

CONTENT ANALYSIS OF TEEN PREGNANCY PREVENTION CURRICULA

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Kathryn Snow, B.S.

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CONTENT ANALYSIS OF TEEN PREGNANCY PREVENTION CURRICULA

Committee Members Approved:

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Kelly Wilson, Chair

---

Steven Furney

---

Gwynne Ash

---

Beth McNeill

Approved:

---

J. Michael Willoughby  
Dean of the Graduate College

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Kathryn Snow

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## **CHAPTER I**

### **INTRODUCTION**

#### **Introduction/Statement of Problem**

Pregnancy rates among teens in the United States (U.S.) steadily rose from the 1970s-1990s. Despite a recent and modest decline in the pregnancy rate, there is still fluctuation and always the possibility of an increase in overall rates of pregnancy and birth.<sup>1</sup> The trends indicated increases in teenage pregnancy, birth and abortions rates and great disparities in rates are present among races and by states.<sup>2</sup> The recent decrease in teen pregnancy rates has been attributed to teens' consistent contraceptive use,<sup>3</sup> including both oral contraceptive pills and condoms, and the choice to delay sexual activity.<sup>3, 4</sup> Approximately 21% of sexually active female teens and 35% of sexually active male teens reported to have concurrently used condoms and hormonal methods respectively at last intercourse.<sup>3</sup> Additionally, about nine million new cases of sexually transmitted diseases (STD) are detected among teens and young adults each year.<sup>2</sup>

Most teen pregnancies that occur in the U.S. are unplanned and about one-quarter are terminated in abortion each year.<sup>4</sup> Teenage mothers are less likely to complete high school or earn a General Equivalency Diploma, which in turn, affects the mother and child socially and economically.<sup>3, 4</sup> Today, comprehensive sexuality education programs have been implemented in schools

and communities in order to prevent teen pregnancy and other sexual health consequences. These programs have yielded positive results, including the delay of sexual initiation and increased use of condoms and contraceptives among adolescents.<sup>4-6</sup>

Many teen pregnancy prevention programs have been implemented and evaluated and are considered to be evidence-based. Evidence-based programs have had an impact on teen pregnancies or births, STDs and/or sexual activity.<sup>11</sup> The characteristics of effective programs were determined through program evaluation which included the analysis of program/curriculum development, contents of curricula, implementation of curriculum and understanding the impact on behavior change.<sup>7</sup> Curricula analyses also contributed to knowledge about these programs by assessing the content, medical accuracy, and effectiveness of programs.<sup>8</sup> Many programs found to be effective demonstrated a delayed initiation of sexual intercourse, a reduction of teen pregnancy, and/or the use of contraceptives among sexually active teens.<sup>7</sup>

Historically, the focus of school-based sexuality education programs has changed over time depending upon the decade, political perspective and public health focus. Funding of abstinence-only-until-marriage programs in the late 1990s was controversial and still is today.<sup>9</sup> Federally-funded initiatives related to teen pregnancy prevention (funded in Fiscal Year 2010) changed the direction of sexuality education by focusing on the implementation of evidence-based program to prevent teen pregnancy.<sup>10</sup> There were 31 effective programs that met effectiveness criteria preventing teen pregnancies or births, reducing sexually

transmitted infections, or reducing rates of sexual risk behaviors and were identified as programs for replication.<sup>11</sup>

Future of Sex Education (FoSE) was a project that began as a discussion about the future of comprehensive sexuality education in the U.S. The FoSE pushed forward a strategic framework that established the following: Goal I) “To champion policies at the national, state and local levels which support the implementation of comprehensive sexuality education in public schools” and Goal II) “To ensure that public schools have the capacity to implement and sustain quality comprehensive sexuality education.”<sup>12</sup> The FoSE project group was also instrumental in developing, publishing and disseminating the *National Sexuality Education Standards: Content and Skills, K–12*. The goal of the National Sexuality Education Standards (NSES) is to provide clear guidance for teachers and educators on the minimum content that is essential for developmentally and age-appropriate sexuality education in grades K-12.<sup>12, 13</sup>

### **Purpose of the Study**

The purpose of this descriptive study was to review the content and methods of three evidence-based curricula (*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*) used in teen pregnancy prevention programs across the nation.

### **Rationale**

Over the past several decades, the U.S. federal government provided funding for abstinence-only-until-marriage programs. Millions of dollars were

dedicated to these specific programs, which limited or excluded information on condoms, contraception, and potential failure rates of each.<sup>14</sup> Even so, abstinence-only-until-marriage curricula were required to be used even though no strong evidence indicated effectiveness.<sup>15, 16</sup>

In 2010, the Affordable Care Act was passed and authorized the Teen Pregnancy Prevention and Personal Responsibility Education Program (PREP) funding, which were the first federally funded programs that focused on teen pregnancy prevention following years of funding for abstinence-only-until-marriage programs. It required medically accurate and complete education on abstinence and contraception as preventive methods from pregnancy and STDs, in addition to adult preparation courses related to becoming a healthy adult.<sup>10</sup> Beginning in 2010, \$105 million was provided (per year for five years) for the implementation and administration of Teen Pregnancy Prevention Programs (TPP). A portion of the funds were specifically assigned to ensure the replications of evidence-based TPP programs, research/evaluation of programs, and demonstration programs.<sup>11</sup>

It has been, and continues to be, necessary and imperative that health educators, especially those working in sexuality education, understand the components included within TPP curricula that are used in communities and classrooms around the nation. The list of evidence-based programs recommended for replication have clearly indicated effectiveness at preventing pregnancy, reducing STDs, increasing contraceptive use, and/or delaying the initiation of sexual intercourse.<sup>11</sup> The content of the curricula and its alignment

with the newly established NSES and teaching methods will provide educators with data that may guide curricula selection decisions.

A list of evidence-based programs that were suggested for replication was supported by the U.S. Department of Health and Human Services (DHHS) and the Office of Adolescent Health (OAH) have supported replication of programs on the evidence-based list. Thirty-one programs were identified as eligible for funding. From that list, three of the replication “eligible” curricula were included in the portion of the teen pregnancy prevention national evaluation that focused on replication. These curricula were *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*. These programs also met the effectiveness criteria and were found to reduce teen pregnancy, reduce STDs and/or reduce other sexually related behaviors.<sup>11</sup>

### **Research Questions**

The questions that guided this study were:

1. To what extent do three evidence-based curricula (*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*) align with the content in the National Sexuality Education Standards (NSES)?
2. To what extent do three evidence-based curricula (*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*) use active learning strategies?

### **Limitations/Delimitations**

This study was delimited to three teen pregnancy prevention curricula (*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*). These curricula were

selected because of their inclusion in DHHS evaluation of teen pregnancy prevention programs funded under the Teen Pregnancy Prevention (TPP) Program, titled Teen Health Empowerment Replication Study.<sup>11</sup> The limitation of this study included that curriculum reviewers may have a bias towards a particular curriculum based on their teaching experiences and professional development. This limitation was addressed through defining terms on the curricula analysis tool and all reviewers were trained to use the tool.

### **Assumptions**

During this study, it was assumed that the reviewers assessed the curricula with a neutral perspective. It was also assumed that the curricula selected for analyses were effective teen pregnancy prevention programs, and all three curricula were available to reviewers.

### **Definition of Terms**

1. Active learning strategies are methods of instruction used to engage students.<sup>17</sup>
2. Comprehensive sexuality education programs emphasize abstinence as the safest behavior, but educate on condoms and other contraception for those that are sexually active; sometimes they are referred to as abstinence-plus programs.<sup>5</sup>
3. Evidence-based programs are programs that have had an impact on teen pregnancies or births, STDs and/or sexual activity.<sup>11</sup>

4. National Sexuality Education Standards (NSES) are standards that were created as a framework to advance developmentally, culturally, and age-appropriate comprehensive sexuality education programs in public schools for grades K-12. These standards included seven key concepts: Anatomy and Physiology, Puberty and Adolescent Development, Identity, Pregnancy and Reproduction, STDs and HIV, Healthy Relationships, and Personal Safety.<sup>13</sup>

## **Methods**

Each of the three curricula (*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*) selected for this study was assessed by two reviewers using a curricula analysis tool. The curricula analysis tool included an overview, content, methods, and evaluation. The curriculum overview focused on the history and background information of the curricula, major themes, goals, objectives, and purpose of the curricula, proposed setting and target audience, philosophy and theoretical framework, and additional descriptive components. The curriculum content section focused on the curriculum's alignment with the content and NSES for grades 9 through 12. These established standards were created as a framework to advance developmentally, culturally, and age-appropriate comprehensive sexuality education programs in public schools for those in pre-kindergarten through 12<sup>th</sup> grade.<sup>12</sup> The methodological characteristics section of the content analysis tool focused on the types of active learning strategies used in the curriculum, such as student worksheets, large-group discussions and case studies. The evaluation section assessed specific criteria using a 1-5 scale. Items

listed included the breadth, depth, overall content accuracy and currency, skill-building variety, methods variety, developmental appropriateness, cultural sensitivity, ease of implementation, evaluation and appearance and production quality.

