

Spring 5-20-2019

# The Influence of an Abstinence-Only Intervention on the Risk Behaviors of Urban Middle School Students

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The Influence of an Abstinence-Only Intervention on the Risk Behaviors of Urban Middle-School Students

by

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Submitted in partial fulfillment of the requirements for the Degree of

Doctor of Education

College of Education and Human Services

Seton Hall University

May 2019

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**SETON HALL UNIVERSITY**  
**COLLEGE OF EDUCATION AND HUMAN SERVICES**  
**OFFICE OF GRADUATE STUDIES**

**APPROVAL FOR SUCCESSFUL DEFENSE**

**Alison J. Wakefield** has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ed.D.** during this **Spring Semester 2019**.

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### Abstract

In this dissertation, findings on the factors that influence risk-avoidance behaviors among Hispanic and African American middle-school students are presented. The findings were based on a randomized study in which middle-school students were randomly assigned to receive either an abstinence-only curriculum or a comprehensive health curriculum.

Initial findings suggest that middle-school students and their attitudes toward sexual activity were closely associated with their relationships with both their parents and peers. The pivotal indicator for student engagement research indicated that the higher the level of engagement between teen and parent, the more likely the teen is to follow the interventions. Should the parent reinforce the school's intervention (i.e., abstinence-only programming) and show support for the child's education, the more likely the student was to follow the intervention. Conversely, without engagement between parent and teen, school interventions are less likely to be effective. The key element appears to be a supportive home environment for teens to maintain abstinence in middle school.

Research outcomes will aid administrators and school personnel in policy decisions and programming for at-risk students. Research will add to the growing body of evidence, which suggests that abstinence-only interventions are effective within certain parameters but that challenges still exist.

Key Terms: Urban, Middle-school, Abstinence-only intervention, Comprehensive health curriculums, Risk factors, Parent, Peer

Dedication

For Dean

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## CHAPTER I

### **Introduction**

Academic pedagogy is equivalent to a pendulum. Trends come and go over time, and few new instructional designs are ever truly developed or sustained. Archaic ideas and techniques are resurrected and reconstituted to suit the moods of political, social, and economic relativism. Sadker and Zittleman (2010) suggested that school policy and curriculum were reflections of societal concerns. Upon examination of this analogy, it becomes important to question whether education administrators and policy developers effectively use management techniques to make any progress for the whole child. An additional concern is whether the children we have promised to educate and prepare for success are truly served if educators do not learn from mistakes and address the priorities of our changing society.

The pendulum concept has troubled public-school personnel who continue on ineffective paths, steered by political machines and policies that are neither proven nor contested. The post-Nation at Risk (The National Commission on Excellence in Education, 1983) era has seen public schools focus on academic achievement at the expense of a school ethos that fosters social consciousness, neglecting development of the whole child. The current legislation, Student Success Act (H.R.5) 2015, with its origins in the No Child Left Behind Act (NCLB) of 2002, has emphasized national standards and annual yearly progress, (AYP), allowing little room for educators to address the nonacademic priorities of at-risk students. NCLB legislation requires research-based interventions; however, the federal government has historically funded intervention models such as Community Based Abstinence Education (CBAE) interventions without data to substantiate their effectiveness.

Shifts in public policy to more community-based prevention of at-risk behaviors (as opposed to traditional school-based instructional design) pose additional problems to implementation, assessment, and sustainability of those initiatives. Training staff, licensing, and staff turnover were public-policy issues for many new initiatives. Aarons, Sommerfeld, Hecht, Silovsky, and Chaffin (2009) found that greater staff retention rates were obtained when evidence-based practices were the organizational norm. Implementation, along with fidelity monitoring, allows staff to support consultations in the stakeholder process. These researchers predicted that staff-retention rates would increase when implemented with evidence-based and fidelity monitoring as effective innovation-design aids, supporting high standards of care for children and families with at-risk behaviors.

Specifically, Aarons et al. (2009) believed that a health curriculum influenced the risk behaviors of an already vulnerable population and further contributed to the condition of our national health issues. Furthermore, Aarons et al. believed that the gap was wider when accounting for urban-school students who generally begin engaging in risk-behaviors such as sexual promiscuity, drug/alcohol use, and truancy during the middle-school experience.

Kim and Rector (2010) concluded in a report funded by The Heritage Foundation that teen sexual activity creates a financial hardship for teens and society overall and that teens who engage in sexual activity have increased risks of contracting sexually transmitted diseases or infections (STD/I), emotional and psychological harm, and out-of-wedlock childbearing. They further concluded that genuine abstinence education is crucial to teens' physical and emotional well-being and that abstinence programs contribute to developing character traits that prepare youth for future-oriented goals.

Empirical evidence was lacking to support that abstinence-only education was an effective method of shaping healthy teen sexual behavior, especially in urban middle-school students. Walker (2010) found a shift from such interventions delivered within the public-school setting toward an outsourced model primarily through community-based organizations. The paradox lies between the widening gaps between the initial requirements of No Child Left Behind (NCLB), reauthorized in 2015 and renamed Every Student Succeeds Act (ESSA) and community-based organizations, and the deficiency within the urban-family experience of middle-school students, especially females.

### **Statement of the Problem**

The long-term national consequences for teen pregnancy are well documented. According to the CDC (2009) report “Teen Pregnancy in the United States,” 409,840 infants were born to mothers between the ages of 15 and 19, for a live birth rate of 39.1 per 1,000 women in this age group. Additionally, nearly two-thirds of births to women younger than age 18, and more than half of those among 18- to 19-year-olds, are not intended. National data provided by the CDC (2019) states the U.S. teen birth rate fell by more than one-third from 1991 through 2005, but then increased by 5% over two consecutive years. Data for 2008 and 2009, however, indicate that the long-term downward trend has resumed.

More recently, the National Vital Statistics Report (NVSS) 2018 reflects a continued trend of decreased birth rates overall females aged 15–29, but further notes that birth rates were unchanged for those aged 10–14 in 2016, at 0.2 births per 1,000 females. Further, with respect to race, Hispanic groups still outpaced their non-Hispanic colleagues. NVSS reports 14.2 birth rates per 1000 for non-Hispanic Whites; 29.3 birth rates per 1,000 for non-Hispanic Blacks; and 31.9 per 1,000 for Hispanic teenagers.

The rates of U.S. teen pregnancy and birth, sexually transmitted diseases (STDs), and abortion are substantially higher than those of other industrialized Western nations. The CDC (2019) reported that the teen birth rate in the United States was decreasing but that the rate is substantially higher than any other industrialized Western country. Pro-choice advocacy groups such as the National Abortion and Reproductive Rights League (n.d.) (NARAL) stated that abstinence-only education results were found to be inaccurate or inconclusive as to their effectiveness. Rabinowitz, Sidanius, and Krosnick (2009) found that abstinence-only education did not reduce current estimates of reportable sexually transmitted diseases (STDs), teen pregnancy, and human immune deficiency virus (HIV) transmission rates in the United States as compared to other developed countries. The Centers of Disease Control 2017 (CDC) reported that young people aged 15–24 years acquire half of all new STDs and further estimated that one in four sexually active adolescent females had an STD, such as chlamydia, gonorrhea, and syphilis. For 2017, the CDC reported that 15- 24-year-olds represented 62.6% of all chlamydia cases, an increase of 7.5% from the previous year. There were similar results for gonorrhea, with an increase of 15.5%, and a 7.8% increase for syphilis.

Public schools are increasing their reliance on community-based organizations (CBOs) to deliver a wide range of content, especially health curricula, to address the needs of the whole child; however, substantial empirical evidence is lacking regarding the effectiveness of interventions delivered by CBOs. These interventions include, for example, abstinence-only programs. Historically, abstinence-only programs for pregnancy prevention began in the 1970s as a result of legislation and amendments to Title V of the Social Security Act. During the latter two decades of the 20th century, these programs became more abundant. As they grew in

funding and need, they also became more age- and culturally appropriate for the high-risk groups: “specifically poor, urban minorities” (Sutherland, Araia, & Finkelstein, 2011, p. 26). Evidence of program success is critical, given the consequences of early sexual activity. In the research summary of the Task Force on Preventing HIV/AIDS, other STIs and Pregnancy (Guide to Community Preventive Services, 2009), it was concluded that the task force “finds insufficient evidence to determine the effectiveness of group-based abstinence education interventions delivered to adolescents to prevent pregnancy, HIV and other sexually transmitted infections (STIs)” (para. 3).

The problem to be studied is the extent to which the interventions achieve the intended outcome of abstinence only programming.

Intervention programs targeting abstinence are offered either in the school setting as part of the curriculum or as add-ons, or in the community through community-service agencies. Several of these programs have received federal funds as part of the government’s wish to identify model projects. The paradox of increased academic standards and accountability is that it has also precluded addressing at-risk behavior behaviors among youths.

Some researchers believe that the school is a “pre-existing vehicle...into which externally designed curriculum packages can be unobtrusively slotted” (Sutherland et al., 2011, p. 29). However, Sutherland et al. found that schools take on lives of their own: “From a sociological perspective schools are among the most routinized and inflexible organizational settings that could be imagined outside of the military” (p. 30).

As previously mentioned, the community has also served as a conduit for delivering abstinence-only messages to youths. Community-school programs as defined by Epstein and Dauber (1991), as cited in Henderson and Mapp (2002), are rooted in the community and

provide a variety of services to families. These services include tutoring, enrichment programs, and homework assistance. In many instances, according to Henderson and Mapp, these centers also provide families with health and social services.

The Family Life Abstinence Program (FLAP) was delivered as a pilot and then a full-scale program. It was evaluated in 2008. This demonstration program had, as its main objective, the reduction of adolescent engagement in premarital sexual activity, in an attempt to reduce unwanted pregnancies and sexually transmitted diseases. Further, this study will attempt to determine who has a stronger influence on the outcomes, parents or peers. Research (Aseltine, Doucet, & Schilling, 2010) indicates that parental involvement in the lives of students can reduce problems through improved understanding of parental relationships and proactive involvement by religious and community stakeholders. Finally, it is also examined whether gender, race, and religious beliefs of the urban middle-school students in this study have impacts on their choices.

Increasing academic achievement in a crowded curriculum (Epstein & Sanders, 2006) has become a daunting task for school personnel. These researchers found that national teacher-preparation models were not including curricula content to develop teacher, parent, or community relationships. Gardner (1999) stated, “The two goals of education across time and space could be called the modeling of adult roles and the transmission of cultural values” (p. 28). Voisin (2019) suggested that schools represent important venues for implementing primary prevention programs because they are places where meaningful and transient social relationships are forged. Voisin further stated that many social relationships, such as positive teacher-adolescent relationships, provide adolescents with socially protective mooring in communities where risk behaviors are often perceived as normative, and community and peer influences may be counterproductive to adopting health-protective behaviors.

Character education was reintroduced into the curriculum in the 1990s. It was designed to aid in the moral and social development of students (Kagan, 1992). These researchers also noted a lack of attention to new teacher and administrator skills that foster both communication and collaboration among community stakeholders. However, NCLB (2002) legislation and the United States Department of Education (USDOE) (NJDOE, 2002) implemented the Comprehensive School Reform (CSR), which requires school districts and local departments of education to communicate with parents and community members regarding school initiatives. CSR specifically requires 11 components for schools to receive federal funding. One of the components, the focus of the present study, mandates public schools to provide an effective outlet for parental and community support and dialogue. Additionally, both pieces of federal legislation require educators to provide programs and interventions to improve social skills and academic achievement. Epstein and Sanders (2006) drew the conclusion that when educators develop collaborative partnership projects on a formative basis with parents and community members, the human capital produced is academic success of all students.

Given the discussion above, the research problem that this study attempts to address is this: To what extent can middle school students' intents to avoid risk behaviors be attributed to the influences of the intervention, parents and peers, and the students' visions of future? By addressing these questions, the study examined findings in an abstinence-only demonstration program. The Family Life Abstinence Program (FLAP) was delivered as a pilot and then as a full-scale program in 2010. This demonstration program had, as its main objective, the reduction of adolescent engagement in premarital sexual activity, in an attempt to reduce unwanted pregnancies and sexually transmitted diseases.

### **Purpose of the Study**

The purpose of this study was to determine the influencing factors on risk-avoidance behaviors on urban middle-school students using secondary data collected by Walker (2010).

### **Research Questions**

Research questions guiding the present study are as follows:

1. *To what extent did the interventions achieve the intended outcomes?*
2. *Which variable—parent or peer—had a stronger impact on outcomes?*
3. *Does a student's vision of future (future outlook) have a significant impact on intended outcomes?*

### **Conceptual Framework of the Study**

A conceptual framework was implemented to help steer the study. Lloyd (2005) suggests the use of a conceptual framework “to help guide interpretation of the empirical evidence and assess claims of causal inference.” To that end, the Theory of Planned Behavior, developed by Ajzen (1985) was utilized. Lloyd suggest using such a theory to help guide the identification of key research questions for the following reasons:

- To review existing research studies on trends in the contextual factors, transitions, and outcomes laid out in the conceptual framework.
- To review existing literature for insights and insights into the long-term consequences.
- To review recent evaluations of the impact of policies and programs in order to identify promising (and ideally cost-effective) approaches to the promotion of adolescent reproductive health and other important health outcomes.

Ajzen's Theory of Planned Behavior looks at intention as it relates to behavior. It posits that individuals are expected to behave in accordance with their intentions, but that time and outside influences—for example, unforeseen events—alter actual behavior. Ajzen uses the term “subjective norm” to identify the behavior the subject intends or does not intend to perform. The Subjective norm is a behavior the subject and others, such as parents, peers and institutions have evaluated as a positive behavior that should or should not be performed.

### **Significance of the Study**

There were several factors that indicated the need for this study. First, given the crowded curriculum, partnering with community-based organizations to deliver sex-education curriculum could be a viable option for schools. Second, given the debate on whether abstinence programs are effective, this study can contribute to the field of research. Third, the findings can help to shape the content of future interventions, particularly with respect to parent and peer influences. The additional data analysis of Walker (2010) will provide rigorous and substantial support—specifically for school administrators in urban middle-school settings—to make effective policy decisions. The robust nature of previous expert research in the field will significantly enhance the ease with which public policy is determined for health-curricula intervention models for both school and community-based programming. Findings from this study will provide school leaders concrete data to make policy decisions to reallocate funding or human resources elsewhere if the health curriculum is deemed effective when delivery is community-based.

### **Delimitations of the Study**

The researcher imposed the following delimitations on the study.

1. The study offers results specific for use in urban middle-school settings.
2. Data were limited to middle-school students.

3. Data are limited to 12 urban public schools in the Bronx, New York. Walker (2010) predetermined the variables to include the following: (a) student demographics—age, gender, race, grade level; (b) students’ self-esteem, plans for the future, peer pressure, religious practice, past sexual behaviors; (c) parent-child communication—rules and regulations; (d) student attitudes toward abstinence and intention to abstain and current behavior.

4. Data were collected from one school-based abstinence program in the greater New York City area: the Family Life Abstinence Program (FLAP).

### **Limitations of the Study**

The conditions limiting the present study over which the researcher had no control were as follows:

1. The use of secondary quantitative data collected by Walker (2010).
2. Study does not measure behavioral changes.
3. Study contained response items that were self-reported.
4. The study measured intention of future behavior, not actual behavior.

