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Northern Kentucky Adolescents' Awareness of the Sexual Abstinence Media Campaign

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NORTHERN KENTUCKY

ADOLESCENTS' AWARENESS OF THE

SEX CAN WAIT, SEXUAL ABSTINENCE MEDIA CAMPAIGN

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Abstract

AN ABSTRACT OF THE THESIS FOR THE MASTER OF EDUCATION DEGREE IN HEALTH PROMOTION AND EDUCATION, PRESENTED November 14, 2003, AT THE UNIVERSITY OF CINCINNATI, OHIO

Title: Northern Kentucky Adolescents' Awareness of the Sex Can Wait, Sexual Abstinence Media Campaign.

MASTERS COMMITTEE MEMBERS: Dr. Keith A. King (Chair) and Dr. Amy L. Bernard

Research has shown that adolescents who engage in sexual activity are prone to negative health consequences. These include teenage pregnancy, depression, suicide, high-risk behaviors such as increased drug and alcohol use and violence, and sexually transmitted diseases.

Comprehensive sexuality education programs have been developed and implemented to address these issues. For example, Abstinence-Plus education (abstinence and contraception), Postponing Sexual Involvement (until commitment), and Safer Sex programs were designed and implemented in schools across the U.S. to address the need. However, with the implementation of Title V and SPRANS abstinence grant funding from the Federal Government and an increased interest in decreasing adolescent sexual activity, there was a significant amount of new emphasis placed on more traditional, non-comprehensive Abstinence Until Marriage programs.

The Northern Kentucky Independent District Health Department thoroughly researched and conducted a Sex Can Wait media campaign, in conjunction with the implementation of Choosing The Best, an Abstinence Until Marriage education curriculum for 7th through 10th grades. This campaign and curriculum was conducted in Boone, Campbell, Grant and Kenton counties in Northern Kentucky. The campaign

which took place over a one-month period, featured network and cable television advertisements on channels such as FOX, MTV, VH1 and Nickelodeon stations. Radio advertising was done for a local teenage market station and billboards were also placed across the four-county area. A 39-item survey instrument was distributed to adolescents at the Florence Mall, Florence, Kentucky, assessed attitudes and awareness of the Sex Can Wait, Sexual Abstinence Campaign.

Results showed that adolescents' attitudes toward sexual abstinence until marriage did not differ based on gender or awareness of the media campaign. However, attitudes did differ significantly based on age. Younger adolescents had more favorable attitudes towards sexual abstinence until marriage than older adolescents.

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Chapter One

The Problem

Approximately one in five adolescents before 15 years of age has had sexual intercourse and one in seven girls before 14 years of age has become pregnant (Albert, Brown & Flanigan, 2003). Involvement in sexual intercourse and pregnancy correlates directly with age and grade level. Research from the most recent Youth Risk Behavior Survey (Centers for Disease Control and Prevention [CDC], 2001) indicated that 34% of 9^{th} graders, 41% of 10^{th} graders, 52% of 11^{th} graders, and nearly 61% of 12^{th} graders stated they had sexual intercourse at least once in their lifetime. Adolescent birth rates have declined steadily since 1991, from 62.1 births per 1,000 teenagers 15 to19 years old, to a record low in 2000 of 48.5 births per 1,000 adolescent 15 to19 years old (National Center for Health Statistics [NCHS], 2002). Despite such a decline, there are still many problematic issues concerning teenage sexuality.

Many adolescent equate sexual intercourse as the "only" sex, ignoring other sexual activities such as oral sex, anal sex, and mutual masturbation (Remez, 2000). There are some professionals who view these "other" sexual activities as a adolescents' belief they will remain a virgin, avoid pregnancy or HIV/AIDS. It is reported that even some health professionals and policy makers do not have the ability to address these issues because many adults do not even know how adolescents perceive sex (2000). The overall health consequences of all adolescent sexual activities are significant.

Each year, there are still approximately 15 million new cases of sexually transmitted diseases (Cates, 1999). Researchers from the Centers for Disease Control and Prevention (2000) estimate that one in three newly infected individuals are adolescents. In fact, adolescents under 15 years of age, who have been involved in sexual activities, are significantly more likely than those who have not been involved in sexual activities to engage in other risky behaviors, such as smoking and drug and alcohol use (National Campaign to Prevent Teen Pregnancy [NCPTP], 2003). In addition to risky behaviors, emotional issues can stem from early sexual activity. A new study by the Heritage Foundation (Rector, Johnson, & Noyes, 2003) found 25% of sexually active adolescent females were depressed all, most, or a lot of the time, versus 8% of sexually inactive adolescent females. Furthermore, 14% of adolescent females who had sexual intercourse had attempted suicide, versus 5% of sexually inactive adolescent females. Nearly 6% of sexually active adolescent males who had sexual intercourse had attempted suicide, versus less than 1% of sexually inactive adolescent males (2003). In all categories the numbers had increased over time.

Sexual education programs developed in recent years to address adolescent sexual activity have included abstinence-plus programs (which also discusses contraception or condom use as a component) such as the service learning Teen Outreach Program (TOP). The TOP program emphasizes meaningful work activities tailored to express student interests and community service (American Youth Policy Forum [AYPF], 2003). According to an evaluation of the TOP program, researchers found that TOP participants had a 41% lower rate of adolescent pregnancy after they completed the program (Allen, 1997). However, the same study suggests that the program also seems to be more

effective in reducing behavior leading to pregnancy among females than males (1997). Other researchers point out that the material in the TOP program on adolescent sexuality comprises less than 15% of the written curriculum, and if it overlaps with related material being offered in school or conflicts with prevailing community values, this part of the curriculum is not used (AYPF, 2003). The abstinence-plus programs (such as TOP) tend to promote sexual abstinence as an "option" rather than the "ultimate goal" (McIlhaney, 2003). These programs encourage sexual abstinence, but they also promote protection (condoms) if an adolescent becomes sexually active (Besharov & Gardner, 2001).

The teacher (adult-led) and peer-led sexual education programs such as Postponing Sexual Involvement (PSI) are middle school curriculums designed to delay the onset of sexual activity in adolescents (Kirby, Korpi, Barth & Cagampang, 1997). In an evaluation study of the PSI program in Cincinnati, Ohio, the Cincinnati Children's Hospital Medical Center (2002) found that the PSI program actually "strengthened" the adolescent's "assertive communications skills" in the "face of simulated sexual pressure." In addition, from 1993-2003, there were 42% fewer births among teenage girls who live in the Cincinnati School Districts receiving the PSI program (Cincinnati Children's Hospital Medical Center [CCHMC], 2003). In a California-based study (Kirby, et al.1997) of the PSI program three months post-test, researchers found that adolescents in the adult-led and peer-led PSI programs, were significantly less likely than the control group to believe that becoming sexually active was "inevitable." However, some advocates of the abstinence-only until marriage message insist that programs such as

TOP and PSI, which encourage birth control methods and/or postponing sexual involvement until "later" or "commitment," actually send "mixed messages" to adolescents' (McIhaney, 2002).

The abstinence until marriage programs promotes abstinence-only education. Joe S. McIhaney, M.D., President of the Medical Institute of Sexual Health (2002), recommends programs that promote sex within the "context of marriage" as the only safe, effective alternative to avoid the consequences of adolescent pregnancy, sexually transmitted diseases, and other risk factors associated with early sexual activity among the adolescent population. However, few evaluation studies have been completed in regard to these programs to date. This is due largely to the acceptance of these programs, since the inception of the Federal Title V guidelines for abstinence education and Special Projects of Regional and National Significance (SPRANS) grants. Previous studies indicated that abstinence-only programs do influence adolescents' attitudes and values in delaying sexual activity, but those changes do not necessarily alter adolescents' sexual behavior (Kirby, 1999). In contrast, a study conducted by Northwestern University School of Medicine (Vessey, 1996), on the effectiveness of the Choosing The Best abstinence-only until marriage program found that 54% of sexually active adolescent who participated in the program, reported they were no longer sexually active after one year. In addition, an evaluation study of five adolescent pregnancy prevention (abstinence-only and safer-sex) programs funded through a Wellness Block Grant (1999-2000), by the Cuyahoga County Health Department and the Center for Health Promotion Research, at Case Western University School of Medicine (Borawski, Lovegreen, Demko, Guwatudde, Abbott, et al. 2001), only the Operation Keepsake program, (one of

two abstinence-only until marriage program in the study) "yielded the strongest and most consistent" results. Nearly 84% of students who participated in the program demonstrated increasing knowledge about the transmission of HIV and other sexually transmitted diseases (2001). Overall, the students who participated in the Operation Keepsake program displayed significant changes in their knowledge, efficacy, beliefs, values, intentions and behavior, versus students who participated in the safer sex programs, such as Focus on Kids and Be Proud, Be Responsible! (2001).

However, an evaluation of the abstinence-only, Sex Respect curriculum (Klein, Goodson, Serrins, Edmundson, & Evans, 1994) reports there are possible disparities in the abstinence-only until marriage programs. The Sex Respect program, research suggests that Sex Respect has the potential to be "problematic" for public schools because it substitutes biased opinion for fact, lacks respect for cultural and economic "differences" and other issues.

When the Northern Kentucky Independent District Health Department (NKIDHD) Board of Health decided in December 2000 to review current comprehensive human sexuality education programs offered by the Health Department in the Northern Kentucky community, the Board of Health adopted an abstinence-only until marriage mandate for the counties of Boone, Campbell, Grant and Kenton. By the year 2010, the Health Department's goal for Northern Kentucky was that of the state and the nation: To "reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15% by age 15, and no more than 40% by age 17" (Kentucky Cabinet for Health Services, 2001). In the state of Kentucky, the adolescent births reflect the national declining trend (NCHS, 2002). In 1996, Kentucky teenage births were 16% of total

births, compared to 21% in 1980 (Kentucky Cabinet for Health Services, 2001). In Northern Kentucky, the teen birth rate per 1,000 females aged 10-19 years, is currently lower than the state average. For the counties of Boone, Campbell, Grant and Kenton, the live adolescent birth was 25%, versus the state adolescent birth rate of 28% (NKIDHD Annual Report, 2002). The overall STD rates in Northern Kentucky are also lower than the state average, including Chlamydia, the leading STD, at 195.1 (crude rate 100,000 population), versus 197.9 for the state average (2002).

Until December 2000, the NKIDHD offered the PSI program, TOP and Reducing the Risk: Building Skills to Prevent Pregnancy, STD & HIV (RTR), programs that were all considered abstinence-plus, safer sex, and postponing sex curriculums. A criterion was then developed as a guideline for any sexuality education materials presented for review (Appendix C). After reviewing several curricula, it was then decided that the abstinence-only until marriage program Choosing The Best, would be the first initial educational curriculum for 7th through 10th grades to be offered and implemented within the Northern Kentucky schools.