Additionally, two different reviewers individually assessed each curriculum using the same analysis tool in order to ensure analysis accuracy. Both reviewers who reviewed the same curriculum came to agreement and resolved any differences before data were submitted for analysis. Once the data was submitted, it was analyzed by describing patterns, themes, or relationships that appeared. Each curriculum's findings were reported and also compared to each other. Tables were created for each section to allow for cross-curricular comparisons.

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## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Introduction**

Almost 750,000 teens between 15-19 years old become pregnant each year.<sup>1</sup> Due to the time between the average age of sexual initiation (17) and marriage (mid-twenties), teens have an increased risk of unwanted pregnancy and STDs.<sup>1</sup> The majority of these pregnancies end in birth while over a quarter end in abortion.<sup>1</sup>

Teen pregnancy is associated with negative implications. Although teens make up a small portion of the sexually active population, close to nine million new cases of STDs are detected among teens and young adults annually.<sup>1</sup> The risk of unintended pregnancy exists due to not using or incorrect use of contraception, including condoms. Reduced educational achievement is associated with teens who become pregnant.<sup>1</sup> Teenage mothers are less likely to complete high school or earn a General Equivalency Diploma, which in turn, affects the mother and child socially and economically.<sup>1, 2</sup> Teen pregnancy prevention programs are intended to assist teens in developing protective factors to avoid teen pregnancy.<sup>2</sup> Therefore, teen pregnancy prevention programs are important to the health and quality of life among young people.<sup>2</sup>

## **Teen Pregnancy Prevention Programs**

Programs that receive federal funding to impact sexual health decisions through educational interventions have included abstinence-only-until-marriage programs and teenage pregnancy prevention programs. After decades of funding for abstinence-only-until marriage programs, Teen Pregnancy Prevention (TPP) and Personal Responsibility Education Program (PREP) funding was announced and awarded in 2010. This support for sexuality education provided a change in direction towards comprehensive sexuality education.<sup>3</sup>

The U.S. Department of Health and Human Services (DHHS) organized initiatives and programs administered through the Office of Adolescent Health (OAH) that correlates to adolescent health promotion and disease prevention.<sup>3</sup> OAH administered \$105 million per year for five years to support evidence-based TPP approaches, including the replication of effective TPP programs and the implementation of innovative strategies. Seventy-five million dollars has been dedicated toward replication of effective programs.<sup>3</sup> Funding between \$15-25 million is dedicated to TPP funded projects to develop, improve, and test innovative strategies for reducing teen pregnancy, and \$10 million is from the Personal Responsibility Education Program (PREP), which focuses on innovative strategies for preventing pregnancy. These strategies are targeted towards geographical areas with high teen pregnancy and birth rates and high-risk and culturally under-represented populations. The remaining \$5 million is designated for support of the replication and innovative strategies, such as evaluation, training, and technical assistance.<sup>3</sup>

There are multiple settings in which TPP programs are incorporated. These include health clinics, after school programs, community-based organizations, schools, and specialized settings. Specialized settings such as residential drug treatment facilities, female Marine Corp recruits, incarcerated inner-city adolescent males, and high-risk youth in juvenile detention facilities will target adolescent populations as well. School-based programs are typically directed toward youth in the elementary, middle, and high schools.<sup>3</sup>

School-based sexuality education programs have evolved over the last several decades. In the 1960s and 1970s, the concept of teaching sexuality education in public schools was not accepted by social conservatives because of a perspective that adolescents should learn about sex from their families or churches.<sup>4</sup> Once HIV/AIDS became a global concern, the goal shifted to helping teens make healthy sexual decisions, such as avoiding STDs, HIV/AIDS, and unintended pregnancies.<sup>5</sup>

In the 1990s, abstinence-only-until-marriage funding was awarded by DHHS and content related to these programs were disseminated in schools and community programs across the nation.<sup>5</sup> Many abstinence-only-until-marriage programs limited medically accurate information on condoms and contraception, and focused on youth waiting until marriage to engage in sexual behaviors. Millions of dollars were dedicated for abstinence-only-until-marriage programs,<sup>6</sup> but to date there is no solid evidence to indicate that these programs delay the initiation of intercourse.<sup>7-9</sup>

In the early 2000s, there was a change in the direction of sexuality education,<sup>10</sup> and research supported that abstinence-only-until-marriage

programs were ineffective.<sup>2, 11, 12</sup> Today, more programs are being implemented in schools and within communities in order to prevent teen pregnancy and related sexual risks. These programs have yielded positive results, including delaying initiation of sex and the use of condoms and contraceptives.<sup>2, 11, 12</sup>

### **Effective Programs**

Effective programs have been shown to delay initiation of sexual intercourse, increase contraceptive use, and/or reduce teen pregnancy.<sup>13, 14</sup> The DHHS contracted with researchers to conduct a systematic review of the impact of TPP programs. Over 1,000 studies were reviewed and only 31 evidence-based programs were selected as curricula eligible for replication projects. These programs met the effectiveness criteria and were found to prevent teen pregnancy, reduce STDs, or reduce other sexually related behaviors.<sup>3</sup>

Many of the TPP programs selected were also involved in a previous extensive review, completed by Douglas Kirby and colleagues. This historical study was conducted to determine characteristics of effective sexuality education curricula. As a result of the study, 17 characteristics of effective curriculum-based programs were identified. The successful programs had important commonalities, such as the way in which the curricula were developed, the actual content of the curricula, and the strategies used when the curricula was implemented.<sup>15</sup> Thus, many of the same evidence-based TPP programs were also reported to have additional effective characteristics.<sup>3, 15</sup>

## **Evaluations of *Cuidate!***

*Cuidate!* is translated into English to mean “take care of yourself” and is primarily an after-school and community-based program.<sup>16</sup> It was adapted from the *Be Proud! Be Responsible!* curriculum for Latino adolescents with the purpose of preventing risky sexual behavior.<sup>17</sup> During the development of this curriculum, Latino culture and cultural appropriateness was considered in order for the program to reach the needs and impact of Latino adolescents. Two cultural concepts, familialism and gender-role expectations, were incorporated as well as the influence they have on attitudes, beliefs, and motivation, which affect HIV risk-reduction sexual behaviors.<sup>18</sup>

One process evaluation of *Cuidate!* examined the feedback from facilitators and participants of the program. The majority of the facilitators indicated they learned from the training, were prepared to deliver the curriculum, felt proud to be a facilitator, were excited about delivering the curriculum, and would recommend the program to adolescents. The adolescent participants also rated *Cuidate!* as extremely favorable and indicated they liked the curriculum, liked their facilitator, learned from the program, and would recommend the program to their friends. Additionally, participants reported that they learned about condom use and had stronger intentions to use them in the future.<sup>18</sup>

Results from efficacy studies of *Cuidate!* reported positive impacts of sexually active adolescents.<sup>17-19</sup> Specifically, studies indicated success by increasing condom use among sexually active teens.<sup>17, 19</sup> A randomized controlled trial was conducted and included 249 males and 304 females between the ages of 13 and 18. The intervention took place on two consecutive Saturdays, and surveys

were administered pre-intervention, post two-day intervention, and 3-, 6-, and 12-month follow-ups. Participants received English or Spanish versions of surveys. Participants in the HIV risk-reduction intervention were less likely to report sexual intercourse within the past three months than those in the health promotion intervention. Additional results indicated the participants in the HIV risk-reduction intervention were less likely to have multiple sexual partners, more likely to use condoms consistently, and have fewer days of unprotected sex than those in the health promotion intervention. Spanish speakers who received the HIV intervention were more likely to use condoms and less likely to have unprotected sex than those in the health promotion intervention.<sup>17</sup>