### **Definitions of Terms**

Abstinence Education (AE) interventions “promote abstinence from sexual activity (either delayed initiation or abstinence until marriage) and mention condoms or other birth control methods only to highlight their failure rates if at all” (Guide to Community Preventive Services, 2009, para. 1).

At-risk behaviors for teen pregnancy include numbers of sexual partners and lack of use of protection to prevent pregnancy. Also included in at-risk behaviors are poor communication skills, lack of decision-making skills, and “poor social, emotional, or cognitive competence” (Guide to Community Preventive Services, 2009, para. 1.)

Community Based Abstinence Education (CBAE) is a program funded by the federal government for agencies or community groups that meet eight federal guidelines required to obtain funding. The programs are offered by trained adults and include scheduled activities in structured community settings.

The term “parent” throughout this document refers to a parent, parents, extended family guardians, foster parents, or any other adult acting in the legal capacity of guardian to a minor child in this study.

### **Organization of the Study**

In Chapter I, the researcher provided an introduction, problem statement, the purpose of the study, research questions, the significance of the study, the study’s delimitations and limitations, definitions of relevant terms, and a transition to Chapter II.

In Chapter II, the researcher will provide a review of the research, theory and literature, and theoretical framework, and a transition to Chapter III.

In Chapter III, the researcher will provide the design, methodology, secondary-data collection, and validity and reliability estimates for the current study.

In Chapter IV, the researcher will provide the data analysis and SPSS outputs.

In Chapter V, the researcher will provide the summary, findings, conclusions, and recommendations for future policy programs, processes, and research.

## Chapter II

### REVIEW OF RELATED RESEARCH, THEORY, AND LITERATURE

Literature for this study was garnered from several sources, including dissertation abstracts, peer-reviewed journals, institutional research, and government studies. Keywords used to extract this research included risk behaviors in middle-school children, parental involvement in school and community, abstinence education, abstinence-only education, community-based abstinence education, school-based abstinence education, and abstinence-only funding. The themes that are discussed are organized in the following way: abstinence education in the context of education the whole child; the competing policy-agenda debate; No Child Left Behind; the importance of effective public policy for teen pregnancy; the importance and cost of prevention; intervention programs; evaluation of programs; student engagement and risk behavior; peer influence on risk behavior; student achievement; and theoretical framework.

#### **Abstinence Education in the Context of Educating the Whole Child**

The federal government has a history of funding health curricula for either abstinence-only programming or in a more comprehensive form, involving community-based organizations and media campaigns (Guide to Community Preventive Services, 2009). The increasing pressure for standardized testing begun by No Child Left Behind legislation (Washington State Office of Superintendent of Public Instruction, 2001) and a return to the Nation at Risk (The National Commission on Excellence in Education, 1983) objectives calls for schools to take a more active role in the development of the whole child. This role includes offering a curriculum on health practices that includes abstinence-only programming. John Dewey wrote:

The aim of education is to enable individuals to continue their education...(and) the object and reward of learning is continued capacity for growth. Now this idea cannot be applied to all the members of a society except where intercourse of man with man is mutual, and except where there is adequate provision for the reconstruction of social habits and institutions by means of wide stimulation arising from equitably distributed interests. And this means a democratic society. (Dewey, 1900)

Educating the whole child is not a new concept in education. Throughout the history of education in America, there were many times when curriculum included the preparation of social skills, character education, and the inclusion of topics usually limited to parental control. Dewey (1900) saw the school as an embryonic society, a miniature community in which a child could experience and practice for life in a smaller habitat. His goal, like a pendulum, was to swing the child from being viewed from the empty-vessel perspective of the Aristotle era to being viewed as an active participant. Dewey's progressive-education model attempted to redefine the way children were educated, away from a traditional classroom and its mass factory production of humans and to a model that produced students who were individual members of society both physically and emotionally, through personal growth and exploration. Dewey was ahead of his time with his appreciation for the child's ability to use of all his or her senses to learn. He stated that the academic life of children should be internally driven and student-centered, and not externally prescribed solely by the teacher. Dewey not only looked at the teacher, but the environment in which the child lived; he wrote that the school building suffered from a waste of physical organization imposed by economic restrictions of public-school budgets that produced a child inadequately prepared for life. Accordingly, Dewey created a school environment to be a place of open exploration, of natural discovery and development, mirroring the natural

tendencies of personal experiences. He wanted to create laboratories, kitchens, workshops, and learning centers. These reforms spoke to the whole child, the development of a caring and thoughtful individual who was socially responsible and an efficient problem solver. Dewey's educational insight continues to challenge current debates on how to best service the individual child in an ever-changing society.

Thelin (1981) supported Dewey's theory of educating for a democratic society. He described education as "a process by which individuals developed increasingly successful styles for coping with 'more complex, challenging and socially significant situations'" (p. 137).

Additionally, during this era of educational thought, Johnson and Johnson (1984) reintroduced variations on previous theories and called their strategy "cooperative learning." This strategy allowed for peers to work together cooperatively while not only increasing academic aptitude, but also working on social skills simultaneously. Variations on this theme have evolved into collaborative learning, again with the intent of increasing peer social skills and academic achievement (Johnson & Johnson, 1994). Leading proponents of cooperative learning (Johnson & Johnson, 1983; Slavin, 1985) found that cooperative learning improved social as well as academic skills. Vermette (1998) reviewed 38 research studies on cooperative learning and synthesized that this process was motivational that team learning "increases tolerance and understanding across gender, race and disability, [and] improves self-esteem, and increases achievement and problem-solving abilities" (Vermette, 1998, p. 33).

Gardner (1993, 1999) theorized the concept of multiple intelligences some 80 years after Dewey began espousing his model of progressive education. The theory of multiple intelligences posits that children learn in different ways and that the verbal-logical assessments in schools today do not support all learning styles. Further, Gardner (1999) stated "the two goals of

education across time and space could be called the modeling of adult roles and the transmission of cultural values” (p. 28).

Voisin (2005) suggested that schools represent an important venue for implementing primary prevention programs because schools represent a place where meaningful and transient social relationships are forged. Voisin further stated that many social relationships such as positive teacher-adolescent relationships provide adolescents with socially protective mooring in communities where risk behaviors are often perceived as normative, and community and peer influences may be counterproductive to adopting health-protective behaviors.

Character education was reintroduced into the curriculum in the 1990s. It was designed to aid in the moral and social development of students (Kagan, 1992). Wynne and Ryan (1997), proponents of character education as part of the school curriculum, state that there is “an important connection between character and what human beings learn about their personal sexual identities and how they learn it – the ways they conduct themselves in sex-related matters” (p. 219). While recognizing that the topic of sex education “can be a minefield” (Wynne & Ryan, 1997, p. 219), they make a “strong justification for making human sexuality an important part of the education we provide to the young” (Wynne & Ryan, 1997, p. 219). In their discussion of comprehensive sex education in the curriculum, at the time of their study, they found that there was “little or no evidence that these efforts have any important effects on pupils’ sex-related conduct, such as the likelihood of their having or avoiding premarital sexual intercourse before completing high school” (p. 224).

Research on the usefulness of character education, and implications for reducing risk behaviors of middle-school students, continues. According to Diggs and Akos (2016), “it appears that character education in middle school is a reasonable means to reduce problem behaviors,

increase prosocial behaviors and social cognitions, but does not provide a meaningful effect to academic outcomes.” While the researchers do not directly reference sexual behavior, the implications of prosocial and social cognitions are worth noting, since the middle school years are periods of both risk taking and heightened impulsivity for students.

### **Competing Policy Agenda Debate**

Allowing individual states, the abilities to guide their own curricula regarding health interventions opens the door for choice between the more recent abstinence-only model or the comprehensive health model. At the American Medical Association (AMA) House of Delegates Annual Meeting (AMA, n.d.), the following analysis was reported. While studying the efficacy of abstinence-only education versus a more comprehensive health curriculum, the AMA stated that current estimates of reportable sexually transmitted disease (STD), teen pregnancy, and human immunodeficiency virus (HIV) transmission rates in the United States remain higher than those of other developed countries. Additionally, the teen birth rate had risen consistently for the past two years, which was a reversal from the previous 14-year decline. When measuring the comparative effectiveness of abstinence-only and comprehensive-based sex education, the AMA (n.d.) stated that it was difficult because of differences in the programs, the populations and ages of those served, and the various methods used for retrospective evaluation.

Differing ideologies also lead to disparate views on what constitutes the most relevant outcome of interest. Although a few abstinence-only education programs had succeeded in temporarily altering teen attitudes toward abstinence, the overwhelming number of programs that were reviewed failed to keep youth abstinent until marriage or to significantly delay the onset of sexual activity. Funding for abstinence-only education programs had risen exponentially over the previous 10 years, but there was scant evidence to support their effectiveness in changing

adolescent behavior and permanently altering attitudes regarding sexual activity. Such programs may have had the minor effect of altering intent to engage in sexual activity, but they did not adversely affect knowledge about contraceptives, condoms, and STDs (AMA, n.d.).

The AMA (n.d.) study concluded that the combination of the increases in STD, HIV transmission, and teen-pregnancy rates underscored the need for sex-education methods for children, adolescents, and adults that result in behavior change, risk-behavior reduction, or measurable changes in knowledge, attitudes, or beliefs. Although a few abstinence-only education programs have succeeded in changing and supporting teen attitudes toward abstinence, strong evidence was lacking that abstinence-based programs significantly delayed the initiation of sex, kept youth abstinent until marriage, hastened the return to abstinence, or reduced the number of sexual partners. Comprehensive-based sexuality-education curricula that included accurate information about contraception and condom use, and that may also encourage abstinence (as the only fully effective way to prevent pregnancy and the transmission of disease), continued to be the most effective at increasing adolescents' knowledge about pregnancy and disease prevention (AMA, n.d.).

### **Policy Mandates**

The emergence of the No Child Left Behind (NCLB) 2002 legislation signaled a shift in public policy toward national standards and accountability, and away from the Dewey (1900) model that focused on the development of the whole child, especially at the local level. The NCLB movement also pushed funding away from public-school intervention models for risk behaviors and an increased reliance on community-based organizations to develop the child emotionally, attempting to reduce risk behaviors and encouraging academic achievement. The unfunded mandates of NCLB signed into law on January 8, 2002, revised the 1965 Elementary

and Secondary Education Act PL89-10 (ESEA). One purpose for the law was to ensure that all children in America were able to meet the high learning standards adopted by each state, as implied by the Constitution. The goals of the law stated in the NCLB executive summary in 2001 were that (a) all students must reach high standards at a minimum attaining proficiency in reading and mathematics by 2013–2014; (b) by 2013–2014, all students must be proficient in reading by the end of the third grade; (c) all limited-English students must become proficient in English; (d) by 2005–2006, all students must be taught by highly qualified teachers; (e) all students must be educated in learning environments that are safe, drug free, and conducive to learning; and (f) all students must graduate from high school based on a standardized state-adopted exit examination.

Further policy shifts separating the curriculum and the development of Dewey's whole-child perspective were the establishment of Common Core State Standards (CCSS), launched in 2009, and adopted by forty states, the District of Columbia, Guam, American Samoan Islands, US Virgin Islands, and the Northern Mariana Islands by 2019. Only 10 states and the territory of Puerto Rico are currently not participating. These national standards outline suggested outcomes for graduating seniors to be either college ready or career ready in both language arts and mathematics, but they do not include health curricula; this is still a function of the individual states. The mission statement of CCSS is as follows:

To provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully

prepared for the future, our communities will be best positioned to compete successfully in the global economy. (<http://www.corestandards.org/>)

### **The Importance of Effective Public Policy for Teen Pregnancy**

The CDC (2019) has identified national public-health concerns under the overarching theme of adolescent risk behaviors. The CDC has listed a priority of reducing teen pregnancy and promoting health equity among youth. The CDC further stated that these public-health items are of paramount importance to the health and quality of life for our youth. The recommendations are as follows: (a) knowledge of sexual issues, HIV, other STDs, and pregnancy, including methods of prevention; (b) perception of HIV risk; (c) personal values about sex and abstinence; (d) attitudes toward condoms, both pro and con; (e) perception of peer norms and behavior about sex; (f) individual ability to refuse sex and to use condoms; (g) intent to abstain from sex or limit number of partners; (h) communication with parents or other adults about sex, condoms, and contraception; (i) individual ability to avoid HIV/STD risk and risk behaviors; (j) avoidance of places and situations that might lead to sex, and (k) intent to use condoms.

Data from the Center for Disease Control (2012) revealed that the birth rate for teen pregnancies has been declining during the years 1991 through 2010. However, this decline in no way represents a significant change in the impact of teen births on the national economy. Public costs associated with teen pregnancy and childbearing are estimated at almost \$11 billion annually. The long-term national consequences for teen pregnancy are well documented. According to the CDC (2009) report “Teen Pregnancy in the United States,” 409,840 infants were born to 15- to 19-year-olds, for a live birth rate of 39.1 per 1,000 women in this age group. Additionally, nearly two-thirds of births to women younger than age 18 and more than half of

those among 18- to 19-year-olds are not intended. National data provided by the CDC (2011) state the U.S. teen birth rate fell by more than one-third from 1991 through 2005, but then increased by 5% over two consecutive years. Data for 2008 and 2009, however, indicate that the long-term downward trend has resumed.

The rates of U.S. teen pregnancy and birth, sexually transmitted diseases (STDs), and abortion are substantially higher than those of other industrialized Western nations. The CDC (2009) reported that the teen birth rate in the United States was decreasing but that the rate is substantially higher than any other industrialized Western country. Pro-choice advocacy groups such as the National Abortion and Reproductive Rights League (n.d.) (NARAL) stated that abstinence-only education results were found to be inaccurate or inconclusive as to their effectiveness. Rabinowitz et al. (2009) found that abstinence-only education did not reduce current estimates of reportable sexually transmitted diseases (STDs), teen pregnancy, and human immune deficiency virus (HIV) transmission rates in the United States as compared to other developed countries.

Kim and Rector (2010) concluded in a report funded by The Heritage Foundation that (a) teen sexual activity is a financial hardship for teens and society overall; (b) teens who engage in sexual activity risk suffered increased STD infections, emotional and psychological harm, and out-of-wedlock childbearing; (c) genuine abstinence education is crucial to the physical and emotional well-being of the nation's youth; and (d) abstinence programs focus on developing character traits that prepare youth for future-oriented goals.

### **The Importance and Cost of Prevention**

According to the CDC (2016), teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts on teen parents and their children.

Among them are the following consequences:

Teen pregnancy accounts for more than \$9 billion per year in costs to U.S. taxpayers for increased health care and foster care.

- Increased incarceration rates among children of teen parents.
- Lost tax revenue because of lower educational attainment and income among teen mothers.
- Pregnancy and birth are significant contributors to high-school dropout rates among girls; only about 50% of teen mothers receive a high-school diploma by age 22 versus nearly 90% of women who had not given birth during adolescence.
- The children of teenage mothers are more likely to have lower school achievement and drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as teenagers, and face unemployment as young adults.

The CDC (2019) further stated that these effects remain for the teen mother and her child, even after adjusting for those factors that increased the teenager's risk for pregnancy. These effects include growing up in poverty, having parents with low levels of education, growing up in a single-parent family, and having low attachment to and performance in school.