It was also determined that a simultaneous abstinence-only until marriage media campaign would be researched and developed to create awareness and consequently adolescent sexual behavior, followed by a survey instrument to evaluate the overall effectiveness of the campaign (Appendix D). This survey was similar to the NKIDHD's survey on a Secondhand Smoke Media Campaign (Appendix E). The Secondhand Smoke Media Campaign survey, which reported on the attitudes and intended behaviors regarding secondhand smokers, measured the awareness and effectiveness of the campaign, which was advertised on television, radio buses, bus shelters, pamphlets and

brochures. Over half of the respondents had seen or heard the secondhand smoke advertisements, at least five times (NKIDHD, Press Release, 2000). While the Secondhand Smoke media campaign evaluation utilized a telephone survey design for adults, the "Sex Can Wait" media campaign evaluation utilized a mall-intercept research design of adolescents' (aged 12 to 17 years). Also, the Sex Can Wait media campaign advertisements were limited

A comprehensive review of the literature found no published study that examined adolescents' attitudes and awareness of a sexual abstinence until marriage media campaign.

Statement of the Problem

The purpose of this study was to examine whether adolescents' attitudes, awareness and knowledge of the Northern Kentucky Independent District Health Department's, Sex Can Wait media campaign differed based on gender and age. More specifically, the following research questions were explored.

Research Questions

1. To what extent do adolescents feel it is important to remain sexually abstinent until marriage?
2. What are adolescents overall attitudes regarding remaining sexually abstinent until marriage?
3. What percent of adolescents plan to remain sexually abstinent until marriage?

4. What percent of adolescents were aware of the sexual abstinence media campaign entitled, "Sex Can Wait"?
5. Did overall attitudes towards sexual abstinence until marriage differ based on gender, age, and media campaign awareness?
6. Did overall campaign awareness differ based on gender and age?

Hypotheses

1. ***Hypothesis***: Females are more likely to have favorable attitudes towards sexual abstinence until marriage than males.

   Alternative Hypothesis: Males are more likely to have favorable attitudes towards sexual abstinence until marriage than females.

   Null Hypothesis: There will be no difference in the attitudes towards abstinence until marriage based on gender.

2. *Hypothesis:* The 12 to 14 year old age group will have more favorable attitudes towards sexual abstinence until marriage than the 15 to 17 year old age group.

   Alternative Hypothesis: The 15 to 17 year old age group will have more favorable attitudes towards sexual abstinence until marriage than the 12 to 14 year old age group.

   Null Hypothesis: There will be no difference in the attitudes towards sexual abstinence until marriage based on age.

3. ***Hypothesis:*** Those who are aware of the sexual abstinence media campaign are more likely to have favorable attitudes towards sexual abstinence until marriage than those who are not aware of the media campaign.

   Alternative Hypothesis: Those who are not aware of the sexual abstinence media campaign are more likely to have favorable attitudes towards sexual abstinence until marriage than those who are aware of the media campaign

   Null Hypothesis: There will be no difference in attitudes of sexual abstinence until marriage by based on awareness of the media campaign.

4. ***Hypothesis:*** Females are more likely to be aware of the sexual abstinence media campaign than males.

   Alternative Hypothesis: Males are more likely to be aware of the sexual abstinence media campaign than females.

   Null Hypothesis: There will be no difference in the awareness of the sexual abstinence media campaign based on gender.

5. ***Hypothesis:*** The 12 to 14 year old age group are more likely to be aware of the sexual abstinence media campaign than the 15 to 17 year old age group.

   Alternative Hypothesis: The 15 to 17 year old age groups are more likely to be aware of the sexual abstinence media campaign than the 15 to 17 year old age group

   Null Hypothesis: There will be no difference in the awareness of the sexual abstinence media campaign based on age.

Delimitations

1. This study was delimited to adolescents aged 12 to 17 years and may not be applicable to other age groups.
2. This study was delimited to adolescents who visited Florence Mall, Florence, Kentucky, and may not be applicable to other geographic areas.
3. This study was delimited to adolescents who live in Boone, Campbell, Grant and Kenton, Counties, Kentucky.

Limitations

1. This study was limited by the extent to which adolescents gave honest responses.
2. This study was limited by the sample gathered at the Florence Mall on a set number of by the sample gathered at the Florence Mall on a set number of days. Adolescents who did not visit the mall during the time frame of this study were not included in the study.
3. This study was limited to questions regarding attitudes and awareness and does not address intent or behavior.

Operational Definitions

1. ***Sexual Abstinence*** – a commitment to refrain from sexual activity.
2. ***Sexual Activity*** – any activity that involves intentional sexual contact for the purpose of sexual arousal, which includes sexual intercourse, oral, or anal sex, or mutual masturbation.
3. ***Abstinence Until Marriage*** – refraining from sexual activity until one is in a marriage relationship.

Chapter Two

Review of Literature

This chapter provides a review of the literature on adolescent sexuality and sexuality education including abstinence. Approximately one in five adolescents before 15 years of age has had sexual intercourse and one in seven girls before 14 years of age has become pregnant (Albert, Brown & Flanigan, 2003). In fact, statistics reveal that the older the adolescent, the greater likelihood they will engage in sexual activity. The latest research indicates that by the 12th grade, 61% of adolescents in the U.S. reported having sexual intercourse at least one time (Centers for Disease Control and Prevention [CDC], 2002).

Non-marital birthrates have increased significantly over the last fifty years. In 1950, the adolescents non-marital birthrate was 13%, whereas, the adolescent non-martial birthrate was 79% in 2000 (Alan Guttmacher Institute [AGI], 2002). Although adolescent pregnancy rates have dropped 19% since 1991, from 62.1 births to 48.5 births in 2002 (National Center for Health Statistics [NCHS], 2002), there is nearly a 50% chance that a adolescent girl will become pregnant (National Campaign to Prevent Teen Pregnancy [NCPTP], 2003). Despite the decline, the U.S. still has one of the highest adolescent birthrates in the developed world (AGI, 2002).

Various researchers attribute the decline in adolescent pregnancies to increased condom use and other barrier protection methods (Flanigan, 2001& Saul, 1999). The Youth Risk Behavior Surveillance Survey from the CDC 1991-2001 (2002) indicates condom use has increased among adolescents who are sexually active (although it has leveled off since 1999). However, two additional factors may explain the decline in

adolescent pregnancy. Since adolescent abortion rates have also declined by 7.5% for aged 15 to 19 year olds since 1990 (CDC, 2000), they suggest that more adolescent s are abstaining from sex (Donovan, 1998). There is also a decline in the number of adolescent s who marry, pregnant or not pregnant (Mohn, Tingle & Finger, 2003). Statistics in 1991 indicate 4.7% of all adolescent females aged 15 to 19 years were married (2003). Whereas, in 2001, 3.8% of adolescent females aged 15 to 19 years were married (CDC, 2001).

Teenage Pregnancy

The consequences of adolescent pregnancy have proven to be substantial. According to the National Campaign to Prevent Teen Pregnancy (2003), adolescent mothers are less likely to complete high school. In turn, they may lose their ability to learn the necessary skills for employment (American Academy of Child and Adolescent Psychiatry [AACAP], 2003). These factors may contribute to a adolescent mother who relying on continued public assistance (NCPTP, 2003). Adolescent fathers have similar problems. They often demonstrate poor academic performance and inability to stay in school (American Academy of Pediatrics [AAP], 1999). Also, adolescent fathers may have limited financial means and lack opportunities for employment (1999). Overall by 1995, 66% of single parent families were living in poverty (Fagan, 1999). Approximately 83% of adolescents who give birth and 61% of teenagers who have abortions grow up in low-income or poverty families (AAP, 1999). The overall estimates suggest that adolescent pregnancy costs the U.S. at least seven billion annually in lost tax revenues, public assistance, foster care and revenue for the justice system (Annie E. Casey Foundation [AECF], 1998).

Babies born to adolescent mothers and fathers are also at a greater risk than babies born to older mothers and fathers to be neglected and abused (AACAP, 2003). At least one-third of adolescents who become parents are themselves a product of a adolescent pregnancy (AAP, 1999). The health of the child may be also impacted when the mother is young and lacks the skills or resources for good prenatal care. As a result, babies born to adolescent mothers are often of low birth weight and they may also experience future health and developmental difficulties (AECF, 1998). An adolescent girl may also experience emotional difficulties as a result of her pregnancy. For example, a pregnant teenager may not want to keep her baby, but may feel pressured to do so by another family member (AACAP, 2003). They may desire someone to love and love them in return, not realizing the enormous responsibility a baby means to their life. Also, many pregnant adolescents experience guilt, anxiety and fear, resulting in depression (2003).

Other Consequences of Teenage Sexual Activity

According to a recent study by the Heritage Foundation (Rector, Johnson, & Noyes, 2003), depression is a key factor associated with adolescent pregnancy. Approximately 25% of sexually active females aged 14 to 17 years were depressed all, most, or a lot of the time (2003). These statistics mirror the overall depression rates among teenagers in the U.S. During adolescence, adolescent females are twice as likely as adolescent males to develop depression (Birmaher, Ryan, Williamson, Brent, Kaufman, et, al. 1996). Additionally, over 14% of the sexually active adolescent females reported they had attempted suicide versus 5% of sexually non-active adolescent females

(Rector, et al. 2003). The rates were lower for adolescent males. However, 6% adolescent males who were sexually active had attempted suicide versus 1% of sexually non-active adolescent males (2003). Risky health behaviors also contribute to depression and suicide.

Adolescents involved in sexual activity are significantly more likely than adolescents not involved in sexual activity to engage in other risky behaviors, such as smoking and drug and alcohol use (Whitaker, Miller, & Clark, 2000). In fact, 25% of sexually active adolescent reported using alcohol or other drugs in conjunction with their most recent sexual experience (CDC, 2002). Males reported they were more likely than females to use alcohol or drugs during their most recent sexual experience (2002). A survey funded by the Henry J. Kaiser Family Foundation (Hoff, Greene & Davis, 2003), found that 29% of adolescent s aged 15 to 24 years reported they were more sexually active than they planned because of their alcohol and drug use. In fact, four out of five adolescents believe their peers drink or use drugs before having sex (2003). According to Joseph A. Califano, Jr., president of the National Center on Addiction and Substance Abuse at Columbia University, New York (also former Secretary of Health, Education and Welfare), drinking and sex is at least as dangerous as drinking and driving for adolescents (American Medical Association [AMA], 2003).

Other concerns associated with adolescent sexual involvement are dating violence and sexual assault. Although drugs and alcohol are often a factor in dating violence and sexual assault (Bowles Center for Alcohol Studies [BCAS], 1998), the Henry J. Kaiser Family Foundation survey (Hoff, et al. 2003) found that 48% of adolescent s reported they experienced "a lot" of overall pressure regarding sexual activity in relationships.

Nearly 8% of 9th to 12th graders reported they were forced against their will to have sexual intercourse (2003). In another study, one in five female students reported being physically and/or sexually abused in a relationship by a dating partner (Silverman, Raj, Mucci, & Hathaway, 2001) In fact, 36% of adolescents aged 13 to 18 years reported they felt pressured to participate in sexual activity and did not feel ready to do so (Henry J. Kaiser Family Foundation & YM Magazine, 1997). On the back end of adolescent dating violence and sexual assault, Silverman and colleagues (2001) reported that dating violence and sexual assault toward adolescent females is directly correlated with potential substance abuse. Additional risks and unhealthy outcomes for females (and sometimes males) from dating violence and sexual assault include, weight control problems (anorexia, bulimia or overeating), adolescent pregnancy and suicide (2001).

What Is Sex?

