supported comprehensive sexuality education. Twenty-five percent of parents opposed teaching specific controversial topics of sexuality such as sexual orientation or oral and anal sex. More than 90% of participants felt that parents and public health officials should determine sexuality education implementation instead of politicians.

A majority of voters in nearly every demographic category (including Democrats, Republicans, and Independents, as well as Catholics and evangelical Christians) support comprehensive sex education (Memorandum: Application of Research Findings, 2007). Most supporters of comprehensive sex education regard having sex and issues to do with sexuality as matters of personal choice that should not be dictated for all teens by one particular religion or political perspective. Working from an understanding of human rights, which means that people are entitled to information about matters that affect them and the decisions that they make, supporters of comprehensive sexuality education advocate for providing young people with the means to protect themselves against abuse and exploitation as well as unintended pregnancies, sexually transmitted diseases and HIV/AIDS (Advocates for Youth, 2009). Supporters argue that without access to information about all aspects of sex and sexuality, healthy sexuality decision

making becomes difficult (Sex Education Forum, 1999). While comprehensive-based supporters think that is important that sex education is sensitive to faith issues, they assert that it should not be based on any set of specific religious values (Blake & Katrak, 2002).

Besides parents, comprehensive sexuality education is supported by many professional organizations. The American Academy of Pediatrics (AAP) (2001) asserted that comprehensive sex education should be provided for all children and youths in fifth grade through high school. The AAP proposed that sexuality education should combine necessary skills in communication, negotiation, information on STIs and pregnancy prevention, and referrals to reproductive health resources and programs. The AAP promotes abstinence and contraceptives.

Other supporters of comprehensive sexuality include: The American Psychological Association, The American Public Health Association (APHA), The American Foundation for AIDS Research (amfAR), The Society for Adolescent Medicine (SAM), The National Education Association (NEA), The American School Health Association (ASHA), and at least eight religious denominations and the Office of Family Ministries and Human Sexuality, and National Council of Churches of Christ (SIECUS, 2007). Thus, there is a wide variety of audiences that find this to be an effective approach. Its supporters span across demographics, religions, professional organizations, and institutions.

Content of Curricula

According to SIECUS (1991), sexuality education is a lifelong process. Comprehensive sexuality education helps participants acquire skills and information to help them form attitudes, beliefs and values. SIECUS (2006) stated that comprehensive sexuality education programs have four main goals:

- 1) To provide accurate information about human sexuality

- 2) To provide an opportunity for young people to develop and understand their values, attitudes, and insights about sexuality
- 3) To help young people develop relationships and interpersonal skills, and
- 4) To help young people exercise responsibility regarding sexual relationships, which includes addressing abstinence, pressures to become prematurely involved in sexual intercourse, and the use of contraception and other sexual health measures. (SIECUS, 2006, p. 2)

Below are content examples from F.L.A.S.H (Reis, 2005) which is a comprehensive-based curriculum.

Condom Usage:

Lesson 20: Contraception

Male Condoms: also known as "rubbers" or external condoms, are like very thin, very strong gloves. A "male" condom is worn over the penis to catch the sperm so they can't enter the uterus and fallopian tubes.

HOW THEY'RE USED CORRECTLY: The couple has no genital contact without it. It is best to use ones that are already lubricated (this will help to prevent tearing of the condom). The condom is rolled onto the erect penis, leaving space at the tip for semen by squeezing the air out of the space. He withdraws the penis after intercourse, while it is still erect, holding the condom on the **base** of the penis, so it won't slip off and spill sperm into the vagina. It's used only once and then thrown away. The "male" and "female" condom should never be used together as they can stick together and tear or slip off (p. 20-13).

Unlike abstinence-based curricula, comprehensive curricula teach students how to use a

condom instead of telling them they do not work. Even if an adolescent decides they will not have sex, they may get caught up in the moment during a sexual encounter, and will not know how to put on a condom, increasing user failure and the likelihood of an adverse outcome. Giving adolescents this skill is important, and comprehensive curricula recognize this.

AIDS/HIV:

Lesson Two: AIDS/HIV Understanding the Disease

Will Everyone Eventually Catch HIV? **NO!** Now that we understand what causes it and how people catch it, it's clear that HIV/AIDS is completely preventable. After all, it's hard to get, since it has to get directly into the blood. It's not like a cold or tuberculosis, which you can get just by being in the same room with an infected person. HIV does not survive well in the environment, outside of body fluids.¹⁷

Don't forget, there are only 3 ways HIV is normally spread:

1. **Certain kinds of sexual touch:** Anal intercourse (penis in anus), vaginal intercourse (penis in vagina), and oral intercourse (mouth on genitals or anus).
2. **Blood to blood transmission:** usually by sharing needles, even needles for piercing or tattooing
3. **Mother to child** (during pregnancy, labor and delivery, and breastfeeding)

That means you don't have to worry about:

- social kissing (the kind friends and family members exchange)
- sharing food, forks, cups, or drinking fountains
- hugging, backrubs or any touch that doesn't involve semen or vaginal fluids (Even if your friend has AIDS, a hug or a backrub is perfectly safe.)
- sharing a seat on the bus

- going to school with a friend who has HIV or AIDS
- living with a family member who has HIV or AIDS
- giving blood at a blood bank 18

These things are **completely safe**.

There is also probably no risk from French (open mouth) kissing (p. 25-8).

Adolescents also need accurate information about AIDS/HIV. They need to know how it is contacted, how to prevent contracting it, and how to get tested for it. If curricula completely ignore this, how are students supposed to know how to take the steps to prevent it?

Sexual Touch:

Lesson 11: Sexual Exploitive Touch

It helps to think of consent and exploitation on a continuum, with one definition fading into the next. Hand out Sexual Exploitation Reference Sheet 2. Have students read the first two sides silently or ask volunteers to take turns reading the first two sides aloud. Use Touch Transparencies 1 & 6 (from lessons 2 & 10) and Transparency 7 to help explain the continuum of sexual touch. **Make sure they understand that the line between consenting and exploitive sex is drawn between “persuasion and consent” (which is fair) and “sex under pressure” (which is not fair) (p. 3)**

Finally summarize these key concepts: that *exploitive touch* includes:

“*sex under pressure*” (pressuring or manipulating a person into sex -- if a person has to say “no” more than twice it is no longer fair persuasion, it’s unfair pressure), “*sexual assault*” (threatening, intimidating or physically forcing a person into sexual touch -- whether it’s illegal or not, forced sexual touch of any kind is sexual assault), “*rape*” (unwanted or forced sex – oral, anal or vaginal – including sex with someone too high or drunk to freely make a choice – or penetration of the mouth, vagina or anus with an

object) that *consenting touch* can be a joyful, enriching part of life, and that their generation can be the one that chooses love (caring, consideration) over hate (p. 11)

This explanation helps students distinguish between the different types of touch, instead of just making touch out to be something that is horrible. Students learn that touch is a part of life, but touch that is forceful or unwanted should not be tolerated.

Abortion:

Lesson 19: Unplanned Pregnancy

1. Explain this lesson's purpose and reestablish the vital importance of ground rules.

We've been talking about planned pregnancies. We all know that sometimes, too, people face unplanned or "chance" pregnancies. Today we'll be studying what people do when they – or their partner -- become pregnant by chance. Explain that it is NOT the

lesson's purpose to: debate, judge, or criticize people's decisions nor to even get students to express their beliefs. **Explain that it IS the lesson's purpose to:** help people appreciate the pain involved in facing a "chance pregnancy" regardless of how one decides to handle it ... and to help them think about their own beliefs and feelings ... and to help them consider how they might be able to help a close friend or family member to cope with such a situation. In order to emphasize the vital importance of ground rules, today more so than most days, ask them specifically to be "super-careful." of one another's feelings ... because (tell them this) you know that there are most likely people in this class:

- *who have been faced with an unplanned pregnancy (their own or their partner's) ,*

- *or who were adopted or love someone who was or who have placed a baby for adoption,*
- *or who were unplanned (themselves) or love someone who raised an unplanned child,*
- *or who have had an abortion or love someone who has, etc.*

Clarify that it is not necessary to know who any of those folks is ... but that you hope people will keep in mind that they are among you and that it is critical to respect their feelings. On a subject like this one, emotions can run high. Explain that:

OUR JOB TODAY IS TO UNDERSTAND PEOPLE'S FEELINGS AND THEIR DECISIONS, NOT TO EXPRESS AGREEMENT OR DISAGREEMENT WITH THEM(p. 19-3).

Comprehensive sexuality education teaches that religious values can play an important role in an individual's decisions about abortion; and offers students the opportunity to explore their own and their family's religious values. Comprehensive education teaches that a woman faced with an unintended pregnancy has options: carrying the pregnancy to term and raising the baby, or carrying the pregnancy to term and making an adoption plan, or ending the pregnancy with an abortion. This allows students to make choices about their futures, and does not inflict one narrow view on them (See Advocates for Youth website reference in Appendix A).

These are some quotes taken from entire lessons regarding these subjects.

Comprehensive curricula vary, but they typically cover most issues in regards to sexuality.

Many abstinence-based supporters find this inappropriate, which is what will be discussed next.

The Debate

Parents, medical professionals, religious groups and policy-makers are locked in fierce debate about what information to include in public schools' sex education programs. This is a hot button issue in part because it is closely intertwined with social and parental interpretations of

right and wrong, and with people's feelings about religion and personal autonomy. Supporters from all approaches agree that sexual education should have a practical health purpose, to reduce STIs, HIV/AIDS, and unintended pregnancies among our countries youth. The debate centers on a question of methods and goals of each side. The Center for Disease Control reported a jump in America's teen birth rate in 2007 – after 14 years of decline (<http://www.cdc.gov/od/oc/media/pressrel/2007/r071205.htm>, 2009). This is sharpening the debate over sex education in the nation's schools. The increase, reported Dec. 5, 2007, prompted many states to review their federal funding for abstinence-only education programs, which were strongly promoted by Republican President Bush's administration.

According to Trenholm, Devaney, Fortson, Clark, Quay and Wheeler (2008), proponents of abstinence programs argue that abstinence is the only way to avoid the risks associated with sexual activity because contraceptives merely reduce risks. Abstinence-only programs are mainly supported by the rationale that only abstinence can fully guarantee prevention of teenage pregnancy and STIs. If adolescents are abstinent from sexual intercourse 100% of the time, then clearly there is no possibility of pregnancy or sexual disease transmission.

Many sexuality education programs emphasize abstinence with a comprehensive approach to information on condoms and contraceptives. Research shows that this method can delay adolescent sexual initiation as well as increase condom use or contraceptives for those that are already choosing to have sex. This way there is no discrimination based on sexual experience. Abstinence supporters believe that teaching a comprehensive program with an abstinence base sends youth mixed messages which will increase sexual activity. Comprehensive supporters believe programs geared to adolescents who have not yet engaged in

sexual activities ignore adolescents with reproductive health needs who require more than abstinence education (Trenholm et al., 2008).

Questions to answer are the effectiveness and accuracy of programs and whether abstinence-only instruction imposes religious beliefs on public school students. Many Americans feel that our sexuality health programs are dictated by which political party is in office. This should not be what guides our programs. The effectiveness of the approach should be what dictates what we deliver to our children. Below each approach's effectiveness will be explored.

EFFECTIVENESS OF EACH APPROACH

Kirby (2001) stated that successful sex education programs have common elements that can be adapted to various cultural situations. Dr. Kirby is nationally known for his work in the field of adolescent sexuality, particularly for his research in schools and community programs that reduce adolescent sexual risk-taking behaviors. His report on programs targeting pregnancy prevention provides a summary of effective program structures. According to Kirby (2001):

- 1) Effective programs focus on reducing one or more sexual behaviors that lead to unintended pregnancy or HIV/STD infection.
- 2) Effective programs are based on theoretical approaches that have been demonstrated to be effective in influencing other health-related risky behavior.
- 3) Effective programs give a clear message about sexual activity and condom or contraceptive use and continually reinforce that message.
- 4) Effective programs provide basic accurate information about the risks of teen sexual activity and about methods of avoiding intercourse or using protection against pregnancy and STDs.
- 5) Effective programs include activities that address social pressures that influence sexual behavior.
- 6) Effective programs provide modeling of and practice with communication, negotiation, and refusal skills.
- 7) Effective programs employ a variety of teaching methods designed to involve participants and have them personalize the information.
- 8) Effective programs incorporate behavioral goals, teaching methods, and materials that are appropriate to the age, sexual experience, and culture of the students.

9) Effective programs last a sufficient length of time to complete important activities adequately.

10) Effective programs select teachers or peer leaders who believe in the program they are implementing and then provide training for them (p. 9)

These guidelines provide a good base for educators who are looking for an effective curriculum. How abstinence-based and comprehensive based approaches compare to these will be discussed next.

Effectiveness of Abstinence-Based Programs

Over the past 25 years, Congress has spent a considerable amount of money on abstinence-only-until marriage programs. Currently no study in a professional peer-reviewed journal has found these programs to be effective. Scientific evidence points to AOE as an ineffective approach (SIECUS, 2007). In this section, I will review the research evaluating the effectiveness of abstinence and comprehensive curricula.

In April 2007, a federally funded evaluation of Title V abstinence-only-until-marriage programs was released. The study was conducted by Mathematica Policy Research Inc. on behalf of the U.S. Department of Health and Human Service. Mathematica researchers Trenholm, Devaney, Fortson, Quay, Wheeler and Clark (2007) found that abstinence only-until-marriage programs are ineffective. Two interim reports released by Mathematica in 2002 and 2005 reported on an evaluation of the impact of the limits of funding only Abstinence-only education programs on young people's behaviors and sexual education knowledge. Four programs were chosen to be evaluated: *My Choice, My Future* (in Powhatan, VA), *ReCapturing the Vision* (in Miami, FL), *Families United to Prevent Teen Pregnancy (FUPTP)* (in Milwaukee, Wisconsin), and *Teens in Control* (in Clarksdale, MS) which are all popular abstinence-based programs. The

design involved a program group and a control group. The program group received abstinence-only-until-marriage programs that were under the Title V guidelines, while the control group received only the sexuality education resources available in their community. Over 2,000 youth participated in the study, 1,209 were participants in one of the abstinence-only-until-marriage programs, and 848 were in the control group. The surveys tested knowledge four to six years after implementation of the program, and most of the participants were 16.5 years around the age of the survey. They found that participants in the program groups were not more likely to abstain from sexual intercourse in comparison to those in control group. Within both groups, age at sexual initiation, number of partners, occurrences of unprotected sex, and mean age of first intercourse was similar. Twenty-three percent of the participants in both groups had had sexual intercourse in the previous 12 months and used a condom. Fifty-six percent in the program group had remained abstinent in the past 12 months in comparison to the 55% in the control group. In both groups, the mean average of first intercourse was 14.9. Both groups had equal knowledge about the impact of unprotected sex and STD knowledge. Program group participants were more likely to report that condoms were ineffective at preventing STD's in comparison to the control group.

The authors concluded that there was no significant impact on program students' sexual abstinence rates. This very extensive study with an experimental design revealed these popular abstinence-based programs were ineffective at meeting their stated goal; increasing abstinence.

Many abstinence-based programs claim that they postpone sexual involvement in comparison to comprehensive curricula. Kirby, Korpi, Barth and Cagampang (1997) evaluated a popular abstinence-based curriculum called *Postponing Sexual Involvement*. This experimental

design measured the impact of *Postponing Sexual Involvement*, which focused on delaying initiation of sex. It found no significant positive effects on any behavior.