In 2010, the Obama administration sought to end the policy of funding abstinence-only education in public school and community-based programs. U.S. Senate Bill 578, enacted on March 15, 2011, rescinded funding for the abstinence-only program called the Personal Responsibility Program (PREP) under the second Bush administration. The CDC, in partnership

with the federal Office of the Assistant Secretary for Health (OASH), used Title X funds to launch Teen Pregnancy Prevention from 2010 to 2015. President Obama's Teen Pregnancy Prevention Initiative (TPPI) sought to provide services, programs, and strategies utilizing community-wide initiatives. According to the CDC (2016), the TPPI has reported four key components of the new legislation: (a) shifting to evidence-based and evidence-informed prevention programming that focuses on medically accurate and age-appropriate interventions; (b) linking community-based access to quality programming to include both abstinence and use of contraceptives to prevent STDs and teen pregnancy; (c) further educating stakeholders, such as community leaders and parents, in evidence-based strategies to reduce teen pregnancy, and (d) implementing sustainability measures to support community-wide teen-pregnancy prevention. The purpose of this program is to demonstrate the effectiveness of innovative, multicomponent, community-wide initiatives in reducing rates of teen pregnancy and births in communities with the highest rates, with a focus on reaching African American and Latino/Hispanic youth aged 15–19. A community-wide model is an intervention implemented in defined communities (specified geographic area) applying a common approach with different strategies. Community-wide approaches are tailored to the specified community and include broad-based strategies that reach a majority of youth in the community (e.g., through communication strategies and media campaigns) and intensive strategies reaching youth most in need of prevention programming (e.g., through implementation of evidence-based programs and improved links to services). To achieve these goals for the period from 2010 to 2015, nine states and community-based organizations, including two Title X agencies and five national organizations, were funded through the cooperative agreement "Teenage Pregnancy Prevention: Integrating Services, Programs, and Strategies through Communitywide Initiatives." These awards were made through

two competitive funding opportunity announcements (FOAs): one through a joint FOA from OAH and CDC, and one from a joint FOA from the Office of Population Affairs and the CDC. The national organizations provide training and technical assistance to all funded organizations within this initiative. The state- and community-based grantees provide training and technical assistance to youth-serving organizations and partners to implement the key components described below.

According to the CDC (2016), by addressing the key components, the following performance measures are expected within five years. The youth outcomes are to (a) reduce teen birth rates by 10% in targeted communities; (b) reduce teen pregnancies in targeted communities; (c) increase the percentage of youth who abstain from or delay sexual intercourse; and (d) increase the consistent and correct use of condoms and other effective methods of contraception among sexually active youth. Additionally, the CDC included the following program, practices, and community support outcomes:

- Increase the number and percentage of youth within the target community who receive evidence-based and evidence-informed programs to prevent teen pregnancy.
- Increase the number and percentage of sexually active youth within the target community who are referred to and use clinical services.
- Increase adoption of state, local, or community-wide health, education, and youth-service strategies supportive of adolescent reproductive health by educating relevant stakeholders on evidence-based and evidence-informed teen-pregnancy prevention approaches and environmental supports.

- Through training and technical assistance, increase the capacity of the target community partners to select, implement, and evaluate evidence-based and evidence-informed programs with fidelity and with informed program adaptation as appropriate.

To further support the assertion that policy agendas are well funded, the CDC (2016) has partnered with several state and community-based organizations to address health curricula. The Adolescent Pregnancy Prevention Campaign of North Carolina (APPCNC) has received \$1,163,553. The Alabama Department of Public Health (ADPH) has received \$846,051. The City of Hartford Department of Health and Human Services (HHHS) has received \$900,000. The Family Planning Council (FPC) in West Philadelphia has received \$884,840. The Fund for Public Health in New York, Inc. (FPHNY) has received \$1,500,000. The Georgia Campaign for Adolescent Pregnancy Prevention (G-CAPP) has received \$1,500,000. The Massachusetts Alliance on Teen Pregnancy (MATP) has received \$1,177,051. The South Carolina Campaign to Prevent Teen Pregnancy (SC Campaign) has received \$1,486,232. The University of Texas Health Science Center at San Antonio (UTHSCSA) has received \$1,209,387.

### **Intervention Programs**

Historically, abstinence-only programs for pregnancy prevention began in the 1970s as a result of legislation and amendments to Title V of the Social Security Act. During the latter two decades of the 20th century, these programs became more abundant. As they grew in funding and need, they also became more age and culturally appropriate for the high-risk groups: “specifically poor, urban minorities” (Sutherland, Araia & Finkelstein, 2011, p. 26).

Intervention programs include those offered in the school setting as part of the curriculum and those offered in the community through a service agency. Often, federal monies are used to fund demonstration projects. The paradox of increased standards and accountability has also precluded at-risk behavior programs, such as abstinence-only education. This researcher has found that models of intervention programs lack evidence-based curricula, according to the policy regulations.

While schools ideally are places where students will be found on a daily basis and where health-education programs already exist, it was believed that the school was the “pre-existing vehicle...into which externally designed curriculum packages can be unobtrusively slotted” (Sutherland et al., 2011, p. 29). However, Sutherland et al. found that schools take on lives of their own: “From a sociological perspective schools are among the most routinized and inflexible organizational settings that could be imagined outside of the military” (p. 30).

Community-school programs were defined by Epstein (1991), as cited in Henderson and Mapp (2002), as rooted in the community and providing a variety of services to families. These services include tutoring, enrichment programs, and homework assistance. In many instances, their literature review found that these centers also provide families with health and social services.

Sutherland et al. (2011) conducted a study to determine the challenges faced by federal demonstration projects that were designed to “address social ills, including unwanted pregnancies, sexually transmitted disease and substance abuse, among other health concerns...” (p. 25). They found that programs were increasingly outsourced to community-based organizations and public schools. They revealed a number of challenges that caused underperformance of the abstinence-only programs, including the community, the delivering

agent, the site, and the administration and staff of the program. The program they studied involved African American and Hispanic students in an economically depressed area. The students attended an underperforming urban school.

Cairns, Harris, and Young (2005), as cited in Sutherland et al. (2011), discovered a trend in federally funded abstinence and other at-risk programs. Local community-based private, nonprofit organizations that were notable in the local community for social services were the primary providers of service. These programs, like school-based programs, face challenges in organizational structure and staffing, inhibiting their abilities to respond.

Sutherland et al. (2011) described a tainted process that is “ill-considered and unsystematic” (p. 27) that impacted both the schools and the community-based agencies in their delivery of effective abstinence-only programming. Agencies and schools were challenged by a myriad of interventions that included slow responses from parents to allow consent to participate, lack of commitment by staff, lack of administrative support in scheduling classes, staff who were teaching the program as additional duties, and lack of community-based linkages.

Santelli et al. (2017) further highlight the mismatch between intervention models and our ethical and legal responsibilities to young people. When the 2015 U.S. Supreme Court legalized same-sex marriage nationally, this consequently normalized or legitimized a variety of sexual contact. Santelli et al. speak to the inconsistency in terms of abstinence, its intended outcomes or messaging, and their target audiences. The majority of programs do not consider what he refers to as “sexually minority youth,” including lesbian, gay, bisexual, transgender, and questioning. Abstinence-only interventions are based on “normal” sexual relationships; possible outcomes are the shaming, exclusion, or isolation of these vulnerable groups. Additionally, he discusses the

impact of the ideology of sex only within the confines of marriage to the victims of incest, rape, sexual violence, and molestation.

### **Evaluation of Programs**

According to Lindberg, Ku, and Sonenstein (2000), “sex-related health education, a pillar of the public-school curriculum, is taught in 93% of all public secondary schools in the USA, and more than 95% of adolescents have received some sex-related health education instruction during their public schooling” (as cited in Chen, Yamada & Walker, 2011). However, the content, delivery, and effectiveness of these programs varied widely. According to Kirby (2001), Kohler, Manhart, and Lafferty (2008), and Santelli, Lindberg, Finer, and Singh (2007), some studies found that abstinence-only sex education had fewer positive outcomes than more comprehensive programs. Others such as Jemmott, Jemmott, and Fong (2010) identified a number of approaches, stressing that abstinence programs have reported positive outcomes, including decreases in sexual activity, increased positive attitudes about abstinence, and fewer pregnancies (as cited in Chen et al., 2011). Furthermore, a review of the literature indicated that the early adolescent period is when students are most receptive to health-related interventions (Chen et al., 2011).

While there has been significant controversy over the effectiveness of abstinence-only approaches, these programs have received substantial funding.

### **Student Engagement and Risk Behavior**

Sarason (1974) developed the concept of Psychological Sense of Community (PSOC), furthered by McMillan and Chavis (1986), which stated that the stronger the psychological connection students had to their schools, the greater the chance that the students would not practice high-risk behaviors, such as sexual promiscuity. The PSOC theory focused on the

experience the student had within the school community and not on the structure of a school. The researchers of PSOC observed seven variables that allow student engagement to thrive in communities: (1) the closeness of people; (2) quality interaction; (3) proactive closure to events; (4) crisis intervention that facilitates group bonding; (5) investment beyond boundary maintenance; (6) effect of honor and humiliation that provides personal responsibility, and (7) a spiritual or symbolic bond present in all communities (Sarason, 1974; McMillan & Chavis, 1986).

Much debate exists in the United States between those who favor the effectiveness of abstinence and those who favor comprehensive programs. Aseltine et al. (2010) analyzed teenage communication with parents, faith and religious practices, and parental involvement in teens' lives as related to sexual-behavior awareness. The researchers suggested that teens can reduce problems caused by negative, irresponsible, or destructive sexual behaviors and attitudes through improved understanding of these relationships by parents and proactive involvement by religious and community stakeholders. The authors stated, "Among the most prominent correlates of adolescent problem behavior in general and sexual activity in particular are the structure and functioning of the child's family."

Henderson and Mapp (2002) cited Epstein and Dauber (1991) in identifying six types of middle-school involvement by parents. These types of involvement include parenting, communicating, supporting the school, learning at home, decision-making, and collaborating with the community. Other researchers cited in the synopsis presented variations on these six types (Henderson & Mapp, 2002). "Parenting" was identified as having an active interest in the child's education and future, limiting inside and outside activities, and managing the use of the child's time and behavior. "Communicating" was described as initiating teacher contact and

participating in teacher-initiated contact. “Supporting the school” included volunteering for school activities and supporting fundraising. “Learning at home” encompassed monitoring non-school extracurricular activities. “Decision-making” was fostered by active participation in parent-teacher organizations. “Community collaboration” involved using the resources available in the community and participating in community groups (Henderson & Mapp, 2002).

### **Peer Influence on Risky Behavior**

In terms of peer influence on at-risk behaviors such as sexual intercourse, Jaccard, Blanton, and Dodge (2005) found that while peer connections and social networks exert strong influences on some behaviors, their impacts on sexual intercourse and binge drinking are less important, as they tend to be more rooted in the fundamental values of the adolescent and his or her family. According to L’Engle and Jackson (2008), close relationships with parents and parental involvement mitigated the impacts of peers and lessened adolescent susceptibility to early sexual intercourse. However, Crockett, Raffaelli, and Shen (2006) found that “risk proneness (a combination of attraction to excitement and a preference for spontaneity as opposed to forethought) appears to affect subsequent risky sexual behavior by leading youth into association with peers who encourage misconduct and by increasing early experimentation with substances, which in turn increases sexual risk taking” (pp. 518–519). Another study by Henry, Schoeny, Deptula, and Slavick (2007) found that peer influence plays a modest but significant role in higher-risk adolescent sexual behavior. Family values and strong relationships with parents may have a positive impact on adolescent sexual behavior, while peers have been shown to have a smaller but meaningful negative impact.

Dishion, Ha, and Veronneau (2012) also found that peers who exhibit similar antisocial behaviors “self-organize and enjoy a period of increased reward and peer social status during

adolescence as well as sexual activity, and, ultimately, more offspring during this developmental phase” (p. 712). Further, they suggest this is “why peer contagion dynamics in group interventions and services might be difficult to contain” (p. 712) and might impact and mitigate adolescent- health programs.

### **Student Achievement**

The impact of abstinence-only programming on student achievement was a research question in this study. “Student achievement” is described as attending school regularly, maintaining sufficient grades, completing homework assignments, and participating in the classroom environment. Epstein et al. (2002) reviewed 52 studies on parent involvement. These authors found that all of the studies focused on the connections among parent involvement in the school and the community, leading to improved achievement for their children. Stormshak, Connell, and Dishion (2009), cited Pollard, Hawkins, and Arthur (1999) and Larson and Ham (1993), reported that risky behaviors in adolescence, including sexual activity, resulted in low academic achievement, which was linked to lack of parental involvement.

### **Theoretical Framework**

Educational philosophers, theorists, and researchers cited in this study strongly justified the need for schools to teach beyond the basic curriculum and address the character development of students through a variety of proven strategies. Given this set of beliefs, schools have attempted to include these strategies in developing comprehensive sex-education programs. The review of the literature also revealed that the federal government became involved in the funding of these programs either in the school or via community-based organizations. A number of the research studies that were reviewed found that while these programs were offered, there was no

evidence that they were working or that they were cost-effective. Later researchers attempted to evaluate the programs and produce evidence that they were, in fact, working.

During a study of the risk behaviors of middle-school females, a gap was determined in the literature. There was a dearth of sufficient empirical evidence that community-based abstinence-only intervention programs were effective in changing the risk behaviors of middle-school students. The level of risk behavior engaged in by middle school students in urban settings is tied to public health issues in the United States. The gap between preferred behaviors presented itself in the sense that high-school engagement also influences risk behaviors of females in high-risk categories.

Chapter II presented, synthesized, and evaluated the relevant research and literature appropriate to this study. Chapter III presents the design, methods, procedures, and data analysis for the current study.

## CHAPTER III

### DESIGN AND METHODOLOGY

#### **Introduction**

In the second chapter of this dissertation, the researcher presented, synthesized, and assessed the research, theory, and literature relevant to the study to support the problem statement; discussed to what extent the Community-Based Abstinence Education (CBAE) delayed the onset of sexual activity; and discussed which variables influenced the decision. Four major themes emerged in the literature review, focusing on the need for more research vis-à-vis abstinence versus comprehensive curricula, funding issues impacting the delivery of sex education for middle-school students, the roles of the school and community in the delivery of intervention programs, and the need to educate the whole child both academically and socially. The chapter concluded with a theoretical summary guiding the present study, which was used to inform the purpose of the present study.

Specifically, there is a dearth of sufficient empirical evidence that community-based abstinence-only intervention programs were effective in changing the risk behaviors of middle-school students. The purpose of this study was to determine the influencing factors on risk-avoidance behaviors on urban middle-school students using secondary data collected by Walker (2010). The Family Life Abstinence Program (FLAP) was delivered as a pilot and then a full-scale program, having been evaluated in 2008. The main objective of this demonstration program was the reduction of adolescent engagement in premarital sexual activity, in an effort to reduce unwanted pregnancies and STDs. This study attempted to determine whether parents or peers have a stronger influence on the outcomes. Previous research has suggested that parental involvement in the lives of students can reduce problems through the improved understanding of

parental relationships and proactive involvement by religious and community stakeholders (Aseltine et al., 2010). Finally, this study seeks to determine whether gender, race, and religious beliefs of participants have an impact on their choices.

The research problem that this study seeks to address is the following: To what extent can middle school students' intents to avoid risk behaviors be attributed to the influences of parents and peers? This study will examine the findings of an abstinence-only demonstration program in order to address this question.