Many adolescents believe the "only" sex is sexual intercourse (Remez, 2000). Often adolescents are unaware or tend to ignore the consequences of other sexual activities, such as oral sex, anal sex, and mutual masturbation. There are some professionals who view these "other" sexual activities as a adolescents' belief they will remain a virgin, avoid pregnancy or HIV/AIDS (2000). Prinstein, Meade and Cohen, (2003) reported that 10th grade students were more likely to engage in oral sex than sexual intercourse. These researchers also indicated that adolescents had more oral sex partners than partners for sexual intercourse (2003). However, there is very little research available for parents, school officials, or the medical community in general to address these issues with adolescents. In fact, many health professionals and policymakers do not have the ability to address adolescent sexual issues because many adults were not aware

of adolescents' beliefs and perceptions regarding sexual activity (Remez, 2000). Furthermore, a consequence of all of these sexual behaviors is that the sexually transmitted disease (STD) rate remains alarmingly high among teenagers.

Sexually Transmitted Diseases

Many STD's are transmitted by oral means or skin-to-skin contact, as well as through sexual intercourse. This includes viral infections such as the human papillomavirus (HPV), herpes, and hepatitis B (Edwards & Carne, 1998). Bacterial infections that can be transmitted orally include gonorrhea, syphilis, chancroid and chlamydia (1998). The incidence of STD's on the rise, largely due to adolescents' and young adults becoming more sexually active at younger ages, getting married later in life, (National Institute of Allergy and Infectious Diseases [NIAID], 1999), and having multiple sexual partners (CDC, 2000). Across all age groups throughout the U.S., there are approximately 15 million new cases of STD's each year (Cates, 1999). Many STD's can cause pregnancy difficulties, such as stillbirths, miscarriages, growth and development problems and the transmission of infections from mother to baby (NIAID, 2001).

While STD's such as gonorrhea and syphilis have decreased among adolescents, researchers from the CDC (2000) estimate that one in three newly infected individuals are adolescents. Sexually active adolescents are particularly at risk for STD's (CDC, 2002). Adolescents under the age of 15 years often have unprotected sex, are physically at greater risk for infection, engage in relationships of shorter duration, and face problems utilizing health care (2002). In fact, one study found that two out of three sexually active females aged 15 to 19 years who use protection for contraception do so inconsistently

(Glei, 1999). Only two STD's (gonorrhea and syphilis) were of particular concern in the 1960's (McIhaney, 2002). Those infections were often symptomatic and treatable with antibiotics. However, today there are more than 25 STD's (or sexually transmitted infections), many of which are asymptomatic and untreatable (2002).

Chlamydia

Chlamydia (*trachomatis*) is one of the most easily contagious sexually transmitted diseases. The CDC (2001) reports there are four million chlamydia infections in the U. S., with the highest rate among adolescents. In fact, the rate (46%) is most prevalent among adolescent females (2001). In 2001, female adolescents aged 15 to 19 years had the highest reported rate in all groups at 2,535.1 per 100,000, across all states (CDC, 2003). In a longitudinal study by Burstein and colleagues (1998) of 3,202 sexually active females aged 12 to 19 years who were repeatedly screened for chlamydia, found the females aged 14 years had the peak age-specific prevalence rate at nearly 26%. Among females treated for chlamydia over 50% were re-infected within a six month period. Furthermore, many adolescent females did not perceive they were at risk for infection (1998). In a study that included 209 sexually active adolescent females (mostly African American and Latina), 89% reported they felt "little risk" in contracting an STD (Stoner, Whittington, Aral, Highs, Handsfield, & Holmes, 2003). In addition, nearly three-quarters of adolescent females reported they participated in unprotected sex (or other risky sexual behaviors), experienced symptoms of an STD, or contracted a STD in the past (2003). Although chlamydia and gonorrhea are considered the most curable bacterial STD's, they can cause severe health problems later in life if left untreated (SIECUS, 2003). Symptoms may go unnoticed or neglected and in the case of chlamydia, can lead

to pelvic inflammatory disease, ectopic pregnancy, infertility in women (NIAID, 1999), and a greater risk for HIV infection (National Women's Health Resource Center, (2000).

HPV

The human papillomavirus or genital warts (HPV) and herpes simplex virus type 2 (the virus that causes genital herpes) are sexually transmitted viruses that can be managed, but not cured (McIhaney, 2002). There are approximately one million new individuals infected with HPV every year (NIAID, 1999). It is estimated that nearly 50% of sexually active women between the ages of 18 to 22 years are infected with HPV (McIhaney, 2002). At least 20 million individuals in the U.S. are already infected with HPV, many of whom were infected as adolescents (SEICUS, 2003). In addition , including that which is linked to HPV, an individual can acquire more than one type of HPV including the "high risk" types (American Social Health Association [ASHA], 2003).

Genital Herpes

The herpes virus is highly contagious and can be spread by skin-to-skin contact (ASHA, 2003). There are approximately 60 million individuals in the U.S. affected with the herpes virus and an estimated 500,000 new cases reported each year (NIAID, 1999). Fleming and colleagues (1997) reported that nearly 6% of adolescents aged 12 to 19 years were infected with genital herpes. Pregnant females who contract genital herpes during their pregnancies can transmit the virus to their unborn babies (NIAID, 2003).

HIV/AIDS

There were an estimated 5 million people who acquired HIV in 2002 (CDC, 2003). Females are the fastest growing group infected with HIV. There are approximately 19.2 million females living with HIV/AIDS. Also, there are over 4,000 reported AIDS cases for individuals aged 13 to 19 years, and nearly six times that amount for those aged 20 to 24 years (2003). HIV is transmitted through blood, vaginal or semen secretions, by sex with an infected individual, including sexual intercourse, oral sex and anal sex (NIAID, 2003). The HIV infection can also be transmitted by individuals sharing needles (through drug use), or from an infected mother to her child during childbirth, or breast milk and breastfeeding a baby (ASHA, 2003).

STD Prevention

There are prevention and risk reduction methods against the transmission of STD's that include (among others) condom use and abstinence (NIAID, 2001). A report compiled by the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH), (2001), regarding a workshop in which a number of Federal agencies collaborated to answer the question: "What is the scientific evidence on the effectiveness of latex male condom-use to prevent STD transmission during vaginal intercourse?" The panel of experts found the literature to be unsatisfactory in answering the question sufficiently and found that there was no "proof of the adequacy or inadequacy" of condom use in preventing STD's. They also recommended more decisive studies. However, the panel did conclude that the "effectiveness of the male condom was strongest for HIV", and indicated that condoms to reduce the possibility of contracting gonorrhea in men, and "possibly reduce the risk" of chlamydia in men (NIAID, 2001).

In a press release from the Medical Institute for Sexual Health (2001) stated that condoms can reduce the risk of HIV by approximately 87% if they are used 100% of the time. The CDC (2003) advises that there is no 100% effective barrier method to protect against STD's. They recommend the "surest way to avoid transmission of sexually transmitted diseases is to abstain from sexual intercourse or to be in a long-term mutually monogamous relationship with a partner who has been tested and you suspect [sic] is uninfected" (2003).

Contraception

As reported with STD's, condoms and other barrier protective methods are effective only when used consistently and properly. The five typical methods of birth control are the condom, hormonal methods (such as the pill, mini pill, implant or hormone shot), the diaphragm or cervical cap, IUD, or abstinence. The Federal Drug Administration (FDA, 2003) refers to "Typical Use" rates and "Lowest Expected" rates to define the percentage of effectiveness for birth control methods. *Typical use* rates, refers to the birth control method either not being used correctly or consistently. *Lowest expected* rates, refers to the birth control method always used correctly and consistently. The typical use rate for the condom is 14% (or 86% -87% effective); the lowest expected rate is 3% (or 97% effective). The typical use rate for the Pill is 5% (or 95% effective); the lowest expected rate is 0.1% (or 99% effective; the implant and other hormonal methods record higher effective rates). The typical use rate for the diaphragm is 20% (or 80% effective); the lowest expected rate is 3% (or 97% effective). The typical use rate for the cervical cap with no previous births is 20% (or 80% effective), for previous births 40% effective (60% effective); the lowest expected rate for the cervical cap no previous

births is 9% (or 91% effective), for previous births it is 26% (or 74% effective); the typical use rate for the IUD is 0.8% (99.2%), the lowest expected rate is 0.6% (99.4%) (2003). According to Planned Parenthood Federation (2003), one of the leading advocates for pro-choice and pro-comprehensive sexuality education maintains that abstinence is the only 100% sure way to avoid pregnancy as well as STD's. However, they point out that the downside may be that many people will not be able to abstain from sex for extended periods of time. Also, many people may not use any protective methods when the period of abstinence ends (2003).

Sexuality Education

The Henry J. Kaiser Family Foundation and Seventeen Magazine (2000) conducted a National Survey of Teens About Sex: Decision Making and found that teens aged 15 to 17 years who had not yet had sexual intercourse, 83% indicated that they "worry about getting (or) getting someone pregnant." They also indicated that getting someone pregnant was the "main reason" why they not yet had sexual intercourse. Nearly three quarters of the respondents indicated they "made a conscious decision to wait" to have sexual intercourse and "worried about STD's" (2000).

Sexual education programs developed in recent years to address adolescent sexuality have included abstinence-plus and abstinence-only models. In 1981, the U.S. Congress passed the (AFLA) Adolescent and Family Life Act (Henry J. Kaiser Family Foundation, 2000). The AFLA provided funds for various community and school organizations to offer abstinence (only) education. In 1983, Congress decided that many

of the religious groups who received funding from the government were violating the First Amendment because of religious content (2000). Therefore, in 1993, the AFLA prohibited funding for programs that made religious references (SIECUS, 2000).

Abstinence-Plus

Abstinence-plus programs are comprehensive (contraception or condom use discussed) in nature with a curriculum segment on abstinence education (teenage sexuality). One such program is the Teen Outreach Program (TOP). The TOP education focuses on meaningful work activities tailored to express student's activities in the community (American Youth Policy Forum [AYPF], 2003). An evaluation of TOP education indicated it had a 41% lower rate of teenage pregnancy after the participants finished the series (Allen, 1997). However, the program was evaluated to be more effective for girls than boys (1997). Another analysis of TOP reports (AYPF, 2003) that the curriculum segment on adolescent sexuality focuses on less than 15% of the written curriculum. In addition, if that material overlaps with material already offered within the schools, it may not be implemented. The research also notes that if TOP conflicts with the values of the community it may not be taught at all (2003). Abstinence-plus models also promote abstinence as an "option" rather than the ultimate goal (McIhaney, 2002) and if an adolescent becomes sexually active these programs often encourage condoms or other birth control methods (Besharov & Gardner, 2001).

Another popular abstinence-plus program, Reducing the Risk: Building Skills to Prevent Pregnancy, STD & HIV (RTR), is designed for the high school level. RTR was designed to specifically target adolescent sexual and drug behaviors (Barth, 1996). This program focuses on postponing sexual involvement or reducing the frequency of sexual

intercourse and increasing the awareness for use of contraception and STD protection (Barth, 2003), using three theories: social learning, social inoculation and cognitive behavioral (Kirby, Barth, Leland & Fetro, 1991). An evaluation of RTR (Kirby, et al., 1991) found that the students who received the program were significantly less likely to initiate sexual intercourse than the comparison group. The study also found that students who were sexually experienced were also significantly less likely to engage in unprotected intercourse than the comparison group (1991). Another study indicated that RTR did delay teenagers engaging in sexual intercourse and increased contraceptive use and condoms among various groups (Hubbard, Giese & Rainey, 1998). However, in his testimony before the Subcommittee on Health of the Committee on Energy and Commerce, U.S. House of Representatives (2002), Joe S. McIhaney, M.D. stated there is "no abundance of evidence" that the "abstinence-plus" or "dual message programs" are successful.