Another study assessed the long-term effects of *Cuidate!*, including sexual behavior and use of condoms and contraceptives. Participants were randomly assigned to the HIV risk-reduction intervention or the health promotion control. At the 3-month follow-up, the HIV risk-reduction intervention indicated positive impact on sexual behaviors. The participants who received the HIV risk-reduction intervention were more likely to be older when sex was initiated than those who received the health promotion control. Eighty-one percent of the participants who reported having sex within the last three months reported using a condom at their first sexual encounter. However, only 42% reported using condoms consistently. More participants in the HIV risk-reduction intervention suggested using contraception other than condoms at first sexual encounter than those in the health promotion control. The effects on sexual behavior were not sustained at the 48-month follow-up.<sup>19</sup>

*Cuidate!* was recently adapted to accommodate an average high school class period, which is approximately 45 minutes over a three-week period. Ninety-three students participated in this pilot study; 69 were ninth graders and 24 were eleventh and twelfth graders. It was found that that the students enjoyed the program and felt they learned new information on HIV, STDs, and pregnancy prevention. Students focused on Latino cultural values and reported open discussions of sensitive topics.<sup>16</sup>

### **Evaluations of *Reducing the Risk***

*Reducing the Risk* curriculum was designed for ninth and tenth grade students to prevent teen pregnancy, STDs, and HIV. Within the curriculum, it mentioned “protection” 245 times, “condoms” 183 times, and “abstinence” 90 times. No medically inaccurate statements were present; however, there were three unclear statements regarding condom failure rates.<sup>20</sup> Despite unclear statements, several evaluations have shown that *Reducing the Risk* delayed the initiation of sex among teens.<sup>11, 21-23</sup> and others have indicated a significant increase in condom or contraceptive use.<sup>11</sup>

In a quasi-experimental evaluation, *Reducing the Risk* curriculum was implemented at several high schools. Follow-ups were scheduled before the intervention, immediately after, six months and 18 months post intervention. At the 18-month follow up, results indicated a statistically significant impact on the initiation of the first sexual encounter by participants who were in the intervention group.<sup>22</sup>

A replication study of *Reducing the Risk* was implemented in five rural and urban school districts in Arkansas. Significantly fewer participants who received *Reducing the Risk* curriculum became more sexually active at the 18-month follow-up than those who did not receive the curriculum. Eighty-nine percent of participants of the *Reducing the Risk* curriculum who became sexually active by the 18-month follow-up reported using STD and pregnancy prevention. There was a greater likelihood of parent-child communication regarding sex-related issues for those who received the *Reducing the Risk* curriculum than those who did not.<sup>21</sup>

Another study of the *Reducing the Risk* curriculum suggested similar results as the previous study. Seventeen schools were included in the study comparing standard HIV pregnancy prevention curriculum, *Reducing the Risk*, and a modified version of *Reducing the Risk* which focused on high sensation seekers and impulsive decision makers. Both *Reducing the Risk* interventions indicated delaying the onset of sexual activity for 12-18 months.<sup>23</sup>

### **Evaluation of *Making Proud Choices***

*Making Proud Choices* was adapted and extended from the original *Be Proud! Be Responsible!* curriculum and was altered for adolescents between 11 and 13 years old. It was primarily a school-based or community-based program that focused on STD, HIV, and pregnancy prevention. The curriculum mentioned the term “condoms” 650 times and “abstinence” 18 times. Additionally, within the curriculum, there were three medically inaccurate statements, including assertions that condoms can prevent HIV infection and an incorrect statistic

regarding effectiveness of condoms.<sup>20</sup> The purpose of the program was to equip teens with the knowledge, skills, and confidence they need to decline sex and/or negotiate safer sex.<sup>24</sup> Studies have shown that *Making Proud Choices* positively impacted the sexual behavior of teens.<sup>24, 25</sup>

A randomized controlled trial was conducted to assess the effects of an abstinence and safer-sex HIV risk-reduction interventions on African American adolescents. Three middle schools, with a total of 659 students participated in the study. Participants were randomly assigned to an abstinence HIV intervention, a safer-sex HIV intervention (which was the *Making Proud Choices!* intervention), or a health promotion intervention. The health promotion intervention served as the control group. Each intervention took place over two consecutive Saturdays. The participants in the abstinence HIV intervention indicated a greater decrease in sexual intercourse at the three-month follow-up than the control group; however, there was no impact at the 6- and 12- month follow-ups. The participants in the safer-sex intervention reported significantly more consistent condom use at the 3-month follow-up and an increase in the frequency of condom use at 3-, 6-, and 12-month follow-ups than the control group. In addition, those who were sexually experienced at baseline reported less sexual intercourse and less unprotected sex in all follow-ups than the control group.<sup>25</sup>

An evaluation of the *Making Proud Choices* was conducted and included 806 teens from 11 high schools and two middle schools. Most of the participants were African American. Before and after the program was implemented surveys were distributed to determine current sexual patterns, condom use, and alcohol and drug use in the previous 30 days. The intentions to use condoms during

vaginal, anal, or oral sex and the intention to avoid sex after alcohol or drug use were analyzed as well. *Making Proud Choices* participants reported a decrease in sexual activity, an increase in condom use, and a decrease in sexual behavior after alcohol or drug use. Sixty-two percent of participants consistently reported they always used a condom. Males and females reported a significant increased intention to use condoms during vaginal sex. Males reported an increased intention to use condoms during anal sex, and females reported an increased intention to use condoms during oral sex. Lastly, engaging in sex after alcohol consumption and drug use decreased from 23% to 18%.<sup>24</sup>

### **Future of Sexuality Education**

The Future of Sex Education (FoSE) Initiative was established near the end of the federal funding for abstinence-only programs and originated to facilitate national discussion about the future of sexuality education and to promote comprehensive sexuality education for all grades in public schools. A strategic framework of the National Sexuality Education Standards (NSES) were developed and recently published to provide clear guidance for teachers and educators on the minimum content that is essential for developmentally and age-appropriate sexuality education in grades K-12.<sup>26,27</sup>

The NSES were developed based on concepts of the social learning theory, social cognitive theory, and social ecological model of prevention. There are seven key concepts: Anatomy and Physiology, Puberty and Adolescent Development, Identity, Pregnancy and Reproduction, STDs and HIV, Healthy Relationships, and Personal Safety (see Appendix C). Developmentally and age-appropriate

standards were thoughtfully identified and listed under each concept. The standards were developed to be used to ensure consistent implementation of sexuality education in public schools nationwide and address the limited time designated for teaching it. The concepts and standards are a key factor in assisting schools in developing sequential sexuality education from a comprehensive school health approach.<sup>27</sup>

## **Conclusion**

Numerous TPP programs and curricula have been studied and systematically reviewed. Characteristics of effective curriculum-based programs were established, which have been used to help assess and determine the effectiveness of TPP programs.<sup>15</sup> Many programs that have been identified as evidence-based have indicated a delay in the initiation of sexual intercourse, a reduction in teen pregnancy, and/or an increase in the use of contraceptives during evaluation efforts.<sup>3</sup> Federal efforts have provided funding streams to implement programs and curricula in efforts to reduce the rates of pregnancy and other risky sexual behaviors among adolescents. One focus has been on the implementation of evidence-based programs.<sup>28</sup> National evaluation initiatives are currently focusing on the replication of *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*. Alongside the national focus on TPP programs, standards for sexuality education were established to guide public school teachers in sexuality education scope and sequence.<sup>26</sup> Understanding the effectiveness, content, and educational methods of teen pregnancy prevention curricula allows educators to make mindful decisions about curricula chosen for instruction.

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## **CHAPTER III**

### **METHODOLOGY**

#### **Curricula Selection**

The U.S. Department of Health and Human Services (DHHS) and Office of Adolescent Health (OAH) coordinated efforts to support the funding and implementation of Teen Pregnancy Prevention (TPP) programs across the nation. The OAH administered grants that supported the TPP program and replications of evidence-based programs. Prior to proposal selection, DHHS contracted with researchers to conduct a systematic review of research on the impact of TPP programs. Over 1,000 studies were reviewed and based on the findings, only 31 evidence-based programs were considered eligible for the TPP replication study. These programs met the effectiveness criteria and were found to prevent teen pregnancy, reduce sexually transmitted diseases (STD), or reduce other sexually related behaviors.<sup>1</sup> Three of these programs were also selected to be a part of the national evaluation focused on curricular replication. These curricula were, therefore, selected for this descriptive qualitative study: *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*.