An evaluation study of Kansas's Abstinence-Only Education programs showed there was no noted change in participants' intended or actual behavior in their intentions to wait until marriage for sex (Carter, 2004). This study also revealed negative change in attitudes. For example, after participation in the abstinence-only-until marriage program, students responded to surveys saying teachers and staff cared less about them than before they took the program. Surveys also revealed that students were less likely to believe they could refuse sex than before they did the program. Carter concluded that abstinence-only education programs were ineffective and could even be harmful.

Since many abstinence-based programs tend to focus on attitudes and beliefs about sexuality, these are what are measured in evaluations of these programs. Smith, Dariotis and Potter (2003) evaluated Pennsylvania's abstinence programs. They found the programs were ineffective in reducing sexual activity and promoting attitudes and skills consistent with sexual abstinence. The researchers found that programs with a focus of abstinence-only should target early adolescence (grade seven). They suggest that, based on their findings, beyond eighth grade, abstinence-only programs can continue to play a role in supporting youth who choose to remain abstinent, but for those who do not, different alternatives should be used, such as varied teaching methods and early intervention services. This would require a comprehensive method that includes contraceptive information (Smith, Dariotis & Potter, 2003).

Abstinence programs have also been found ineffective for reducing rates of HIV infection and sexual behavior. Underhill, Montgomery and Operario (2007) conducted a "meta study" in which they reviewed the most recent available data. They examined the results of 13 abstinence-

only evaluation studies. They found that abstinence-only-until-marriage programs were ineffective in changing the actual behaviors of participants. Behaviors examined were vaginal sex, number of partners and condom use. The rates of pregnancy and sexually transmitted infections among participants in abstinence-only-until marriage programs were unaffected (Underhill, Montgomery & Operario, 2007). This may reflect the inclusion of misinformation in abstinence-based programs discussed earlier. Obviously, providing misinformation is not protecting adolescents and has potential to harm participants because they do not have the proper information.

Medically inaccuracies have plagued abstinence-base curricula. In 2006, the Federal Government Accountability Office (GAO) concluded that government-approved evaluations of abstinence-only programs fail to follow scientific guidelines. They found that the Department of Health and Human Services (HHS) is not adequately overseeing the federally funded abstinence-only-until-marriage programs. This lack of effort has allowed material that is medically inaccurate to be prevalent in curricula (Government Accountability Office, 2006).

Lin and Santelli (2008) evaluated three abstinence-only education curricula used in federally funded programs in their study on the accuracy of condom use. The curricula implicitly and explicitly conveyed the message that condoms are ineffective at providing protection against HIV. The curricula misrepresented research, and cited only the highest failure rates in condom studies. They concluded that the curricula did not represent the complete and current knowledge about the effectiveness in condoms on prevention of STIs.

Hauser (2004) evaluated the overall impact of abstinence-only-until-marriage education. Eleven states had made the results of evaluations of their statewide abstinence-only-until marriage programs available. The states that completed the evaluations were Arizona,

California, Florida, Iowa, Maryland, Minnesota, Oregon, Pennsylvania, and Washington. No evaluation indicated any impact on reducing teens' sexual behavior at follow up, which was 17 months after the program had ended.

These abstinence-based programs show little evidence of sustained impact on participants' attitudes and intentions. Worse, some show negative impacts on youth's willingness to refuse sex and willingness to use contraception. None of these programs reported success in delaying sexual initiation among youth exposed to the program or evidence of success in reducing sexual risk taking behaviors among participants. Comprehensive programs will be explored next by reviewing evaluation studies that have examined their effectiveness.

Comprehensive Based

Numerous studies and evaluations published in peer-reviewed journals have found that comprehensive education about sexuality is an effective strategy to help young people delay their initiation of sexual intercourse. More recent studies have specified criteria of the programs they evaluated and have used strong research designs that would show impact. Kirby (2008) evaluated the impact of abstinence and comprehensive sex and STD/HIV education programs on adolescent sexuality. Using specified criteria (quasi-experimental and experimental research designs), he reviewed 56 studies that assessed the impact of curricula, eight that evaluated nine abstinence programs and 48 that evaluated comprehensive programs on adolescent sexual behavior. Only three of the nine abstinence programs had any positive effect on sexual behavior. Two thirds of comprehensive programs showed a positive effect, including delaying initiation of sex and increasing condom and contraceptive use (Kirby, 2008).

Kirby (2001) found that comprehensive education does not increase sexual activity, the frequency of partners that adolescents have, lower the age at which youth initiate sex, and increase the frequency of sex (Kirby, 2001; Advocates for Youth, 2008; UNAIDS, 1997).

Kirby, Laris and Rolleri (2006) also gathered information on several comprehensive sex and HIV education programs for youth. Their impact and characteristics were evaluated. Fifty-six of these studies evaluated were based in the United States targeting youth ages 9-24. Fifty-two of the studies measured impact on initiation of sexual activity. Twenty-two (42%) found that programs did decrease sexual initiation in their groups for at least six months. Twenty-nine (55%) found no impact, and one found the program slowed the initiation of sex. Of the 54 that measured condom use, 48% showed increase condom usage, while none found decreased condom use. Pregnancy rates were lowered in three programs, while nine found no effect, and one program found significant negative effects. Of the ten that measured STI rates, two found positive impact, six found no impact, and one found a negative impact. While these show more promising effects than evaluations on abstinence-based programs, it also is clear that there can still be improvement in comprehensive-based curricula.

Alford (2008) did an exhaustive literature review of over 160 evaluations of programs and found similar results. Twenty-six popular programs were selected for evaluation. He found that 26 of the comprehensive programs reduced the incidence of pregnancy or STI's or affected two or more of the following behaviors: 1) delayed sexual initiation; 2) reduced sex occurrence; 3) reduced the number of sexual partners and monogamy; 4) increased the use and consistency of contraception or condoms; 5) reduced the incidence of unprotected sex.

Researchers from the Centers for Disease Control and Prevention reviewed U.S.-based HIV prevention research from 2000-2004 to help identify programs demonstrating best evidence for effectiveness in reducing HIV risk. They found that 18 of these programs meet the criteria for "best evidence." They found that these programs increased condom use, and decreased the number of sexual partners, injection drug use, and STI rates. They also reduced unprotected

intercourse (Lyles, Kay, & Crepaz, et al., 2006). Manlove, Romano-Papillo and Ikramullah (2004) also found that five of seven HIV/STI prevention programs delayed the onset of sex. This indicates that comprehensive programs currently in use are having a positive impact on participants' sexual health.

Aarons, Jenkins, Raine, El Khorazaty, Woodward and Williams (2000) evaluated a comprehensive program called *Postponing Sexual Involvement*. Evaluation findings revealed *Postponing Sexual Involvement* delayed initiation of sexual intercourse and increased contraception use for females. Participating males had significantly more knowledge of birth control methods and services than did control male's at all follow-up times. In post-intervention surveys, intervention groups had higher rates of virginity than control groups. Sexually active females were 3.5 times more likely than control group females to utilize contraceptives.

Although abstinence-based highlights the importance of attitudes and beliefs about sexuality, they show no impact in that area while comprehensive programs do. Borawski, Trapl, Adams-Tufts, Hayman, Goodwin and Lovegreen (2009) evaluated the *Be Proud! Be Responsible!* (BPBR) HIV/STD prevention program. BPBR targets urban and suburban schools with diverse student bodies. Students' sexual behavior, intentions, beliefs, efficacy, and overall knowledge were emphasized in this curriculum. Students in the BPBR program reported greater knowledge in STIs and condoms after a year in comparison to a control group. Students had confidence in their ability to use condoms and negotiate condom use in the program group. Students also reported less sexual initiation four months after the program.

Allen and Philliber (2001) conducted a longitudinal study on a Teen Outreach Program that prevents teen pregnancy. This program for high school students incorporates volunteer work and extensive classroom discussion about reproductive health. The first evaluation design,

which was quasi-experimental, included a comparison and control group in 30 schools nationwide. During the first years (1991-1995) they found the program reduced rates of teen pregnancy, and in the years 1996-2000, the long-term findings revealed a reduced rate of pregnancy as well. The program seeks to enhance participants' competence in decision making, interactions, and dealing with their own emotions. The long-term findings also revealed fewer behavior problems than comparison students.

The Responsible Sexual Behavior (RSB) Initiative in Cleveland, Ohio is a comprehensive sexuality education program available to K-12 children. This includes 4 different curricula; *All About Life* (for grades K-3), *F.L.A.S.H.* (for grades 4-6), *Making Proud Choices* (grades 7-8), and *Safer Choices* (for grades 9-12). This curriculum emphasized attitudes, skills, overall knowledge, responsible sexual behavior, condom use, decision making skills, saying no to sex and condom use negotiation. Students in *F.L.A.S.H.*, *Making Proud Choices* and *Safer Choices* showed positive change in knowledge, attitudes, skills and behavior intent. *F.L.A.S.H.* has many lessons in its curriculum to help students understand their values that influence decision making skills. Students reported they were likely to talk to a partner before sex. Students who participated in *F.L.A.S.H.*, *Making Proud Choices*, and *Safer Choices* showed positive changes in student knowledge, attitudes, skills and behavioral intent. Seventy-eight percent of students said they learned a lot as a result of the programs; 20% stated they learned "a little," while only 2% claimed to have learned nothing. Eighty-nine percent of high school students would recommend *Safer Choices* to other peers (Evaluations of Responsible Sexual Behavior Education in the Cleveland Metropolitan School District, 2008). Although studies like this are beneficial, documented behavioral changes of students need to be evaluated in longitudinal studies to determine true effectiveness.

Because comprehensive programs are adaptable to many audiences, they have the ability to be multifaceted and impact a diverse population. *The Children's Aid Society-Carrera Program*, which is a successful comprehensive sexuality program, is multifaceted, encompassing sex education, reproductive health services, as well as opportunities for tutoring, sports, arts, and jobs. Philliber, Kaye, and Herrling (2001) conducted a rigorous study of the program and found it reduces pregnancy rates, delays initiation of sexual activity, and improves contraceptive rates in adolescent girls.

Kirby, Baumler, Coyle et al., (2004) evaluated a comprehensive curriculum called *Safer Choices*. This program aims to prevent teenage pregnancy, HIV and STIs through prevention methods. Activities are aimed at building skills in communication, delaying sex and, for those who are currently sexually active, the use of contraceptives. The program includes a peer team and a parenting education component. Using an experimental design method, evaluations showed delayed initiation of sexual intercourse in Hispanic youth, increased condom and contraception use, reduced incidence of unprotected sex, and a reduction of sexual partners without the use of a contraceptive. *The Safer Choices* program uses multiple strategies to address social influences of sexual behavior. This school-based intervention addresses social influences at home (e.g., parent involvement), school (e.g., peer leaders), and within the community (e.g., encourage use of health services.). Improved parent-teen communication, improved attitudes and social norms for condom use, increased condom use, and decreased unprotected sex were all impacts found in this study (Coyle et al., 2001).

Lawrence, Brasfield, Jefferson, Alleyne, O'Bannon and Shirley (1995) described the *Becoming a Responsible Teen* intervention program that used a comprehensive approach to address adolescents' thought processes relevant to risk-reduction behaviors. This group-based

intervention included exercises to identify risky situations and personal triggers for risk, problem-solving strategies, sexual decision-making in consideration of adolescents' personal values, risk perception, behavioral self-management techniques, and cognitive rethinking of negative beliefs and feelings associated with practicing risk reduction. The intervention was effective in reducing sexual activity and increasing condom use among sexually active youth, and in delaying the onset of sex among sexually inexperienced youth (Lawrence et al, 1995). This curriculum encompasses an important part of strong curricula; strategies to increase problem solving and sexual decision making which was shown to affect risk taking.

The Nyeri Youth Health Project also illustrates many aspects of a strong comprehensive curriculum. It is a reproductive and sexual health program for young people implemented with the help of the Family Planning Association of Kenya and the Population Council. The project goals included delaying sexual intercourse among youth who were not currently active, preventing the negative outcomes experienced of early sexual initiation, and creating a reproductive health environment within a secure environment that is accessible to the youth. One unique component of this program was the way it was personalized to fit participants' needs. Consistent with the societal norms, young parents were nominated by the young participants and parents to give sexuality information to adolescents. These counselors were trained to use a life skills curriculum, which was tailored to the age, preferences and needs of the group. Evaluators identified numerous behavior changes in this study. There was an increase in condom usage, delayed initiation of sexual intercourse in males, and a reduced number of sexual partners in females. Evaluators were impressed by the unique combination of sexuality based information and the implementation of their cultural traditions (Nyeri Youth Health Project (Kenya), 2005).

Here we can see the diversity of comprehensive curricula. Because the curricula do not reflect one set of values, and respect varying values, they can address needs more effectively. In *The Nyeri Youth Health Project* we can see the importance of tailoring curricula to a specific cultural context. The curriculum included factual and important sexuality information, but the way it was taught fit the cultural traditions of the audience. Its impact, which was positive, can be duplicated using this same philosophy. Abstinence-base curricula impact a very limited audience, not allowing for the tailoring that comprehensive base allows.

Comprehensive programs have a wide variance in teaching techniques as well as content areas that are important to adolescents. Comprehensive programs have been shown to be more effective than abstinence-based programs, yet abstinence-based programs are still the only ones funded by the government. Millions of dollars are being wasted everyday on programs that do not work. Although comprehensive programs are showing more impact, they still need improvement. Improvements cannot be made if sound evaluations are not conducted routinely. Those that continue to advocate for abstinence-based programs believe they have the evidence to back up their claim. They selectively cite evaluation studies to help prove their point. But when one takes a closer look, the flaws of these evaluations are revealed. Below I will discuss the importance of strong methodology in evaluation studies, and provide evidence that abstinence-based evaluations lack this rigor.

METHODOLOGICAL ISSUES IN EVALUATIONS

Evaluation can and should enhance the quality of interventions (policies and programs) in social and corporate settings. Evaluation should be seen as a process of knowledge production, which rests on the use of rigorous empirical inquiry. Evaluation will be worth the investment of time and money if the knowledge produced is reliable, responsive to the needs of policy and program stakeholders, and can be applied by these stakeholders (Owen, 2006, p. 1).

Davidson (2004) stated that outcomes evaluations measure the immediate changes after a student is in a program. These will typically describe changes in one or more areas of knowledge, attitudes or behaviors. Outcome evaluations measure how participants and their circumstances change, and whether the treatment experience has been a factor in causing this change. In other words, outcome evaluations aim to assess treatment effectiveness.

There are a number of ways to design outcome evaluations and measure changes associated with programs. The experimental approach helps infer causality (i.e., to infer that a program is responsible for the observed participant improvement). This is sometimes called a randomized-controlled trial (Scheidt, 2007). Random assignment of groups is necessary in this kind of design, which helps equalize the control and comparison groups and emphasizes the effects of the program implementation. Generally this method is costly and time consuming (Davidson, 2004). In the area of health programs, experimental design methods are crucial. Outcome evaluations can help researchers evaluate and document actual behavioral changes using experimental design methods.