The peer-led sexual education programs such as Postponing Sexual Involvement (PSI), are designed for middle school aged youth to delay the onset of sexual activity (Family Planning Perspectives [FFP], 1997). Although PSI is abstinence-based and recognized under federal guidelines as such, it is not an abstinence-only until marriage message. However, one study (Cincinnati Children's Hospital Medical Center [CCHMC, 2002) suggested that PSI actually "strengthened a teenager's assertive communication skills" in the "face of simulated sexual pressure." They also found there were 42% fewer births among adolescent females from 1993-2003, who received the PSI program (CCHMC, 2003). The results of a three-month post-test study of the PSI program in a California, researchers found teenagers who participated in the teacher (adult-led) and

peer-led PSI programs were less likely than the control group to believe becoming sexually involved was "inevitable" (Kirby, Korpi, Barth & Cagampang, 1997). They also found that the PSI program was too "modest" in length to create significant change in behavior. In addition, evaluators observed that some instructors of PSI openly expressed dissatisfaction with the program's emphasis on postponing sexual involvement and the exclusion of information on birth control and sexually transmitted disease prevention (1997), thus, confirming what advocates of the abstinence-only message convey: the abstinence-plus, dual message and peer-led programs as sending "mixed messages" to teenagers (McIhaney, 2002).

Abstinence Education

In 1996, in an attempt to reduce or eliminate sexual activity and promote a healthier lifestyle among adolescents, the Temporary Assistance to Needy Families Act (TANF), including Title V (abstinence-only funding) was introduced (Dailard, 2001). From 1997 until 2002, these funds were awarded to individual states that followed the mandate of abstinence until marriage education (Appendix A). This excluded discussion of contraception, except if framed in terms of failure rates (2001).

In the fall of 1999, Congress also allocated $20 million for advance funding in 2001, for abstinence until marriage programs through the Maternal and Child Health Block Grant's Special Projects of Regional and National Significance (SPRANS) program. In 2002, Congress then allocated $40 million in funding, and in his budget for 2003, President George W. Bush requested an additional $73 million for SPRANS (AFY, 2003). However, the U.S. Senate's Appropriations bill was rejected and voted level-funded to the SPRANS for abstinence-only program for the fiscal year 2003 (DHHS,

2003). Similar to the Welfare Reform, grantees did not have to comply with all eight points on the SPRANS guidelines, but could not be out of compliance with any of the eight points (Appendix B). In other words, there are sexual education programs that meet the guidelines of abstinence-only education, but they are not necessarily morality-based. Also, as with Title V funding, which acknowledges abstinence until marriage programs, SPRANS is not abstinence-only until marriage based (one such program that Title V will sponsor is PSI).

In a special report commissioned by the Consortium of State Physicians Resource Councils (1999), the decrease in rates of overall pregnancy, abortion and births among teenagers appears to be in direct correlation with the decline in teenage sexual activity. In another study (Mohn, et al. 2003) researchers concluded that the reason adolescent abstinence was increasing was due in part to the HIV epidemic, but also the increase in abstinence-only programs, "generational changes", and an acceptance of abstinence (Physicians Consortium Report, 2003). However, there have been few long-term studies that have been evaluated to determine the effectiveness of the abstinence-only/abstinence until marriage programs.

One study by Northwestern University School of Medicine, 1994-95 (Vessey, 1995) evaluating the Choosing the Best abstinence until marriage program, found pre to post-test that 75% of all students had reliable changes in abstinent attitudes. In addition, 74% of all students who completed the course indicated their intentions of remaining sexually abstinent until marriage. In a follow-up longitudinal study by the same researcher (Vessey, 1996) found 54% of sexually active adolescents who participated in the program reported they were no longer sexually active after one year.

In another study evaluating five teenage prevention programs by the Cuyahoga County Health Department and the Center for Health Promotion and Research, at Case Western University School of Medicine (Borawski, Lovegreen, Demko, Guwatudde, Abbott & Stewart, 2001), found that only one (of the two) abstinence until marriage programs in the study. They found that 84% of the students who participated in the Operation Keepsake program demonstrated increasing knowledge about the transmission of HIV and other sexually transmitted diseases. The students also increased their efficacy, beliefs, values, intentions, and behavior, in contrast to the students who participated in the safer sex programs, such as Focus on Kids and Be Proud, Be responsible (2001).

One evaluation of the abstinence-only Sex Respect curriculum suggests there are possible disparities in the abstinence-only until marriage programs. Sex Respect research suggests the program has the potential to be "problematic" when taught in the public schools because it substitutes biased opinion for fact and ignores the cultural and economic differences in those schools (Klein, Goodson, Serrins, Edmundson & Evans, 1994). In another study of the Sex Respect curriculum, reported in the American Journal of Behavior (Denny, Young, Rausch & Spear, 2002), researchers found that the program in the upper elementary grades produced gains in knowledge and self-efficacy. At the high school level they also found Sex Respect positively impacted students' attitudes, behavioral intentions, and sexual behaviors. However, at the middle school level there were no significant changes (2002).

The Heritage Method is a systematic model for character-based abstinence only education (Badgley & Styles, 1999). Heritage is an abstinence program based on "behavioral, cognitive, affective, assets building and psychological" theories. This

program is presented in the public school setting throughout South Carolina (and expanding into other states as well). Results from a study indicated that the Heritage program produced positive changes in abstinence supportive attitudes, related to self-reported behavior, regardless of age, gender or race in their first year evaluation results. In addition, researchers determined that students were "capable of learning that their emotions and behavior are under their own control" and able to control behavior when they have an adult support system and programs (1999).

Another study (Sather & Zinn, 2002) evaluated abstinence-only education for adolescents' attitudes and values regarding sexual involvement before marriage. Two groups of 7th and 8th graders were divided into one group who received the state-funded FACTS abstinence-only program, and another group that did not receive abstinence-only education. Pre and post-test scores were not evaluated for individual results. However, mean scores were compared between the two groups for differences. Results indicated that the abstinence-only education did not significantly change the adolescents' values or attitudes regarding sex before marriage. In addition, there was no dramatic change in their intentions to engage in sex before marriage. However, both groups demonstrated more positive attitudes toward abstinence, their commitment towards abstinence, intentions to remain abstinent and disagreed with the statement "It is okay for people my age to have sexual intercourse" (2002).

Sexuality Education in Northern Kentucky

In December 2000, the Northern Kentucky Independent District Health Department (NKIDHD) Board of Health (BOH) decided to review the sexual health education programs offered by the Health Education and Planning Department (of

NKIDHD) throughout the Northern Kentucky community. As a result, the Human Sexuality Education Committee (HSEC) was appointed by the BOH to oversee and adopt a Human Sexuality Curriculum Criteria (Appendix C). In the meantime, Title V grants were awarded in 20 to 25 counties in Kentucky (Hayes, 2001). Subsequently, the HSEC recommended that the NKIDHD revoke current programming (PSI, RTR and TOP) from it's sexual education roster and adopt an abstinence-only until marriage mandate for the counties of Boone, Campbell, Grant and Kenton, based on the federal Title V guidelines (HSEC Report, 2001). State funds were then to be used to pay the salary of a NKIDHD abstinence health educator (Hayes, 2001) and an abstinence-only until marriage mandate was adopted for anyone under the age of 18 years (Star, 2002). The HSEC committee reviewed the literature and several abstinence-only until marriage curriculums and selected Choosing the Best program, to be offered and implemented within the Northern Kentucky schools. Choosing the Best is an educational curriculum for 7th through 10th grades (2002).

The state of Kentucky mirrors the declining adolescent pregnancy trend in the U.S. (NCHS, 2002). In 1996, adolescent births in Kentucky were 16% of total births, compared to 21% in 1980 (Kentucky Cabinet for Health Services [NKCHS], 2001). In the Northern Kentucky District (all four counties), the adolescent birth rate per 1,000 females aged 10-19 years, is 3% lower (25% versus 28%) than that of the overall state average (NKIDHD Annual Report, 2002). The overall STD rates in Northern Kentucky are also lower than the state average. This includes Chlamydia, the leading STD, at 195.1 (crude rate 100,000 population), versus 197.9 for the state average (2002). The NKIDHD

shared the same goal as the state to "reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15% by age 15, and no more than 40% by age 17" (NKCHS, 2001).

Summary

Although adolescent pregnancy rates have declined since 1991, there is still a 50% chance that a adolescent female will become pregnant (NCHS, 2002; NCPTP, 2003). Adolescent sexual activity can lead to significant health and social problems. Adolescent mothers and fathers are more likely to drop out of high school and lack the necessary skills for employment, and are therefore more likely to live in poverty (NCPTP, 2003; AAP, 1999). Adolescent mothers may lack the resources for good prenatal care and consequently, babies may be born at a lower birth weight and experience future health concerns (ACF, 1998). Adolescent girls may suffer emotional problems such as anxiety, fear and depression, and exhibit suicidal tendencies (AACAP, 2003; Rector, et al. 2003). In addition, adolescents who engage in sexual activity are more likely than their peers who do not engage in sexual activity to become involved with alcohol, drugs and experience dating violence and/or sexual assault (Whitaker, et al. 2000 & BCAS, 1998).

The incidence of STD's is also of major concern for the health of adolescents. It is estimated that one in three newly infected individuals of an STD is an adolescent (CDC 2000). Adolescents tend to have unprotected sex and in addition to pregnancy, may often expose themselves to an STD, by means of any sexual activity (CDC, 2000 & Edwards & Crane, 1998).

Chapter Three

Methods

This chapter addresses the methodology used in the Sex Can Wait, Abstinence Media Campaign study, including participants, instrument procedure, procedures and data analysis. Approximately one in five adolescents has had sexual intercourse before the age of 15 years and one in seven females will become pregnant before the age of 14 years (Albert, Brown & Flanigan, 2003). The purpose of this study was to examine whether adolescents' attitudes and awareness of the Northern Kentucky Independent District Health Department's Sex Can Wait media campaign differed based on gender and age.

Participants

The target population of this study was adolescents currently living in Northern Kentucky. A power analysis was conducted to determine the sample size. The sample size formula that was used is listed below:

$S = \sqrt{(pq/n)}$

With $[n = (pq)/S^2]$ and S equal to the standard error of a percentage, p is the percentage found in the sample, q is 100 - p, and n is the size of the sample. The above equation was thus solved for n with the assumption that p is 50%, the value at which the standard error of a percentage is greatest. The Northern Kentucky Independent District Health Department serves approximately 12,038 individuals 13 to 18 years of age in Boone, Campbell, Grant and Kenton counties (KDE, 2003). Since the population surveyed was

less than 50,000 cases, a correction factor was applied to the formula. A 95% confidence level with an eight point margin of error was used, thus yielding a required sample size of 149 adolescents.

Instrument Development

Based on a comprehensive review of the literature, previous media campaign evaluation instruments developed by the evaluator, and input from members of the Northern Kentucky Independent District Health Department, an initial survey was developed.