*Cuidate!* focused on Latino adolescents for the purpose of preventing risky sexual behavior, which incorporated cultural beliefs and attitudes.<sup>2</sup> This program met the effectiveness criteria due to the positive impact to prevent unintended

pregnancies which included increasing contraceptive use<sup>2, 3</sup> delaying the initiation of sexual intercourse,<sup>3</sup> and reducing other risky sexual-related behaviors.<sup>2</sup>

*Reducing the Risk* was designed for high school students and focused on reducing risky sexual activity and unsafe behavior and affected knowledge, beliefs, values, and intentions by incorporating social and refusal skills for high-risk situations.<sup>1,4</sup> Based on the positive impact which included delaying the initiation of sexual intercourse,<sup>5-8</sup> and the numerous studies that indicated an increase in condom and/or contraceptive use this curricula met the effectiveness criteria to be included on the list of 31 evidence-based programs.<sup>7</sup>

*Making Proud Choices* was developed for adolescents between 11 and 13 years old and aimed to reduce STDs, Human Immunodeficiency Virus (HIV), and teen pregnancy by providing adolescents with knowledge, skills, and confidence<sup>4</sup> needed to decline sex and/or negotiate safer sex.<sup>9</sup> The program met the effectiveness criteria due to the increase of consistent condom use and a decrease of sexual intercourse among sexually active teens.<sup>9, 10</sup>

### **Pilot Testing Protocol**

The curricula analysis tool and the agreement form were pre-tested with graduate health education students at Texas State. The tool was created to ensure the reliability and validity of the evaluation instrument. The pre-test was performed with a curriculum that was not one of the three curricula selected for the study. Each participant assessed the curriculum by using the curricula analysis tool. Suggestions, comments, and/or errors were written on the

curricula analysis tool and agreement form, which was returned to the research team for revision.

### **Curricula Analysis Tool Development**

The curriculum analysis tool and agreement forms were originally developed and used in 2001 to review a cohort of curriculum being used in abstinence-only-until-marriage education. The tool was modified to meet the purposes of this study.<sup>11</sup> The curricula analysis tool was used to formally guide the reviewers throughout the entire curriculum. It was composed of four main sections: curriculum overview, curriculum content, methodological characteristics, and evaluation.

The curriculum overview focused on the history and background information of the curricula, major themes, goals, objectives, and purpose of the curricula, proposed setting and target audience, philosophy and theoretical framework, and additional descriptive components. This information was important in understanding background information about the curriculum.

The curriculum content section concentrated on the National Sexuality Education Standards (NSES) for grades 9 through 12. These standards were created as a framework to advance developmentally, culturally, and age-appropriate comprehensive sexuality education programs in public schools for kindergarten through twelfth grade.<sup>12</sup> The NSES included: Anatomy and Physiology, Puberty and Adolescent Development, Identity, Pregnancy and Reproduction, STDs and HIV, Healthy Relationships, and Personal Safety.<sup>13</sup> The reviewer was to determine if, and to what extent, each standard was limited,

extensive, or absent in the curriculum. The terms *limited* and *extensive* were defined in the curricula analysis tool. For example, if the curriculum briefly mentioned a standard, it was identified as limited. If the curriculum focused a lesson on a standard or significant student engagement on a standard was suggested, it was identified as extensive.

The methodological characteristics section (Part 3) focused on the types of pedagogical methods used in the curriculum. The reviewer was to identify “yes” or “no” if the curricula used certain methods, such as student worksheets, large-group discussions, lecture, case studies, role-playing, etc.

The fourth section evaluated specific elements using a 1-5 scale (1 = Unacceptable, 2 = Inadequate, 3 = Fair, 4 = Good, 5 = Excellent). The evaluation criteria included:

- Breadth and depth of content
- Overall content accuracy and currency
- Skill-building variety (breadth and depth)
- Methods variety
- Developmental appropriateness
- Cultural sensitivity
- Ease of implementation
- Evaluation
- Appearance and production quality
- Overall quality (of the curriculum)

The breadth and depth were considered excellent if the curriculum contained most of the NSES (90%). Each criterion was well-defined and listed on the curricula analysis tool. The overall quality of the curriculum was determined by the mean.

### **Data Collection Techniques/Protocols**

A team of three reviewers with public school teaching experience, and curriculum analysis experience were recruited to assess the curricula using the curricula analysis tool (see Appendix A). All reviewers attended a training to ensure the tool was used appropriately and that the curricula were assessed consistently and accurately.

In order to check for accuracy, two different reviewers independently assessed each curriculum using the same analysis tool. The raters who reviewed the same curriculum met and used the agreement form to come to consensus. The agreement form was designed based on the curricula analysis tool and was to ensure that the evaluation process was reliable (see Appendix B). Both reviewers had to come to agreement and resolve any differences regarding the curricula. Once a consensus was reached between the raters, the data were submitted for analysis.

### **Data Analysis Plans**

This study was based on a qualitative descriptive analysis of three curricula which utilized four main sections in a content analysis tool: curriculum overview, curriculum content, methodological characteristics, and evaluation.

The content analysis tool was completed in its entirety by each reviewer. Subsequently, the reviewers completed the agreement form. Data from the forms were entered into the multiple tables that were created for each section to allow cross-curricular comparison (tables with data entered can be found in Chapter IV of this thesis). Using standard qualitative analysis techniques, the curriculum overview components were analyzed by noting any patterns, themes, or relationships that appeared. Each curriculum's findings, including similarities and differences, were compared to each other.

The curriculum content section compared the NSES to each curriculum. The content in the curriculum was marked as limited, extensive, or absent on the form for each standard in order to determine how each was aligned with the NSES and to what extent. In addition, standards that were absent throughout the curriculum were also noted.

The methodological characteristics section compared the variety of teaching methods that was suggested with each curriculum. Patterns and themes were also identified. The evaluation section identified the rating (unacceptable, inadequate, fair, good, or excellent) of each curriculum for each of the 11 categories. The ratings on each of the 11 categories were averaged, and the overall quality score for each curriculum was identified. Atypical results were noted throughout the analyses and variations of the content and methods were described in detail.

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## **CHAPTER IV**

### **RESULTS**

The following results include data from the analysis of three curricula (*Cuidate!*, *Reducing the Risk*, *Making Proud Choices*) used in teen pregnancy prevention. Tables are organized by each section from the content analysis tool (see Appendix A) and provided descriptive data for each curriculum that allowed for cross-curricula comparisons. The first section of tables includes data from the content analysis that focus on background information about the curriculum that included descriptions of curricula characteristics, such as proposed setting, target audience, theme, and main objective. The second section of tables contains data that specifically aligned the teen pregnancy prevention curricula with the National Sexuality Education Standards (NSES) in which each standard. The third section of tables includes methodological characteristics, including demonstrations, skill development, purposeful experiences, and curricula procedures for each of the three curricula that were analyzed. The fourth section of tables focuses on the reviewers' ratings of specific elements of the curriculum and the overall quality of each curriculum.

**SECTION A – CURRICULUM OVERVIEW**

**Table 1 – Publishers, date of publication/revisions, and cost of curricula**

<b>Curriculum Name</b>	<b>Publisher</b>	<b>Date First Developed</b>	<b>Revised</b>	<b>Cost</b>
<b>Cuidate!</b>	Select Media, Inc.	1999	2012	\$240.00 (Training of Facilitator’s Manual \$145, optional)
<b>Reducing the Risk</b>	Education, Training, and Research (ETR) Associates	1989	1993, 1996, 2004, 2011	\$521.99
<b>Making Proud Choices</b>	Select Media, Inc.	2002	2002, 2006, 2011	\$648.00

**Table 2 – Curricula’s main themes and proposed settings**

Curriculum Name	Main Themes	Setting					
		In School	After School	Youth Group	Church	Not Specified	Other
<b>Cuidate!</b>	HIV Prevention						Community-based setting
<b>Reducing the Risk</b>	Teen Pregnancy, STD, and HIV Prevention	✓					
<b>Making Proud Choices</b>	Teen Pregnancy, STD, and HIV Prevention			✓			