Impact evaluations typically measure long-term changes among students several months or years after a program (Davidson, 2004). This kind of evaluation is best suited for long-term, intensive programs. Impact evaluations answer the question of what would have happened to those receiving the intervention if they had not received the program. The key challenge is to identify a group which is as similar as possible to those receiving the intervention, which is called the comparison group. This comparison allows for the establishment of causality – attributing observed changes to the program, while removing confounding variables. Confounding variables make for poor methodology (Scheidt, 2007). Confounding variables are two or more quantities varying together in a manner that makes it impossible to separately identify their unique effects, not allowing the actual effectiveness of a program to be seen (Davidson, 2004).

In the past several years, researchers have conducted numerous studies intended to identify the outcomes and impacts of abstinence programs on adolescent sexual behavior, knowledge and intentions. Many researchers selectively cite these studies to prove abstinence effectiveness (Rector, 2002). However, many of these studies suffer from methodological problems. A poorly designed study does not provide solid scientific evidence. Often these evaluation studies are cited as “proof” that abstinence-based programs are working and achieving their goals, but a closer look reveals many methodological errors. The following section will review several of these problems.

Confounding Variables

Confounding variables can adversely affect the relationship between the independent and dependent variable, causing researchers to analyze the results incorrectly (Scheidt, 2007). I will highlight a few studies that are examples of this problem.

Weed, Ericksen, Lewis, Grant and Wibberly (2008) evaluated the impact of abstinence-based programs on the initiation of sexual intercourse and the factors influencing virgin seventh graders in Virginia. The sample consisted of 550 students from Virginia middle schools. Two-hundred and fifty-seven of them had participated in an abstinence-based program called *Reasons of the Heart* (ROH) while 193 received an alternative program. Surveys were completed during and after completion of the programs. All teachers were specifically trained according to the ROH guidelines for that program; in the alternative program teachers received no training. Students in ROH received 20 hours of classroom instruction. The alternative program students received two videos on STD/HIV protection and a 30 minute video on abstinence. Nine percent of the students who entered into the ROH program had initiated intercourse in comparison to the 16.4% who engaged in the alternative program. This was after program completion. Students in ROH were reported as 46% more likely to initiate sexual intercourse than students in the alternative program. Students who participated in the ROH program were reported to be less likely to answer that they would have opportunity to have sex in that next year. The authors reported that program students had a substantially lower risk of sexual initiation than the comparison group. The authors concluded that abstinence programs can achieve reductions in sexual activity in teenagers.

In this evaluation, many errors were made in their methodology. One limitation in this study is the sample used. Because of the young age of those sampled (7th graders), one could argue that a significant reduction in teen sexual activity really is not a big feat. The authors of the study conclude that abstinence programs work by achieving lower numbers of sexual activity. As was discussed in the earlier section on adolescent development, younger adolescents have different needs than older adolescents. Lowering numbers of sexual activity sounds like an

important achievement, until we remember that the students in the study were 7th graders, and the effects of the ROH program were based on whether these students remained abstinent for one year. The average age most youth begin having sex is 17 (Advocates for Youth, 2009). Telling a 7th grader to abstain from sex would probably render positive results with the likelihood of them having sex would be low. Therefore, achieving abstinence for a year would not be that uncommon whether or not an abstinence program was implemented or not.

Another limitation was the research design. There were too many confounding variables. They were setting up the ROH program to succeed by giving teachers more training in the experiment group than the comparison group and by giving the students in that program more classroom hours than the alternative group. Students in the alternative program had fewer classroom hours, and teachers who were not trained. Setting up a control group, but not equalizing the quality of the programs received, is setting up the experimental program for success. ROH proclaims that it does help delay sexual initiation, but looking past its conclusion into some methodological errors, it would be hard to accept these conclusions as valid and reliable.

Denny and Young (2006) also had similar problems in their evaluation of an abstinence-only sex education curriculum. *Sex Can Wait* was the curriculum used in this study. Participants were divided into the following grade levels upper elementary (grades 5-6), middle school (grades 7-8), and high school (grades 9+). The comparison group was taught a regular health education class with a sexual education component. All participants attended the same school. *Sex Can Wait* was a 5-week program consisting of 23 lessons at the upper elementary school and 24 lessons at both the middle and high schools. The teachers for the program attended a 3.5 day training workshop. Results indicated that upper elementary program produced short-term knowledge in sexual reproduction and self efficacy. A reduced likelihood of engaging in

intercourse as measured by self report was also obtained from the program. In the middle school level, there was no statistical difference in short-term benefits, but in the long-term the program was reported to have produced gains in knowledge and reduced the likelihood of engaging in sexual intercourse. At the high school level, there were reported gains in attitudes supportive of abstinence, intent to sustain abstinence, and likelihood of intercourse in the previous month. Authors concluded the program produced long-term gains in knowledge and intent to remain abstinent.

Many students were lost before the 18 month follow up, affecting the internal validity of the study. The comparison and treatment students attended the same school, which can again harm this study's validity, because students participating in the program could have discussed issues outside of class with students in the comparison group. Some teachers who taught the *Sex Can Wait* curriculum also taught the comparison groups so they could have taught some of the same content to both classes without realizing it.

At the middle school level, there were no statistical differences in short-term benefits, but in the long-term the program produced gains in sexual education knowledge. Inconsistencies were found in the students' responses, causing researchers to wonder about the validity of the study. That result indicates that maybe it was not the program that helped the students, but an outside variable. Maybe they were receiving sexual education at home during this time and that was what influenced their actions and knowledge. It would be hard to say that the program caused all of these behaviors in students because of the threats to validity.

Outcome Variables

Relatively few studies have examined behavioral outcomes of abstinence education. Instead, they measure the participants' attitudes toward and values about sex. Often times in evaluations of abstinence programs, potential mediators of sexual behaviors are used as the

major outcomes, such as self esteem and confidence, resistance techniques and skills, and communication with family members (Barnett & Hurst, 2003; Denny & Young, 2006). But many programs that attempt to identify these antecedents may choose concepts that have not been shown to be associated with intended behavior change, yet the evaluators use them as their main focus (Jackson, 1997).

In many abstinence-based education programs, youth empowerment principles and guidelines are used as a means to help encourage adolescents to have the confidence to say no to sex. Abel and Greco (2007) evaluated one of these abstinence-oriented programs, *FAME* (Family Action Model for Empowerment). This is a program designed for schools and communities that has goals to promote healthy family functioning and raise commitment to sexual abstinence. It was designed for rural areas that have high teen birth rates. This intervention program is based on theoretical perspectives that incorporate a psycho-educational approach to behavior change as well as “developmental assets.” The findings of the evaluation indicated that this program had a positive impact on the youth and strengthened family function. The effect size was relatively small. Youth self esteem and the ability to resist peer pressure were positively affected. Improved self esteem was a basic goal of the program, so this was what was evaluated. Although soundly based in theory, we cannot make assumptions that the outcomes were effective in actually changing behavior, especially when results show that only non sexual antecedents, such as self esteem, were affected. This is because they did not evaluate actual behavior change.

Programs that have impacts on knowledge, beliefs, attitudes, and/or intentions do not necessarily have an impact on behavior. Evaluation efforts by Child Trends show the impact that programs whose emphasis was on antecedents, such as self-esteem, had failed to have any

impact on behavioral outcomes. The results showed that programs that increased student knowledge failed to increase a change in behavior (Child Trends Fact Sheet, 2008).

Wilson, Goodson, Pruitt, Buhi and Davis-Gunnels (2006) reviewed 21 abstinence-only-until marriage curricula for their content, methods, and overall quality. The curricula had to meet two criteria 1) it had to be designed for school use in middle school grades (9-13 years) and 2) the message of abstinence had to be prevalent in at least 40% of the programs. The programs were evaluated on various subjects, such as breadth, depth, anatomy, skill building, cultural sensitivity, evaluation tools, and implementation as well as many other subjects. Non-sexual antecedents were prevalent in all the curricula with a focus on skills, ideals and psychological factors like self esteem, while very little (13%) of the curricular content was about human sexuality. Many of the curricula omitted coverage on topics such as diverse sexual behaviors and attitudes, sexual orientation, abortion, contraception, and sexual abuse. The researchers raised the question of the emphases these programs have, which is a strong expectation that personal values and non sexual antecedents should really be considered sexual education materials. If they are only educating students about how to have high self-esteem, because they believe this helps them say no to sex, they are leaving out other vital components of sexual education. Many abstinence-based programs do not educate the participants about contraceptives, because they believe that if you equip students with self-esteem to say “no” to sex, they do not have to teach about anything else.

When programs turn non sexual antecedents into dominant sexuality health program outcomes, they can leave out important variables in sexuality health programs. Asserting that high self esteem leads to a lower reduction in sexual activity shows misguidance when composing abstinence-based curricula. Reviews of published studies found no consistent

evidence that high self esteem is a protective factor in reducing risky and unhealthy sexual behaviors (Baumeister et al., 2003).

If these non sexual antecedents, such as attachment to school, self esteem, and family communication are protective factors that influence sexual risk tasking, they need to be tried and tested. Evaluation researchers must examine behavioral outcomes in order to determine actual effectiveness. If only attitudes and values are measured, we cannot merely assume that those carry over to adolescent behavior. The actual impact is largely unknown. Therefore, the effectiveness of this self-esteem based curriculum has not been demonstrated, especially where behavior changes are concerned. The goals of curricula, which are vital to curricula effectiveness, will be explored next through the curricula usage of theory.

THEORY IMPORTANCE

According to Kirby (2001), programs that are theory based often show the most successes of increasing knowledge and emphasizing risks. Programs with a theory base are more effective in influencing health behaviors. He found that intervention programs based on social influence theory are often more effective programs in comparison to other non-theory based approaches. The rationale behind theory-based programs is that they specify the cause of sexual behavior which helps curriculum developers specify which behaviors can lead to a change in the behavior. Many abstinence-based programs have been criticized for lacking a theoretical base and, instead, for basing their curricula on faith or ideology (Kempner, 2001). Empirical evidence strongly suggests that programs that operate on scientific theories are more likely to generate desired outcomes in comparison to programs not based on theory (Eisen, Zellman, & McAlister, 1990).

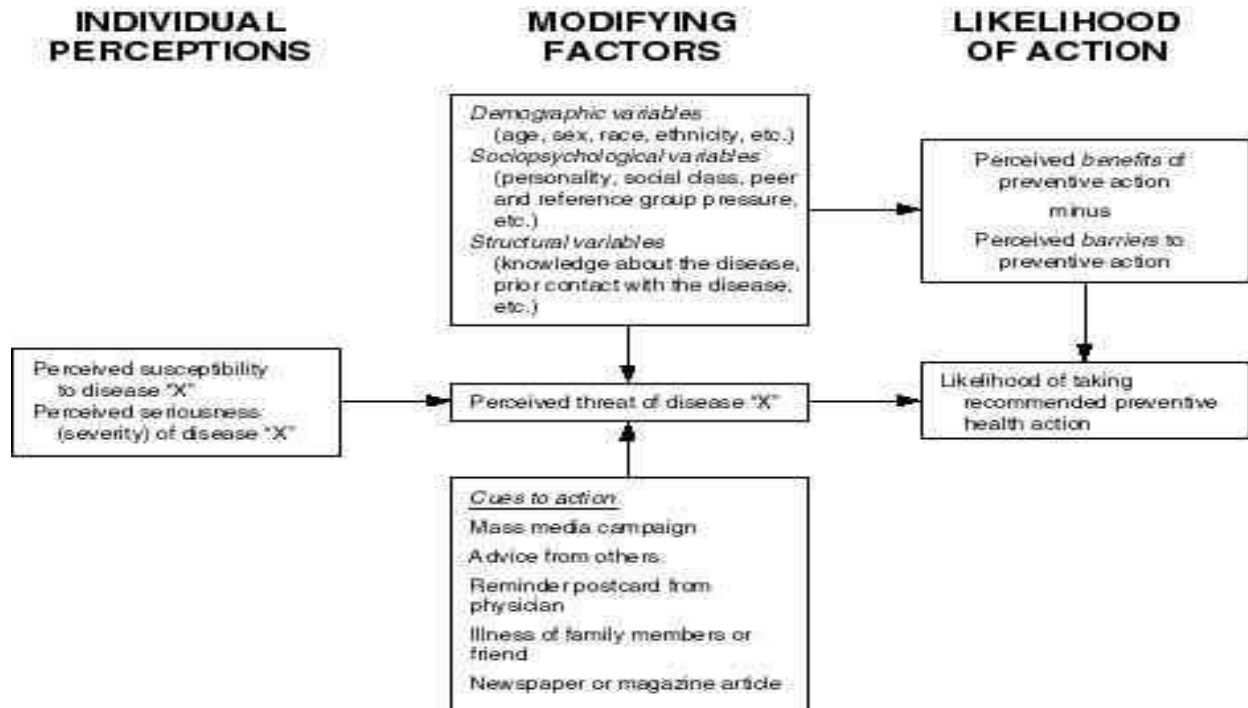
In the interest of promoting healthy lifestyle development, behavioral change theories have gained recognition for their effectiveness in explaining health-related behaviors and providing insight into methods that encourage individuals to develop and maintain healthy lifestyles. Specific health applications of behavioral change theories include the development of programs promoting active lifestyles and programs reducing the spread of diseases like AIDS (Behavior Change, 2007). In addition, the National Institutes of Health (NIH) has funded research to broaden the information base for behavioral change theories (NIH, 2003). Because theories and models of human behavior can guide the development and refinement of health promotion and education efforts, I will focus on behavior change theories. In particular, I will focus on the Health Belief Model and Social Learning Theory. The Health Belief Model is the theoretical base for the curriculum that I assessed, and the Social Learning Theory is a basis for many types of sexuality curricula, so these two are important in my discussion.

The Health Belief Model

The Health Belief Model (HBM) is based on the assumption that a person will choose a positive health-related action if s/he anticipates negative consequences associated with not taking the action. The person also expects a positive outcome by doing the recommended action to avoid a negative health condition. The expectation motivates people to take positive health action in order to avoid negative health consequences as the prime motivation (Glanz, Rimer & Lewis, 2002). For example, HIV is associated with severe negative health consequences, and the desire to avoid HIV can be used to motivate sexually active people into practicing safe sex. This theory was used in the *F.L.A.S.H.* program that I will assess in a later section. Many of the program's lessons are based this theory, as they try to help adolescents avoid negative health consequences.

Below is an HBM schematic. This shows the concepts of the model and how they are related to one another. The HBM evolved from the premise that each individual's perception of the world determines what that individual will do. The concepts of the model include the individual's perceptions of susceptibility to the disease, severity of the disease, and benefits and barriers associated with the choice of action that may prevent the disease process (nmlm.gov/evaluation/pub/witte/, 2009). The schematic is taken directly from the website.

Figure 1 Individual Perceptions, Modifying Factors, Likelihood of Action



HBM is based on six key concepts. Outlined below are the definitions and applications for each of the six key concepts (www.cancer.net.gov, 1997).