The 39-item mall intercept survey (Appendix D) was designed using the NKIDHD Secondhand Smokers Survey as a template (Appendix E). Section one included the operational definitions of the study and seven demographic checklist questions, from age, gender, race/ethnicity, county of residence, grades, and religion/religious attendance. Section two of the survey included seven questions that used a 5-point Likert-scale measurement (1 = strongly disagree to 5 = strongly agree) to assess the students' attitudes toward personal sexual abstinence, STD's and condom use. Section three addresses the Sex Can Wait advertisements. A checklist response was included for actual opinions and recall of advertisements. A fill-in-the-blank question was also included to measure the amount of time(s) the teenagers saw/heard advertisements, if they continued to watch, or stopped watching once the advertisements began. A 5-point Likert was used to assess students' overall reaction to the advertisements and whether the advertisements had an impact on participants had more awareness of reasons to remain sexually abstinent (1 = strongly disagree to 5 = strongly agree). The final open-ended question asked participants to describe the most effective way to remain sexually abstinent.

Face and content validity were established by distributing the survey to a panel of experts in survey research and health behavior. Suggestions were considered by the evaluator and appropriate revisions incorporated into the instrument. The final survey instrument was four-pages in length and consisted of 39 items. Stability reliability (test retest reliability) of the instrument was assessed, by determining the survey to a consistent sample of youth (N = 21) on two separate occasions one week apart, yielding a Pearson r correlation of 78.

Procedures

A mall-intercept research design was used for this study. Surveyors from Quick Test, Inc., a professional marketing research firm were recruited and trained for the process of delivering the survey, from June 15-30, 2003, at the Florence Mall, Florence, Kentucky, during mall hours of 10:00 AM to 9:00 PM. All participants were randomly approached in the mall (near the Quick Test offices, next to a major department store). If participants met the criteria (the first three demographic questions in Section One), including age and county of residence (Boone, Campbell, Grant or Kenton), they were asked to participate in the survey. An adolescent who agreed to participate in the study, who was not accompanied by a parent was instructed to telephone the parent using one of the provided cellular telephones. Once the parent was on the telephone, the adolescent handed the telephone over to the surveyor who in turn informed the parent about the study and requested parental consent for their child's participation.

After parental consent was obtained, adolescents were administered the survey. All surveys were administered at the survey office and turned in immediately upon completion. After adolescents completed and returned the surveys they were thanked for their time and participation. Survey responses were later entered into a computer program for statistical analysis.

Data Analysis

All data was analyzed using the Statistical Software Package for the Social Sciences (SPSS). Descriptive statistics (e.g., frequencies, means, standard deviations, and ranges of scores) were used to describe demographic and background characteristics of respondents. Chi-square analyses were conducted to analyze nonparametric variables. Independent samples t-tests and analyses of variance (ANOVAs) were conducted to analyze parametric variables. The alpha level of significance for tests of significance was set at .05 to reduce the likelihood of committing a Type I error.

Chapter Four

Results and Discussion

Approximately one in five adolescents has had sexual intercourse before the age of 15 years and one in seven females will become pregnant before the age of 14 years (Albert, Brown & Flanigan, 2003). The purpose of this study was to examine whether adolescents' attitudes and awareness of the Northern Kentucky Independent District Health Department's Sex Can Wait media campaign differed based on gender and age. This chapter addresses the results of the present study.

Participation Rate

A total of 180 respondents were recruited by surveyors at Florence Mall. Of the 180 respondents, 11 did not meet the initial inclusion requirements (aged 12 to 17 years, or county of residence). Nineteen additional respondents refused to participate in the study (N = 30). All respondents received parental permission, either in person or via telephone. The overall response rate was 83% (150/169). All completed surveys were included in the final data analysis (N = 150).

Demographic and Background Characteristics of Respondents

Results indicated that half of the respondents were 12 to 14 years of age and half were 15 to 17 years of age (M=14.60, SD = 1.687) (Table 4.1). The mean age was 14 to 15 years (17.3%). Over half (55.3%) were female and slightly less than half (44.7%) were male. The majority of the respondents were white (82.7%), followed by African

American (8%), Asian (3.3%), Hispanic (2.2%), and other (1.3%). The majority of respondents indicated they lived in either Boone (47.6%) or Kenton (32%) counties. Over 64% of the respondents indicated they received grades of mostly A's and B's during the past 12 months. Over half (57.7%) followed an organized religion, with nearly one in four (26.7%) indicating they attended a religious service at least one time per week.

Sexual Abstinence and Attitudes Based Gender

To assess student attitudes toward sexual abstinence, students were requested to rate their level of agreement on seven attitude items (1 -= strongly disagree to 5 = strongly agree). Results indicated no significant differences in attitudes towards sexual abstinence until marriage based on gender (Tables 4.2). Most males and females felt fairly neutral in the overall importance of remaining sexually abstinent until marriage. On average, most plan to remain sexually abstinent until marriage. In addition, most felt fairly neutral toward the importance of hanging around with friends who share the same beliefs about sex.; importance of hanging around with friends that share the same beliefs about sexual abstinence until marriage, considering the consequences before engaging in sexual intercourse, and discussing STD's with an adult before engaging in sexual intercourse. However, most did feel it was important to use a condom before engaging in sexual intercourse.

Table 4.1

Demographic and Background Characteristics of Participants

Characteristic	Frequency	Valid Percent
Age		
12	15	10.0
13	35	23.3
14	26	17.3
15	26	17.3
16	15	10.0
17	33	22.0
Gender		
Female	83	55.3
Male	67	44.7
Race/Ethnicity		
White	124	82.7
African American	12	8.0
Asian	5	3.3
Hispanic	3	2.0
Other	2	1.3
County		
Boone	70	47.6
Kenton	47	32.0
Grant	16	10.9
Campbell	14	9.5
Grades		
Mostly A's	46	33.8
Mostly B's	42	30.9
Mostly C's	34	25.0
Mostly D's	13	9.6
Mostly F's	1	0.7
Religion		
Yes	86	57.7
No	63	42.3
Attend Religious Services		
At least once a week	40	26.7
At least once a month	28	18.7
At least once every six months	20	13.3
At least once a year	8	5.3
Less than once a year	16	10.7
Never	38	25.3

N = 150
Missing values excluded

Table 4.2

Attitudes Towards Sexual Abstinence Based on Gender

Item	N	Mean	SD	F	P
Important to Remain Abstinent					
Male	67	3.13	1.27	.005	.945
Female	83	3.12	1.16		
Plan to Remain Abstinent					
Male	67	2.70	1.27	.119	.730
Female	83	2.77	1.19		
Important to Hang With Friends Who Share Beliefs					
Male	67	2.99	1.13	.095	.759
Female	82	2.93	1.16		
Important to Hang With Friends Who Believe in Remaining Abstinent					
Male	67	2.81	1.18	.393	.532
Female	83	2.69	1.14		
Important to Consider Consequences					
Male	67	3.96	1.11	.278	.599
Female	83	4.05	1.05		
Important to Discuss STDs					
Male	67	3.88	.98	.642	.424
Female	83	3.73	1.20		
Important to Use a Condom					
Male	67	4.27	1.02	.134	.715
Female	83	4.33	.87		

N=150; Means based on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree)

Sexual Abstinence and Attitudes Based Age

Results indicated that respondents aged 12 to 14 years (M =3.37; SD=1.242) were significantly more likely than the respondents aged 15 to 17 years (M=2.88; SD=1.122) to feel "it is important to remain sexually until marriage" (Table 4.3). Respondents aged 12 to 14 years (M=3.05; SD=1.176) were significantly more likely than respondents aged 15 to 17 years (M=2.42; SD=1.194) "to plan to remain sexually abstinent until marriage". In addition, respondents aged 12 to 14 years (M=4.01; SD=1.101) felt it was significantly more important than respondents aged 15 to 17 years (M=3.58; SD=1.073) "to first talk to an adult" before engaging in sexual intercourse.

However, there were no significant differences in attitudes based on age for the following items hanging around with friends who share the same beliefs about sex, hanging around with friends who share same beliefs about abstinence until marriage, importance to consider the consequences before having sexual intercourse, and importance to use a condom before engaging in sexual intercourse.

Attitudes Based on Seeing/Hearing at Least One Advertisement

Respondents were asked if they saw/heard any of the NKIDHD Sex Can Wait media advertisements on network or cable television, FM radio, billboards, or pamphlets and/or buses (the last two were not a delivery system for the media campaign). Each advertisement was explained in detail to the participant. The results showed that there

Table 4.3

Attitudes Towards Sexual Abstinence Based On Age

Differences In Attitudes Towards Sexual Abstinence Based On Age Item	N	Mean	SD	F	P
Important to Remain Abstinent					
12 to 14 years of age	76	3.37	1.242	6.419	.012
15 to 17 years of age	74	2.88	1.122		
Plan to Remain Abstinent					
12 to 14 years of age	76	3.05	1.176	10.724	.001
15 to 17 years of age	74	2.42	1.194		
Important to Hang With Friends Who Share Beliefs					
12 to 14 years of age	75	2.99	1.157	.129	.720
15 to 17 years of age	74	2.92	1.144		
Important to Hang With Friends Who Believe in Remaining Abstinent					
12 to 14 years of age	76	2.91	1.191	3.304	.071
15 to 17 years of age	74	2.57	1.099		
Important to Consider Consequences					
12 to 14 years of age	76	4.07	1.024	.468	.495
15 to 17 years of age	74	3.95	1.121		
Important to Discuss STDs					
12 to 14 years of age	76	4.01	1.101	5.920	.016
15 to 17 years of age	74	3.58	1.073		
Important to Use a Condom					
12 to 14 years of age	76	4.37	.991	.816	.368
15 to 17 years of age	74	4.23	.884		

N=150; Means based on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree)

were no significant differences in attitudes toward sexual abstinence based on whether respondents had seen or heard at least one advertisement. Most felt neutral in the importance of remaining sexually abstinent until marriage regardless of whether they had heard or seen one advertisement (Table 4.4).

Awareness of the Sexual Abstinence Media Campaign Based on Gender

Of the 67 male respondents, 47 (70.1%) saw or heard at least one advertisement of the sexual abstinence media campaign (Table 4.5). Of the 83 female, 61 (or 73.5%) saw or heard at least one advertisement of the sexual abstinence media campaign. Based on the total number of respondents that were aware of the sexual abstinence media campaign, 43% were males and 56.5% were females. When the two groups were compared, there were no significant differences in awareness based on gender.

Awareness of Sexual Abstinence Media Campaign Based Age

Of the 76 respondents aged 12 to 14 years, 53 (69.7%) saw or heard at least one advertisement of the sexual abstinence media campaign (Table 4.6). Of the 74 female respondents aged 15 to 17 years, 55 (74.3%) saw or heard at least one advertisement of the sexual abstinence media campaign. Based on the total number of respondents that were aware of the sexual abstinence media campaign, 49.1% were aged 12 to 14 years and 50.9% were aged 15 to 17 years. When the two groups were compared, there were no significant differences in awareness based on gender.

Table 4.4

Attitudes Towards Abstinence Based On Hearing/Seeing At Least One Advertisement.