### **Research Questions**

The research questions guiding the present study consisted of the following:

- 1. To what extent did the interventions achieve the intended outcomes?*
- 2. Which variable—parent or peers—had a stronger impact on outcomes?*
- 3. Does a student's vision of the future have a significant impact on intended outcomes?*

This chapter describes the methodology used in carrying out the study. The chapter is structured around the following subtopics: the research design and methodology, participants, instrument, validity and reliability, and data analyses. The research questions served as guides for the statistical analysis, research methods, and design.

The research design is longitudinal; the data were collected at baseline and 12 months after the conclusion of the intervention. The original design was a quasi-experimental study with a treatment and control group—a cluster-randomized design in which 12 schools were randomly selected to either receive the treatment (six) or serve as the control (six).

### **Intervention and Population**

The Family Life Abstinence Program (FLAP), delivered as a pilot and then a full-scale program, was implemented in 2006. FLAP is an abstinence-only demonstration program, which

uses the curriculum “Sex Can Wait.” The primary objective is to reduce adolescent engagement in premarital sexual activity, thus reducing unwanted pregnancies and sexually transmitted diseases. According to Walker (2010), “this program is designed to empower youth to make health decisions regarding sexuality and committing to an abstinent lifestyle until marriage” (p. 1). The four goals of the FLAP include increasing parental involvement and strengthening family relationships, enabling an understanding of the positive health and emotional benefits of abstinence, assisting parents in employability initiatives to further the economic support of families, and to increase communication between parents and their children, particularly as it relates to sexuality.

The original FLAP design included 10 middle schools and 1,800 participants, with 30 sessions of approximately 45 minutes in length (Walker, 2010). The abstinence-only education program, based on Sex Can Wait (Core-Gebert, Hart, & Young, 1997) and social skills was administered to sixth- and seventh-grade students over an entire school year. Before the implementation of the program, students were administered a pretest survey at inception to collect baseline data and then later, after a two-month interval. A post-test was administered at the completion of the program. Homework incorporated within the program focused on child-parent communication and activities. The program was later redesigned to include 12 schools, with six control groups and six treatment schools.

### **Participants**

This study analyzed the secondary quantitative data collected by Walker (2010), who predetermined the variables to include: (a) student demographics, including age, gender, race, and grade level; (b) students’ self-esteem, plans for the future, peer pressure, religious practice,

and past sexual behaviors; (c) parent-child communication, including rules and regulations; and (d) student attitudes toward abstinence and intention to abstain and current behavior.

Within this study, the data were limited to middle school students attending 12 urban public schools in the Bronx, New York. Participating schools were selected from those that did not have abstinence-education programs. Schools were matched based on similar student and school characteristics; they were then randomly selected to receive either the control or the abstinence-only program. The matching variables were characteristics related to the student body, attendance, needs classifications, and stability. Student participants numbered 800, including 480 Hispanic students, 284 African American students, and 36 additional students classified as “other.” These data contained a control and a treatment group and were collected from one school-based abstinence program in the greater New York City, New York, area, the Family Life Abstinence Program (FLAP).

Parent participants, numbering 200, were 119 Hispanic, 71 African American, and 10 classified as Other. It should be noted that there is a higher proportion of African American and Hispanic residents in the Central Bronx, Highbridge, and Morrisania districts than other parts of the Bronx and New York City. Walker (2010) cites the following statistics:

According to the New York City Department of Health and Mental Hygiene’s 2006 Community Health Profiles, the Central Bronx and Highbridge/Morrisania Districts have among the highest rates of teen pregnancy in New York City (NYC). The teen birth rate in the Central Bronx District is 80% higher than in NYC overall; with the Highbridge/Morrisania District following close behind with a rate that is 75% higher. The Highbridge/Morrisania District also has the highest HIV-related death rate in NYC and

elevated rates of other sexually transmitted infections such as chlamydia and gonorrhea.

(p. 4)

### **Instrument**

Baseline data were collected from students in both the treatment and control groups. The Core Baseline Questionnaire (Walker, 2010) was designed to determine what participants know, think, and do related to activities, family, and at-risk behaviors. Forty-nine multiple-choice questions were the basis for this information. Newton and Rudestam, (2007) cautions against the use of utilizing secondary or archival data for several reasons: (a) the research questions or hypothesis may be generated to conform to the data; (b) some data sets may offer missing, incomplete, or compromised data; and (c) the researchers must ascertain that they have access to a data set that may be controlled or owned by another. For this researcher's purposes, we must consider the benefits of utilizing secondary data collected by Walker (2010) while recognizing that limitations may exist. Newton points to the merits of using secondary data when important and when relevant data exist that cannot effectively be duplicated by the researcher. Newton also states the benefits of using secondary data within academic departments when several investigators collect or use the same large data set for different foci.

### **Variables**

The variables included within this study are presented in Table 1 and include independent, moderating, mediating, and outcome variables. This researcher used the variables determined by Walker (2010). Treatment constitutes the independent variable included in this study, while the moderating variables consist of student gender, race, age, grade level, religious practice, and past sexual behaviors. Mediating variables consisted of student self-esteem, plans for the future, peer pressure, parent-child communication, and parent-child rules and regulations.

Outcome variables consisted of students' attitudes toward abstinence, intention to abstain, and current behavior.

The Core Baseline Questionnaire was examined to determine which questions students answered in the pre- and postsurvey was relevant to the research questions in this study. The research questions pertained to what children of middle-school age knew, thought, and did.

As it related to Research Question 1, survey questions about teen opinions about sex were analyzed. Questions 26 (a), (b), and (c) and questions 27, 30, 31, 32, 40, 43, 44, and 45 (a), (b), and (c) were selected for inclusion within this study.

As they related to Research Question 2, survey questions regarding peers were analyzed. Questions 15, 16, 17, 18, and 19 (a), (b), and (c) were selected. Survey questions relating to parents and family were analyzed as well. Survey questions 4, 6 (a), (b), (c), and (d), and 8, 9 (a) and (b), 13 and 14 were selected.

As they related to Research Question 3, survey questions that relate to the moderating variables were questions 20, 21, 22, and 23, which were available in the pre- and post-surveys to assess this dimension.

Table 1

*Independent, Moderating, Mediating, and Outcome Variables (Walker, 2010)*

<u>Variable</u>	<u>Status</u>	<u>Measure</u>
Independent Variable	Treatment	0 = Control 1 = Intervention
Moderating Variables	Student Gender Student Race Student Age Student Grade Level Student Religious Practice Student Past Sexual Behaviors	2 = Male; 1 = Female  6 = grade 6, 7 = grade 7, 9 = grade 9
Mediating Variables	Students' Self-Esteem Students' Plans for the Future Student Peer Pressure Parent-Child Communication Parent-Child Rules and Regulations	
Outcome Variables	Student Attitudes toward Abstinence Student Intention to Abstain Student Current Behavior	

**Validity and Reliability**

Reliability estimates for the instrument were calculated using the pilot data. In addition, scales that were already validated in the literature were included in the instrument.

After obtaining the original SPSS data set file utilized by Walker, data scrubbing was performed to ensure that only appropriate case records in the data set were selected for regression analysis for the focus areas of this study. Selection criteria for inclusion were:

- Only case records with both pre- and postsurvey results;
- Only case records from middle-school students; and
- If demographic-data elements were missing, but the case record included both pre- and postsurvey results, the record was still included but identified as “unknown.”

In SPSS, the researcher ran Cronbach's alpha to ensure an acceptable level of internal consistency reliability of the data, which serves to determine how closely related data elements are among the set analyzed (Leech, Barrett, & Morgan, 2014). In this study, the purpose of running Cronbach's alpha is to ensure that the associated items are highly related enough to justify their inclusion within a single scale and measure in the later analyses conducted (Leech et al., 2014).

A reliability coefficient of .70 or higher is considered acceptable in most social-science research situations (Leech et al., 2014). In addition, after computing Cronbach's alpha for the set of questions representing the outcome variables, the researcher considered the dimensionality of the scale in terms of exploratory factor analysis. The researcher wished to quantify the percentage of total variance of the survey's scaling method. The table below summarizes the findings:

Table 2

*Reliability Analyses*

<u>Scale</u>	<u>N Items</u>	<u>Cronbach's Alpha</u>
Student Religious Practice	8	.744
Students' Self-Esteem	12	.594
Students' Plans for the Future	6	.039
Student Peer Pressure	8	.663
Parent-Child Communication	36	.919
Parent-Child Rules and Regulations	21	.845
Student Intention to Abstain	4	.675
Student Current Behavior	9	.760

This researcher, as a postsecondary instructor in an urban area, possesses personal experience related to the target population being studied.

### **Data Collection**

According to Walker (2010), the data were collected at baseline and at 12 months. Data collectors were hired to administer the questionnaires. These were administered in a group setting, before the start of the classes, and upon their conclusion.

### **Data Analysis**

Initially, the researcher (1) obtained permission to use Walker's 2010 Adolescent Family Life Prevention Programs (FLAP) data set; (2) obtained the original SPSS data set to run statistical analysis as appropriate for the purposes of this research study; and (3) performed quantitative analysis of the questions presented in the FLAP Core Baseline Survey.

Of the 1,228 case records found in Walker's FLAP data set (2010), 1,113 cases were retained as the initial population for this study (113 of the 1,228 students were excluded because the respondents' grade levels were not identified; two of the 1,228 students self-reported as ninth graders). Of this initial 1,115-count population, 43.7% were in the control group, and 56.3% were in the intervention/treatment group. Sixty-eight percent of the population took both the pre- and post-surveys; these 759 case records were selected for regression analysis in this study.

Survey responses were obtained after treatment was completed. Descriptive statistics were summarized, and inferential statistics were run in SPSS 23. The descriptive statistics conducted on these data consisted of frequency tables reporting the sample sizes and percentages of response for the categorical measures included within this study (i.e., the variables measured on the nominal or ordinal levels of measurement), with measures of central tendency and variability calculated and reported for the continuous measures (i.e., the variables measured on the interval or ratio levels of measurement). Initially, tests of normality were conducted for any continuous measures included within this study, which consisted of the Shapiro-Wilk test for

normality, as well as measures of skewness and kurtosis being calculated and reported (Gibbons & Coleman, 2001), along with a histogram and Q-Q plot (Spanos, 1999), serving to visually illustrate the extent of normality associated with any continuous measures of interest. These tests of normality served to determine whether the use of parametric statistics was appropriate in the present study, or whether nonparametric alternatives needed to be used, in cases where these data could not be appropriately transformed such that the distributions are reasonably normal. Based on the results of these tests, if a relatively normal distribution was indicated, the mean and standard deviation would have been calculated and reported for the continuous measures included within the study. However, if significant and substantial non-normality was found, the mean and interquartile range would have been calculated and reported instead.

Following this, inferential statistical tests were conducted and reported in order to explore each of this study's three research questions:

1. *To what extent did the interventions achieve the intended outcomes?*
2. *Which variable—parent or peers—had a stronger impact on outcomes?*
3. *Does a student's vision future (future outlook) have a significant impact on intended outcomes?*

The first research question asked whether the interventions achieved the intended outcomes. As described previously, the outcome variables included in this study consisted of student attitudes toward abstinence, student intention to abstain, and student current behavior, with the independent variable consisting of treatment status, in which students are dichotomized as either members of the control or intervention group. With respect to the analyses serving to explore this study's first research question, a series of independent-sample *t*-tests or Mann-Whitney *U* tests were conducted as appropriate, focusing upon whether the mean or median,

respectively, relating to these outcome variables significantly differed on the basis of control or treatment group status (Hinton, McMurray, & Brownlow, 2004). Relating to the proposed test of normality, in cases where the dependent variable was neither significantly nor substantially non-normal, independent-sample *t*-tests were conducted—parametric tests that assume the normality of the outcome (Hinton et al., 2004). In all other cases, the Mann-Whitney *U* test, a nonparametric alternative to the independent-sample *t*-test, was conducted instead (Hinton et al., 2004). Additionally, the moderating and mediating variables included in the study were also examined. In order to test for moderation, the predictors were centered, with the products calculated between all independent and moderating variables (Fiske, Gilbert, & Lindzey, 2010). These calculated interaction effects, if found to achieve statistical significance, served to indicate significant moderation within analyses (Fiske et al., 2010).

Next, in order to test for significant mediation, Baron and Kenny's (1986) four-step process, which involved conducting three linear regression analyses, was administered in relation to each potential mediator, of which there are five in total. Within this process, which involved a total of three regression analyses, a linear regression analysis was initially conducted in order to determine whether a significant association existed between the independent and dependent variables. Following this, a second regression analysis was conducted in order to determine whether a significant relationship existed between the moderator and the outcome variable. Finally, in the third regression analysis, which incorporated both the third and fourth steps associated with Baron and Kenny's process, the outcome variable was included in a regression model, along with the independent and mediating variables. When statistical significance was indicated across all three regression analyses, with the impact of the independent variables found

to decrease in the final regression analysis as compared with the initial regression analysis, then mediation was said to be present with respect to these measures (Baron & Kenny, 1986).

Next, the second research question included in this study asked the following: *Which variable—parent or peer—had a stronger impact on outcomes?* The variables relating to parent and peer effects consisted of mediating variables, which, as presented in Table 1 in this chapter, were tested using the same four-step process proposed by Baron and Kenny (1986). In order to determine the extent to which either parent or peer influences were stronger, the decrease was compared between these two sets of variables to determine which of the two had a stronger mediating impact.

Next, the third research question included within this study consisted of the following: *Does a student's vision of future (future outlook) have a significant impact on intended outcomes?* With respect to this research question, the same three outcome variables were focused upon, with students' plans for the future focused upon as the independent variable of interest. Three regression analyses were conducted to determine whether students' plans for the future significantly impact these three intended outcomes.

In summary, Chapter III has provided an overview of the research design and methodology; the participants, instrument, validity and reliability measures; and data-analyses techniques. Research questions were used instead of hypotheses to frame the variables. Chapter IV will provide a review of Chapter III's methodology and design and an introduction to the analysis of the quantitative data collected.

## CHAPTER IV

### ANALYSIS OF THE DATA

#### **Introduction**

The purpose of the case study was to determine the influence of abstinence-only education on the risk behaviors of urban middle school students.

In Chapter III, this researcher provided design and methodology guiding the present study. Chapter IV presents an analysis of quantitative secondary data collected by Walker (2010) using SPSS 23 and the results of the analyses conducted for this study. This included an initial series of reliability analyses and bivariate analyses, along with descriptive statistics and a series of regression analyses. These bivariate and regression models served to test the three research questions included within this study.

The research questions that guided the data analysis were as follows:

- 1. To what extent did the interventions achieve the intended outcomes?*
- 2. Which variable—parent or peers—had a stronger impact on outcomes?*
- 3. Does a student's vision of future have a significant impact on intended outcomes?*

#### **Reliability Analysis**

Table 2, see page 43, presented the results of the reliability analyses conducted on these data. Cronbach's alpha was used in order to determine whether these measures have an acceptable level of internal consistency reliability, which is required in order for these items to be used as scales. Throughout this process, items were individually dropped from these scales, as needed, in order to help improve their levels of reliability. Table 2 presented the final reliabilities associated with these scale measures.

As shown, reliability was found to be acceptable or better (above 0.70) with respect to the following sets of items: student religious practice, parent-child communication, parent-child rules and regulations, and student current behavior. Reliability was found to be close to acceptable in the case of students' self-esteem, student peer pressure, and student intention to abstain. Reliability was found to be unacceptably low in the case of students' plans for the future.