Table 1 Concept, Definition, Education Application

Concept	Definition	Education Application
1. Perceived Susceptibility	One's belief of the chances of getting a condition	<ul style="list-style-type: none"> Define population(s) at risk and their risk levels Personalize risk based on a person's traits Heighten perceived susceptibility if too low
2. Perceived Severity	One's belief of how serious a condition and its consequences are	<ul style="list-style-type: none"> Specify and describe consequences of the risk
3. Perceived Benefits	One's belief in the efficacy of the advised	<ul style="list-style-type: none"> Define action to take — how, where, when

	action to reduce risk of impact	<ul style="list-style-type: none"> • Clarify the positive effects to expect • Describe evidence of effectiveness
4. Perceived Barriers	One's belief in the tangible and psychological costs of the advised behavior	<ul style="list-style-type: none"> • Identify and reduce barriers through assistance
5. Cues to Action	Strategies to activate "readiness"	<ul style="list-style-type: none"> • Provide how-to information • Promote awareness • Provide reminders
6. Self-Efficacy	Confidence in one's ability to take action	<ul style="list-style-type: none"> • Provide training and positive reinforcement

Glanz, Rimer and Lewis (2002) assert that HBM can be applied to topics like sexual education. Since HBM explains why individuals are motivated to take action, it is a good fit for programs that focus on primary and secondary prevention. Primary prevention involves working with susceptible or targeted populations with the promotion of health to reduce disease or injury (Glanz, Rimer & Lewis, 2002). Secondary prevention involves intervention methods (Glanz, Rimer & Lewis, 2002). This is after a problem occurs, but health programs would step in hoping to help reverse the problem or lessen its negative side effects. Secondary prevention programs could use this theory to increase early detection of STIs and HIV to reduce their spread and ensure early treatment. The HBM is a good fit for prevention-focused programs because these programs generally promote specific actions, and the HBM helps determine how to encourage participants to take action.

The Health Belief Model may not be as effective when applying it to an adolescent population. The model has been widely used among the adult population, but there are scholars who have questioned its use with adolescents. Because adolescents have different cognitive abilities than adults, using this theoretical back-ground may not be as effective because they expect an adolescent to think like an adult (Breinbauer & Maddaleno, 2005). It is been shown to be more effective to combine the HBM with other learning theories (e.g., Social Learning Theory) (Glanz, Rimer & Lewis, 2002). Social learning theory will be de discussed next.

Social Learning Theory

Learning theories, such as the Social Learning Theory, explain how people think and what factors determine their behaviors. Social Learning Theory is grounded in the belief that human behaviors are determined by a three-way relationship between cognitive factors, environmental influences and behavioral factors (Bandura, 1977). Basic concepts are outlined below by www.cancernet.gov (1997):

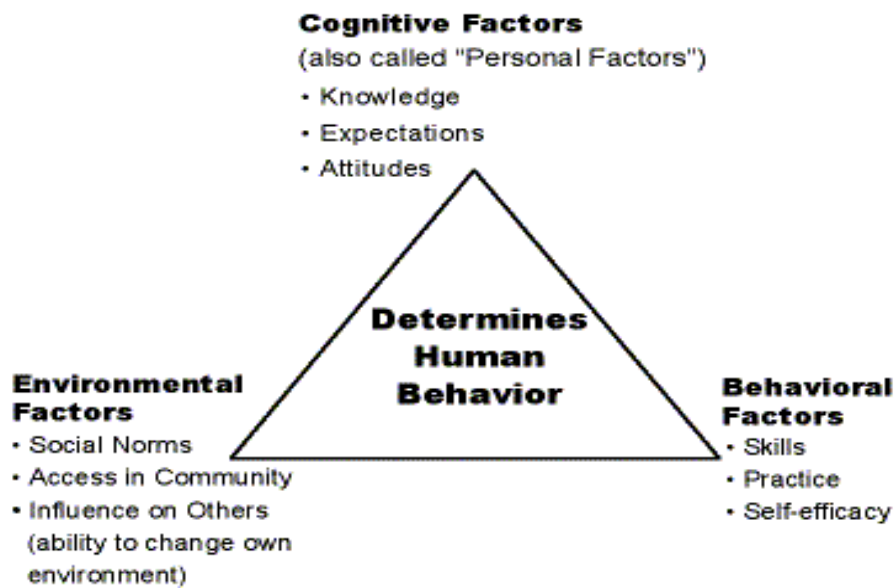
Table 2 Concept, Definition, Education Application

Concept	Definition	Application for Educators
1. Expectations	Individual's beliefs about likely results of actions.	Incorporate information about likely results of advised action.
2. Observational Learning	Individual's beliefs based on observing others like self and/or visible physical results of desired behavior.	Point out others' experience, physical changes; identify role models to emulate.
3. Behavioral Capability	Knowledge and skills needed to influence behavior.	Provide information and training about action.

4. Self-Efficacy	Confidence in ability to take action and persist in action.	Point out strengths; use persuasion and encouragement; approach behavior change in small steps.
5. Reciprocal Determinism	Behavior changes resulting from interaction between person and environment; change is bi-directional.	Involve the individual and relevant others; work to change the environment, if warranted.
6. Reinforcement	Responses to a behavior that increase/decrease the chances of recurrence.	Provide incentives, rewards, praise; encourage self-reward; decrease possibility of negative responses that deter positive changes.

According to Bandura (1977) in the application of this theory, the learner observes and imitates the behaviors of others, sees positive behaviors modeled and practiced, and increases his/her own capability and confidence to implement new skills, and gain positive attitudes while implementing them. Then he/she experiences guidance from the environment in order to utilize skills. Below is a model depicting Social Learning Theory's three-way reciprocal relationship from Bandura (1977):

Figure 2 Model Depicting Social Learning Theory



The above model illustrates that human behavior is determined by a three-way relationship between cognitive factors, environmental influences, and behavioral factors. This explains human behaviors in terms of a continuous reciprocal interaction between cognitive, behavioral, and environmental factors. Social Learning Theory helps health educators assist students in gaining new health supporting skills.

According to Eisen, Zellman and McAlister (1990) this theory has been applied to sexuality education as well as health education. It explains behavior change and is a good fit for sexuality programs that aim to prevent pregnancy by preventing sexual involvement or increasing condom use. Sexual behavior is often influenced by personal knowledge, skills, attitudes, interpersonal relationships and environmental influences. Positive modeling of healthy sexual behavior allows adolescents to internalize this behavior. It provides youth with behavioral skills practice, so they can utilize these practice skills when faced with real life situations. Teaching adolescents these skills is vital to prevention programs. Many abstinence-

based programs often emphasize cognitive learning and fail to address the behavioral aspects including staying sexually healthy (Eisen, Zellman, & McAlister, 1990).

Many theories seek to answer the fundamental question of why people act the way they do. Using theories, we are able to understand and predict why and how people change their unhealthy behaviors to healthier ones. It is vital to understand these beliefs, and then actual behaviors and decision making regarding sexual behavior. Using a theory guides the entire curriculum in an organized way (Fishbein & Ajzen, 1975). Theories can help us understand adolescents, and more importantly implement healthy sexual behavior into their lives.

IMPLICATIONS FOR CURRICULA ASSESSMENT

The body of literature reviewed throughout this document has emphasized the components of effective and ineffective approaches to sexuality health education. The evidence suggests that abstinence-based education does not employ many of these characteristics. Although abstinence-only-until-marriage programs have the enthusiastic backing of some right-wing parties, there is no evidence to date that abstinence-only-until-marriage programs bring about the desired long-term behavioral outcomes at which they aim – outcomes such as delays in sexual activity and reductions in unintended pregnancies and STIs. The federal government still does not recognize this (Blake & Frances, 2001).

My analysis reveals that effective curricula address the developmental differences, sexual experience, and culture of young people in the program. Incorporation of adolescent development creates stronger curricula. The understanding of the uniqueness of an adolescent's cognition and behavior helps implement methods that are more effective. This means creating different curricula for different age groups. Information given about sexuality must be accurate, up to date, and appropriate for the age group. Effective curriculum portrays sexuality as a lifelong process, and help participants acquire skills needed in sexual decision making. Effective curriculum includes information about condoms, AIDS/HIV, gender differences, and abortion. Social influences are addressed and multiple strategies to address all of these issues are implemented. Evaluations which utilize sound research methodology are conducted to investigate related behavioral changes to the program. Effective curriculum is also clearly based on scientifically accepted theoretical principles.

Certain characteristics of curricula have been shown again and again to make a strong curriculum and professionals can use these characteristics to help assess and evaluate current curricula. Kirby, Laris, and Rolleri (2006) have done just that by creating a tool called TAC (Tool to Assess the Characteristics of Effective Sex and STD/HIV Education Programs). This tool includes a set of organized questions that are designed to help practitioners assess whether curricula incorporate characteristics of effective programs. Kirby et al., (2006) identified 17 common characteristics of programs found to be effective in changing behaviors that lead to STD, HIV and unintended pregnancy. Not surprisingly (considering we reviewed the same body of literature), these characteristics closely matched my conclusions regarding effective curriculum components. To help identify these characteristics, Kirby and his colleagues reviewed 86 studies of sex education programs from across the world. All studies had to meet certain criteria, which included sound research designs (experimental or quasi-experimental research design). They then took these characteristics and turned it into a tool called TAC (Healthy Teen Network, 2007).

This tool includes characteristics regarding 1) the process of developing the curriculum, 2) the content of the curriculum, and 3) the implementation of the curriculum (Kirby, Laris, & Rolleri, 2006). Regarding the development of curriculum, TAC recommends evaluating the level of the author's knowledge in the area of sexuality research and education. According to Kirby et al., (2006), involving creators from different sexuality-based areas (teachers, health department workers, doctors, sexual educators) often creates a well-rounded curriculum that is diverse and can cater to different populations. These different backgrounds contribute to the curriculum in different ways. Medical doctors may contribute reproductive health information and statistics, while teachers and educators may contribute effective teaching habits.

In the implementation of curriculum, TAC emphasizes that educators who teach curriculum are trained, monitored, and supported. To have a strong curriculum, support must be found from the appropriate authorities. If this support is not there, implementation becomes very difficult. Because many who teach sexuality education do not have a degree in human sexuality, it is imperative to offer this support to the teachers (Kirby, Laris, & Roller, 2006).

Although development and implementation are integral parts of the overall effectiveness of curricula, I have chosen to focus solely on the content of curricula as my emphasis in this project. Content of curricula is where many sexuality education curricula seem to fall short, so it is important to address this issue. Without accurate, well-written content, the development and implementation of these programs are useless.

Programs that include both abstinence and contraceptive use have been shown to be effective (Kirby, 2007), because they can work to help teens delay sexual activity, have fewer sexual partners and increase contraceptive use when they begin having sex. In order to achieve these goals, curricula must address these needs and embody the following characteristics. Many are similar to TAC content areas. The questions that are not similar are identified below. Questions 1, 2, and 3 I have added based on my review of the literature. They will be addressed after the TAC portion.

Questions TAC did not address:

1. Does the curriculum use terminology that is clearly defined?
2. Are evaluations conducted to investigate related behavioral changes to the program that utilize sound research methodology?
3. Is the curriculum clearly based on scientifically accepted theoretical principles (ex: Health Belief Model, Social Learning Theory)?

CURRICULA ASSESSMENT

Based on the above recommendations for strong curricula, I have analyzed two popular curricula that are in use across the United States. One is an abstinence-based curriculum (*Sex Respect*) while the other is comprehensive (*F.L.A.S.H.*). The tool I am using to help assist in this process is called TAC.

The TAC tool asks questions under each section in regards to the curricula. TAC Category 2: *The Contents of the Curriculum Itself* is broken into categories. The eight characteristics of strong content of curricula are divided into two categories: 1) curriculum goals and objectives, and 2) activities and teaching methods. Under each of these categories, TAC asks a series of specific questions. The evaluator is to answer yes or no for each, and then, based on the answers to the specific questions; provide an overall score for each of the characteristics. The number category is 1-4, with 1 meaning the curriculum did not meet the objective at all, and 4 meaning they completely met the objective. At the end of the section, the characteristic scores are added. A lower score means a poor curriculum that will not likely lead to behavior change, while a higher score indicates a higher likelihood the curriculum will change a behavior. Then the evaluator is given a table, which gives room to include ideas and action steps for improvement of the curriculum. (TACs website is available in Appendix A).

The items that were not included in TAC that I have added will be scored the same way as TAC. A score of one will mean the objective was not met, while a four means the objective was completely met.

Overall TAC Scores

Below are tables indicating the overall assessment scores for both *Sex Respect* and *F.L.A.S.H.*, the two curricula I decided to evaluate. A more in depth description follows for each.

Table 3 Comprehensive F.L.A.S.H

Comprehensive <i>F.L.A.S.H.</i>		Abstinence-Based <i>Sex Respect</i>	
Characteristics	<u>Score</u>	Characteristics	<u>Score</u>
Clear Health Goals	3	Clear Health Goals	2
Addressing Multiple Risk and Protective Factors	3	Addressing Multiple Risk and Protective Factors	2
Social Environment	4	Social Environment	1
Multiple Activities to Change Selected Risk and Protective Factors	4	Multiple Activities to Change Selected Risk and Protective Factors	2
Sound Teaching Methods	4	Sound Teaching Methods	2
Defined Terminology	4	Defined Terminology	1
Evaluations Conducted	1	Evaluations Conducted	1
Based on Theoretical Principles	4	Based on Theoretical Principles	1
Overall Effectiveness Score	27	Overall Effectiveness Score	12

Comprehensive-Based F.L.A.S.H.

F.L.A.S.H is a comprehensive-based curriculum. It was designed by the Public Health-Seattle and King County Family Planning Program (Reis, 2005). It was composed by Reis (2005), but has contributors across the public health field that range in degrees and experience including adolescent development, education, sexuality, STI, HIV/AIDS and medicine. The curriculum consists of lessons for children beginning in the 4th grade continuing up through high school levels. It has a lifetime perspective of sexuality, catering to the different developmental levels of each age and grade. It has lessons on controversial topics for the older age groups, such as abortion, HIV/AIDS, and gender issues. It can be used in mainstream and special education classes. Introductory material for the teacher offers guidelines on such topics as knowing one's state and local guidelines, planning a sexuality unit, preparing administrators and parents, responding to questions, and including the program in the student's Individualized Education Program. The lessons typically include specific objectives, materials needed, an agenda with several activities, sample communications to a "trusted adult," worksheets, and handouts.

F.L.A.S.H. was first developed in 1985, but revisions were made in 2005 to accurately reflect advances in research. It addresses physical development, promotion of sexual health, prevention of diseases, interpersonal relationships, body image, and gender roles. I will focus on the curriculum for grades 9 and 10 for this evaluation because this age group has the most lessons, which include controversial topics such as abortion, masturbation, etc. I was interested in seeing how this curriculum handled such topics, as many abstinence-based curricula choose to leave these out. This is also the same age group on which the abstinence-based program I chose focuses. There are 30 lessons in this particular unit. Each lesson plan varies on time length, but times are posted at the top of each unit. All lessons include a review and a post test.

The goals of F.L.A.S.H. are to assist in the development of persons:

- who are knowledgeable about human development and reproduction,
- who respect and appreciate themselves, their families and all persons,
- who will neither exploit others nor allow themselves to be exploited (p. 7).