Item	N	Mean	SD	F	P
Important to Remain Abstinent					
Saw/heard at least one advertisement	108	3.16	1.185	.249	.618
Did not see/hear any advertisements	42	3.05	1.268		
Plan to Remain Abstinent					
Saw/heard at least one advertisement	108	2.76	1.252	.095	.758
Did not see/hear any advertisements	42	2.69	1.158		
Important to Hang With Friends Who Share Beliefs					
Saw/heard at least one advertisement	107	3.06	1.131	3.109	.080
Did not see/hear any advertisements	42	2.69	1.158		
Important to Hang With Friends Who Believe in Remaining Abstinent					
Saw/heard at least one advertisement	108	2.78	1.187	.411	.523
Did not see/hear any advertisements	42	2.64	1.078		
Important to Consider Consequences					
Saw/heard at least one advertisement	108	4.03	1.115	.149	.700
Did not see/hear any advertisements	42	3.95	.962		
Important to Discuss STDs					
Saw/heard at least one advertisement	108	3.80	1.142	.004	.948
Did not see/hear any advertisements	42	3.81	1.018		
Important to Use a Condom					
Saw/heard at least one advertisement	108	4.36	.922	1.639	.202
Did not see/hear any advertisements	42	4.14	.977		

N=150; Means based on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree)

Table 4.5

Awareness of at Least One Advertisement Based on Gender

SEX	Aware of at Least One Ad		X^2	p
	N	Percent (within sex)		
Male	47	70.1%	.206	.716
Female	61	73.5%		

N = 67 males; 83 females

Table 4.6

Awareness of at Least One Advertisement Based on Age

AGE	Aware of at Least One Ad		X^2	p
	N	Percent (within sex)		
12 to 14 years old	53	69.7%	.391	.532
15 to 17 years old	55	74.3%		

N = 76 respondents aged 12 to 14 years; 74 respondents aged 15 to 17 years

Hypothesis Testing

Null Hypothesis 1: There will be no difference in attitudes toward sexual abstinence until marriage based on gender.

Analyses of variance (ANOVA's) were conducted to examine whether attitudes towards sexual abstinence until marriage differed between females and males. Results indicated there were no significant differences in favorable attitudes based on gender (F (1, 148) =.005; p=.945). Based on the results of this study, Null Hypothesis 1 was not rejected. It was therefore concluded that females and males had no significant differences in favorable attitudes towards sexual abstinence until marriage.

Null Hypothesis 2: There will be no difference in the attitudes towards sexual abstinence until marriage based on age.

ANOVA's were conducted to examine if there were more favorable attitudes towards sexual abstinence until marriage differed based on age. Results indicated respondents aged 12 to 14 years were significantly more likely than respondents aged 15 to 17 years to feel it is important to remain sexually abstinent until marriage (F (1,148)=6.419; p=. 012); plan to remain abstinent until marriage (F (1,148) =.10.724; p.001; and feel it is important to talk to an adult about STD's before engaging in sexual intercourse (F (1,148)=5.920; p.016). Based on the results of this study, Null Hypothesis 2 was rejected. It was therefore concluded that 12 to 14 year olds had more favorable attitudes towards sexual abstinence until marriage than 15 to 17 year olds.

Null Hypothesis 3: There will be no difference in attitudes towards sexual abstinence until marriage based on awareness of the media campaign.

ANOVA's were conducted to examine if those who were aware of the sexual abstinence media campaign had more favorable attitudes toward sexual abstinence than those who were not aware of the sexual abstinence media campaign. Results indicated that there were no significant differences in the attitudes based on seeing or hearing at least one advertisement (F (1,148)=1.185; p = .114). Based on the results of this study, Null Hypothesis 4 was not rejected. It is therefore concluded, there is no difference in attitudes towards sexual abstinence between those who were not aware of the campaign.

Null Hypothesis 4: There will be no difference in the awareness of the sexual abstience media campaign based on gender.

A Chi-square analysis was conducted to examine if females differed in awareness of the media campaign than males. Results showed there were no significant differences based on gender, (X^2 (1)=.650; p=.716). Based on the results of this study, Null Hypothesis 4 was not rejected. It was therefore concluded that there was no difference in the awareness of the media campaign based on gender.

Null Hypothesis 5: There will be no difference in the awareness of the sexual abstinence media campaign based on age.

A Chi-square analysis was conducted to examine awareness of the abstinence media campaign than the 15 to 17 year old differed based on age. Results showed there were no significant differences based on age, (X^2 (1)=.532; p=.329). Based on the results

of this study, Null Hypothesis 4 was not rejected. It is therefore concluded that there was no significant difference in the awareness of the media campaign based on age.

Discussion

A total of 180 teenagers between 12 to 17 years of age were requested to participate for the 2003 NKIDHD, Sex Can Wait, abstinence media campaign. One hundred and fifty surveys were completed, resulting in a response rate of 83%. Half of the respondents were aged 12 to 14 years and half were aged 15 to 17 years. Over half were female and slightly less than half were male.

Results indicated that there were no significant differences in attitudes regarding sexual abstinence until marriage based on gender. However, there were significant differences in attitudes regarding sexual abstinence until marriage based on age. Respondents aged 12 to 14 years were significantly more likely than respondents aged 15 to 17 years to feel it is important to remain sexually abstinent until marriage, to plan to remain sexually abstinent until marriage, and feel it was important to first talk to an adult about STD's before engaging in sexual activity. When comparing males and females regarding awareness of the media campaign, there were no significant differences. Approximately 43.5% of males were aware of at least one advertisement, versus 56.5% of females. Attitudes towards sexual abstinence until marriage did not differ based on awareness of the sexual abstinence media campaign.

Chapter Five

Conclusions and Recommendations

Approximately one in five adolescents had sexual intercourse before the age of 15 years and one in seven females will become pregnant before the age of 14 years (Albert, Brown & Flanigan, 2003; NCHS, 2002). The purpose of the study was to examine whether adolescents' attitudes and awareness of the NKIDHD's Sex Can Wait sexual media campaign differed based on gender and age. This chapter addresses the conclusions and recommendations of the study.

Conclusions and Discussion

A 39-item mall intercept survey was developed to assess adolescents' (aged 12 to 17 years) attitudes towards sexual abstinence and awareness of the media campaign, by gender and age (Appendix D). The study took place from June 15 – 30, 2003 (the two weeks following the campaign), at Florence Mall, Florence, Kentucky. A total of 180 adolescents were approached to participate in the study. Of the 180 possible respondents, 11 did not meet the initial inclusion requirements and 19 refused to participate in the study [150/169 (150 equals the sum of completed surveys and refusals)]. Demographic variables identified that half of the respondents were male and half of the respondents were female. Seventy-six were aged 12 to 14 years; 74 were aged 15 to 17 years. The mean of the respondent was aged 17.3 years (Table 4.1).

To assess adolescents attitudes towards sexual abstinence, respondents were requested to rate their level of agreement on seven attitude items (1 = strongly disagree;

5 = strongly agree). Results of analyses of variance (ANOVA's) indicated that there were no significant differences in adolescents' attitudes towards sexual abstinence based on gender (F (1,148) = .005; p = .945) (Table 4.2). Most males and females felt fairly neutral toward sexual abstinence until marriage. The results differed from other research conducted to assess the attitudes of males and females, in regard to sexual involvement and sexual abstinence.

Studies suggested that generally females had more positive attitudes about abstinence. A 2000 poll found that 64% of adolescent females viewed sexual activity as not acceptable for high-school aged adolescents, even if measures are taken to prevent pregnancy and sexually transmitted diseases (Maher, 2003). Other research indicated that adolescent females with strong religious views were less likely to have sex than teens who had less religious views (National Institute of Child Health and Human Development, 2003). This outcome was due in a large part to religious views by adolescents that encourage them to view the consequences of having sex in negative terms (2003).

Although this study did not address religion in relationship to attitudes of sexual abstinence, a recent analysis of the NICHD-funded Add Health Survey reported that religion reduced the likelihood of adolescents engaging in sexual activity, particularly females (2003). In a study by Donnelly and colleagues (1999), researchers examined adolescents' attitudes towards sexual abstinence, intent to remain abstinent, and sexual activity. They discovered that males were nearly twice as likely as females to have had sex. In addition, more than three-quarters of the students had favorable attitudes towards remaining sexually abstinent (mostly females). However a limitation of the ADD Health

Survey was that 73% of the respondents were female. Thus, researchers concluded, the outcome would differ in regard to attitudes, intent and sexual activity if a more equal distribution existed between the two groups. (1999).

Based on the Sex Can Wait, sexual abstinence media campaign study, the results of adolescents' who demonstrated no significant difference in their attitudes regarding sexual abstinence based on gender may be the result of the overall sample size. One limitation of this study was that only 150 respondents were surveyed. A larger sample size could affect the results negatively or positively. Also, the study was limited to one location, during a specific time frame. A wider distribution rate and varied time frame could the impact results. A prerequisite of the study by Quick Test, Inc. (the marketing research company that provided the interviewers) and the management of Florence Mall, was that the design of this study be limited to awareness and attitude questions only. Responses towards actual behaviors could be established if questions regarding specific sexual behaviors had been addressed.

ANOVA's for purposes of this study were also conducted to examine the differences in attitudes towards sexual abstinence based on age. Results indicated that there were significant differences between the 12 to 14 year old age group in relation to the 15 to 17 year old age group, in their attitudes towards sexual abstinence. In particular, the 12 to 14 year old age group felt it is important to remain sexually abstinent until marriage (F (1,148) = 6.419; p = .012); plan to remain sexually abstinent until marriage (F (1,148) = 10.724; p = .001); and that it is important to talk to an adult before engaging in sexual intercourse (F (1,148) = 5.920); p = .016) (Table 4.3).

Although overall rates were not analyzed for purposes of this study, the overall results of adolescents attitudes towards sexual abstinence were neutral (M =3.13; SD =1.21) ; there was equal distribution of the participants by age (roughly half were 12 to 14 years; half were 15 to 17 years).

In a public opinion poll conducted by the National Campaign to Prevent Teen Pregnancy (2002), reported that 81% of adolescents 12 to 14 years of age who had been sexually active, "wished" they had waited longer to have sex (Albert, Brown & Flanigan, 2003). Whereas, only 55% 15 to 17 years of age that had been sexually active reported that they held the same view (NCPTP, 2002). Also, younger adolescents indicated they felt pressured into having sex before they were ready, or the females tended to be involved with older partners (Albert, et al. 2003).

Younger adolescents also felt that they should first discuss STD's with an adult before engaging in sexual activity. However, one recent study found that only 36% of the 316 adolescents surveyed felt comfortable discussing sex with their parents, and only 34% talked to their parents about sex within the last 30 days (Donnelly, et al. 1999).

However, in the Northern Kentucky community since spring of 2002, in Boone, Campbell, Grant and Kenton counties, sexual abstinence until marriage education has been integrated into 28 middle and high schools. Choosing the Best, the sexual abstinence until marriage program being taught throughout Northern Kentucky included a

strong parental and community involvement component (Vessey, 1995). Also, many adolescents who received the middle school curriculum in the 8th grade, in turn, received the 9th grade curriculum throughout the 2003 school year. As a result, parents were also included in the parent program.

It is concluded from the response rate of this study, adolescents aged 12 to 14 years who had significantly differed from adolescents aged 15 to 17 years, may be the result of several factors. Firstly, the adolescents surveyed were required to gain parental permission to participate in the study. Although permission for a majority of adolescents was via telephone, many of the younger adolescents were accompanied by their parents to the mall. The response of the adolescent may have been skewed as a result of the adolescents' fear that their parents may gain insight into their responses. Secondly, interviews were conducted by an adult interviewer and adolescents may not have been comfortable answering questions honestly and/or openly with an adult. Thirdly, younger adolescents may not be as open about their feelings in regards to sex because they do not have the maturity to yet address the topic, or they may not be as aware of their own sexuality as the older adolescents.