With regard to scale development, a series of correlations was conducted between the measures relating to student attitudes toward abstinence, and these correlations were found to be very weak. For this reason, it was not felt appropriate to combine these measures into a single scale or index; instead, a series of related outcomes was analyzed separately.

Specifically, with respect to student attitudes toward abstinence, the following series of measures were focused upon:

- It would be OK for teens who have been dating for a long time to have sex.
- I intend to wait until I am older before I have sex with someone.
- I do not intend to wait until I am married before I have sex with someone.
- How important is it for you to not have sex until marriage?
- It is OK for unmarried teens to have sex if no one gets pregnant.
- Only married people should have sex.
- No sex is the only sure way to not get pregnant.
- It would be OK for teens who have been dating for a long time to have sex.

With respect to student intention to abstain and student current behavior, these measures were calculated as the mean of the constituent items. Specifically, with regard to student intention to abstain, this consisted of the following items:

- Do you think you will abstain from sex from now until you complete high school?

- Do you think you will abstain from sex from now until you are at least 20 years old?

Additionally, with regard to student current behavior, the calculated mean for this measure was composed of the following items:

- Have you kissed someone on the lips other than a parent or relative?
- Have you tongue kissed or French kissed?
- Have you ever had sex?
- Have you had sex during the last six months?
- How many times have you gone out on a date with someone who is at least three years older than yourself?

Following this, the Shapiro-Wilk test (tests whether the variable normally is distributed in a bell-curve shape) was conducted on the outcome measures of interest in order to determine their extents of normality. Table 3 reports the results of these analyses. As shown, significant non-normality was found with respect to the following set of questions:

- I intend to wait until I am older before I have sex with someone ( $z = 5.004, p < .001$ ).
- How important is it for you to not have sex until marriage? ( $z = 5.736, p < .001$ ).
- It is OK for unmarried teens to have sex if no one gets pregnant ( $z = 2.586, p < .01$ ).
- Only married people should have sex ( $z = 2.362, p < .01$ ).
- No sex is the only sure way to not get pregnant ( $z = 5.536, p < .001$ ).
- It would be OK for teens who have been dating for a long time to have sex ( $z = 2.586, p < .01$ ).

- Intention to abstain ( $z = 2.836, p < .01$ ).
- Current behavior ( $z = 6.137, p < .001$ ).

Based on these results, measures of skewness and kurtosis were calculated to further explore their extents of normality. Absolute values of the measures of skewness (that the bell is leaning one way or the other) were not greater than one in any case, while absolute values of the measures of kurtosis (high is a sharp peak; low is a gradual peak) were not greater than three in any case. These results suggested that while significant non-normality was found in these cases, this non-normality was not extreme and does not pose a potential problem with respect to the later analyses.

Table 3

*Shapiro-Wilk Test for Normal Data*

<u>Variable</u>	<u>N</u>	<u>W</u>	<u>L</u>	<u>z</u>
Dating Teens Sex OK	724	0.999	0.341	-2.625
Intend to Wait	731	0.984	7.746	5.004***
Important to Wait	728	0.998	0.945	-0.137
Important Wait Until Mar.	1089	0.985	10.057	5.736***
Unmar. Teens OK Not Preg.	1069	0.996	2.834	2.586**
Only Married	1058	0.996	2.589	2.362**
No Sex Only Safe	1052	0.986	9.307	5.536***
Dating Teens Sex OK (2)	1085	0.996	2.831	2.586**
Intention to Abstain	1181	0.996	3.119	2.836**
Current Behavior	1207	0.984	11.699	6.137***

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

### Descriptive Statistics

#### Research Question 1

The first research question included in the study consisted of the following:

1. *To what extent did the interventions achieve the intended outcomes?*

Initially, a series of independent-sample *t*-tests and Mann-Whitney *U* tests were conducted on these data in order to determine, in a simple group comparison, whether there were significant mean differences in these intended outcomes on the basis of intervention group membership. These results were presented in Table 4. As shown, statistical significance was indicated in two cases. For the first case, the question asking respondents whether it would be OK for teens who have been dating for a long time to have sex was found to have a significantly higher mean with respect to Group 1 as compared with Group 0 ( $t(722) = 2.948, p < .01$ ). The intervention group disagreed more strongly than the control group with this survey question statement (assessed on a scale from Strongly Agree with a value of 1 to Strongly Disagree with a value of 4). Additionally, for the second case, a significant result from the Mann-Whitney *U* test conducted was found with respect to the question asking respondents whether no sex is the only sure way to not get pregnant and is also the only sure way to avoid health problems like diseases people can get when having sex ( $W = 2.256, p < .05$ ). Specifically, this measure was found to have median of two with respect to the control group (Group 0), and a median of one with respect to the intervention group (Group 1). Here, the difference in median response for this statement suggests that the control group agreed “a little,” while the intervention group agreed “a lot” that abstinence is the only way to avoid pregnancy and health problems such as sexually transmitted diseases. These results served to support this study’s first question; the intervention did achieve its intended outcome, preserve intention to abstain, and modify current behavior toward abstinence.

Table 4

*Independent-Sample T-Tests and Mann-Whitney U Tests*

Measure	Group 0	Group 1	W0 (df)	t or z
Intention to Abstain	.564 (.384)	.601 (.388)	.672 (1, 1179)	1.748 (z)
Current Behavior	.328 (.260)	.317 (.258)	.006 (1, 1205)	.728 (z)
Dating Teens Sex OK	2.370 (.904)	2.579 (.955)	2.301 (1, 722)	2.948** (722)
Intend to Wait				1.663 (z)
Important Wait Until Mar.	3.150 (1.382)	3.303 (1.366)	.101 (1, 726)	.771 (z)
Unmar. Teens OK Not Preg.			1.439	
Only Married			1.001	
No Sex Only Safe			2.256*	
Dating Teens Sex OK (2)			1.399	

## Research Question 2

This study's second research question was the following:

*2. Which variable—parent or peer—had a stronger impact on outcomes?*

First, a series of linear regression analyses was conducted in order to test whether there was significant moderation with respect to the hypothesized moderating variables included within this study, which consisted of the following: student gender, race, age, grade level, religious practice, and past sexual behavior. Previous to these analyses being conducted, z-scores were calculated for all independent variables, which consisted of all moderating variables previously discussed along with the independent variable of treatment group. Following this, interaction effects were calculated between treatment group and all moderating variables as the product of each pair of measures. In these regression models, the independent variable of treatment, all moderating variables, and all interaction effects were included as predictors. Outcome measures within these models consisted of student attitudes toward abstinence, student intention to abstain, and student current behavior. The initial set of analyses reported within this section focused upon the initial outcomes of student attitudes toward abstinence, which, due to

the low reliability associated with this set of items, were analyzed separately. All associated regression tables relating to these tests of moderation are included in Appendix A.

First, whether respondents felt it would be OK for teens who have been dating for a long time to have sex was focused on as an outcome measure of student attitudes toward abstinence. From the initial regression conducted, the one observation from the analysis shows that male respondents were found to have a lower predicted score on this outcome ( $b = -.399, z = -4.00, p < .001$ ). In other words, male students more strongly agreed that would be OK than nonmale students (female or unknown). Similarly, looking at races and ethnicities of students, comparing the score values of students from different categories, individuals of “other” race had a lower predicted score on this outcome ( $b = -.290, z = -2.52, p < .05$ ) in comparison to Black students. Conversely, a positive impact on this outcome variable was observed in relation to religious practice ( $b = .432, z = 4.29, p < .001$ ). The more religious the respondent, the more the respondent strongly disagreed with the statement that it is OK for teens who have been dating for a long time to have sex. Additionally, the variable of age showed a significant, positive interaction on the outcome measure ( $b = .296, z = 2.38, p < .05$ ). The older the respondent, the more he or she strongly disagreed that it is OK for teens who have been dating a long time to have sex.

Next, the question of whether respondents intended to wait until they are older before they have sex with someone was focused upon. In this analysis, male respondents were found to have a higher predicted score on this outcome ( $b = .339, z = 3.38, p < .01$ ), along with individuals of “other” race ( $b = .322, z = 2.59, p < .05$ ). In other words, both male students and individuals of “other” race more strongly disagreed with the statement that they intended to wait until they are older before having sexual relations. Respondents who indicated they were more

religious more strongly indicated their intention to wait until they were older before having sex; data showed a negative impact upon this outcome ( $b = -.539, z = -5.08, p < .001$ ). Conversely, respondents with past history of sexual behaviors were found to have a positive impact on the outcome ( $b = .283, z = 2.53, p < .05$ ); with past sexual behavior, the more strongly these respondents disagreed they intended to wait until they were older. A significant, negative interaction was found between group membership and respondent gender ( $b = -.231, z = -2.33, p < .05$ ), as well as group membership and respondent age ( $b = -.344, z = -2.70, p < .01$ ), and with significant, positive interactions found between group membership and grades ( $b = .262, z = 2.17, p < .05$ ), and group membership and past sexual behaviors ( $b = .274, z = 2.45, p < .05$ ).

Next, focusing upon whether respondents did not intend to wait until they are married before they have sex with someone, White respondents were found to have a significantly lower score as compared with Black respondents ( $b = -.228, z = -2.32, p < .05$ ), with religious practice found to have a positive impact ( $b = .406, z = 4.16, p < .001$ ) and past sexual behaviors found to have a negative impact ( $b = -.370, z = -3.63, p < .001$ ). Additionally, the interaction between group membership and individuals of mixed race was found to be significant and positive ( $b = .211, z = 2.09, p < .05$ ), with a second significant and positive interaction found between group membership and respondent age ( $b = .416, z = 3.39, p < .01$ ).

Following this, the question of how important is it for respondents to not have sex until marriage was focused upon as the dependent variable of interest. In this analysis, male respondents were found to have a significantly higher score on this measure ( $b = .310, z = 3.14, p < .01$ ), with religious practice found to have a negative impact ( $b = -.420, z = -4.11, p < .001$ ) and past sexual behaviors found to have a positive impact ( $b = .315, z = 2.91, p < .01$ ). With regard to the interaction effects included within this analysis, significant and negative interactions were

found between group membership and individuals of “other” race ( $b = -.266, z = -2.26, p < .05$ ), as well as between group membership and individuals of mixed race ( $b = -.208, z = -2.02, p < .05$ ).

The following regression analysis focused upon whether respondents felt that it is OK for unmarried teens to have sex if no one gets pregnant as the outcome measure of interest. In this analysis, males were found to have significantly lower scores on this outcome ( $b = -.238, z = -2.41, p < .05$ ), with significantly lower scores also indicated on the basis of White respondents ( $b = -.325, z = -3.22, p < .01$ ) and individuals of “other” race ( $b = -.250, z = -2.08, p < .05$ ), as compared with Black respondents. With regard to the interaction effects included within this model, a significant and positive interaction effect was found between group membership and individuals of mixed race ( $b = .238, z = 2.16, p < .05$ ).

The next regression model included beliefs regarding whether only married people should have sex as the outcome measure of interest. In this analysis, religious practice was found to have a significant and negative impact upon this outcome ( $b = -.222, z = -2.27, p < .05$ ), while past sexual behavior was found to have a significant and positive impact ( $b = .413, z = 3.57, p < .001$ ). With regard to the interaction effects, a significant and negative interaction was found between group membership and individuals of “other” race ( $b = -.250, z = -2.24, p < .05$ ). Following this, with respect to whether respondents believed that no sex is the only sure way to not get pregnant and the only sure way to get pregnant, males were found to have a significantly higher score on this measure ( $b = .238, z = 2.16, p < .05$ , with no significant interaction effects found. Regarding whether respondents believe that it would be OK for teens who have been dating for a long time to have sex, males were found to have a significantly lower score on this measure ( $b = -.375, z = -3.86, p < .001$ ), with White respondents also found to have a

significantly lower score as compared with Blacks ( $b = -.266, z = -2.65, p < .01$ ), and grades found to have a significant and negative impact ( $b = -.279, z = -2.33, p < .05$ ). Additionally, religious practice was found to have a significant, positive impact upon this measure ( $b = .275, z = 2.80, p < .01$ ), with past sexual behavior found to have a significant, negative impact ( $b = -.475, z = -4.33, p < .001$ ). Additionally, none of the interaction effects were found to achieve statistical significance within this model.

The following regression model focused upon student intention to abstain. In this analysis, males were found to have a significantly lower score on this measure ( $b = -.060, z = -3.77, p < .001$ ), with a significantly lower score also associated with higher grades ( $b = -.045, z = -2.29, p < .05$ ). Religious practice was found to have a positive impact ( $b = .087, z = 5.51, p < .001$ ), with past sexual behavior found to have a negative impact upon this measure ( $b = -.080, z = -4.66, p < .001$ ). Additionally, none of the interaction effects included within this model were found to achieve statistical significance.

Finally, with regard to student current behavior, individuals of “other” race were found to have significantly higher scores on this measure as compared with Blacks ( $b = .031, z = 2.68, p < .01$ ). Age was found to have a positive impact ( $b = .035, z = 2.76, p < .01$ ), religious practice was found to have a negative impact ( $b = -.021, z = -2.14, p < .05$ ), and past sexual behavior was found to have a positive impact ( $b = .117, z = 11.17, p < .001$ ). Additionally, a significant and negative interaction was indicated between group membership and White respondents ( $b = -.024, z = -2.57, p < .05$ ).

Overall, the results of these analyses indicated a substantial number of significant main effects with respect to these potentially moderating variables, along with significant moderation



Group	0.084	0.115	0.730	0.465	-0.141	0.310
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*Ordered LR: I do not intend to wait until I am married before I have sex with someone.<sup>g</sup>*

Group	0.110	0.110	0.990	0.320	-0.106	0.326
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*Ordered LR: How likely is it that you will use birth control or pregnancy protection?<sup>h</sup>*

Group	-0.109	0.119	-0.910	0.361	-0.342	0.125
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*Linear Regression: Peer Pressure<sup>i</sup>*

Group	-0.036	0.036	-1.000	0.317	-0.107	0.035
Constant	2.010	0.027	73.320	<0.001	1.956	2.064

*Linear Regression: Communication<sup>j</sup>*

Group	-0.053	0.035	-1.520	0.128	-0.121	0.015
Constant	1.517	0.026	57.360	<0.001	1.466	1.569

*Linear Regression: Rules and Regulations<sup>k</sup>*

Group	0.011	0.048	0.230	0.817	-0.082	0.104
Constant	3.123	0.036	86.260	<0.001	3.052	3.194

*Note.* <sup>a</sup> $N = 734$ ,  $F(1, 732) = .88$ ,  $p = .349$ ; Adjusted  $R^2 = .000$ ; <sup>b</sup> $N = 747$ , LR  $\chi^2(1) = .00$ ,  $p = .966$ ; Pseudo  $R^2 = .000$ ; <sup>c</sup> $N = 746$ , LR  $\chi^2(1) = .92$ ,  $p = .338$ ; Pseudo  $R^2 = .002$ ; <sup>d</sup> $N = 731$ , LR  $\chi^2(1) = 1.03$ ,  $p = .311$ ; Pseudo  $R^2 = .001$ ; <sup>e</sup> $N = 1081$ , LR  $\chi^2(1) = 2.47$ ,  $p = .116$ ; Pseudo  $R^2 = .001$ ; <sup>f</sup> $N = 1076$ , LR  $\chi^2(1) = .53$ ,  $p = .465$ ; Pseudo  $R^2 = .000$ ; <sup>g</sup> $N = 1065$ , LR  $\chi^2(1) = .99$ ,  $p = .320$ ; Pseudo  $R^2 = .000$ ; <sup>h</sup> $N = 1015$ , LR  $\chi^2(1) = .83$ ,  $p = .361$ ; Pseudo  $R^2 = .000$ ; <sup>i</sup> $N = 1222$ ,  $F(1, 1220) = 1.00$ ,  $p = .317$ ; Adjusted  $R^2 = .000$ ; <sup>j</sup> $N = 1225$ ,  $F(1, 1223) = 2.32$ ,  $p = .128$ ; Adjusted  $R^2 = .001$ ; <sup>k</sup> $N = 1226$ ,  $F(1, 1224) = .05$ ,  $p = .818$ ; Adjusted  $R^2 = .000$ .