**Table 3 – Curricula’s main goals and proposed context**

Curriculum Name	Main Objective/Goal/Purpose (verbatim from curriculum)	Proposed Context for Teaching Curriculum		
		Within a Comprehensive Health Education Program	Stand Alone	May be Incorporated into Other Classes
<b>Cuidate!</b>	<ul style="list-style-type: none"> <li>• Influence attitudes, behavioral and normative beliefs, and self-efficacy regarding HIV risk-reduction behaviors, specifically abstinence and condom use, by incorporating the theme of <i>Cuidate!</i>—taking care of oneself, one’s partner, family, and community.</li> <li>• Highlight cultural values that support safer sex, and reframe cultural values that are perceived as barriers to safer sex.</li> <li>• Emphasize how cultural values influence attitudes and beliefs in ways that affect HIV risk-associated sexual behavior.</li> </ul>		✓	
<b>Reducing the Risk</b>	<p>As a result of participating in classes that use this curriculum, students will be able to:</p> <ul style="list-style-type: none"> <li>• Evaluate the risks and lasting consequences of becoming an adolescent parent or becoming infected with HIV or another STD.</li> <li>• Recognize that abstaining from sexual activity or using contraception are the only ways to avoid pregnancy, HIV and other STDs.</li> </ul>	✓		

**Table 3 – Curricula’s main goals and proposed context (continued)**

Curriculum Name	Main Objective/Goal/Purpose (verbatim from curriculum)	Proposed Context for Teaching Curriculum		
		Within a Comprehensive Health Education Program	Stand Alone	May be Incorporated into Other Classes
<b>Reducing the Risk (continued)</b>	<p>As a result of participating in classes that use this curriculum, students will be able to:</p> <ul style="list-style-type: none"> <li>• Conclude that factual information about conception and protection is essential for avoiding teenage pregnancy, HIV and other STDs.</li> <li>• Demonstrate effective communication skills for remaining abstinent and for avoiding unprotected sexual intercourse.</li> </ul>	✓		
<b>Making Proud Choices</b>	<ul style="list-style-type: none"> <li>• Increased knowledge about prevention of pregnancy, STDs and HIV</li> <li>• More positive attitudes/beliefs about condom use</li> <li>• Increased confidence in their ability to negotiate safer sex and to use condom correctly</li> <li>• Increased negotiation skills</li> <li>• Improved condom use skills</li> <li>• Stronger intentions to use condoms if they have sex</li> <li>• A lower incidence of HIV/STD risk-associated sexual behavior</li> <li>• A stronger sense of pride and responsibility in making a difference in their lives</li> </ul>	✓	✓	✓

**Table 4 – Age, gender, and ethnicity of curricula’s target audience**

Curriculum Name	Targeted Age Groups	Targeted Sex			Targeted Ethnic Groups						
		Boys	Girls	Both	Anglo	American Indian	Asian	Indian	Hispanic	All/Various	Not Specified
<b>Cuidate!</b>	13-18 years			✓					✓		
<b>Reducing the Risk</b>	14-16 Years			✓						✓	
<b>Making Proud Choices</b>	11-13 years			✓							✓

**Table 5 – Behavior Change Theories included in curricula**

Curriculum Name	Is the Curriculum Theory-based?		Behavior Change Theory
	Yes	No	
<b>Cuidate!</b>	✓		Social Cognitive Theory, Theory of Reasoned Action & Theory of Planned Behavior
<b>Reducing the Risk</b>	✓		Social Cognitive Theory, Social Influence Theory, Social Inoculation Theory, Cognitive-behavioral, & Theory of Reasoned Action
<b>Making Proud Choices</b>	✓		Social Cognitive Theory, Theory of Reasoned Action, & Theory of Planned Behavior

**Table 6 – Training provided by publisher for curriculum delivery**

<b>Curriculum Name</b>	<b>Is Teacher Training Provided</b>	<b>Is Teacher Training Required</b>	<b>Description of Information about Training</b>
<b>Cuidate!</b>	Yes	No	Training is recommended, specific to curriculum, and available for a fee-for-service basis, depending upon the size of the groups being trained
<b>Reducing the Risk</b>	Yes	No	Training is recommended, specific to curriculum, and available for a fee-for-service basis, depending upon the size of the groups being trained
<b>Making Proud Choices</b>	Yes	No	Training is recommended, specific to curriculum, and available for a fee-for-service basis, depending upon the size of the groups being trained

**Table 7 – Availability of evaluation tools for teachers in curricula**

Curriculum Name	Does the Curriculum Mention having Been Evaluated?	For Whom Does the Curriculum have Evaluation Tools?			Teachers Evaluation Tool Measures/Assess:				
		Students	Teachers	Parents	Teaching Performance	Knowledge	Attitudes	Satisfaction with Program	Checklist of Tasks
<b>Cuidate!</b>	Yes	✓	✓		✓		✓	✓	✓
<b>Reducing the Risk</b>	Yes								
<b>Making Proud Choices</b>	No								

**Table 8 – Availability of evaluation tools to be used with students**

Curriculum Name	Other Evaluation Tools or Concepts	Student Evaluation Tool Measures/Assess:						
		Knowledge	Satisfaction with Program	Attitudes	Behavior	Knowledge and Attitudes	Knowledge, Attitudes, and Satisfaction	Knowledge, Attitudes, Behavior, and Satisfaction
<b>Cuidate!</b>	Process monitoring							✓
<b>Reducing the Risk</b>	N/A							
<b>Making Proud Choices</b>	N/A							

No evaluation tools or concepts were available for students or teachers in *Reducing the Risk* and *Making Proud Choices*.

**Table 9 –Components available with Curricula to Assist with Teaching**

Curriculum Name	Teacher Book	Student Book	Parent Book	Mentor Book	Handouts	PowerPoint Presentations	DVD			Promotional Materials	Other
							#	Included in Curriculum?	Target Audience		
<b>Cuidate!</b>	✓				✓		1	Yes	Youth		Music CD
<b>Reducing the Risk</b>	✓	✓			✓		2	Yes	Youth	Posters, pamphlets	Fact Books
<b>Making Proud Choices</b>	✓	✓			✓		6	Yes	Youth		

**Table 10 – Curricula’s Adaptability and User Friendliness**

Curriculum Name	Teachers can “pick and choose” among modules/lessons	Curriculum suggests several methods/strategies for teaching specific content	Lessons can be easily adapted to different genders, ages, and ethnic groups	Requires minimal preparation time for teacher	Materials are ready to use	There are plenty of ready-to-use materials such as handouts, charts, PowerPoint presentations, etc.	Lesson plans are described in sufficient detail	Contains clearly specified goals or objectives for each lesson	Suggests amount of time to be spent in each activity	Lists all the materials needed in each lesson
<b>Cuidate!</b>		✓		✓	✓	✓	✓	✓	✓	✓
<b>Reducing the Risk</b>		✓	✓	✓	✓	✓	✓		✓	✓
<b>Making Proud Choices</b>	✓		✓	✓	✓	✓	✓	✓	✓	✓

**SECTION B – CURRICULUM CONTENT**

**Table 11 – Curricula’s extensive or limited treatment of NSES key concepts**

Curriculum Name	Anatomy and Physiology		Puberty and Adolescent Development		Identity		Pregnancy and Reproduction		STDs and HIV		Healthy Relationships		Personal Safety	
	L*	E*	L	E	L	E	L	E	L	E	L	E	L	E
<b>Cuidate!</b>				1/3		1/5	1/17	D*/17	5/12	D*/12	2/11	4/11		1/11
<b>Reducing the Risk</b>	1/2						3/17	4/17		6/12	1/11	3/11		
<b>Making Proud Choices</b>	1/2		1/3				3/17	3/17	1/12	9/12	2/11	1/11		

\*L = Limited

\*E = Exclusive

\*D = Disagreement between reviewers

Pregnancy and Reproduction – Reviewer A = 5/17; Reviewer B = 6/17

Sexually Transmitted Diseases and HIV – Reviewer A = 4/12; Reviewer B = 5/12

**SECTION C – METHODOLOGICAL CHARACTERISTICS**

**Table 12 – Curricula’s methodological characteristics**

<b>Curriculum Name</b>	<b>Anonymous Question Box</b>	<b>Teacher Lecture</b>	<b>Large- Group Discussion</b>	<b>Student Worksheets</b>	<b>Journals/Story Writing</b>	<b>Cooperative Learning/ Small Groups</b>	<b>Case Studies/ Scenarios</b>	<b>Role-playing</b>	<b>Audiovisual Materials</b>	<b>Community Involvement</b>	<b>Peer Helper Component</b>	<b>Parent/Guardian Involvement</b>	<b>Mentoring Component</b>	<b>Pledge Component</b>
<b>Cuidate</b>		1	2	3		3	3	3	1					
<b>Reducing the Risk</b>	1	1	2	3	4	3	3	3		4		3		
<b>Making Proud Choices</b>		1	2	2		2	2	3	1					