Chi-square analyses were conducted to measure the awareness of adolescents in regard to the Sex Can Wait, sexual abstinence media campaign. Results indicated there were no significant differences between genders in awareness of at least one advertisement. However, 70.1% of males, and 73.5% of females were aware of at least one advertisement. The results indicated that nearly three-quarters of the respondents had seen/heard at least one advertisement for the campaign.

Awareness of the campaign based on age also showed no significant differences, in regard to having seen/heard at least one advertisement (($\underline{X}^2$ (1) = .532; p = .329). However, 69.7% of the 12 to 14 year old age group had seen one advertisement, and 17.4% of the 15 to 17 year old age group had see/heard at least one advertisement.

However, for purposes of this study, research was limited to awareness of the sexual abstinence media campaign. Specific responses to advertisements or intent as a result of the advertisements, was not studied. Other research (Harris Interactive, 2001) indicated that females had more recall, or generally preferred the advertisements, but overall impact of sexual abstinence media campaigns had not yet been evaluated.

Another limitation of this study in regard to awareness of the campaign was also the small sample size, the limited locale of the study, and duration of the media campaign. A larger, boarder sample size, and a longer or repetitive media campaign could affect the outcome of results for future studies. In addition, focus group evaluations might better determine the awareness level, and in turn, impact the results. Lastly, the study was limited to post-media campaign results only. A pretest might determine a more significant outcome of awareness if pre/post test scores were compared for results.

Recommendations

The results of the study indicate that younger adolescents differ significantly in attitudes regarding sexual abstinence until marriage than older adolescents. Research indicates that younger adolescents who had sex "wished" they had not had sex (Albert, et al. 2003). However, if one in seven adolescent females had become pregnant, and one in five adolescents was sexually active before age 15 years, the conclusion can be drawn

that younger adolescents had sex (2003). Furthermore, the U. S. still has one of the highest adolescent birthrates in the developed world (AGI, 2002). Therefore, it is proposed that educators, parents, policymakers and others should begin educating in sexual abstinence education at an earlier age.

Also, results of this study indicated that adolescents felt it was important to discuss STD's with an adult before engaging in sexual activity. It is recommended that abstinence education in the schools with a specific parental component may reinforce adolescents first talking to parents about STD's before engaging in sexual intercourse. Further parental involvement is necessary to reinforce the importance of sexual abstinence education, either as a component of the curriculum, or through other activities at the school or the community.

In addition, research indicated that sexual education may have more impact if females and males are educated separately, especially at a younger age (Gurian, 2001). Many organizations and schools are teaching STD's as a separate component from the other curriculum (Borwaski, et al.1996). This may help adolescents to feel more comfortable as a result.

Ongoing reinforcement of sexual abstinence education is needed to impact teenagers' sexual activity. A combination abstinence education, reinforcement activities through the schools or community is reasonable. Although there were no significant differences between gender and age in regard to awareness of the Sex Can Wait, sexual abstinence media campaign, overall most reported they saw/heard at least one advertisement. Ongoing media campaigns and evaluations of the impact of the media

campaigns would be helpful to gain a better insight into their success. In addition, sharing the results of the evaluations of media campaigns with the community may strengthen further sexual abstinence education, future media campaigns, and further research.

The Sex can wait, sexual abstinence media campaign was limited by several; factors. First, the study was limited by the extent to which adolescents gave honest responses. As observed earlier in this chapter, many students were accompanied to the mall by there parents and parental consent was also obtained. In addition, the interviewers were also adults. Teenagers may have felt self conscious and fearful of their responses, therefore not answering honestly. It is recommended that a wider distribution of locations and perhaps peer-led, or anonymous, surveys would be more favorable for the adolescent. Second, the study was limited by the sample size gathered to the Florence Mall. A larger sample size is recommended for a more varied response. Results of the study may vary according to the response rate of gender and age as a result. Third, the study was limited to a set number of days. Adolescents that did not visit the mall during the proposed time frame were not included in the study. The study was limited by the fact that it took place two weeks following the campaign. A study several weeks after the campaign may have showed a different result. On the other hand, a longer duration for the study may have a greater impact on both awareness of the campaign and the sample size. Fifth, the campaign was limited to questions regarding attitudes and awareness. A more in-depth analysis could be obtained by behavior and intent questions for adolescents. Sixth, a pre-test and post- test is recommended to compare results of a media campaign and gain greater insights into the attitudes and awareness of adolescents toward sexual abstinence.

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Appendix A

Title V Guidelines

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 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 reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances
H. Teach the importance of attaining self-sufficiency before engaging in sexual activity

Source: Department of Health and Human Services, 2003

Appendix B

Like Welfare Reform, the funding for SPRANS is also tied to an *extremely* narrow, morality-based definition of abstinence-only education that puts teens at risk. The eight-point definition first formulated under the 1996 welfare law condemns all sexual activity outside of marriage, for people of any age.

Under welfare reform grantees do not have to comply with all eight points, but cannot be out of compliance with any of the points. However, under the SPRANS grants, programs that receive funding must adhere to all eight points of the abstinence-only definition.

Under the law, an "abstinence education" program means an educational program which:

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

Source: Advocates for Youth: 2003

Appendix C

Northern Kentucky Independent District Board of Health
Human Sexuality Education Committee

CRITERIA GRID

Criteria	#1 *	#2	#3	#4	#5	#6	#7	#8	#9	#10* *	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	Total
Programs/ Curricula	**Title V Guidelines**	**Abstinence Until Marriage**	**Directive Method**	**Support Philosophy**	**Abstinence Until Marriage Positive**	**Free of Mixed Messages**	**Medically Accu-rate Information**	**Correct Terminology**	**Control is Realistic Goal**	**Peer Pressure and Media**	Risks of Contraception	Refutes Myths	Refusal & Cessation Skills	Teach Respect	Protect Modesty	Age Appropriate	Materials to Parents	Includes Parents in Policy Setting	Parental Permission	Parent Education	Research Available	Barriers/ Comments	

Appendix D

STUDENT SURVEY

Directions: Please answer each question. The answers you give will be kept private and no one will know what you write. Answer each question based on what you really think and what you really do. THANK YOU for your participation in completing this survey.

Section 1: Please provide the information by filling in the blanks or checking the boxes.

First two letters of your last name: _____ _____

First two letters of your first name: _____ _____

Your Age: _____years

Your Sex: _____Male _____Female

Your Race/Ethnicity: _____African American _____Asian _____Hispanic
_____White _____Other

Who do you live with? (check all that apply)
_____Mother
_____Father
_____Legal Guardian
_____Stepfather or Mother's Boyfriend
_____Stepmother or Father's Girlfriend
_____Other Relative
_____Other, please specify:_____

During the past 12 months, how would you describe your grades?
_____Mostly A's _____Mostly D's
_____Mostly B's _____Mostly F's
_____Mostly C's

Do you follow any type of organized religion? _____Yes _____No

How often do you attend an organized religious service (eg. church, synagogue)?
_____At least once a week
_____At least once a month
_____At least once every six months
_____At least once a year
_____Less than once a year
_____Never

SEXUAL HEALTH BEHAVIORS

Section 2: Please answer the questions by checking the boxes.

1. Have you ever had sexual intercourse? ___Yes ___No
   - If YES, How old were you when you had sexual intercourse for the first time? ___ years

2. Have you ever participated in oral sex? ___Yes ___No
   - If YES, How old were you when you participated in oral sex for the first time? ___ years

3. Has a peer ever asked you to have sexual intercourse or oral sex? ___Yes ___No
   - If YES, have you ever said "No" to a peer who asked you to have sexual intercourse or oral sex? ___Yes ___No

4. Have you ever been forced or manipulated to have sexual intercourse or oral sex? ___Yes ___No

5. During the past 3 months how many people have you had sexual intercourse or oral sex with? ___

6. Did you drink alcohol or use drugs before you had sexual intercourse or oral sex the last time? ___Yes ___No ___N/A

7. The last time you had sexual intercourse or oral sex, did you or your partner use a condom? ___Yes ___No ___N/A

8. The last time you had sexual intercourse did you or your partner use a birth control pill? ___Yes ___No ___N/A

SEXUAL HEALTH BEHAVIORS

Section 3: Please provide the following information by circling the appropriate number.

9. How likely is it that you will remain sexually abstinent until marriage?
   Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

10. If you had sexual intercourse in the future, how likely would you be to use a condom?
    Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

11. If you felt pressured by a peer to have sex in the future, how likely would you be to say "No" to having sex?
Extremely Unlikely 1 2 3 4 5
Extremely Likely

12. How likely are you to ask your parent(s)/legal guardian questions about sex?
Extremely Unlikely 1 2 3 4 5
Extremely Likely

13. How emotionally close do you feel to your parent(s)/legal guardian?
Not Close at All 1 2 3 4 5
Extremely Close

SEXUAL HEALTH ATTITUDES

Section 4: Please circle how strongly you agree or disagree with each statement.

STATEMENT	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I think it is important to remain sexually abstinent until marriage.	SD	D	N	A	SA
I think it is important to hang around friends who share my beliefs about sex.	SD	D	N	A	SA
I think it is important to hang around friends who believe in remaining sexually abstinent until marriage.	SD	D	N	A	SA
I think it is important to consider all of the consequences before having sexual intercourse.	SD	D	N	A	SA
If individuals make a decision to have sexual intercourse, I think it is important for them to first talk to an adult about STDs.	SD	D	N	A	SA
If individuals make a decision to have sexual intercourse, I think it is important for them to use a condom.	SD	D	N	A	SA

1. In your opinion, what percent of students your age have had sexual intercourse? _____%

2. Two years from now, what percent of students your age do you think will have had sexual intercourse? _____%

3. In your opinion, what constitutes having sex? What does "having sex" mean to you? (Check all that apply)
_____Kissing _____French Kissing

_____Petting _____Oral Sex
_____Sexual intercourse _____Other
(Specify)_____

4. Which of the following sexual behaviors do most of your peers expect you to be involved in at your current age? (Check all that apply)
_____Kissing _____French Kissing
_____Petting _____Oral Sex
_____Sexual intercourse _____Remaining sexually abstinent
_____Other
(Specify)_____

5. Where do you go to get information regarding sex? (Check all that apply)
_____Parent/Legal Guardian _____Friend _____Book
_____Teacher _____Other Adult
_____Television
_____Internet _____Magazine _____Other
_____

SCENARIOS

Section 5: Please read each scenario and circle the number that best represents how likely or unlikely you are to perform the specified behavior.

Scenario 1: The Friday night football game has ended and the person you have been seriously dating offers to drive you home. They tell you that they love you and want to have sex. How likely would you be to have oral sex?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

How likely would you be to have sexual intercourse?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

Scenario 2: You have been seriously involved with your girlfriend or boyfriend for over a year. They do not want to have sex. How likely would you be to try and pressure that person to have oral sex with you?