F.L.A.S.H utilizes worksheets, speakers, field trips, anonymous question boxes, and also instructs teachers on strategies to address value-ridden questions which include having students investigate their family values as well as a discovery process of their own. It does have an abstinence lesson and is value-based. It teaches respect for diverse community values about controversial issues. It addresses the fact that it is almost impossible to provide value-free education. So they offer explanation of universal values and controversial issues. Universal issues are those shared by the majority of Americans and typically are written into policy. Controversial issues are those that the community is not in agreement over (Reis, 2005). The curriculum deciphers values for teachers before they start the program. Below are examples of the curriculum's universal values:

- 1.) that each individual (regardless of age; gender; family constellation; gender identity, role, or orientation; physical or mental abilities; race; religion or ethnic identity) is unique, valuable, and deserving of equal and considerate treatment.
- 2.) that the human body and its capacity for sexual response and reproduction are fascinating, terrific, and deserving of protection.
- 3.) that human beings' need for touch and intimacy is valid and should be respected.
- 4.) that no one has the right to selfishly use another person, simply for his or her own gratification.
- 5.) that it is wrong to trick, threaten, tease or force another person to touch.
- 6.) that it is safest (emotionally, physically, and socially) and best for school-aged people not to engage in sexual intercourse.
- 7.) that sex is safest and best in loving, long-term, committed, monogamous relationships (as in many marriages).
- 8.) that it is wrong to knowingly transmit disease (p. 7)

Clear Health Goals

According to TAC, the most effective programs focus on one of the following: 1) give the consequences of unprotected sex and the higher likelihood of contraction of HIV and STIs, or 2) discuss the consequences of becoming pregnant and the negative outcomes associated with these.

TAC asks: Does the curriculum clearly focus on one or more specific behaviors that directly affect pregnancy or STI/HIV (condom usage, STI testing and treatment, abstinence, number of partners)?

F.L.A.S.H scored a 3 on this because they addressed this area. F.L.A.S.H motivates young people to avoid these consequences. F.L.A.S.H has many clear health goals. It addresses abstinence, as well as information related to the prevention of pregnancy, HIV and other sexually transmitted diseases. In all of the lessons, the goals are clearly stated before the lesson begins. In the abstinence lesson, F.L.A.S.H involves students' critical thinking skills. F.L.A.S.H encompasses a lifetime sexuality perspective, but also emphasizes abstinence. In the abstinence lesson, participants get into small groups and brainstorm why people choose to abstain from sex. F.L.A.S.H also gives students homework assignments that involve watching a TV drama series that tries to reach audiences with positive messages about relationships, safe sex and sexual choices and ask students to discuss the different situations these characters get into.

TAC encourages the evaluators to look for a narrow focus on specific behaviors leading to these health goal outcomes. Also, to examine how clear the messages about these behaviors are, and whether the program addresses what might lead students into avoiding them. Using the abstinence lesson again, F.L.A.S.H gives students information on what to do if abstinence fails. Also in this lesson, students are asked to think of reasons why abstinence fails, ways people can be with each other that are intimate but do not involve having sex, and factors incorporated into making abstinence work. Although F.L.A.S.H does fulfill this characteristic, F.L.A.S.H uses the word "fail" when it discusses abstinence. Fail is a very biased word that emits shame and guilt. F.L.A.S.H could improve the curricula by using a different word that does not stigmatize.

Addressing Multiple Risk and Protective Factors

TAC asks: Does the curriculum address multiple sexual psychological risks and protective factors that influence sexual behavior? (These include knowledge, risks, values, attitudes, perceived norms and self efficacy. This also includes knowledge of sexual issues, HIV, STI, and pregnancy along with methods of prevention.)

F.L.A.S.H scored a 3 in this area. For example, regarding the perception of HIV risk, F.L.A.S.H includes this with a lesson plan called “Sexually Transmitted Disease-HIV/AIDS-Understanding the Disease.” In this lesson, F.L.A.S.H educates participants on the definitions of HIV and AIDS, describes how it affects the body, expects students to identify three ways in which it spreads and cannot be passed, and to identify avoidance techniques. F.L.A.S.H also incorporates the self-efficacy factor in educating teens on refusal techniques and how to use condoms. One area F.L.A.S.H could have improved on here is adding more facts and statistics for students to see actual numbers. Although this would require constant updating and education, students need to be informed about medically up-to-date information. Overall, F.L.A.S.H addressed risk and protective factors.

In the first unit of F.L.A.S.H, the introduction and pretest, F.L.A.S.H goes over basic biological information. F.L.A.S.H shows pictures of the reproductive system, and then at the end of the lesson they have participants take a test, with some of the questions below:

DIRECTIONS: Mark each statement T (true) or F (false).

11. Usually boys start puberty a little younger than girls.
12. Boys often have some breast growth during puberty.
13. Most of the changes of puberty happen to everybody, male or female.
14. All teenage guys have “wet dreams”.
15. Girls usually start having white or clear discharge from the vagina at puberty

(p. 9).

One area F.L.A.S.H succeeds in is educating and informing participants about the reproductive system, and how to keep it healthy. F.L.A.S.H treats it as something that needs maintenance and care.

Social Environment

According to TAC, creating a social environment in which youth feel comfortable to participate is another part of a strong curriculum. TAC asks: Does the curriculum establish group rules and boundaries before sessions? Does the curriculum use ice breakers to ease discussion and allow all students to participate while offering positive reinforcement? It is also suggested that if appropriate, the curriculum divides students by gender so that they can be comfortable with certain topics.

F.L.A.S.H scored a 4 on this. In F.L.A.S.H lesson 29, entitled “Sexual Health Care,” the curriculum has times where small groups are separated based on gender. Because of the nature of the topic, F.L.A.S.H recommended that groups are gender separated, but also emphasized the fact that co-respect is still needed and that everyone needs to learn to communicate effectively about sexuality. Coverage of pelvic and breast exams and testicular exams are covered under this unit. Information is given about how to do this, why to do this, and when to do this, with visuals provided. In the introduction, F.L.A.S.H added guidelines for instructors to present to participants. Incorporated in this is avoiding put downs, get all the facts one is curious about, listen to others, respect people’s opinions and realize it is okay to disagree and agree.

Another component under this section is providing activities that assure that students feel comfortable among those in the educational community. This way participants feel they are in a safe environment, not only within the classroom, but also a safe social environment. In a lesson on abortion, the curriculum suggests:

Because people have such different beliefs about this, I really want to encourage you to talk with your families -- your parent or guardian, grandparent, auntie, uncle, stepparent, mom's or dad's partner -- or with somebody at your community of worship, if you attend a church or synagogue or temple -- or with some other adult you love and whose

opinions matter to you. That could be your babysitter, your best friend's parent, a counselor, or whoever will listen to your opinions and honestly share theirs. Have a conversation within the next week if you can (p. 16).

I think the exploration of those around the teens would help make participants feel more comfortable in this environment, especially on such controversial topics as abortion. The creators of F.L.A.S.H. went about this topic in the right way, without being negative or stigmatizing. This provides adequate opportunity for all youth to critically analyze their stances on abortion, as well as seek advice from those close to them.

Multiple Activities to Change Selected Risk and Protective Factors

TAC recognizes that in order to change selected risk and protective factors that influence behavior, programs must use a variety of strategies to change those factors. TAC asks: Does the curriculum discuss the importance of basic information about risks of having sex and methods to avoid sex or use protection? (Transmission of HIV/STIs, common myths, consequences of pregnancy, encouragement of communication on the topics).

F.L.A.S.H scored a 4 on this. In the F.L.A.S.H. lesson of STIs, an informative overview of myths associated with STIs, symptoms, susceptibility to contracting these and ways to prevent this is presented. F.L.A.S.H also has a section on treatment and testing. These are all factors listed under this part of the TAC tool. Information given is medically accurate and helps participants apply this knowledge to their own lives.

Under this category are also peer norms and attitudes. This is addressed in F.L.A.S.H. under the lesson entitled “What is the Best Method?” First, educators are instructed with the following information:

In order to achieve balance, try to ensure that at least eight religious denominations are presented. Remember that it's inappropriate for a public school teacher to express a

particular belief about a controversial issue. It is not your role, then, vis-à-vis contraception, to suggest that one should use it. Neither should you imply that using it is wrong. Either of these values would offend some families. Your role instead is to help students understand:

- that there are differing beliefs with respect to birth control,
- that respecting others' right to their beliefs is important, and
- that one's decisions ought to be influenced, not only by the potential consequences of the alternatives, but also by one's beliefs (p. 22).

Here F.L.A.S.H described emotional factors that influence people's decisions to use contraception, as well as ethical factors. Then F.L.A.S.H applied the effectiveness, safety, cost, emotions, and ethics to certain decision-making scenarios for participants. This increases both skills and self efficacy in participants.

Communication with parents and other adults is another component of a strong curriculum according to TAC. F.L.A.S.H scored very high on this component. Almost every lesson involves some type of parental involvement, as one of the overall goals of F.L.A.S.H is high amounts of family involvement. It also includes activities that encourage communication with other members of society, allowing students to get different viewpoints on subjects. The curriculum could expand student knowledge to provide parents and adolescents with information about sexual reproduction and adolescent behavior.

Sound Teaching Methods

The last question in the TAC content category is related to using sound teaching methods that involve the participants while personalizing the information. TAC asks: Does the curriculum involve methods that include class discussion, role plays, brainstorming sessions, short lectures, games, surveys, stories, that allow youth to apply these new concepts to their life?

F.L.A.S.H scored a 4 on this. These methods are all part of the F.L.A.S.H curriculum. F.L.A.S.H utilizes a variety of methods to help teach, and in many lessons, two or three of these methods are used. For example, in lesson 16 on pregnancy, a game is included to help teach information about infant health. Below is an example of the game students play:

Explain the lesson's purpose and relevance:

Babies born to teens are more likely than babies born to women in their twenties to have congenital conditions (birth defects). There are three major reasons for this; who can tell me what they are?

Right: **lack of prenatal care** (or late entry into care), **poor nutrition**, and use of **alcohol and other drugs** before and during pregnancy. You learned, yesterday, what a person, especially a teen, can do to increase the odds of a **healthy pregnancy**. Did you know that babies of teens are **also more likely to die in the first year of their lives?** Today we'll explore what a person can do or needs to know, to increase the odds of a healthy **infancy**.

2. Have the room arranged as it was yesterday, but with fourteen, instead of eleven, game stations. Hand out the Infant Health Worksheet. Have students read it silently.

3. Explain how the role of the fourteen volunteer Staffers differs from their role yesterday:

At your game station, you will each find between ONE and TEN CLUES. Your job will be to show them to students who come to your game station ... in order (clue 1, clue 2, etc.), just like the Staffers did yesterday. There is one way your job will differ from the job of yesterday's Staffers: some answers are numbers, rather than words. For these there are no clues. The Player must make a guess you may say only three things: "**higher**," "**lower**," or "**good**."

Suppose the answer were “3 to 5 pounds.” If the Player at your game station guessed, “2 pounds,” **you** would say, “**higher.**” Then the Player might guess “8 pounds,” and **you** would say, “**lower.**” Maybe the Player would guess, next, “5 pounds,” so you would say, “good,” and you would **show the student the correct answer.** The Player would write the **whole** correct answer on his or her Worksheet: “3 to 5 pounds” (p. 16).

This was one of the many games and activities implemented throughout the curriculum. I was impressed by the variety of strategies implemented to help influence behavior. Because they have the assumption that values and beliefs are important in influencing behavior, and that those two cannot be separated from one another, they use an effective approach that has a higher likelihood of changing negative behaviors, or developing healthy behaviors.

F.L.A.S.H scored 4s on most of the content categories. The curriculum addresses many of the content areas of TAC and used a variety of strategies to teach the information. Throughout the curriculum there was separate information for teachers and ways to address questions that may arise. Overall F.L.A.S.H scored high on TACs content categories, meaning it has a high likelihood of affecting behavior. Below I will discuss the additional evaluation questions I created (questions 1-3 of my recommendations).

My Assessment “Results”

1. Does the curriculum use terminology that is clearly defined?

F.L.A.S.H scored a 4 in this area. New terminology is defined at the top of the lessons. These participants know exactly what the word or term means when mentioned. For example, in the “Touch and Abstinence” lesson, the terms affectionate, sexual, nurturing and violent are discussed after the following suggestion:

Explain that it is **not** the unit’s purpose to suggest that all sexual touch is bad (or risky) and **certainly** not that touch, in general, is bad. Explain that there is, indeed, a basic

human need for touch; babies can even die if they don't get their touch needs met. But in their quest to meet that need, many people confuse sexual touch and other kinds of touch ... and end up getting sexual touch when they really wanted, for example, just to be held (p. 3).

2. Are evaluations conducted to investigate related behavioral changes to the program that utilize sound research methodology?

F.L.A.S.H scored a 1 in this area. One area F.L.A.S.H. could improve on is evaluation data for the curriculum. There have been no large scale evaluations done of F.L.A.S.H, but there were some small post-test evaluations done in the 90's. These revealed an increase in knowledge of puberty and sexual exploitation (Reis, 2005). In order for the curriculum to be adapted for a wider audience, more sound evaluations should be done to increase its effectiveness. Without these evaluations, we will never know if this curriculum is working or not. Although it has many of the characteristics of effective curricula and has a high likelihood of being effective, one can still not know if it truly is helping students. Also if evaluations are done, areas of improvement can be cited, which can help the curriculum to be even stronger, improving the sexual decisions of young adults, and saving thousands of tax dollars that do not have to be spent on sexuality related problems of adolescents.

3. Is the curriculum clearly based on scientifically accepted theoretical principles (ex: Health Belief Model, Social Learning Theory)?

F.L.A.S.H scores a 4 in this area and accurately incorporates theory into the curriculum. F.L.A.S.H. is based on the Health Belief Model. This was directly stated in the curriculum, and it had an explanation of what the Health Belief Model was. It addresses students' perceived susceptibility to sexual behaviors, severity, benefits of healthy behaviors, and barriers. It

incorporates self efficacy by modeling and skill building through rehearsal and support.

Evidence of incorporation of this theory is in the following statement to instructors:

Explain how information vs. attitude affects behavior:

OK, you all know your information very well. But, you know that having accurate information, alone, doesn't necessarily affect people's behavior; their attitudes (feelings and beliefs) influence their decisions, too. Let me give you an example. How many people here have been told by your parents or your dentist that you are less likely to get cavities if you floss every day? (Notice the approximate number of hands: 1/2 the class? 3/4?) Now, how many of you have flossed every single day for the last two weeks? (Notice the difference: far fewer, probably.) That may be because it feels like "too much bother" to floss, or because you don't really believe the advice, or because you don't think it will really happen to you, etc. The same principle applies to any health behavior-- including behaviors that put people at risk for HIV/AIDS and other STDs. The facts aren't enough. The video you are about to see focuses on people's attitudes: their feelings and beliefs (p. 26).

Here we can see the Health Belief Model being applied. F.L.A.S.H encourages the educators to understand that even though adolescents can hear something may negatively affect their health, it may not change their actual feelings and beliefs about a situation. When students are armed with information about negative sex behaviors with an emphasis on the feelings, beliefs, and decisions that affect behavior too, that information is more likely to have an impact (Glanz, Rimer, & Lewis, 2002). Educators need to educate participants on healthy behaviors, and barriers that could get into the way of educating. The Health Belief model provides a strong framework for this. This, according to my literature review, is one of the effective characteristics

in sexuality education curricula. They have identified a theory base, have given examples to instructors, and have provided a framework for the curriculum.