Regarding this research question (“Which variable—parent or peers—had a stronger impact?”), the results of the analyses conducted with respect to moderation and mediation can be relied upon in order to provide an answer. With regard to these results, none of the proposed mediating variables, which consisted of students’ self-esteem, students’ plans for the future, student peer pressure, parent-child communication, and parent-child rules and regulations, were found to achieve statistical significance. With regard to the moderating variables, statistical significance was found with respect to a large set of these predictors. These results indicated that student measures had an impact on these outcomes, while neither parent nor peer measures had an impact on these outcomes.

## Research Question 3

The third research question included in this study consisted of the following:

*3. Does a student's vision of future (future outlook) have a significant impact on intended outcomes?*

With respect to this research question, the same outcome variables were focused upon (intention to abstain and current behavior) with "student's plans for the future" viewed as the independent variable of interest. A series of linear and ordered logistic regression analyses was conducted in order to determine whether student's plans for the future significantly impact these intended outcomes.

As shown in Table 6, the likelihood that respondents will have sex in the next 12 months ( $b = .312, t = 3.83, p < .001$ ) and whether respondents do not intend to wait until they are married before they have sex with someone ( $b = .413, t = 6.42, p < .001$ ) were found to have positive impacts upon whether it would be OK for teens who have been dating for a long time to have sex. Not knowing what their long-range goals are ( $b = .462, t = 2.18, p < .05$ ) and intending to wait until they are older before they have sex with someone ( $b = .327, t = 4.40, p < .001$ ) had positive impacts upon intending to wait until they are older before they have sex with someone. The likelihood that they will have sex in the next 12 months ( $b = -.173, t = -2.23, p < .05$ ) and not intending to wait until they are married before they have sex with someone ( $b = -.270, t = -4.23, p < .001$ ) had negative impacts upon this outcome.

Following this, not knowing what their long-range goals are ( $b = -.588, t = -2.90, p < .01$ ) was found to have a negative impact upon not intending to wait until they are married before they have sex with someone, while not intending to wait until they are married before they have sex with someone ( $b = .383, t = 6.13, p < .001$ ) was found to have a positive impact on this

outcome. Next, with regard to the dependent variable of not intending to wait until they are married before they have sex with someone, not knowing what their long-range goals are ( $b = .532, t = 2.53, p < .05$ ) and intending to wait until they are older before they have sex with someone ( $b = .459, z = 5.71, p < .001$ ) were found to have positive impacts. Not intending to wait until they are married before they have sex with someone ( $b = -.435, z = -6.79, p < .001$ ) had a negative impact on the outcome.

The following ordered logistic regression focused upon the belief that it is OK for unmarried teens to have sex if no one gets pregnant as the outcome measure of interest. In this analysis, both the likelihood that they will have sex in the next 12 months ( $b = .487, z = 5.77, p < .001$ ) and not intending to wait until they are married before they have sex with someone ( $b = .509, z = 7.73, p < .001$ ) were found to have positive effects on the dependent variable. Intending to wait until they are older before they have sex with someone was found to have a negative impact on this outcome ( $b = -.159, z = -2.04, p < .05$ ).

Next, with respect to the regression analysis conducted with the belief that only married people should have sex, the measures of having a clear picture of what they'd like to be doing in the future ( $b = -.497, z = -1.99, p < .05$ ), the likelihood that they will have sex in the next 12 months ( $b = -.188, z = -2.32, p < .05$ ), and not intending to wait until they are married before they have sex with someone ( $b = -.548, z = -8.30, p < .001$ ), were found to have negative impacts on the outcome. Intending to wait until they are older before they have sex with someone ( $b = .236, z = 3.04, p < .01$ ) was found to have a positive impact. The following analysis, focusing upon the belief that not having sex is the only sure way to not get pregnant and the only sure way to get pregnant as the outcome measure of interest, found intending to wait until they are older before they have sex with someone ( $b = -.060, z = -3.77, p < .001$ ) to have a positive impact upon

the outcome, and with not intending to wait until they are married before they have sex with someone ( $b = -.060, z = -3.77, p < .001$ ) found to have a negative impact.

In the final ordered logistic regression, conducted with the belief that it would be OK for teens who have been dating for a long time to have sex, the measures of the likelihood that they will have sex in the next 12 months ( $b = .627, z = 7.44, p < .001$ ) and not intending to wait until they are married before they have sex with someone ( $b = .581, z = 8.74, p < .001$ ) were found to have positive impacts upon this outcome. Intending to wait until they are older before they have sex with someone ( $b = -.249, z = -3.11, p < .01$ ) was found to have a negative effect.

Finally, two linear regression analyses were conducted in relation to this research question. The first linear regression analysis focused upon intention to abstain as the dependent variable of interest. In this analysis, the likelihood that they will have sex in the next 12 months, ( $b = .053, z = 4.26, p < .001$ ) and not intending to wait until they are married before they have sex with someone ( $b = .067, z = 6.85, p < .001$ ) were found to have positive effects upon the outcome. Intending to wait until they are older before they have sex with someone ( $b = -.083, z = -6.91, p < .001$ ) was found to have a negative effect. The final linear regression analysis, in which current behavior was included as the outcome measure of interest, showed that both the likelihood that they will have sex in the next 12 months ( $b = -.062, z = -7.47, p < .001$ ) and not intending to wait until they are married before they have sex with someone ( $b = -.040, z = -6.13, p < .001$ ) were found to have negative effects on this outcome measure. These results serve to support this third research question: that students' visions of the future had significant impacts on intended outcomes pertaining to students' intention to abstain and their current behavior.

Table 6

*Results of Regression Analysis for Question 3*

Model and Measure	Coef.	SE	t	p	95% Confidence Interval	
					Lower	Upper
<i>Ordered LR: It would be OK for teens who have been dating for a long time to have sex.<sup>a</sup></i>						
Don't Know What I Want	-0.279	0.213	-1.31	0.191	-0.697	0.139
Have a Clear Picture	-0.027	0.253	-0.11	0.915	-0.523	0.469
Don't Know Goals	-0.364	0.208	-1.75	0.080	-0.771	0.044
Sex Next 12 Months	0.312	0.081	3.83	0.000	0.152	0.471
Wait Until Older	0.073	0.078	0.95	0.344	-0.079	0.226
Don't Intend Wait Mar.	0.413	0.064	6.42	0.000	0.287	0.539
<i>Ordered LR: I intend to wait until I am older before I have sex with someone.<sup>b</sup></i>						
Don't Know What I Want	-0.079	0.220	-0.36	0.719	-0.509	0.351
Have a Clear Picture	0.042	0.266	0.16	0.874	-0.479	0.563
Don't Know Goals	0.462	0.212	2.18	0.029	0.047	0.878
Sex Next 12 Months	-0.173	0.077	-2.23	0.026	-0.324	-0.021
Wait Until Older	0.327	0.074	4.40	0.000	0.181	0.472
Don't Intend Wait Mar.	-0.270	0.064	-4.23	0.000	-0.395	-0.145
<i>Ordered LR: I do not intend to wait until I am married before I have sex with someone.<sup>c</sup></i>						
Don't Know What I Want	0.007	0.207	0.03	0.974	-0.399	0.412
Have a Clear Picture	0.397	0.247	1.61	0.108	-0.087	0.882
Don't Know Goals	-0.588	0.203	-2.90	0.004	-0.986	-0.191
Sex Next 12 Months	0.125	0.076	1.64	0.101	-0.024	0.274
Wait Until Older	-0.133	0.074	-1.79	0.073	-0.277	0.012
Don't Intend Wait Mar.	0.383	0.063	6.13	0.000	0.261	0.506
<i>Ordered LR: How important is it for you to not have sex until marriage?<sup>d</sup></i>						
Don't Know What I Want	0.033	0.218	0.15	0.881	-0.395	0.461
Have a Clear Picture	-0.416	0.251	-1.66	0.097	-0.908	0.075
Don't Know Goals	0.532	0.210	2.53	0.011	0.120	0.943
Sex Next 12 Months	-0.082	0.079	-1.04	0.299	-0.237	0.073
Wait Until Older	0.459	0.080	5.71	0.000	0.302	0.617
Don't Intend Wait Mar.	-0.435	0.064	-6.79	0.000	-0.560	-0.309
<i>Ordered LR: It is OK for unmarried teens to have sex if no one gets pregnant?<sup>e</sup></i>						
Don't Know What I Want	-0.355	0.220	-1.61	0.107	-0.786	0.076
Have a Clear Picture	-0.149	0.256	-0.58	0.561	-0.650	0.353
Don't Know Goals	0.104	0.212	0.49	0.623	-0.312	0.521
Sex Next 12 Months	0.487	0.084	5.77	0.000	0.321	0.652
Wait Until Older	-0.159	0.078	-2.04	0.042	-0.313	-0.006
Don't Intend Wait Mar.	0.509	0.066	7.73	0.000	0.380	0.638
<i>Ordered LR: Only married people should have sex.<sup>f</sup></i>						
Don't Know What I Want	-0.208	0.215	-0.97	0.334	-0.629	0.214
Have a Clear Picture	-0.497	0.249	-1.99	0.046	-0.985	-0.008
Don't Know Goals	0.149	0.209	0.71	0.476	-0.260	0.557
Sex Next 12 Months	-0.188	0.081	-2.32	0.021	-0.346	-0.029
Wait Until Older	0.236	0.077	3.04	0.002	0.084	0.388
Don't Intend Wait Mar.	-0.548	0.066	-8.30	0.000	-0.677	-0.419

*Ordered LR: No sex is the only sure way to not get pregnant. It is also the only sure way to.*<sup>g</sup>

Don't Know What I Want	0.17	0.22	0.81	0.42	-0.25	0.60
Have a Clear Picture	-0.26	0.25	-1.03	0.30	-0.75	0.23
Don't Know Goals	-0.36	0.22	-1.64	0.10	-0.79	0.07
Sex Next 12 Months	0.14	0.08	1.79	0.07	-0.01	0.29
Wait Until Older	0.27	0.08	3.46	0.00	0.12	0.42
Don't Intend Wait Mar.	-0.20	0.06	-3.23	0.00	-0.33	-0.08

*Ordered LR: It would be OK for teens who have been dating for a long time to have sex.*<sup>h</sup>

Don't Know What I Want	0.067	0.222	0.30	0.764	-0.368	0.502
Have a Clear Picture	0.306	0.251	1.22	0.222	-0.185	0.798
Don't Know Goals	-0.075	0.215	-0.35	0.726	-0.496	0.346
Sex Next 12 Months	0.627	0.084	7.44	0.000	0.462	0.792
Wait Until Older	-0.249	0.080	-3.11	0.002	-0.405	-0.092
Don't Intend Wait Mar.	0.581	0.066	8.74	0.000	0.451	0.711

*Linear Regression: Intention to Abstain*<sup>i</sup>

Don't Know What I Want	0.016	0.035	0.46	0.645	-0.053	0.085
Have a Clear Picture	0.003	0.041	0.07	0.943	-0.077	0.083
Don't Know Goals	-0.034	0.034	-1.01	0.314	-0.101	0.032
Sex Next 12 Months	0.053	0.013	4.26	0.000	0.029	0.078
Wait Until Older	-0.083	0.012	-6.91	0.000	-0.107	-0.060
Don't Intend Wait Mar.	0.067	0.010	6.85	0.000	0.048	0.087
Constant	0.307	0.078	3.91	0.000	0.153	0.461

*Linear Regression: Current Behavior*<sup>j</sup>

Don't Know What I Want	0.028	0.023	1.20	0.230	-0.018	0.074
Have a Clear Picture	0.032	0.027	1.18	0.237	-0.021	0.085
Don't Know Goals	-0.010	0.023	-0.44	0.662	-0.054	0.034
Sex Next 12 Months	-0.062	0.008	-7.47	0.000	-0.079	-0.046
Wait Until Older	0.015	0.008	1.88	0.060	-0.001	0.031
Don't Intend Wait Mar.	-0.040	0.007	-6.13	0.000	-0.053	-0.027
Constant	0.664	0.052	12.76	0.000	0.561	0.766

*Note.* <sup>a</sup> $N = 556$ , LR  $\chi^2(6) = 85.06$ ,  $p < .001$ ; Pseudo  $R^2 = .058$ ; <sup>b</sup> $N = 565$ , LR  $\chi^2(6) = 70.11$ ,  $p < .001$ ; Pseudo  $R^2 = .046$ ; <sup>c</sup> $N = 561$ , LR  $\chi^2(6) = 73.69$ ,  $p < .001$ ; Pseudo  $R^2 = .042$ ; <sup>d</sup> $N = 577$ , LR  $\chi^2(6) = 116.69$ ,  $p < .001$ ; Pseudo  $R^2 = .071$ ; <sup>e</sup> $N = 578$ , LR  $\chi^2(6) = 163.43$ ,  $p < .001$ ; Pseudo  $R^2 = .107$ ; <sup>f</sup> $N = 574$ , LR  $\chi^2(6) = 123.67$ ,  $p < .001$ ; Pseudo  $R^2 = .079$ ; <sup>g</sup> $N = 573$ , LR  $\chi^2(6) = 26.54$ ,  $p < .001$ ; Pseudo  $R^2 = .019$ ; <sup>h</sup> $N = 578$ , LR  $\chi^2(6) = 219.07$ ,  $p < .001$ ; Pseudo  $R^2 = .144$ ; <sup>i</sup> $N = 584$ ,  $F(6, 577) = 31.71$ ,  $p < .001$ ; Adjusted  $R^2 = .240$ ; <sup>j</sup> $N = 586$ ,  $F(6, 579) = 28.55$ ,  $p < .001$ ; Adjusted  $R^2 = .220$ .

### Summary

This chapter served to present and discuss the results of the analyses conducted for this study. The results of the analyses indicated strong support for the first and third research questions included within the study, but not the second research question. With regard to Research Question 1, significant group differences were found with respect to whether it would

be OK for teens who have been dating for a long time to have sex, and with regard to whether no sex is the only sure way to not get pregnant and is also the only sure way to avoid health problems like diseases people can get when having sex. Regarding Research Question 2, while no significance effect was present, demographics were found to have significant impacts on the outcome measures included in this set of analyses. In the analyses conducted for Research Question 3, students' plans for the future were found to significantly impact the outcomes of intention to abstain and current behavior. The following chapter will discuss these results in relation to previous literature and theory, as well as discuss the limitations of the current study and possibilities for future research.

## CHAPTER V

### SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

#### **Introduction**

The purpose of this study was to determine the influence of abstinence education on the risk behaviors of urban middle-school students using secondary data collected by Walker (2010).