\*Rating Criteria are the following:

1 = Symbols    2 = Demonstrations    3 = Skill Development    4 =Purposeful Experience

**Table 13 – Curricula’s select proposed procedures**

Curriculum Name	Ground-rules		Same-Gender Classes		Accounts for Different Learning Styles		Can be Incorporated		Three Main Learning Domains are Addressed	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
<b>Cuidate!</b>	✓			✓	✓			✓	✓	
<b>Reducing the Risk</b>	✓			✓	✓		✓		✓	
<b>Making Proud Choices</b>	✓			✓	✓		✓		✓	

**SECTION D – EVALUATION**

**Table 14 – Curricula’s rating on selected criteria\***

Curriculum Name	Breadth	Depth	Overall Content Accuracy/Currency	Skill Building Variety (Breadth)	Skill Building Variety (Depth)	Methods Variety	Developmental Appropriateness	Cultural Sensitivity	Ease of Implementation	Evaluation	Appearance/Production Quality
<b>Cuidate!</b>											
<b>Reducing the Risk</b>											
<b>Making Proud Choices</b>											

Rating Criteria are the following:

- Excellent
- Good
- Fair
- Inadequate
- Unacceptable

**Table 15 – Overall quality rating of curricula**

<b>Curriculum Name</b>	<b>Overall Quality</b>
<b>Cuidate!</b>	4.55
<b>Reducing the Risk</b>	3.55
<b>Making Proud Choices</b>	3.64

\*All scores are on five-point scale

## Chapter V

### MANUSCRIPT: JOURNAL OF SCHOOL HEALTH

#### **Abstract**

**BACKGROUND** Teen Pregnancy Prevention Programs (TPP) have been the recent focus in sexuality education for schools and communities. Curricula have been identified as evidence-based and have been found to delay the initiation of sex, reduce teen pregnancy, and/or increase the use of contraception.

**METHODS** Three reviewers assessed the content, alignment with the National Sexuality Education Standards, evaluation, and overall quality of three evidence-based teen pregnancy curricula in National Evaluation. The curricula included: *Cuidate*, *Reducing the Risk*, and *Making Proud Choices*. A curricula analysis tool was developed to individually guide the reviewers throughout the entire curriculum. The two reviewers who examined the same curricula met and completed an agreement form in order to ensure reliability.

**RESULTS** None of the three curricula covered all National Sexuality Education Standards (NSES). Collectively, the Identity and Personal Safety key concepts were the least covered. Standards within Pregnancy and Reproduction, Healthy Relationships, and Sexually Transmitted Diseases and Human Immunodeficiency

Virus (HIV) key concepts were covered the most. The depth of all curricula was inadequately covered. The average breadth of the curricula was 2.7 out of a five-point scale, and the overall quality rating of curriculum included: *Cuidate!* at 4.55, *Reducing the Risk* at 3.44, and *Making Proud Choices* at 3.64.

**CONCLUSIONS** The findings from this study support that the alignment of TPP curricula with the NSES is limited. Essential sexual health education is absent from the TPP programs that are encouraged to be replicated. Schools and health educators who implement these programs must understand that programs are not a “catch-all” for comprehensive sexuality education.

**Keywords:** National Sexuality Education Standards; teen pregnancy prevention; sexuality education; curriculum; content analysis.

## **Background**

Almost 750,000 teens between 15-19 years old become pregnant each year, and nearly nine million new cases of sexually transmitted diseases (STD) are detected among teens and young adults annually.<sup>1</sup> The risk of unintended pregnancy exists due to not using contraception, including condoms.<sup>1</sup> Teens who become pregnant are less likely to complete high school, which affects the mother and child socially and economically.<sup>1, 2</sup> Teenage pregnancy prevention (TPP) programs are intended to assist teens in developing protective factors to avoid teenage pregnancy and to improve their health and quality of life.<sup>2</sup>

Programs that have received federal funding to impact sexual health decisions through educational interventions have included abstinence-only-until-marriage programs, HIV prevention and teenage pregnancy prevention programs. After decades of funding for abstinence-only-until marriage programs, the direction of sexuality education was changed when TTP and Personal Responsibility Education Program (PREP) funding was announced and awarded in 2010.<sup>3</sup> This support for sexuality education established a change in direction towards comprehensive sexuality education. Funds for programming was focused on the replication of effective TPP programs and the implementation of innovative strategies.<sup>3</sup>

Today, sexuality education programs have been implemented in schools and within communities in order to prevent teenage pregnancy and related sexual risks. These programs have yielded positive results, including delaying initiation of sex and the use of condoms and contraceptives.<sup>2, 4, 5</sup> Specifically, 31 evidence-based TPP programs have been identified and recommended for use by the Office of Adolescent Health.<sup>3</sup> Currently, national evaluation initiatives have been focusing on the replication of *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*.

*Cuidate* is translated into English to mean “take care of yourself” and is primarily used as an after-school and community-based program.<sup>6</sup> It was adapted from the *Be Proud! Be Responsible!* curriculum for Latino adolescents with the purpose of preventing risky sexual behavior.<sup>7</sup> During the development of this curriculum, Latino culture and cultural appropriateness was considered in order for the program to reach the needs and impact of Latino adolescents. Two

cultural concepts, familialism and gender-role expectations, were incorporated as well as the influence they have on attitudes, beliefs, and motivation, which affect HIV risk-reduction sexual.<sup>8</sup>

*Reducing the Risk* curriculum was designed for ninth and tenth grade students to prevent unintended teen pregnancy, STDs, and HIV. Within the curriculum, it mentioned “protection”, “condoms”, and “abstinence.” No medically inaccurate statements were present; however, there were three unclear statements regarding condom failure rates.<sup>9</sup> Despite unclear statements, several evaluations have shown that *Reducing the Risk* delayed the initiation of sex among teens.<sup>5, 10-12</sup> and others have indicated a significant increase in condom or contraceptive use.<sup>5</sup> In a quasi-experimental evaluation, *Reducing the Risk* curriculum was implemented at several high schools. Follow-ups were scheduled before the intervention, immediately after, six months and 18 months post intervention. At the 18-month follow up, results indicated a statistically significant impact on the initiation of the first sexual encounter by participants who were in the intervention group.<sup>11</sup>

*Making Proud Choices* was adapted and extended from the original *Be Proud! Be Responsible!* curriculum and was altered for adolescents between 11 and 13 years old. It was primarily a school-based or community-based program that focused on STD, HIV, and pregnancy prevention. The curriculum mentioned the term “condoms” 650 times and “abstinence” 18 times. Additionally, within the curriculum, there were three medically inaccurate statements, including assertions that condoms can prevent HIV infection and an incorrect statistic regarding effectiveness of condoms.<sup>9</sup> The purpose of the program was to equip

teens with the knowledge, skills, and confidence they need to decline sex and/or negotiate safer sex.<sup>13</sup> Studies have shown that *Making Proud Choices* positively impacted the sexual behavior of teens.<sup>13, 14</sup>

In 2011, a strategic framework of the National Sexuality Education Standards (NSES) were published to provide clear guidance for teachers and educators on the minimum content that is essential for developmentally and age-appropriate sexuality education in grades K-12.<sup>15, 16</sup> The NSES were developed based on concepts of the social learning theory, social cognitive theory, and social ecological model of prevention. The standards were intended to be used to ensure the consistent implementation of sexuality education in public schools nationwide and address the limited time designated for teaching it. The standards are a key factor in assisting schools in applying sequential sexuality education from a comprehensive school health approach.<sup>16</sup>

This descriptive study reviewed the content and methods of three evidence-based curricula (*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*) used in TPP programs across the nation. The purpose of this manuscript is to describe to what extent do three evidence-based curricula, *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*, align with the content in the NSES.

## **Methods**

**Curricula.** The Department of Health and Human Services (DHHS) and the Office of Adolescent Health (OAH) administered grants that supported the implementation of TPP programs and the replication of evidence-based

programs. In establishing the list of evidence-based programs, over 1,000 studies of curricula effectiveness were reviewed and only 31 evidence-based programs were eligible for replication. These programs met the effectiveness criteria set by researchers and were found to prevent teenage pregnancy, reduce STDs, or reduce other sexually related behaviors.<sup>3</sup> Three of these programs were also identified for national evaluation teen pregnancy prevention efforts. They were also selected to be analyzed as part of this descriptive qualitative study: *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*.