Overall, this curriculum scored high on most components of TAC and of my own recommendations. Areas of improvement could include more statistical information, as well as background information for educators. As far as I can tell, there is no evidence of resources for further understanding some of these issues. Many educators, in order to feel confident while teaching, may want to investigate where F.L.A.S.H gathered its information. Knowing this will allow them to answer questions students might have. Grades 9 and 10 are separated, but the curriculum does not mention why the grades were separated the way they were so there could be improvement here. No developmental information was presented for the educators. This is important, as it allows educators to understand the differences in the children they are teaching and why they are using the methods they do. I think F.L.A.S.H does separate the different levels accordingly, but there needs to be explanation of why it is important.

Overall, F.L.A.S.H is easy to read, and is well organized for educators. It covers many topics, has a theoretical base, and can be adapted to many different settings. It is a strong curriculum and I believe that if evaluated more thoroughly using experimental methods, one could see the true impact a curriculum like this can have.

Abstinence-Based Sex Respect

Sex Respect: The Option of True Sexual Freedom is an abstinence-only-until-marriage curriculum for middle school and high school students. Colleen Kelly Mast is the author of this program which is a three-week unit in which students meet an hour daily. It offers staff training, and an in-school program, individual study, a parent program, and community involvement.

There is high parental involvement, as well as a component that analyzes media's influence. It comes with a teacher's manual, student's workbook, and parent guide. Content is divided into

11 lessons corresponding to 11 chapters in each manual and may be administered in different classes or in a three-week unit, with daily meetings. Colleen Mast received an honorary doctorate from Quincy University and created *Sex Respect* in 1983 for her Masters curriculum project. She served as a Christian Sexual Morality teacher at McNamara High School in Kankakee, Illinois where she formed a traveling peer sexual health group. She currently hosts a weekly radio show called “Catholic Answers” (Mast, 2001). I will be evaluating the 2001 edition of *Sex Respect*.

Clear Health Goals

TAC asks: Does the curriculum clearly focus on one or more specific behaviors that directly affect pregnancy or STI/HIV (condom usage, STI testing and treatment, abstinence, number of partners)?

Sex Respect scored a 2 on clear health goals. *Sex Respect* relates to the "expected outcomes" presented in the teacher manual and parent guide, which is to realize that saying ‘no’ to sex gives one freedom. Health goals in TAC include: 1) give the consequences of unprotected sex and the higher likelihood of contraction of HIV and STIs, or 2) provide consequences of becoming pregnant. These were touched upon, but distorted facts in the lessons do not allow students to get strong factual information. Clear information is key in this goal, as well as how the curriculum motivates participants to change their behavior. Motivation in this curriculum is through the method of fear and relies heavily on negative messages. *Sex Respect* spends a great deal of time discussing the bonding involved in sexual intercourse and uses this to explain why negative consequences are inevitable. Although the research is not cited, *Sex Respect* offers a scientific explanation for this:

Research has shown that this hormone [oxytocin] imprints a close bond to one’s present sexual partner. The bond without the lifetime commitment usually backfires, often

causing possessiveness and jealousy and making the dating relationship worse rather than better. When the person normally doesn't marry that pre-marital sex partner, this makes a later permanent relationship less intimate (Mast, 2001a, p. 57).

Perhaps, that is why men, who damage their bonding mechanism through casual sex, are less able to form lifetime commitments to their mates" (Mast, 2001b, p. 86).

I was not able to find any research to support these statements.

Sex Respect uses the "Duct Tape Example" which "helps the students better understand the painful emotional consequences of broken sexual relationships." Teachers are told to ask for a volunteer "preferably a boy with a hairy arm" and ask him if he is willing to stick a piece of duct tape on his arm. Teachers inform students that this is a weak example of the power of a sexual bond, but it is just for them to begin to understand. The teacher asks for permission to rip the tape off of the young man's arm, "Go ahead and rip. It will hurt. The class may laugh, and you may tell him you're sorry, but the pain is still apparent. The same is true with sex" (Mast, 2001b, p. 58). Then another student is selected to do the same thing, while the teacher points out that the tape does not stick as well when you rip it off the next student's arm. "The same is true with sex. Having multiple partners diminishes the bonding and diminishes the pain because promiscuous people have had to psyche themselves out by saying sex doesn't matter so much" (Mast, 2001a, p. 59).

Although this activity fits the program's goal, which is to scare adolescents into abstinence, it does not follow the characteristics suggested as effective by TAC. Effective programs according to TAC have information about unprotected sex, or contraction of STI or HIV information prevalent in their main health goals. There is nothing in regards to these issues;

it is all based on creating feelings of fear in the participants – and does not involve scientific research.

Addressing Multiple Risk and Protective Factors

TAC asks: Does the curriculum address multiple sexual psychological risks and protective factors that influence sexual behavior? (These include knowledge, risks, values, attitudes, perceived norms and self efficacy. This also includes knowledge of sexual issues, HIV, STI, and pregnancy along with methods of prevention.)

Again *Sex Respect* scored a 2. Although *Sex Respect* does give clear messages about what behaviors to engage in and not to engage in, they do not give any alternatives beyond that. Messages must be appropriate to the age, sexual experience, and family and community values of the culture for those one is teaching, according to TAC. *Sex Respect* continually disregards sexually active students, and does not address how different communities and cultures require different information and teaching methods. *Sex Respect* emphasizes the fact that those adolescents who are sexually active are undeserving of love, trust and respect.

Sex Respect starts by suggesting that abstinent students are more successful. The curriculum asks, “Is self-control easier for some people than others? Honor students and athletes have usually learned how to discipline their time” (Mast, 2001a, p. 26). This discriminates against those that are neither honor students nor athletes. Just because a student is neither of the two, does that mean they are not equipped to handle self control? Does it mean to imply that all athletes and honors students are masters of self control? Where is the evidence for this statement?

Later, the curriculum supports this by saying: “In fact, students who abstain do better in school. Only one in four top students is sexually active, says a 25-year survey by Who’s Who Among American High School Students” (Mast, 2001a, p. 49).

The curriculum then tells students that, “Many young teens who have been brought up with principles and values may have already decided they want to save sex for marriage” (Mast, 2001a, p. 36). It suggests that, “saying ‘no’ to teenage sex can set you apart as a thoughtful and self-controlled individual” (Mast, 2001a, p. 72) and that, “there are millions of teenagers all over the world who face and resist the temptations of premarital sex” (Mast, 2001a, p. 111).

If this curriculum teaches students about abstinence, then rates of students who previously declared themselves abstinent but then decided to have sex should be mentioned. Just as they point out failure rates in condoms, this should be pointed out as well. Although it is specified that avoidance of sex is best, *Sex Respect* does not go about this in an appropriate manner. Being a “secondary virgin” is highlighted in the curriculum. This term includes students who have already lost their virginity, but would like to reclaim their virginity by committing to abstinence again. This could be problematic for teens to deny their sexual past. As just one example, if their previous sexual interactions involved sexual risk taking, and they have contracted an STI, but decided they were going to take a secondary virginity they may put themselves at risk. Students seeing themselves as virgins may not be active in getting themselves tested for infections, or other negative health risks.

Also included under this TAC category is knowledge of sexual issues, perceptions, self efficacy to refuse sex and avoid STI/HIV risk and risk behaviors, peer norms, and intent to remain abstinent from sex. *Sex Respect* received a 2 on this. *Sex Respect* does give information about how to avoid certain situations and behaviors, but its tactic again involves fear. Discussion of petting and alcohol use demonstrates this fear base. It states that “touching the private parts of someone else’s body only increases the desire to go further. It works against our sexual self-control rather than helping us relieve the pressures” (Mast, 2001a, p. 80). Students are told,

“Don’t kid yourself into thinking that sexually arousing activity leading up to intercourse is a good replacement activity. This still works against your self-control and is a step backwards instead of forward in teenage sexual maturity” (Mast, 2001a, p. 40). “Alcohol, drugs, and petting are influences we choose; we can decide to drink or not to drink, and to allow or not to allow someone to touch us sexually” (Mast, 2001a, p. 30). Students are then asked to brainstorm, “how do petting and drinking harm our choices?” (Mast, 2001a, p. 40).

Brainstorming is not one dimensional. That above statement is. Brainstorming should allow students to think about all the possibilities and positions of a value or argument. By saying “how do these harm our choices,” they are already setting students up to reply with negative messages. Harm is not a positive word, and students will provide answers the curriculum implicitly implies. This is not brainstorming. When we do not allow the students diversity in thinking, we do not let them internalize the information, which means the chances that it affects actual behaviors outside of the class will be low.

Social Environment

The next TAC recommendation is creating a safe environment for youth to participate. TAC asks: Does the curriculum establish group rules and boundaries before sessions? Does the curriculum use ice breakers to ease discussion and allow all students to participate while offering positive reinforcement? It is also suggested that if appropriate, the curriculum divides students by gender so that they can be comfortable with certain topics.

Sex Respect scored a 1 here. TAC emphasizes the fact that students should feel comfortable in their environment. Students will not feel comfortable if they do not fit into *Sex Respect*’s very stringent guidelines of how adolescents should act. *Sex Respect* makes this very clear throughout the curriculum: those who deviate from this path, will experience utter

destruction. The teacher manual does assist the teachers in helping teach about the curriculum, but other than that the social environment was not really taken into consideration.

In the curriculum, they tell a story of "LaWanda," is a homely teenager being raised by a single mother who is pressured by her more sexually experienced boyfriend, "Calvin," into having sex. LaWanda knew she was not especially pretty and she was not used to someone having time for her, so she liked the attention. LaWanda eventually fell deeply for Calvin, "she wouldn't even have minded having a baby with him." Soon after, Calvin dumps LaWanda and takes up with another girl. LaWanda was torn apart by the pain of being left alone by the men in her life, first her father and now Calvin," continues the story. "How would she ever be able to trust another man again?" Meanwhile, teenagers with names like "Chris" and "Cindy" help each other say no to sex (Mast, 2001a, p. 50). The story of "LaWanda" and "Calvin" reinforces a number of negative stereotypes about African American that represent young men as players, young women as wanting to have babies, and all of these families as living without fathers. This does not offer a safe and warm environment for African American's.

My analysis also reveals that minorities are absent from the contents and illustrations, and that diversity of ethnicity, socioeconomic status, and lifestyles is not represented. No other ethnic groups besides Anglo-Saxon and a few African Americans or persons with physical disabilities are portrayed as well as those that are sexually active, LGBT youth, or youth with LGBT parents and family members. How are these youth, who are left out of this curriculum, supposed to learn about sexuality when they cannot relate to the curriculum or the curriculum makes them feel uncomfortable?

Multiple Activities To Change Selected Risk and Protective Factors

TAC asks: Does the curriculum discuss the importance of basic information about risks of having sex and methods to avoid sex or use protection? (Transmission of HIV/STIs, common myths, consequences of pregnancy, encouragement of communication on the topics).

Multiple activities to change targeted risk and protective factors scored a 2 in the *Sex Respect* curriculum. To its credit, *Sex Respect* does reinforce the message that it is important for sexually active young people to be tested for STDs. “If you’ve already had sexual contact, it’s advisable to go now to your hospital, clinic or doctor to be tested and that “early treatment now can spare some long-term damage” (Mast, 2001a, p. 55). But again it is fear based rather than fact or information based.

But, the Teacher Manual also explains that “birth control does not relieve the guilt, doubt, disappointment and fear of being used that many teens experience in sex outside of marriage” (Mast, 2001b, p.14). In fact, according to the curriculum, “contraception, technology’s despairing answer to adolescent sexual activity, has intensified the loneliness, frustration, and emptiness of our young people” (Mast, 2001a, p. 15). This is cited with no research backing. The curriculum also tells students, “Naturally occurring defects in condoms are 5 microns in size which are 50 times larger than the HIV virus.” It goes on to say, “There is still some uncertainty about how effectively even a latex condom protects against the virus” (Mast, 2001a, p. 67). This discourages students to use protection if they decide to have sex. Girls who decide to use birth control will now be stigmatized, and should feel all of these horrible feelings *Sex Respect* mentions according to the curriculum. *Sex Respect’s* information about condoms is incorrect, which is another attempt to instill fear in the participants.

Sound Teaching Methods

The last TAC content category involves using instructionally sound teaching methods that involve participants and personalize the information. This means including varied teaching methods. TAC asks: Does the curriculum involve methods that include class discussion, role plays, brainstorming sessions, short lectures, games, surveys, stories, that allow youth to apply these new concepts to their life?

This curriculum scored a 2 here. *Sex Respect* does have some variance in teaching methods, but the quality of how it is conveyed is what hurts the curriculum. There are brainstorming sessions, small group activities, class discussions, lectures and activities. But when analyzing the way the curriculum addresses critical thinking skills, I see flaws. These exercises lead to only one decision. Students are told, “Many wise people agree that a relationship in which both partners are committed for life is the best setting for sex” (Mast, 2001a, p. 14). This has not been shown to be a universally held value, and instead of asking students to examine the statement and compare and contrast with their families and communities, they only have them say why this is a good idea. *Sex Respect* does not trust students to use their own abilities to deeply analyze the issue. Because the curriculum does not teach teens about birth control and abstinence, *Sex Respect* often presents scenarios that persuade a student to think in one dimension. This does not allow students to personalize the information. Exploration of personal attitudes, values, and insights is substituted by a set of prescribed concepts. Overall, *Sex Respect* had a low score on all of TAC’s content categories.

My Recommendations

1) Does the curriculum use terminology that is clearly defined?

Sex Respect scored a 1 in this area. There was no explanation of terminology used. Concepts are not clarified. For instance, on page two of the student workbook, "Maturity" is the main topic of the text, but the term is never clearly defined. The "Progression of Sexual Feeling"

which contains basic misconceptions about human sexual response is another example of such. Being together, hand holding and a good night kiss are placed at one end of the progression, directly correlated with no genital feeling aroused, ignoring the fact that arousal may occur in all of those instances. If the principle of free choice involves knowledge of all available options, *Sex Respect* does not "respect" free choice or individual differences in opinion or experience.

2) Are evaluations conducted to investigate related behavioral changes to the program that utilize sound research methodology?

Sex Respect scored a 1 in this area. I could not find any evaluations done on this curriculum that have strong research designs. As mentioned in the teacher manual, this is a very popular curriculum, but popularity does not equal effectiveness. This program has not been adequately or sufficiently evaluated to demonstrate whether the positive aspects outweigh negative ones and to what extent. Thus, *Sex Respect* needs adequate evaluation, revision, and justification prior to further widespread implementation because of the students exposed to this program.

3) Is the curriculum clearly based on scientifically accepted theoretical principles (ex: Health Belief Model, Social Learning Theory)?

There was no mention of any theoretical frameworks within the curriculum or teachers guide. Through my investigation of the entire curriculum, I determined that Social Learning Theory was implicitly used when discussing some of the concepts such as the benefits of avoiding premarital sex, so I gave *Sex Respect* a 1 in this area.

Like many abstinence-based curriculums, *Sex Respect* has many religious undertones throughout, which guide the curriculum. In discussions on the consequences of premarital sexual behavior, the curriculum explains to students, "Some of you may have heard at home or

from other important people in your life that there are spiritual reasons [that sex belongs in marriage], also” (Mast, 2001a, p. 15). Discussing sexually active teens, the curriculum explains to parents, “If you belong to a particular religious denomination, seek assistance from your religious leaders on a helpful method of forgiveness and spiritual healing that are available for your teen to restore their relationship with themselves, others and God” (Mast, 2001c, p.70).