Extremely 1 2 3 4 5 **Extremely**

Unlikely **Likely**

How likely would you be to try and pressure that person to have sexual intercourse with you?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

Scenario 3: You are feeling pressured by your steady to have intercourse. You do not want to but are afraid that if you don't have sexual intercourse the relationship might end. How likely are you to have oral sex?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

How likely are you to have sexual intercourse?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

Scenario 4: You are at a party with your friends and someone starts flirting with you. You both have been drinking and are feeling the effects of alcohol. They want to have sex with you. How likely are you to have oral sex with them?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

___ I cannot answer this question because I do not drink alcohol

How likely are you to have sexual intercourse with them?

Extremely Unlikely 1 2 3 4 5 **Extremely Likely**

___ I cannot answer this question because I do not drink alcohol

SEXUAL HEALTH FACTS – BEST PATH

Section 6: Please provide the following information by circling the appropriate letter.

1. ___ is the most common bacterial STD in the U.S.
   a) Chlamydia
   b) Gonorrhea
   c) HIV
   d) Herpes

2. When a person has sexual intercourse, that person is exposed to everyone with whom the partner has had sexual intercourse with.
   a) True
   b) False

3. Girls cannot get pregnant when their partners use condoms.
   a) True
   b) False

4. ___ first-time sexual encounters occur under the influence of alcohol.
   a) Less than 20% of
   b) About 30% of
   c) About 40% of
   d) More than 50% of

5. Alcohol ___ inhibitions, resulting in poor judgment.
   a) Lowers
   b) Keeps the same
   c) Increases

6. More than half of teens choose to be sexually abstinent.
   a) True
   b) False

7. Remaining abstinent until marriage provides individuals with ___
   a) freedom from worry or guilt
   b) protection against STD's
   c) prevention against unwanted pregnancies
   d) All of the above

8. The most effective way to reduce the risk of contracting an STD and becoming pregnant is to:
   a. Use condoms during sexual intercourse
   b. Use birth control pills
   c. Remain abstinent
   d. None of the above

9. One in every ___ sexually active teens will contract an STD before they are old enough to finish high school.
   a) 3
   b) 5
   c) 7
   d) 9

10. Many people do not develop symptoms when they first become infected with an STD.
    a) True
    b) False

SEXUAL HEALTH FACTS – BEST LIFE

Section 6: Please provide the following information by circling the appropriate letter.

1. Each year approximately ___ teen females become pregnant in the U.S.
   a. 100,000
   b. 250,000
   c. 500,000
   d. 1,000,000

2. ___ is the most common bacterial STD in the U.S.
   a. Chlamydia
   b. Gonorrhea
   c. HIV
   d. Herpes

3. Many people do not develop symptoms when they first become infected with HIV.
   a. True
   b. False

4. Every year ___ teens acquire a sexually transmitted disease.

a. 1,000
b. 100,000
c. 1,000,000
d. 3,000,000

5. An individual cannot become infected with HIV from only one sexual encounter.
   a. True
   b. False

6. ___ is the leading cause of death for people between the ages of 24 and 44.
   a. AIDS
   b. Car accidents
   c. Herpes
   d. Heart disease

7. Remaining abstinent until marriage provides individuals with ___
   a. freedom from worry or guilt
   b. protection against STD's
   c. prevention against unwanted pregnancies
   d. All of the above

8. Currently, there is no cure for AIDS.
   a. True
   b. False

9. The most effective way to reduce the risk of contracting an STD and becoming pregnant is to:
   a. Use condoms during sexual intercourse
   b. Use birth control pills
   c. Remain abstinent
   d. None of the above

10. Renewed virginity is the process of _____.
    a. Never being sexually active
    b. Choosing to stop being sexually active and to start being sexually abstinent
    c. Beginning to use birth control
    d. Only being sexually active with one person

Appendix E

TELEPHONE SURVEY
OF NORTHERN KENTUCKY SMOKERS

INTRODUCTION
Hello. My name is _____ . I am calling on behalf of the Northern Kentucky Tobacco Coalition. We are conducting a very brief survey regarding our Secondhand Smoke Media Campaign. This will take approximately 4 to 5 minutes to complete. Do you have a few minutes?
IF YES, CONTINUE TO NEXT QUESTION
IF NO, THANK AND TERMINATE

QUALIFYING QUESTIONS
A. Are you at least 18 years old?
IF YES, CONTINUE TO NEXT QUESTION

IF NO, ASK THE FOLLOWING:
Can I speak to an individual in the house who is at least 18 yrs old?
IF YES, WAIT FOR PERSON TO GET ON THE PHONE AND THEN REPEAT INTRODUCTION
IF NO, THANK AND TERMINATE

B. Do you smoke cigarettes?
IF YES, CONTINUE TO NEXT QUESTION

IF NO, ASK THE FOLLOWING:
Can I speak to an individual in the house who smokes cigarettes?
IF YES, WAIT FOR PERSON TO GET ON THE PHONE AND THEN REPEAT INTRODUCTION
IF NO, THANK AND TERMINATE

C. In which county do you live? ___Boone ___Campbell ___Kenton ___Grant
IF BOONE, CAMPBELL, KENTON, OR GRANT, CONTINUE TO NEXT QUESTION

IF OTHER COUNTY, THANK AND TERMINATE

1. On average, how many cigarettes do you smoke each day?
___ 2 or more packs a day
___ 1 to 2 packs a day
___ ½ a pack to 1 pack a day
___ Less than ½ a pack a day or
___ Less than ½ a pack a week

2. How many years have you been smoking? ___

3. How important do you feel it is to protect children from secondhand smoke?
Do you feel it is:
___ Unimportant
___ Slightly important
___ Moderately important or
___ Extremely important

4. Are you committed to protecting children from secondhand smoke? ___ YES ___ NO

For each of the following statements, please rate how strongly you agree or disagree with each statement.

5. How strongly do you agree or disagree with this statement:
   From now on, I intend to smoke outside when others are in my home.
   Do you: ___ Strongly disagree
   ___ Disagree
   ___ Neither agree nor disagree
   ___ Agree or
   ___ Strongly agree with this statement

6. How strongly do you agree or disagree with this statement:
   From now on, I intend to ask visitors at my home to smoke outside.
   Do you: ___ Strongly disagree
   ___ Disagree
   ___ Neither agree nor disagree
   ___ Agree or
   ___ Strongly agree with this statement

7. How strongly do you agree or disagree with this statement:
   I plan to refrain from smoking inside of my car when others are riding with me.
   Do you: ___ Strongly disagree
   ___ Disagree
   ___ Neither agree nor disagree
   ___ Agree or
   ___ Strongly agree with this statement

---

8. Have you seen the commercial with a **Man Talking about Smoking in His House Around His Kids?** In the commercial he says the following:
   It's not about my rights or your rights or about good guys and bad guys.
   It's not even about whether I smoke or quit.
   It's about smoking in the house around my kids and I won't do it.
   I'll smoke outside because I don't take chances with my kids.
   I mean these are my kids I'm talking about.

   Have you seen this commercial on **Television**? ___Yes ___No ___Not Sure

   Have you heard this commercial on the **Radio**? ___Yes ___No ___Not Sure

   Have you seen pictures of this commercial on **Buses** or **Bus Shelters**? ___Yes ___No ___Not Sure

   How about on **Pamphlets** or **Brochures**? ___Yes ___No ___Not Sure

---

9. Have you seen the commercial with a **Little Boy Talking About His Parent Smoking in the Room with Him?** In the commercial, the little boy says the following:
   You tell me all the time to never ever smoke.
   You tell me all the time you wished you'd never started.
   But you still smoke, even when I'm right there in the room.
   And when you do that it makes me feel like I'm the one smoking.
   I can smell it and taste it. It stings every time I breathe.
   So PLEASE, if you're gonna smoke, please don't smoke around me.

Have you seen this commercial on **Television**? ___Yes ___No ___Not Sure

Have you seen pictures of this commercial on **Buses** or **Bus Shelters**? ___Yes ___No ___Not Sure

How about on **Pamphlets** or **Brochures**? ___Yes ___No ___Not Sure

---

10. Have you seen the commercial with a **Teenage Boy Talking About Growing Up with a Parent Who Smokes?** In this ad, the teenage boy says the following:

    I remember this one time when I was a really little kid, I ran to see you and I must have caught you by surprise because you turned and blew a mouthful of cigarette smoke in my face. I know you didn't mean to hurt me but you did. See all the time I was growing up I shared you with your smoke. There was nothing I could do. Now I can leave but my little brother can't. He's stuck breathing your smoke and you know it's not good for him. He can't ask you to step out, so I will. Please, if you're gonna smoke don't do it around the kid. Please.

    Have you seen this commercial on **Television**? ___Yes ___No ___Not Sure

    Have you heard this commercial on the **Radio**? ___Yes ___No ___Not Sure

    Have you seen pictures of this commercial on **Buses** or **Bus Shelters**? ___Yes ___No ___Not Sure

    How about on **Pamphlets** or **Brochures**? ___Yes ___No ___Not Sure

---

IF RESPONDENT HAS SEEN/HEARD AT LEAST ONE ADVERTISEMENT, CONTINUE TO NEXT QUESTION

IF RESPONDENT HAS NOT SEEN/HEARD ANY OF THE ADVERTISEMENTS SKIP TO QUESTION 12

8. Approximately, how many times did you see or hear the advertisements? _____

9. When you saw or heard the advertisements did you:
   ____Continue watching and listening to them or did you
   ____Stop watching and listening to them and try to tune them out

10. What was your overall reaction to the advertisements?
    Did you: ___strongly dislike them
    ___dislike them
    ___neither like nor dislike them
    ___like them or
    ___strongly like them

11. How strongly do you agree or disagree with this statement:
    The secondhand smoke advertisements made me more aware of the harmful effects of secondhand smoke.
    Do you: ___ Strongly disagree
    ___ Disagree
    ___ Neither agree nor disagree
    ___ Agree or
    ___ Strongly agree with this statement

12. Did you see or hear about the smoke-free home pledge put out by the Northern Kentucky Tobacco Coalition? ___ YES ___ NO

IF YES, CONTINUE TO NEXT QUESTION
IF NO, SKIP TO QUESTION 14

13. Did you take the smoke-free home pledge? ___ YES ___ NO

The final questions are for statistical purposes only. All information will be kept strictly anonymous and confidential.

14. Are you: ___ MALE or ___ FEMALE

15. What is your current age? ___

16. Are you: ___ Married ___ Single ___ Divorced/Separated or ___ Widowed

17. Including yourself, how many individuals over the age of 18 live in your household? ___

18. How many individuals under the age of 18 live in your household? ___

19. What is the highest level of education that you have completed?
    - ___ Some high school
    - ___ High school diploma or GED
    - ___ Some college
    - ___ Associate's degree
    - ___ Bachelor's degree or
    - ___ Graduate degree

20. What is your yearly household income before taxes?
    - ___ Under $15,000
    - ___ $15,000 to $19,999
    - ___ $20,000 to $29,999
    - ___ $30,000 to $39,999
    - ___ $40,000 to $49,999
    - ___ $50,000 to $59,999
    - ___ $60,000 to $69,999
    - ___ $70,000 to $79,999 or
    - ___ $80,000 or higher

TERMINATE

Thank you very much for your time. Those are all of the questions I have for you.
If you have any questions regarding secondhand smoke please contact the **Tobacco Coalition of Northern Kentucky at 578-7660**.
Thanks again and have a nice day/evening.