**Instruments.** The curricula analysis tool was developed using a tool previously used to analyze curricula. It was used to formally guide the reviewers through the curriculum review process. The agreement form was designed based on the curricula analysis tool and ensured the evaluation process was reliable. The tool was pre-tested using a sexuality-based curriculum that was not one of the three curricula selected for the study

The curriculum overview of the curriculum analysis tool concentrated on the history and background information of the curricula, major themes, goals, objectives, and purpose of the curricula, proposed setting and target audience, philosophy and theoretical framework, and additional descriptive components. The curriculum content section focused on the NSES (grades 9-12). The NSES were included as part of the following key concepts: Anatomy and Physiology, Puberty and Adolescent Development, Identity, Pregnancy and Reproduction, STDs and HIV, Healthy Relationships, and Personal Safety.<sup>16</sup>

The evaluation section assessed specific criteria using a 1-5 scale (1 = Unacceptable, 2 = Inadequate, 3 = Fair, 4 = Good, 5 = Excellent). The evaluation criteria included: Breadth and depth, Overall content accuracy and currency, Skill-building variety (breadth and depth), Methods variety, Developmental appropriateness, Cultural sensitivity, Ease of implementation, Evaluation, Appearance and production quality, and overall quality (of the curriculum). The breadth and depth were considered excellent if the curriculum contained most of the key concepts and NSES (90%), respectively. Each element was well-defined and listed on the curricula analysis tool. The overall quality of the curriculum was determined by the mean of the score.

**Procedure.** A team of three reviewers with public school teaching and curriculum analysis experience assessed the curricula using the analysis tool. Each curriculum was analyzed by two different reviewers. The reviewer was to determine if, and to what extent, each standard was limited, extensive, or absent in the curriculum. The terms *limited* and *extensive* were defined in the curricula analysis tool. For example, if the curriculum briefly mentioned a standard, it was identified as limited. If the curriculum focused a lesson on a standard or significant student engagement on a standard was suggested, it was identified as extensive.

In order to ensure accuracy, an agreement form was used by the two reviewers to come to consensus. Both reviewers had to come to agreement and resolve any differences regarding the analysis of the curricula. Once a consensus was reached between the two reviewers, data were submitted for analysis.

**Data Analysis.** After all of the data were collected, the data were entered into tables created for each section of the content analysis tool to allow cross-product comparison. Using standard qualitative analysis techniques, the curriculum overview components were analyzed by noting any patterns, themes, or relationships that appeared. Each curriculum's findings, including similarities and differences, were compared to each other. The curriculum content section compared the NSES to each curriculum. The curriculum was marked as limited, extensive, or absent for each standard in order to determine how each was aligned with the NSES and to what extent. In addition, standards that were not covered in each curriculum were also noted. Patterns and themes were also identified. The evaluation section identified the rating of each curriculum for each of the 11 categories, which were unacceptable, inadequate, fair, good, or excellent. The ratings on each of the 11 categories were averaged, and the overall quality score for each curriculum was identified. Atypical results were noted throughout the analyses and variations of the content and methods were described in detail.

## **Results**

**Curriculum Content.** Seven key concepts provided the framework for the curriculum analysis of the NSES: Anatomy and Physiology, Puberty and Adolescent Development, Identity, Pregnancy and Reproduction, STDs and HIV, Healthy Relationships, and Personal Safety (Table 16).<sup>16</sup> Under each key concept all ninth through twelfth grade standards were included and these were aligned with each curriculum. When the reviewers examined the curricula, they

determined if the standard was “extensive,” meaning there was as a focused lesson or unit or significant student engagement, or “limited” which referred to brief mention of the standard.

**Table 16. National Sexuality Education Standards (Grades 9-12)<sup>16</sup>**

<b>Key Concept #1: Anatomy and Physiology</b>
Provide accurate information about sexual anatomy and physiology, including reproduction, contraception, and sexual health*
Describe the human sexual response cycle including the role of hormones AP.12.CC.1
<b>Key Concept #2: Puberty and Adolescent Development</b>
Analyze how brain development has an impact on cognitive, social and emotional changes of adolescence and early adulthood PD.12.CC.1
Analyze how friends, family, media, society and culture influence self-concept and body image PD.12.INF.1
Apply a decision-making model to various situations relating to sexual health PD.12.DM.1
<b>Key Concept #3: Identity</b>
Differentiate between biological sex, sexual orientation, and gender identity and expression ID.12.CC.1
Distinguish between sexual orientation, sexual behavior and sexual identity ID.12.CC.2
Analyze the influence of friends, family, media, society and culture on the expression of gender, sexual orientation and identity ID.12.INF.1
Explain how to promote safety, respect, awareness, and acceptance ID.12.SM.1
Advocate for school policies and programs that promote dignity and respect for all ID.12.ADV.1
<b>Key Concept # 4: Pregnancy and Reproduction</b>
Compare and contrast the advantages and disadvantages of abstinence and other contraceptive methods, including condoms PR.12.CC.1
Define emergency contraception and describe its mechanism of action PR.12.CC.2
Identify the laws related to reproductive and sexual health care services (i.e., contraception, pregnancy options, safe surrender policies, prenatal care) PR.12.CC.3
Describe the signs of pregnancy PR.12.CC.4
Describe prenatal practices that can contribute to or threaten a healthy pregnancy PR.12.CC.5
Compare and contrast the laws relating to pregnancy, adoption, abortion and parenting PR.12.CC.6
Analyze influences that may have an impact deciding whether or when to engage in sexual behaviors PR.12.INF.1
Analyze internal and external influences on decisions about pregnancy options PR.12.INF.2

**Table 16. National Sexuality Education Standards (Grades 9-12) (continued)<sup>16</sup>**

Analyze factors that influence decisions about whether and when to become a parent PR.12.INF.3
Access medically-accurate information about contraceptive methods, including abstinence and condoms PR.12.AL.1
Access medically-accurate information and resources about emergency contraception PR.12.AL.2
Access medically-accurate information about pregnancy and pregnancy options PR.12.AL.3
Access medically-accurate information about prenatal care services PR.12.AL.4
Demonstrate ways to communicate decisions about whether or when to engage in sexual behaviors PR.12.IC.1
Apply a decision making model to choices about contraception, including abstinence and condoms PR.12.DM.1
Assess the skills and resources needed to become a parent PR.12.DM.2
Describe the steps to using a condom correctly PR.12.SM.1
<b>Key Concept # 5: Sexually Transmitted Disease and HIV</b>
Describe common symptoms of and treatments for STDs, including HIV SH.12.CC.1
Evaluate the effectiveness of abstinence, condoms and other safer sex methods in preventing the spread of STDs, including HIV SH.12.CC.2
Describe the laws as relate to sexual health care services, including STD and HIV testing and treatment SH.12.CC.3
Analyze factors that may influence condom use and other safer sex decisions SH.12.INF.1
Explain how to access local STD and HIV testing and treatment services SH.12.AI.1
Access medically accurate prevention information about STDs, including HIV SH.12.AI.2
Demonstrate skills to communicate with a partner about STD and HIV prevention and testing SH.12.IC.1
Apply a decision-making model to choices about safer sex practices, including abstinence and condoms SH.12.DM.1
Develop a plan to eliminate or reduce risk for STDs, including HIV SH.12.GS.1
Analyze individual responsibility about testing for and informing partners about STDs and HIV status SH.12.SM.1
Describe the steps to using a condom correctly SH.12.SM.2
Advocate for sexually active youth to get STD/HIV testing and treatment SH.12.ADV.1
<b>Key Concept # 6: Healthy Relationships</b>
Describe characteristics of healthy and unhealthy romantic and/or sexual relationships HR.12.CC.1
Describe a range of ways to express affection within relationships HR.12.CC.2
Define sexual consent and explain its implications for sexual decision making HR.12.CC.3