Chapter IV provided an analysis of the quantitative data. Chapter V presents a summary of the findings based on the research questions, a brief discussion of the findings, and the implications for educational leadership, management, and policy decisions. This chapter also presents research-based recommendations for professional practice and a trajectory for future research initiatives.

#### **Summary of Findings**

The summary of the findings of the present case study was supported by three research questions.

##### *Research Question 1*

This initial research question was explored through the use of a series of independent-samples *t*-tests and Mann-Whitney *U* tests. These analyses incorporated simple group comparisons in order to determine whether mean differences were present in the intended outcomes comparing the intervention and control groups. These results indicated significant differences with respect to whether respondents felt it would be OK for teens to have been dating for a long time to have sex, and whether respondents believe that not having sex is the only sure way to not get pregnant as well as being the only sure way to avoid health problems like diseases that people can get when having sex. In both cases, the results found served to support the first

hypothesis, with the intervention found to have achieved its intended outcome—intention to abstain.

### *Research Question 2*

The second research question included within the study used a series of linear regression analyses testing whether significant moderation was present with respect to the measures of student gender, race, age, grade level, religious practice, and previous sexual behavior. Within these analyses, standardized measures were created for all independent variables, with interaction effects then being calculated for these standardized measures. These interaction effects were then incorporated into the regression analyses, with statistical significance in relation to these interaction effects serving to determine whether or not significant moderation was present. Within these regression models, the independent variables consisted of treatment, the moderating variables, and the interaction effects, with outcome measures consisting of student attitudes toward abstinence, student intention to abstain, and student current behavior.

With regard to these tests of moderation, a large set of these predictors was found to act as significant moderators with respect to the relationships between treatment and this set of outcomes. Additional tests focusing on mediation examined the role of students' self-esteem, students' plans for the future, student peer pressure, parent-child communication, and parent-child rules and regulations as potential mediators. Statistically significant results were not found in any case, indicating no significant mediation with respect to this set of items.

### *Research Question 3*

Within the context of this research question, the same outcome variables of intention to abstain and current behavior were focused upon, with students' plans for the future incorporated into these models as independent variables. Linear as well as ordered logistic regression models

were used in order to determine whether students' plans for the future impact these outcome measures of interest. Overall, a substantial set of statistically significant results were found in these analyses conducted.

### **Discussion and Conclusions**

A number of similarities and differences were found when comparing the results of the present study with those indicated in previous literature. First, Kim and Rector (2010) stated that with respect to teens, abstinence education is very important to their physical and emotional well-being. Additionally, Voisin (2005) suggested that schools are important venues in the implementation of primary prevention programs, being places where meaningful social relationships are created. Some researchers have found that approaches focusing upon abstinence have resulted in positive outcomes, which include reduced sexual activity, improved attitudes about abstinence, and reduced pregnancies (Jemmott et al., 1998, 2010; as cited in Chen et al., 2011). This conclusion is supported on the basis of the results found in the present study, which indicated the value and effectiveness of abstinence education. Overall, researchers have suggested that recent increases in STDs and HIV transmission as well as teen-pregnancy rates indicate the importance of effective sex-education methods that produce important changes in behavior, along with modification to individuals' knowledge, attitudes, and beliefs (AMA, n.d.). While some abstinence-only education programs have found these positive results, additional research was still required in order to further explore the impact of these types of educational programs on important outcomes including age at first sexual experience, abstinence until marriage, returning to abstinence, and the number of total sexual partners (AMA, n.d.). The literature also suggests that the early adolescent period is when students are most receptive to

health-related interventions (Chen et al., 2011), a statement which is supported on the basis of the results of the present study.

On the other hand, some previous literature has suggested that abstinence-only education does not produce positive results, and that these results are instead inaccurate or inconclusive with respect to the effectiveness of this form of education (NARAL, n.d.). Additionally, some research has suggested that abstinence-only education does not reduce the prevalence of STDs, teen pregnancy, or the HIV-transmission rate in the United States as compared with other developed countries (Rabinowitz, 2009). Similar conclusions have been made suggesting the lack of evidence for the effectiveness of group-based abstinence education interventions as they relate to the reduction of teen pregnancy, HIV, and other sexually transmitted infections (Guide to Community Preventive Services, 2009). Some research has also suggested that abstinence-only sex education produces fewer positive outcomes as compared with more comprehensive programs (Kirby, 2001; Kohler et al., 2008; Santelli et al., 2007). However, such findings are not supported on the basis of this study's results.

Some literature has found a positive impact of parental involvement (Aseltine et al., 2010). With regard to the influence of peers, peer influence on behavior can be strong with respect to some behaviors, but less important on behaviors such as sexual intercourse and binge drinking, as the factors of the adolescents' values and those of their families have substantially stronger impacts (Jaccard et al., 2005). Additionally, previous research has also suggested that close relationships with parents and parental involvement can mitigate the impacts of peers and reduce the susceptibility of adolescents to early sexual intercourse (L'Engle & Jackson, 2008). Another study suggested that peer influence has a modest role with respect to higher-risk adolescent sexual behavior, though this was under-shadowed by the impact of family values and

strong relationships with parents (Henry et al., 2007). Ajzen(1985) further supports the diminished impact of peers on adolescents' decision-making and that intention and circumstance play a stronger role in actual behavior.

### **Implications for Education Leadership, Management, and Policy and Recommendations for Practice**

Chapter V provided (a) a review of the research; (b) a summary of the findings; (c) implications for leadership, management, and policy decisions; (f) research-based recommendations for professional practice, and (g) options for future research.

The following recommendations are offered based on the review of the literature and the analysis of the data examined in this study. First, the results of the present study suggest the effectiveness of abstinence-only sex-education programs. This is the major implication of the present study and would suggest that the further implementation of these types of programs would help to reduce import negative outcomes among the teenage population, including HIV and other sexually transmitted infections, as well as teenage pregnancy. This would result in very substantial savings with respect to this country's healthcare, along with the substantial mitigation of these types of social problems. Additionally, neither the impact of peers nor the impact of parents was found to be significant within this study's analyses. While this does not mean that these factors are not important in other ways, the results of this study did suggest that the abstinence-only educational program was much more important than these other factors. This suggests the importance of these educational programs and the fact that they should be relied upon in order to reduce these problems among teenagers. While the study focused on younger adolescents, the implications for higher education should be considered, especially those institutions that receive similar students. Urban community colleges typically host a large

number of low-income African American and Latino students who may greatly benefit from supported sexual-health programing. With respect to respondent race, it should be noted that public schools are just beginning to address the issue of culturally sensitive curriculums. Any educational programs that are implemented in schools should be tailored so that the important issue of race is incorporated and that these curriculums can specifically address each student on the basis of his or her race. Additionally, it is only in the last year or so that public schools have piloted health curricula for special-needs students. Similar to the issue of race, any educational programs implemented should also be modified for the purposes of special-needs students.

Abstinence-only education is a sensitive issue for many teachers who may lack the motivation, training, or willingness to deliver topics of sexuality. This would suggest the importance of teacher training and teacher-preparation programs both within professional development and higher education. Felitti et al. (1998) suggests that greater sensitivity toward student early trauma, such as lower socioeconomic, standing should be considered. Trauma-Informed Teaching (TMI) is only beginning to emerge in public schools. Crosby (2015) speaks to the potentially devastating impact of the home dysfunction of poverty impeding adequate social and emotional development in young people. Again, it is an opportunity for higher education to better train teacher candidates regarding the impact of trauma on development of executive function and its role on risk-taking behavior.

### **Recommendations for Future Research**

The limitations of the present study can be drawn upon in order to provide recommendations for future research. First, causality cannot be determined within the context of this study, due to the fact that only cross-sectional data were used. In order to determine causality, panel data or time-series data must be collected and analyzed using the appropriate

methods for these types of data. Future studies could attempt to determine whether causality is present between these independent and dependent variables by using a panel-data methodology and then applying the appropriate analytical methods, such as panel regression, to the collected data. This approach would provide a greater degree of certainty that the independent variables, in fact, impact the dependent variables, and that they are not simply correlated or that there is not some third measure responsible for this apparent relationship.

Additionally, the sample and population used in the present study was also limited in scope, consisting of a case study. Future studies could incorporate a broader population, or different populations, in order to determine whether the results found in the present study hold for these other populations. For example, other schools could be examined, or students of different ages. Additionally, other populations examined could consist of those in other areas of the country or in other countries, with comparisons made as to whether the present results are also found within these other populations. If the results are found to be very similar, this would serve to indicate that these relationships are not apparently dependent upon aspects such as country, culture, location, age of the student, and so forth. If differences are found, this would suggest that more nuanced relationships exist between these independent and dependent variables in question. This result would then require further exploration as to the exact reasons why these relationships differ on the basis of one or more of these factors.

Additionally, the study looked at intention, not behavior. Future studies should be conducted to measure behavioral outcomes. The New York State Education Department (NYSED) collects data from all public-school students. These data are then passed on to the CUNY system. Possibly, an expansion of the current program to include personal data would help determine whether intention to modify behavior translated into actual behavior. If behavior

was indeed altered by the intervention, future curricula could be modified and implemented on a broader scope.

Lastly, prevention studies should be conducted in institutions of higher education that serve low-income students. The effects of race, poverty, and poor executive function are well documented in public school; the impact is still evident in higher education and could be mitigated with better and more thorough information.

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# ADOLESCENT FAMILY LIFE PREVENTION PROGRAMS

## CORE BASELINE QUESTIONNAIRE

### PRIVACY

We want you to know that:

1. Your answers to these questions will help us learn what people your age know, think, and do.
2. You may skip any questions you do not want to answer. But we hope that you will answer as many questions as you can.
3. Your answers will be combined with those of other young people. We will keep your answers private.

PLEASE **DO NOT** WRITE YOUR NAME ANYWHERE ON THIS SURVEY!

# THIS IS NOT A TEST!

## GENERAL INSTRUCTIONS

- Read all the answers before marking your choice. If none of the printed answers exactly applies to you, black out the circle beside the answer that best fits.
- Use a pencil to complete the survey.
- Completely black out the circle beside your answer choice.

**INCORRECT      CORRECT**



- If you make a mistake, erase it cleanly and then mark the circle beside your correct answer choice.
- Do not make any stray marks.
- **PLEASE READ EACH QUESTION CAREFULLY.**

Follow these directions for answering each kind of question:

### 1. Mark ONE

What is the color of your eyes?

**Mark ONE**

- ☐ Brown
- ☐ Blue
- ☒ Green
- ☐ Another color

If your eyes are green, you would mark the third circle as shown.

### 2. Mark ONE

What is the color of your hair?

**Mark ONE**

- ☐ Brown
- ☐ Black
- ☐ Blonde
- ☐ Red
- ☒ Some other color (Describe) Purple

If your hair is purple, you would mark "Some other color." Then you would write "purple" in the blank.

## THIS IS NOT A TEST!

### GENERAL INSTRUCTIONS *(continued)*

#### 3. Mark ALL THAT APPLY

Do you plan to do any of the following next week?

**Mark ALL THAT APPLY**

- ☒ Rent a video
- ☒ Go to a baseball game
- ☐ Study at a friend's house

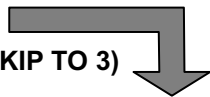
If you plan to rent a video and go to a baseball game, you mark both.

#### 4. QUESTION WITH A SKIP

1. Do you ever eat chocolate?

**Mark ONE**

- ☒ Yes
- ☐ No **(SKIP TO 3)**



If you answered "Yes" to Question 1, you go to Question 2. After you answer Question 2, you go to Question 3.

2. Do you always brush your teeth after you eat chocolate?

**Mark ONE**

- ☒ Yes
- ☐ No

If you answered "No" to Question 1, you skip Question 2. Then you go to Question 3.

3. Did you do any of the following last week?

**Mark ALL THAT APPLY**

- ☐ Saw a play
- ☐ Went to a movie
- ☐ Attended a sporting event

## ACTIVITIES

The first question asks about activities you may do.

1. Think about activities that you do after school that are planned or that have adults there. These can be clubs, youth groups, or sports. They can also be lessons or other activities. How often do you do these activities?

**Mark ONE**

- ☐ 0 0 times per week  
☐ 1 1 time per week  
☐ 2 2 times per week  
☐ 3 3 or more times per week

## WHAT YOU THINK

2. What do you think about each of these statements?

**Mark ONE ANSWER FOR EACH**

Strongly agree	Agree	Disagree	Strongly disagree
----------------	-------	----------	-------------------

- |   |                         |                         |                         |                         |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| a. I know adults I could talk to about my problems..... | 1 <input type="radio"/> | 2 <input type="radio"/> | 3 <input type="radio"/> | 4 <input type="radio"/> |
| b. I know adults who often cheer me on .....            | 1 <input type="radio"/> | 2 <input type="radio"/> | 3 <input type="radio"/> | 4 <input type="radio"/> |

3. Here are some things that people your age might say when they think of the future.

In general, do you agree or disagree with each statement?

**Mark ONE ANSWER FOR EACH**

Agree	Disagree
-------	----------

- |  |                         |                         |
|--|-------------------------|-------------------------|
| a. I don't know what I want out of life.....                               | 1 <input type="radio"/> | 0 <input type="radio"/> |
| b. I have a clear picture of what I'd like to be doing in the future ..... | 1 <input type="radio"/> | 0 <input type="radio"/> |
| c. I don't know what my long-range goals are.....                          | 1 <input type="radio"/> | 0 <input type="radio"/> |

## YOUR FAMILY

4. Who do you live with now?

**Mark ALL THAT APPLY**

- ☐ 1 Mother (including stepmother, adoptive mother, or foster mother)  
☐ 2 Father (including stepfather, adoptive father, or foster father)  
☐ 3 Other adult relative(s)  
☐ 4 Other adult(s) I am not related to  
☐ 5 I do not live with any adults

5. For each of the following, does your family have rules?

**Mark ONE ANSWER FOR EACH**

Yes	No
-----	----

- |   |                         |                         |
|---|-------------------------|-------------------------|
| a. The people I hang around with.....                               | 1 <input type="radio"/> | 0 <input type="radio"/> |
| b. Dating and going to parties with boys or girls.....              | 1 <input type="radio"/> | 0 <input type="radio"/> |
| c. Telling my parents where I am.....                               | 1 <input type="radio"/> | 0 <input type="radio"/> |
| d. What movies or TV shows I can watch .....                        | 1 <input type="radio"/> | 0 <input type="radio"/> |
| e. Hanging around with boys or girls when no adults are around .... | 1 <input type="radio"/> | 0 <input type="radio"/> |

6. How much do your parents **TRY** to know...

**Mark ONE ANSWER FOR EACH**

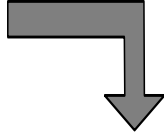
Try a lot	Try a little	Don't try
-----------	--------------	-----------

- |  |                         |                         |                         |
|--|-------------------------|-------------------------|-------------------------|
| a. Who your friends are? ....                    | 3 <input type="radio"/> | 2 <input type="radio"/> | 1 <input type="radio"/> |
| b. Where you go at night?...                     | 3 <input type="radio"/> | 2 <input type="radio"/> | 1 <input type="radio"/> |
| c. What you do with your free time? .....        | 3 <input type="radio"/> | 2 <input type="radio"/> | 1 <input type="radio"/> |
| d. Where you are most afternoons after school? . | 3 <input type="radio"/> | 2 <input type="radio"/> | 1 <input type="radio"/> |

7. Please mark which of the following is true for you.

**Mark ONE**

- ☐ I do not have a mother or someone who is like a mother to me at all. **(SKIP TO 10)**
- ☐ I have a mother or someone who is like a mother to me (even if she does not live with me).