Although specific denominations are not listed in the actual curriculum, statements like these are; “Set ending time for your date before you go out. Be home on time. Don’t invite your date in. Lead yourselves not into temptation” (Mast, 2001a, p. 102).

The author explains that while schools may not teach specific religious content, they already teach many values that “do not belong to any particular religion” such as not stealing or using drugs (Mast, 2001b, p. 15). “Indeed school systems are compelled to endorse those values that promote health and the common good. And while many of those values are also part of some religious beliefs, to teach such universal values is not to endorse any particular religion” (Mast, 2001a, p. 15). The curriculum ends this argument by saying, “Since no religion is against premarital virginity, teaching sexual abstinence does not impinge on students’ religious freedom” (Mast, 2001b, p. 15). These statements and values can cause problems because they are assuming too much. Pre-marital sexuality is not a universally held value (Weeks, 1995). This assumption impinges upon students’ rights. For pregnancy, students are referred to numerous resources across the curriculum which includes crisis centers and organizations which are Christian oriented and have goals of preventing abortion.

Conclusion

Based on TAC and my recommendations for a strong curriculum, *Sex Respect* failed on almost every one. There is no segregation of ages and grades. The creator expects that this curriculum is suitable for all developmental groups, not taking into consideration that different

age groups need different information based on their developmental abilities. Sexually experienced youth are discriminated against and not given the education they need. They are stigmatized by the language used about them in comparison to someone who is abstinent. They do not equip students with information in regards to their needs. The curriculum omits discussion of contraceptive methods, abortion, and keeping a child in the case of unplanned and unwanted pregnancy. To them, sexuality is not a lifelong process, but one that you encounter in marriage during adulthood. What is after that? There is no mention of how to build and sustain satisfying relationships. I would not recommend this curriculum to use in public school systems. This curriculum caters to one audience, which is that of non-sexually active Christian students who have a high desire to maintain their virginity until marriage. This type of curriculum has many implications for our adolescents, which will be discussed next.

IMPLICATIONS

Many abstinence-based curricula, because of their ideological bases, will not change their stance on sex before marriage. I am not proposing that they do, nor am I advocating that abstinence is harmful. I am proposing that abstinence-based curricula content should be based on sound research findings that have been shown to change unsafe or unhealthy sexuality behaviors into healthier ones. My recommendations for strong curricula, as well as TAC's, can inform the creation of effective abstinence-based curricula. They are adaptable to a wide variety of curricula and should be taken into consideration as a curriculum is created or assessed.

Based on the evidence in this evaluation, the comprehensive curriculum covers more needs of adolescents and addresses issues that are relevant, medically accurate, and cater to a more diverse audience. Although F.L.A.S.H was not perfect and had areas that needed improvement, it still scored higher than *Sex Respect*. Although *Sex Respect* did meet some of TAC's goals, we need to know how abstinence and respect are actually related, and more importantly, how are they promoted? Precisely because the effects of abstinence-based sexuality education curricula have been poorly documented, it is imperative that professionals responsible for implementing sexuality education become familiar with the content or the message of this type of curriculum. Only then can adequate and informed choices of curricula be made that will benefit students. This paper contributes to an informed decision-making process by presenting a content assessment of two curricula.

Curricula should be subject to constant evaluation. Without this, how do we know what is effective? Obviously, popularity does not mean effectiveness. Both curricula suffered from lack of evaluation. Understanding that public health programs and curricula often do not have

the money for evaluations, this should be something the government should provide. Without it we may be wasting money with poor programs that may not achieve results and may cause damage.

Family Life Education Implications

Family Life Education is designed to strengthen relationships in the home and foster positive individual, couple, and family development. Such education encompasses many topics, with Human Sexuality being one of them. According to Arcus, Schvaneveldt, & Moss (1993), any form of education that has as its goal as to “strengthen and enrich individual and family well-being” falls under this category (p. 21). This education follows the operational principles set for by Arcus et al., (1993). Specifically, these principles state that FLE is:

1. Relevant to individuals, couples, and families across the life span
2. Based on the felt needs of individuals, couples, families and communities
3. Draws on material from many fields that is multiprofessional in its practices
4. Is offered in many venues, including community workshops, video and print media, publications, the Internet, and many other settings
5. Is educational rather than therapeutic
6. Is respectful of diverse values
7. Requires qualified FLEs to realize its goal (p. 15-20).

Unfortunately, many abstinence-based sexual education programs do not fall under this category. The needs of adolescents require different methods than those set forth in abstinence curricula. Much of the abstinence curricula is irrelevant to the average American teenager. Education must be respectful of diversity, not hinder it. Abstinence-base does not meet these requirements, but comprehensive does.

One of the problems of abstinence-base curricula stems from the fact that they are trying to cater to an audience that is not fit for the curricula. The diversity of the American population requires educational methods that are respectful of the varying values, and expecting abstinence-base curricula to fit this population is impossible. According to Myers-Walls & Myers-Bowman, (1989) many education programs do not outline their underlying values and beliefs, even though values are a definitive part of these programs. These authors urge educators and curriculum writers to always list the values in materials. The audience needs to know where the educators and developers are coming from. Instead of just implementing the curriculum without any mention of such, we leave out an integral part of the education in itself. Answering the “why” of our programs, we are better able to meet the needs audiences and match up values and beliefs consistently. Abstinence programs may work for a select group of adolescents, but not on the majority. Abstinence-base programs need to realize this and explicitly list their values in the curricula. Those values can be matched with a group of adolescents with similar values, making the curricula more effective. This also makes the choices clearer to educators when trying to pick out materials to use. Education is not free of values, so the materials that we use should try to explicitly state them.

CONCLUSION

No amount of research will settle the moral and religious disputes that circle sexual education debates. But what research can do is point parents, educators, and policy makers towards positive health outcomes for adolescents. We cannot shelter adolescents, and part of being a responsible country involves facing this reality by implementing programming that truly meets the needs of our young. Although behavior research cannot make judgment about social values, it can evaluate the success of school-based curricula. The weight of evidence from peer-reviewed scientific journals shows that comprehensive sexual education programs reduce behavior that puts children at risk of HIV, STIs and unintended pregnancy without promoting early onset of sexual activity or increased numbers of sexual partners of adolescents. Young people need to be able to assess the values and expectations of society in order to determine their own behavior in those contexts. Comprehensive curricula address that, but many abstinence-based ones do not.

Policy Changes

Abstinence-only-until-marriage programs violate student's rights. Federally funded programs restrict young people's access to much-needed health information and limit their education to the "approved" messages in the government's definition of abstinence-only education. The first step in achieving better programs is creating better curricula. It is using research as its backing and composing more tools, or one universal tool, that allows educators to evaluate curricula for effectiveness. The next step in this process is getting our government to listen. Evidence does not suggest widespread replication of abstinence-based sex education programs. In contrast, comprehensive programs had more positive results in evaluation studies.

This would mean refraining from implementing abstinence-only approaches at both a national and international level.

If we try to involve all social sectors, we can advocate for better programs that promote sexual understanding and rights. Young people can advocate for better services in and out of school. Sexuality education professionals must ensure that they have the most appropriate information, training, tools and skills. Families can encourage communication and acceptance of sexuality talks within the home. Communities need to ensure young people that they will have access to some form of quality sexuality health education and offer effective linkages between services and education. Governments should develop rights-based, sexuality education that can be integrated into national school curricula. If governments still have problems letting go of abstinence-based education, maybe we should try pushing more than one approach. Doing so, an adequate amount of national funding for comprehensive sexuality education and abstinence-based education could be authorized each year.

Both sides of this issue seek the same outcome, lower teenage pregnancies, AIDS/HIV, and STI rates. Both want adolescents to make healthy sexual choices. In order for young people to make good decisions about sexual and reproductive health matters, they need good information, values and attitudes consistent with health goals, skills to behave consistently with their knowledge and values, and access to quality health services. It is through the dissemination of research-based knowledge that adolescents increase opportunities to make healthy and informed decisions regarding their reproductive health. Positive, quality approaches should not be seen as a luxury, but rather as an essential for better health and well being. I hope that comprehensive sexuality education may begin to encourage society to accept that sexuality is human nature and parents, educators, healthcare professionals, and policymakers support this in

providing adolescents with factual sexual health information. This way we address the most important objective of sexuality education: improving the health and well-being of young people, now and in the future.

REFERENCES

- Aarons, S.J., Jenkins, R.R., Raine, T.R., El Khorazaty, M.N., Woodward, K.M., Williams, R.L., et al. (2000). Postponing sexual intercourse among urban junior high school students - A randomized controlled evaluation. *Journal of Adolescent Health, 27*, 236-247.
- Abel, E.M., & Greco, M. (2007). A preliminary evaluation of an abstinence-oriented empowerment program for public school youth. *Research on Social Work Practice, 18*, 223-230.
- Abstinence Education: Efforts to Assess the Accuracy and Effectiveness of Federally Funded Programs Report GAO-07-87*. (2006). Washington, D.C.: Government Accountability Office.
- Advocates for Youth. (2001). *Sex Education Programs: Definitions & Point-by-Point Comparison*. Retrieved July 10, 2009 from http://www.advocatesforyouth.org/index.php?option=com_content&task=view&id=655&Itemid=177.
- Advocates for Youth. (2003). *Adolescent Sexual Health in Europe and the U.S. – Why the Difference?* Retrieved July 8, 2009 from <http://www.advocatesforyouth.org/publications/factsheet/fsest.pdf>.
- Advocates for Youth. (2009). Publications on Abstinence-Only-Until-Marriage Programs. Retrieved September 29, 2009 from http://www.advocatesforyouth.org/index.php?option=com_content&task=view&id=1310&Itemid=177

- Alford, S. (2008). *Science and Success, Second Edition: Programs that Work to Prevent Teen Pregnancy, HIV & Sexually Transmitted Infections*. Washington, DC: Advocates for Youth.
- Allen J.P., & Philliber, S. (2001). Who benefits most from a broadly targeted prevention program? Differential efficacy across populations in the Teen Outreach Program. *Journal of Community Psychology, 29*, 637-655.
- American Academy of Pediatrics. (2001). *Sexuality education for children and adolescents. Pediatrics, 108*, 498-502.
- Arcus, M.E., Schvaneveldt, J.D., & Moss, J.J. (1993). *Handbook of family life education: The practice of family life education*. Sage Publications, Inc
- Bandura, A. (1977). *Social Learning Theory*. Prentice-Hall Inc.
- Barnett, J.E., & Hurst, C.S. (2003). Abstinence education for rural youth: An evaluation of the Life's Walk program. *Journal of School Health, 73*, 264-268.
- Bearman, P., & Brückner, H. (2005). After the promise: The STD consequences of adolescent virginity pledges. *Journal of Adolescent Health, 36*, 271-278.
- Baumeister, R.F., Campbell, J.D., Krueger, J.I., & Vohs, K.D. (2003). Does high self esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*, 1-44.
- Behavior Change -- A Summary of Four Major Theories. (2007). Retrieved July 14, 2009 from <http://www.fhi.org/NR/rdonlyres/ei26vbslpsidmahhxc332vwo3g233xsqw22er3vofqvrffvubwyzclvqjcbdgexyzl3msu4mn6xv5j/BCCSummaryFourMajorTheories.pdf>.

- Bersamin, M.M., Fisher, D.A., Walker, S., Hill, D.L., & Grube, J.W. (2007). Defining virginity and abstinence: adolescents' interpretations of sexual behaviors. *Journal of Adolescent Health, 41* (2), 182-187.
- Blake, S. & Frances, G. (2001). *Just Say No To Abstinence Education*. National Children's Bureau.
- Blake, S. & Katrak, Z. (2002). *Faith, values and sex and relationships education*. London: Sex Education Forum.
- Borawski, E.A, Trapl, E.S., Adams-Tufts, K., Hayman, L.L., Goodwin, M.A., & Lovegreen, L.D. (2009). Taking be proud! Be responsible! To the suburbs: a replication study. *Perspectives on Sexual and Reproductive Health, 41*(1), 12-22.
- Breinbauer, C., & Maddaleno, M. (2005). *Youth: Choices and Change*. Pan American Health Organization.
- Brooks-Gunn, J. & Reiter, E. O. (1990). *The role of pubertal processes in the early adolescent transition*. In S. Feldman & G. Elliott (Eds.). *At the threshold: The developing adolescent* (pp. 16-53). Cambridge, MA: Harvard University.
- Carter, T. (2004). *Evaluation Report for The Kansas Abstinence Education Program*. Kansas Department of Health and Environment: Topeka, KS.
- Centers for Disease Control and Prevention. (2009). *The National Center of Health Statistics*. Retrieved August 9, 2009 from <http://www.cdc.gov/od/oc/media/pressrel/2007/r071205.htm>.
- Chesson, H.W., Blandford, J.M., Gift, T.L., Tao, G., & Irwin, K.L. (2000). *The estimated direct medical cost of sexually transmitted diseases among American Youth*. *Perspectives on Sexual and Reproductive Health, 36*(1), 11-19.

- Child Trends Fact Sheet*. (2008). Retrieved June 31, 2009 from
http://www.childtrends.org/Files/Child_Trends-2008_05_20_FS_WhatWorksRepro.pdf.
- Choosing the best: The leader in abstinence education*. (n.d). Retrieved July 9, 2009 from
www.choosingthebest.org/why_abstinence/index.html.
- Clark, M. A., Trenholm, C., Devaney, B., & Wheeler, L.Q. (2007). *Impacts of the Heritage Keepers Life Skills Education Component: Final report* [Electronic Version]. Princeton, NJ: Mathematica Policy Research, Inc.
- Condoms: history, testing, and effectiveness*. (2009). Retrieved July 3, 2009 from
<http://www.avert.org/condoms.htm>.
- Cook, B. *Choosing the Path* (2001) and *Choosing the Best Life* (2003). Choosing the Best Inc: Atlanta, GA.
- Coyle, K.K, Basen-Engquist, K.M., Kirby, D.B., Parcel, G.S., Banspach, S.W., Collins, J.L., Baumler, E.R., Carvajal, S., & Harrist, R.B. (2001). Safer Choices: Reducing teen pregnancy, HIV, and STDs. *Public Health Reports*, 116, 82–96.
- Davidson, J. (2004). *Evaluation methodology basics: the nuts and bolts of sound evaluation*. Thousand Oaks: Sage.
- Dailard, C. (2006). Legislating Against Arousal: The Growing Divide Between Federal Policy and Teenage Sexual Behavior. *Guttmacher Policy Review*, 9, 3.
- Denny, G., & Young, M. (2006). An evaluation of an abstinence-only sex education curriculum: An 18-month follow up. *Journal of School Health*, 76(8), 414-422.
- Dunphy, D.C. (1963). The social structure of urban adolescent groups. *Sociometry*, 230-246.
- Duran, M. (2002). *Reasonable Reasons to Wait: The Keys to Character (RRTW)*. Chantilly, VA: A Choice in Education.

- Eisen, M., Zellman, G.L., & McAlister, A.L. (1990). Evaluating the impact of a theory-based sexuality and contraceptive education program. *Family Planning Perspectives, 22*, 261-271.
- Eisenberg, M., Bernat, D.H., Bearinger, L.H., & Resnick, M.D. (2008). Support for comprehensive sexuality education: Perspectives from parents of school-age youth. *Journal of Adolescent Health, 42*, (4), 352-359.
- Elkind, D. (1967). *Child Development, 38* (4), 1025-1034.
- Erikson, E. (1963). *Childhood and Society*. New York: WW Norton Company.
- Evaluations of Responsible Sexual Behavior Education in the Cleveland Metropolitan School District*. (2008). Retrieved June 19, 2009 from www.aidstaskforce.org/ASSETS/98FA5FB1194443BFA77DF7F2B723417F/CMSD%20K_12%20Eval%202007_2008%20final%20report.pdf.
- Fang, X., Stanton, B.F, Li,X., Feigelman, S., & Baldwin, R. (1998). Similarities in sexual activity and condom use among friends within groups before and after a risk-reduction intervention. *Youth and Society, 29*, 430–451.
- Fishbein M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior*. Reading, MA: Addison-Wesley.
- Focus on the Family. (2009). *Abstinence Policy*. Retrieved July 19, 2009, from: http://www.focusonthefamily.com/about_us.aspx
- Garofalo, R., & Katz, E. (2001). Health care issues of gay and lesbian youth. *Current Opinion in Pediatrics, 13*, 298-302.
- Giddens, A., & Griffiths, S. (2006). *Sociology*. Polity Press: Madlen, MA.

Glanz, K. & Rimer, B.K. (1997). *Theory at a Glance: A Guide for Health Promotion Practice*.

Retrieved September 24, 2009 from <http://www.cancer.gov/>.

Glanz, K., Rimer, B.K. & Lewis, F.M. (2002). *Health Behavior and Health Education*.

Theory, Research and Practice. San Francisco: Wiley & Sons.

Goodson, P., Pruitt, B.E., Suther, S., Wilson, K., & Buhi, E. (2006). Is abstinence education

theory based? The underlying logic of abstinence education programs in Texas. *Health Education & Behavior*, 33 (1), 252-271.

Grumbach, Grave & Mayer. (1973). *Control Of the Onset of Puberty*. Wiley: New York

Guttmacher, S., Lieberman, L., Ward, D., Freudenberg, N., Radosh, A., & Des Jarlais, D.

(1997). Condom availability in New York City public high schools:

Relationships to condom use and sexual behavior. *American Journal of Public Health*, 87, 1427–1433

Halpern, C.T., Joyner, K., Udry, J.R., & Suchindran, C. (2000). Smart teens don't have

sex (or kiss much either). *Journal of Adolescent Health*, 26, 213–225.

Hamilton, B.E., Martin, J.A. & Ventura, S.J. (2009). *Births: Preliminary Data for 2007*.

National Vital Statistics Reports, 57(12), 1-23.

Hauser, D. (2004). *Five Years of Abstinence-Only-Until-Marriage Education: Assessing*

the Impact. Washington D.C.: Advocates for Youth.

Healthy Teen Network & ETR Associates. (2007). *Tool to Assess Characteristics*. Retrieved

July 8, 2010 from <http://www.etr.org/recapp/documents/programs/tac.pdf>.

Impact of HIV and Sexual Health Education on the Sexual Behavior of Young People: a

Review Update. (1997). Geneva, Switzerland: UNAIDS.

- IPPF. (2006). *IPPF framework for comprehensive sexuality education*. London: IPPF Adolescent Team.
- Irwin, C.E., & Millstein, S.G. (1992). *Risk-taking behaviors and biopsychosocial development during adolescence*. Hillsdale, NJ: Erlbaum.
- Ito, K.E., Gizlice, Z., Owen-O'Dowd, J., Foust, E., Leone, P.A., & Miller, W.C. (2006). Parent Opinion of Sexuality Education in a State with Mandated Abstinence Education: Does Policy Match Parental Preference? *Journal of Adolescent Health, 39*, (5), 634-641.
- Jackson, C. (1997). Behavioral science theory and principles for practice in health education. *Health Education Research: Theory & Practice, 12*, 143-150.
- Kaiser Family Foundation. (2002). *Sex Education in the US: Policy and Practice, Issue Update October 2002*. California: Kaiser Family Foundation.
- Kempner, M.E. (2001). *Abstinence-only-until marriage programs that try to keep our youth "scared chaste."* New York: Sexuality Information and Education Council of the U.S.
- Kirby, D. (2001). *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*. Retrieved June 15, 2009 from www.teenpregnancy.org/resources/data/pdf/emersumsum.pdf.
- Kirby, D. (2002). Effective approaches to reducing adolescent unprotected sex, pregnancy, and childbearing. *The Journal of Sex Research, 29*, 51-57.
- Kirby, D. (2007). *Emerging Answers 2007: Research findings on programs to reduce teen pregnancy and sexually transmitted diseases*. Retrieved June 15, 2009 from http://www.thenationalcampaign.org/EA2007/EA2007_sum.pdf.

- Kirby, D. (2008). The impact of abstinence and comprehensive sex and STD/HIV education programs on adolescent sexual behavior. *Sexuality Research & Social Policy*, 5 (3), 18-27.
- Kirby, D., Baumler, E., Coyle, K., Basen-Enquist, K., Parcel, G., Harrist, R., et al. (2004). The "Safer Choices" intervention: Its impact on the sexual behaviors of different subgroups of high school students. *Journal of Adolescent Health*, 35(6), 442-452.
- Kirby, D., Korpi, M., Barth, R.P., & Cagampang, H.H. (1997). The impact of Postponing Sexual Involvement curriculum among youths in California. *Family Planning Perspectives*, 29, 100-108.
- Kirby, D., Laris, B.A., & Roller, L. (2006). *The Impact of Sex and HIV Education Programs in Schools and Communities on Sexual Behaviors Among Young Adults*. Family Health International: Research Triangle Park, NC.
- Lawrence, J.S., Brasfield, T.L., Jefferson, K.W., Alleyne, E., O'Bannon, R., & Shirley, A. (1995). Cognitive-behavioral intervention to reduce African American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology*, 63, 221-237.
- Levy, S.R., Perhats, C., Weeks, K., Handler, A.S., Zhu, C., & Flay, B.R. (1995). Impact of a school-based AIDS prevention program on risk and protective behavior for newly sexually active students. *Journal of School Health*, 65, 145-151.
- Lyles, C.M., Kay, L.S., Crepaz, N., Herbst, J.H., Passin, W.F., Kim, A.S., Rama, S.M., Thadiparthi, B.S., DeLuca, J.B., Mullins, M. (2006). Best evidence interventions: findings from a systematic review of HIV behavioral interventions for U.S. populations at high risk, 2000-2004. *American Journal of Public Health*, 133-143.

- Lin, A.J., & Santelli, J.S. (2008). The accuracy of condom information in three selected abstinence-only education curricula. *Sexuality Research & Social Policy*, 5(3), 56-70.
- Maher, B. E. (2005). *Abstinence until marriage: The best message for teens*, Family Research Council. Retrieved July 6, 2009 from www.frc.org/get.cfm?i=IS03B1
- Manlove, J., Romano-Papillo, A., & Ikramullah, E. (2004). *Not yet: Programs to delay first sex among teens*. Washington, DC: National Campaign to Prevent Pregnancy.
- Mast, C.K. (2001a). *Sex Respect, The Option of True Sexual Freedom (Student Workbook)*. Respect, Inc.: Homer Glen, IL.
- Mast, C.K. (2001b). *Sex Respect, The Option of True Sexual Freedom (Teacher Manual)*. Respect, Inc.: Homer Glen, IL.
- Mast, C.K. (2001c). *Sex Respect, The Option of True Sexual Freedom (Parent Guide)*. Respect, Inc.: Homer Glen, IL.
- Memorandum: Application of Research Findings*. (2007). Retrieved July 9, 2009 from <http://www.nwlc.org/pdf/7-12-07interestedpartiesmemo.pdf>.
- Myers-Walls, J.A., & Myers-Bowman, K.S. (1989). Sorting through parenting education resource values and the example of socially conscious parenting. *Family Science Review*, 12 (2), 68-86.
- National Campaign to Prevent Teen Pregnancy. (2002). *Not Just Another Single Issue: Teen Pregnancy's Link to Other Critical Social Issues*. Washington, DC: Author.
- National Campaign to Prevent Teen Pregnancy. (2002). *With One Voice 2002: America's Adults and Teens Sound off about Teen Pregnancy*. Washington, DC: Author.
- National Campaign to Prevent Teen Pregnancy. (2007). *With One Voice 2007: America's Adults and Teens Sound Off about Teen Pregnancy*. Washington, DC: Author.

- National Guidelines Taskforce. (1991). *Guidelines for comprehensive sexuality education* (3rd ed.). New York: SIECUS.
- NIH Guide. (2003). *Maintenance of Long Term Behavioral Change*. Retrieved July 14, 2009 from <http://grants.nih.gov/grants/guide/rfa-files/RFA-OB-03-003.html>.
- Norris, A.E., & Ford, K. (1998). Moderating influence of peer norms on gender differences in condom use. *Applied Developmental Science, 2*, 174–181.
- Nyeri Youth Health Project (Kenya). (2005). Retrieved June 20, 2009 from http://www.advocatesforyouth.org/storage/advyf/documents/sciencesuccess_developing_es.pdf
- Owen, J.M. (2006). *3rd Ed. Program Evaluation: Forms and Approaches*. International Edition: Sage Publications, Thousand Oaks
- Philliber, S., Kaye, J., & Herrling, S. (2001). *The national evaluation of Children's Aid Society Carrera-Model Program to prevent teen pregnancy*. Accord, NY: Philliber Research Associates.
- Piaget, J. (1974). *The psychology of intelligence*. New York: Harcourt.
- Rector, R.E. (2002). *The effectiveness of abstinence education programs in reducing sexual activity among youth*. Washington, DC: Heritage Foundation.
- Reis, E. (2005). *F.L.A.S.H. Lesson Plans: Comprehensive sexuality education curriculum*. Seattle Public Health Program: Seattle, WS.
- Roach, N., & Benn, L. (1998). *Me, My World, My Future*. Teen Aid: Spokane, WA.
- Rogow, D., & Haberlan, N. (2005). Sexuality and relationship education: Toward a social studies approach. *Sex Education, 5*(4), 333-334.

- Rose, E., DiClemente, R.J., Wingood, G.M., McDermott Sales, J., Latham, R.J., Crosby, R.A. et al., (2009). *Archives of Pediatric Adolescent Medicine*, 163(1), 61-64.
- Safe Sex Can Kill You*. (n.d). Sex Respect Curriculum.
- Salkind, N., & Rasmussen, K. (2008). *Encyclopedia of Educational Psychology*. Sage Publications.
- Santelli, J., Ott, M. A., Lyon, M., Rogers, J., Summers, D., & Schleifer, R. (2006). Abstinence and abstinence-only education: A review of U.S. policies and programs. *Journal of Adolescent Health*, 38, 72-81.
- Scheidt, R. (Speaker) (2007, Fall). *Data Analysis*. Presented in FSHS 888 Research Methods, Kansas State University, Manhattan, KS.
- Schuster, M.A., Bell, R.M., Kanouse, D.E. (1996). The sexual practices of adolescent virgins: genital sexual activities of high school students who have never had vaginal intercourse. *American Journal of Public Health*, 86(11), 1570–1576.
- Sex Education Forum. (1999). *The Framework for sex and relationships education*. London: Sex Education Forum.
- SIECUS. (2006). *The National Campaign to Prevent Teen Pregnancy Releases National and State-by-State Figures on the Costs to Taxpayers*. [Press Release] New York: Author
- SIECUS. (2007). *In Good Company: Who Supports Comprehensive Sexuality Education?* Retrieved June 28, 2009 from http://www.siecus.org/policy/in_good_company.pdf.
- SIECUS. (2008). *A Brief History: Abstinence Only Until Marriage Funding*. Retrieved from http://www.nomoremoney.org/index.cfm?pageid=947http://siecus.org/data/global/images/in_good_company.pdf.

- Silverman, J.G., Decker, M.R., Reed, E., Rothman, E.F., Hathaway, J.E., Raj, A., & Miller, E. (2006). Social Norms and Beliefs Regarding Sexual Risk and Pregnancy Involvement among Adolescent Males Treated for Dating Violence Perpetration. *Journal of Urban Health*, 83 (4), 723-735.
- Smith, E., Dariotis, J., & Potter, J. (2003). *Evaluation of the Pennsylvania Abstinence Education and Related Services Initiative: 1998- 2002*. Retrieved July 9, 2009 from <http://www.dsf.health.state.pa.us/health/lib/health/familyhealth/evaluationpaabstinence1998-20021.pdf>>.
- Social Security Act*, 42. (1996). 104-193.
- STD, HIV/AIDS*. (n.d). Retrieved July 5, 2009 from <http://www.gmu.edu/student/health/stdhiv.htm>.
- Tanner, J. M, (1972). *Sequence, tempo, and individual variation in growth and development of boys and girls aged twelve to sixteen*. In Kagan, 3., and Coles, R. (eds.), *Twelve to Sixteen: Early Adolescence*. Norton, New York.
- The Content of Federally Funded Abstinence-Only Education Programs*. (2004). Washington, DC: United States House of Representatives, Committee on Government Reform, Minority Staff, And Special Investigations Division.
- Theory-Based Interventions and Evaluations of Outreach Efforts*. (2007). Retrieved September 3, 2009 from n.nlm.gov/evaluation/pub/witte/.
- Tortora, G.J. & Anagnostakos, N.P. (1987). *Principles of Anatomy and Physiology*. Harper & Row: New York.

- Trenholm, C., Devaney, B., Fortson, K., Quay, L., Wheeler, J., & Clark, J. (2007). *Impacts of Four Title V, Section 510 Abstinence Education: Final report*. [Electronic Version]. Princeton, NJ: Mathematica Policy Research, Inc.
- Trenholm, C., Deane, B., Fortson, K., Clark, M., Quay, L., & Wheeler, J. (2008). Impacts of abstinence education on teen sexual activity, risk of pregnancy, and risk of sexually transmitted diseases. *Journal of Policy Analysis and Management*, 27(2), 255-276.
- Underhill, K., Montgomery, P., & Operario, D. (2007). Sexual abstinence only programmes to prevent HIV infection in high income countries: systematic review. *British Medical Journal*, 1-12.
- Udry, J. (1988). Biological predispositions and social control in adolescent sexual behavior. *American Sociological Review*, 53, 709-722.
- Weed, S.E., Ericksen, I.H., Lewis, A., Grant, G.E., & Wibberly, K.H. (2008). An abstinence program's impact on cognitive mediators and sexual initiation. *American Journal of Health Behavior*, 32 (1), 60-73.
- Weeks, S. J. (1995). *Invented Moralities: Sexual Values in an Age of Uncertainty*. Cambridge: Polity Press.
- Wilson, K.L., Goodson, P., Pruitt, B.E., Buhi, E., & Davis-Gunnels, E. (2006). A review of 21 curricula for abstinence-only-until marriage programs. *Journal of School Health*, 75 (3), 90-98.

Appendix A-Websites

([http://www.advocatesforyouth.org/index.php?option=com_content&task=view&id=655
&Itemid=177](http://www.advocatesforyouth.org/index.php?option=com_content&task=view&id=655&Itemid=177), 2001).

http://www.healthyteennetwork.org/index.asp?Type=B_PR&SEC=%7B2AE1D600-4FC6-4B4D-8822-F1D5F072ED7B%7D&DE=%7BB3E92693-FE7D-4248-965F-6AC3471B1E28%7D).