8. Answer the next question about your mother or someone who is like a mother to you.

How close do you feel to her?

**Mark ONE**

- ☐ Not very close
- ☐ A little close
- ☐ Pretty close
- ☐ Very close

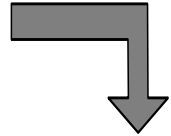
9. What do you think about these statements? They are about your mother or the person who is like a mother to you. For each, mark how true the statement is:

<b>Mark ONE ANSWER FOR EACH</b>	<b>Mostly true</b>	<b>Sometimes true</b>	<b>Hardly ever true</b>
a. It is easy to talk with her about things that happen in school ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. It is easy to talk with her about things that happen in my life ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Please mark which of the following is true for you.

**Mark ONE**

- ☐ I do not have a father or someone who is like a father to me at all. **(SKIP TO 13 ON PAGE 3)**
- ☐ I have a father or someone who is like a father to me (even if he does not live with me).



11. Answer the next question about your father or someone who is like a father to you.

How close do you feel to him?

**Mark ONE**

- ☐ Not very close
- ☐ A little close
- ☐ Pretty close
- ☐ Very close

12. What do you think about these statements? They are about your father or the person who is like a father to you. For each, mark how true the statement is:

<b>Mark ONE ANSWER FOR EACH</b>	<b>Mostly true</b>	<b>Sometimes true</b>	<b>Hardly ever true</b>
a. It is easy to talk with him about things that happen in school ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. It is easy to talk with him about things that happen in my life ..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. How often in the last 3 months have you talked to one or both of your parents about any of these things?

**Mark ONE ANSWER FOR EACH**

	Not at all	1 time	2-3 times	4 times or more
a. Dating behavior that is OK ....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
b. How your mother feels about teen sex.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
c. How your father feels about teen sex.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
d. How your friends feel about teen sex.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
e. Questions about facts about sex.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
f. Reasons for not having sex...	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
g. Things that happen to teens who have sex.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
h. Why not having sex is important .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
i. Diseases people can get when having sex .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
j. How babies are made .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
k. What TV, radio, movies, magazines, and/or the Internet say about sex.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
l. How your body grows and changes.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
m. Peer pressure .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
n. Sex in marriage.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3

o. What other people will say or think about you or your friends..... ☐ 0 ☐ 1 ☐ 2 ☐ 3

14. How easy is it for you to talk to your parents about these things?

**Mark ONE**

- ☐ 0 Never talk to my parents about these things  
☐ 1 Never easy  
☐ 2 A little easy  
☐ 3 Very easy

## WHAT YOUNG PEOPLE THINK AND DO

The next questions are about things that some young people think about or do.

Please remember that all of your answers will be kept private.

15. How many times have you gone out on a date with someone who is at least three years older than you?

**Mark ONE**

- ☐ 1 Never  
☐ 2 Once  
☐ 3 Sometimes (2-10 times)  
☐ 4 More than 10 times

16. Young people often feel pressure from other people.

How much pressure have you personally felt to do things you might get in trouble for?

**Mark ONE**

- ☐ 1 A lot  
☐ 2 Some

- 3○ Not much  
4○ None  
97○ Don't know

17. How much would you say that the following statement is true about you?

I can say "No" to activities that I think are wrong.

**Mark ONE**

- 1○ Very much like me  
2○ Mostly like me  
3○ Little like me  
4○ Not at all like me  
97○ Don't know

18. How often would you say that the following statement is true about you?

I have learned to stay away from people who might get me in trouble.

**Mark ONE**

- 1○ Almost always  
2○ Usually  
3○ Some of the time  
4○ Almost never  
97○ Don't know

19. Have you ever...

**Mark ONE ANSWER FOR EACH**

	Yes	No
a. Smoked cigarettes?.....	1○	0○
b. Drank alcohol, like beer, wine, or liquor? .....	1○	0○
c. Used marijuana (pot or hashish)? ....	1○	0○

## ABOUT YOU

These questions ask about you.

20. How old are you?

**Mark ONE**

- 1○ 9 years old or younger  
2○ 10 years old  
3○ 11 years old  
4○ 12 years old  
5○ 13 years old  
6○ 14 years old  
7○ 15 years old  
8○ 16 years old  
9○ 17 years old  
10○ 18 years old  
11○ 19 years old or older

21. Are you a girl or boy?

- 1○ Girl  
2○ Boy

22. Are you of Hispanic or Latino origin?

- 1○ Yes  
0○ No

23. Mark the circle or circles to describe your race.

**Mark ALL THAT APPLY**

- 1○ White  
2○ Black or African American  
3○ Asian  
4○ Native Hawaiian or Other Pacific Islander  
5○ American Indian or Alaska Native  
6○ Other (Describe \_\_\_\_\_)

## MORE QUESTIONS

Some of the following questions use the term “having sex.” We want to be clear on what that means. “Having sex” means vaginal intercourse.

Remember that all your answers will be kept private and will not be shared with anyone.

24. Think about the future. How important is it for you to not have sex until marriage?

- ☐ <sub>1</sub> Very important
- ☐ <sub>2</sub> Quite important
- ☐ <sub>3</sub> Somewhat important
- ☐ <sub>4</sub> Not too important
- ☐ <sub>5</sub> Not important at all

25. We would like for you to tell us how having sex as a teen might change a person's life.

Would having sex as a teen make it harder for...

**Mark ONE ANSWER FOR EACH**

	Yes, much harder	Yes, somewhat harder	No, not harder at all	Haven't thought about it yet
a. A person to study and stay in school in the future?.....	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>97</sub>
b. A person to have a good marriage and a good family life one day?.....	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>97</sub>
c. A teen to grow, learn to handle feelings, and make moral choices?.....	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>97</sub>

26. Here are some opinions teens have about sex. Please tell us how much you agree or disagree with each one.

**Mark ONE ANSWER FOR EACH**

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
a. It is OK for unmarried teens to have sex if no one gets pregnant..	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
b. Only married people should have sex.....	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>
c. No sex is the only sure way to not get pregnant. It is also the only sure way to avoid health problems like diseases people can get when having sex.....	<input type="radio"/> <sub>1</sub>	<input type="radio"/> <sub>2</sub>	<input type="radio"/> <sub>3</sub>	<input type="radio"/> <sub>4</sub>

27. Here are some more opinions teens have. Please tell us how much you agree or disagree with each one.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
<b>Mark ONE ANSWER FOR EACH</b>				
a. It would be OK for teens who have been dating for a long time to have sex.....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>
b. Having a good marriage seems realistic for me.....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>

28. How many of your five closest friends have had sex?

**Mark ONE**

- 0 ☐ None of them  
 1 ☐ One or two of them  
 2 ☐ Three or four of them  
 3 ☐ All of them  
 97 ☐ Don't know

29. How much do you agree with each of these statements?

	Agree a lot		Agree a little		Disagree a little		Disagree a lot
<b>Mark ONE ANSWER FOR EACH</b>							
a. You would not be able to stay out of settings where you feel like you have to have sex .....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>
b. You would not be able to say no to sex with someone who wants to have sex with you.....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>
c. You can avoid doing things that might lead you to have sex when you don't want to.....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>
d. You can say no to sex even if the other person says they will break up with you if you don't have sex .....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>
e. You would not be able to stay away from people who make you feel like you have to have sex.....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>
f. You can say no to someone who wants you to have sex when you don't want to.....	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>	7 <input type="radio"/>

## WHAT YOU THINK AND DO

Some of the following questions use the term “having sex.” We want to be clear on what that means. “Having sex” means vaginal intercourse.

For the next few questions, we would like for you to think about the future. Please consider how likely the following things are to happen. Remember that all your answers will be kept private.

30. How likely is it that you will have sex in the next 12 months?

**Mark ONE**

- ☐ 1 Definitely likely
- ☐ 2 Probably likely
- ☐ 3 Somewhat likely
- ☐ 4 Not very likely
- ☐ 5 Not at all likely

How much do you agree or disagree with the following statements?

31. I intend to wait until I am older before I have sex with someone.

**Mark ONE**

- ☐ 1 Strongly agree
- ☐ 2 Agree
- ☐ 3 In the middle
- ☐ 4 Disagree
- ☐ 5 Strongly disagree

32. I do not intend to wait until I am married before I have sex with someone.

**Mark ONE**

- ☐ 1 Strongly agree
- ☐ 2 Agree
- ☐ 3 In the middle
- ☐ 4 Disagree
- ☐ 5 Strongly disagree

33. How likely is it that you will use birth control or pregnancy protection when you have sex?

**Mark ONE**

- ☐ 1 Definitely likely
- ☐ 2 Probably likely
- ☐ 3 Somewhat likely
- ☐ 4 Not very likely
- ☐ 5 Not at all likely

These questions ask about things you may have done willingly. Willingly means you gave permission or said it was OK. It also means you did it because you wanted to, and not because someone made you. Remember that all your answers will be kept private.

34. Have you kissed someone on the lips other than a parent or relative?

- ☐ 1 Yes
- ☐ 0 No

35. Have you tongue kissed or French kissed?

- ☐ 1 Yes
- ☐ 0 No

36. Have you ever had sex?

- ☐ 1 Yes
- ☐ 0 No

37. Have you had sex during the last 6 months?

- ☐ 1 Yes
- ☐ 0 No

## SEXUAL ABSTINENCE AND ACTIVITY

38. If you ever had sex, how old were you when you had sex for the first time?

- ☐ \_\_\_\_\_ Years old  
☐ I have not had sexual intercourse.

39.

**Mark ONE ANSWER FOR EACH**

Yes	No
-----	----

- |  |                       |                       |
|--|-----------------------|-----------------------|
| a. Do you think you will abstain from sex from now until you complete high school?                   | <input type="radio"/> | <input type="radio"/> |
| b. Do you think you will abstain from sex from now until you are at least 20 years old?              | <input type="radio"/> | <input type="radio"/> |
| c. Have you ever been told by a doctor or a nurse that you had a sexually transmitted disease (STD)? | <input type="radio"/> | <input type="radio"/> |

40. Out of 100 teens your age, how many do you think have had sex (going all the way)?

- ☐ Fewer than 20  
☐ 20 - 39  
☐ 40 - 59  
☐ 60 - 79  
☐ 80 or more  
☐ Not sure

41. Out of 100 teens your age, how many do you think will wait to have sex (going all the way) until they are married?

- ☐ Fewer than 20  
☐ 20 - 39  
☐ 40 - 59  
☐ 60 - 79  
☐ 80 or more  
☐ Not sure

## MAKING DECISIONS

42. This set of questions is about how decisions are made in your family.

**Mark ONE ANSWER FOR EACH**

	My parent(s) decide	My parents decide after discussing it with me	We decide together	I decide after discussing it with my parents	I decide by myself
a. How late you can stay up on a school night	1○	2○	3○	4○	5○
b. Which friends you can spend time with.....	1○	2○	3○	4○	5○
c. Which after-school activities you take part in .....	1○	2○	3○	4○	5○
d. Whether you can go on an afternoon outing with a friend	1○	2○	3○	4○	5○
e. How you dress	1○	2○	3○	4○	5○
f. What you do with your money	1○	2○	3○	4○	5○
g. What you watch on TV or whether you watch TV at all	1○	2○	3○	4○	5○
h. Whether you take part in religious training or education	1○	2○	3○	4○	5○

## PEER PRESSURE

43. This set of questions is about how much you go along with your friends or other kids.

**Mark ONE ANSWER FOR EACH**

	Not at all true	Not very true	Sort of true	Very true
a. I think it's more important to be who I am than to fit in with the crowd	1○	2○	3○	4○
b. I would do something that I know is wrong just to stay on my friends' good side	1○	2○	3○	4○
c. I go along with my friends just to keep them happy	1○	2○	3○	4○
d. It's pretty hard for my friends to get me to change my mind	1○	2○	3○	4○
e. I will say my true opinion in front of my friends, even if I know they will make fun of me because of it	1○	2○	3○	4○
f. I take more risks when I am with my friends than I do when I am alone	1○	2○	3○	4○

## THINGS MY FRIENDS DO

44. For this next set of questions, think about the kids that you spend most of your time with, the kids you hang out with.

How many of the kids you hang out with have ever.....

**Mark ONE ANSWER FOR EACH**

	None of them	One or a few of them	Almost all of them
a. Done something dangerous on a dare.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
b. Skipped school without permission.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
c. Gotten in some place that charges admission, like a movie or baseball game, without paying .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
d. Been gang members or gang affiliated .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
e. Sold drugs .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
f. Been arrested .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
g. Tried to be someone they're not.....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
h. Became pregnant or got someone pregnant .....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2
i. Been told by a doctor or nurse that they have an STD(sexually transmitted disease or infection).....	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2

## IMPULSES

45. How much do you agree with each of the statements in this questionnaire about your behavior?

**Mark ONE ANSWER FOR EACH**

	False	Somewhat False	Not sure	Somewhat true	True
a. I'm the kind of person who will try anything once, even if it's not that safe	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
b. I should try harder to control myself when I'm having fun	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
c. I do things without giving them enough thought. ....	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
d. When I'm doing something fun (like partying or acting silly), I tend to get carried away and go too far	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

## PARENTAL INVOLVEMENT IN SCHOOLING

**46. How much are your mother or someone who is like a mother to you and father or someone who is like a father to you is involved in your education?**

(If you do not have a mother or father, mark NA (Not Applicable) for that column.)

	a. Mother or someone who is like a mother to you.					b. Father or someone who is like a father to you.			
	Never	Sometimes	Always	NA		Never	Sometimes	Always	NA
a. Helps with homework when I ask	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97		<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97
b. Knows how I am doing in school	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97		<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97
c. Goes to school programs for parents	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97		<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97
d. Watches me in sports or activities	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97		<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97
e. Helps me in choosing my courses	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97		<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 97

## RELIGION IN MY LIFE

47. Please answer these questions about your religion.

**Mark ONE ANSWER FOR EACH**

a. In the past year, how often have you attended religious services, NOT counting weddings, baptisms, funerals or similar religious ceremonies?

Never	A few times	About once a month	2-3 times a month	Once a week	More than once a week
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1○ 2○ 3○ 4○ 5○ 6○

b. How often do you pray by yourself alone? .....

1○ 2○ 3○ 4○ 5○ 6○

48. Are you currently involved in any religious youth group? By youth group we mean an organized group of young people that meets regularly for social time together and to learn more about their religious faith?

1○ Yes

0○ No

49.

**Mark ONE ANSWER FOR EACH**

a. How important or unimportant is religious faith in how you live your daily life?

Not important at all	Not very important	Somewhat important	Very important	Extremely important
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1○ 2○ 3○ 4○ 5○

b. How important or unimportant is religious faith in helping you make major life decisions?

1○ 2○ 3○ 4○ 5○

## FUTURE OUTLOOK

50. Please choose the response that is most true of you.

<i>Mark ONE ANSWER FOR EACH</i>	Never	Rarely	Often	Always
a. I will keep working at difficult, boring tasks if I know they will help me get ahead later.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
b. I think about how things might be in the future.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
c. Before making a decision, I weigh the good vs. the bad.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
d. I will give up my happiness now so that I can get what I want in the future	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
e. I would rather save my money for a rainy day than spend it now on something fun	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
f. I can see my life 10 years from now	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
g. I usually think about the consequences before I do something	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

**That's all!**  
**Thank you very much for your time.**