**Table 16. National Sexuality Education Standards (Grades 9-12) (continued)<sup>16</sup>**

Evaluate the potentially positive and negative roles of technology and social media in relationships HR.12.CC.4
Explain how media can influence one’s beliefs about what constitutes a healthy sexual relationship HR.12.INF.1
Analyze factors, including alcohol and other substances, that can affect the ability to give or perceive the provision of consent to sexual activity HR.12.INF.2
Demonstrate how to access valid information and resources to help deal with relationships HR.12.AI.1
Demonstrate effective strategies to avoid or end an unhealthy relationship HR.12.IC.1
Demonstrate effective ways to communicate personal boundaries as they relate to intimacy and sexual behavior HR.12.IC.2
Demonstrate respect for the boundaries of others as they relate to intimacy and sexual behavior HR.12.SM.1
Describe strategies to use social media safely, legally, and respectfully HR.12.SM.2
<b>Key Concept # 7: Personal Safety</b>
Compare and contrast situations and behaviors that may constitute bullying, sexual harassment, sexual abuse, sexual assault, incest, rape and dating violence PS.12.CC.1
Analyze the laws related to bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.CC.2
Explain why using tricks, threats or coercion in relationships is wrong PS.12.CC.3
Explain why a person who has been raped or sexually assaulted is not at fault PS.12.CC.4
Describe potential impacts of power differences (e.g., age, status or position) within sexual relationships PS.12.INF.1
Analyze the external influences and societal messages that impact attitudes about bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.INF.2
Access valid resources for help if they or someone they know are being bullied, harassed, sexually abused or assaulted PS.12.AI.1
Demonstrate ways to access accurate information and resources for survivors of sexual abuse, incest, rape, sexual harassment, sexual assault and dating violence PS.12.AI.2
Demonstrate effective ways to communicate with trusted adults about bullying, harassment, abuse or assaulted PS.12.IC.1
Identify ways in which they could respond when someone else is being bullied or harassed PS.12.IC.2
Advocate for safe environments that encourage dignified and respectful treatment of everyone PS.12.ADV.1

\*Not part of the standards but inserted to check for medical accuracy

No curricula covered all, or even half of the NSES. The key concepts, Identity and Personal Safety, were absent the most throughout all curricula. Although the theme of *Cuidate!* is HIV prevention, the curriculum did not contain all 12 standards of the STDs and HIV key concept. Teenage pregnancy, STDs and HIV prevention was the theme for both *Reducing the Risk* and *Making Proud choices*. *Reducing the Risk* included only 7 of the 17 standards of the Pregnancy and Reproduction key concept and incorporated half of the standards of the STDs and HIV key concept. *Making Proud Choices* included only 6 of the 17 standards of the Pregnancy and Reproduction key concept and 10 of the 12 standards of the STDs and HIV key concept.

**Key Concept #1 – Anatomy and Physiology.** According to the NSES, the Anatomy and Physiology key concept only includes one standard in grades 9-12. The standard states: Describe the human sexual response cycle, including the role hormones play. In this study, an additional concept was included on the tool. Most of the standards related to Anatomy and Physiology are included at lower grade levels. The researchers believed it was important to understand if the curricula provided accurate information about sexual anatomy and physiology, including reproduction, contraception, and sexual health. Of the two standards, *Reducing the Risk* and *Making Proud Choices* contained only the additional concept in a limited manner. Anatomy and Physiology standards were absent in the *Cuidate!* curriculum (Table 11).

**Table 11. Curricula’s extensive or limited treatment of NSES key concepts**

Curriculum Name	Anatomy and Physiology		Puberty and Adolescent Development		Identity		Pregnancy and Reproduction		STDs and HIV		Healthy Relationships		Personal Safety	
	L*	E*	L	E	L	E	L	E	L	E	L	E	L	E
<b>Cuidate!</b>				1/3		1/5	1/17	D*/17	5/12	D*/12	2/11	4/11		1/11
<b>Reducing the Risk</b>	1/2						3/17	4/17		6/12	1/11	3/11		
<b>Making Proud Choices</b>	1/2		1/3				3/17	3/17	1/12	9/12	2/11	1/11		

\*L = Limited

\*E = Exclusive

\*D = Disagreement between reviewers

Pregnancy and Reproduction – Reviewer A = 5/17; Reviewer B = 6/17

Sexually Transmitted Diseases and HIV – Reviewer A = 4/12; Reviewer B = 5/12

**Key Concept #2 – Puberty and Adolescent Development.** *Cuidate!*

was the only curriculum that extensively covered 1 of the 3 standards under Puberty and Adolescent Development. This standard stated: “Analyze how friends, family, media, society and culture influence self-concept and body image”<sup>16(20)</sup> (PD.12.INF.1). *Making Proud Choices* also covered 1 of the 3 standards but only in a limited manner. Puberty and Adolescent Development was absent from *Reducing the Risk*. The following standard was absent from all curricula: “Analyze how brain development has an impact on cognitive, social and emotional changes of adolescence and early adulthood”<sup>16(20)</sup> (PD.12.CC.1).

**Key Concept #3 – Identity.** One curriculum, *Cuidate!*, extensively addressed 1 of the 5 standards under Identity, which stated: “Analyze the influence of friends, family, media, society and culture on the expression of gender, sexual orientation and identity”<sup>16(20)</sup> (ID.12.INF.1). However, all other standards were absent from the remaining curricula. These included:

- “Differentiate between biological sex, sexual orientation, and gender identity and expression”<sup>16(20)</sup> (ID.12.CC.1)
- “Distinguish between sexual orientation, sexual behavior and sexual identity”<sup>16(20)</sup> (ID.12.CC.2)
- “Explain how to promote safety, respect, awareness, and acceptance” (ID.12.SM.1)
  - “Advocate for school policies and programs that promote dignity and respect for all”<sup>16(20)</sup> (ID.12.ADV.1)

**Key Concept #4 – Pregnancy and Reproduction.** Pregnancy and Reproduction had the most standards included in the curricula than any other key concept. It was unclear the number of standards that *Cuidate!* extensively covered due to a disagreement among reviewers. The standard stated: “Apply a decision making model to choices about contraception, including abstinence and condoms”<sup>16(20)</sup> (PR.12.DM.1). The standard was interpreted differently by both reviewers. Reviewer A stated it was absent from the curriculum (5/17) since there was not an actual “decision making model” present, and Reviewer B stated it was extensively covered due to the skills applied when choosing to use contraception or abstain from sexual activity (6/17). Both reviewers agreed that 1 of the 17 standards were covered in a limited fashion. *Reducing the Risk* extensively covered 4 out of 17 standards and 3 out of 17 were covered in a limited manner. *Making Proud Choices* covered 6 out of 17; three were covered extensively and three were covered in a limited manner.

The standards listed below were extensively addressed throughout all curricula:

- “Compare and contrast the advantages and disadvantages of abstinence and other contraceptive methods, including condoms”<sup>16(20)</sup> (PR.12.CC.1)
- “Analyze influences that may have an impact deciding whether or when to engage in sexual behaviors”<sup>16(20)</sup> (PR.12.INF.1)”
- “Demonstrate ways to communicate decisions about whether or when to engage in sexual behaviors”<sup>16(20)</sup> (PR.12.IC.1)

The following standards were absent from all of the curricula:

- “Define emergency contraception and describe its mechanism of action”<sup>16(21)</sup> (PR.12.CC.2)
- “Identify the laws related to reproductive and sexual health care services (i.e., contraception, pregnancy options, safe surrender policies, prenatal care)”<sup>16(21)</sup> (PR.12.CC.3)
- “Describe the signs of pregnancy”<sup>16(21)</sup> (PR.12.CC.4)
- “Describe prenatal practices that can contribute to or threaten a healthy pregnancy”<sup>16(21)</sup> (PR.12.CC.5)
- “Compare and contrast the laws relating to pregnancy, adoption, abortion and parenting”<sup>16(21)</sup> (PR.12.CC.6)
- “Access medically-accurate information and resources about emergency contraception”<sup>16(21)</sup> (PR.12.AL.2)
- “Access medically-accurate information about prenatal care services”<sup>16(21)</sup> (PR.12.AL.4)

**Key Concept #5 – STDs and HIV.** It was undetermined how many standards were extensively covered in *Cuidate!* due to disagreement among the reviewers. One standard stated: “Apply a decision-making model to choices about safer sex practices, including abstinence and condoms”<sup>16(22)</sup> (SH.12.DM.1). Again, both reviewers interpreted the standard differently. Reviewer A stated an actual “decision-making model” was absent in the curriculum (4/12), and Reviewer B stated it was extensively addressed (5/12) because skills were applied when

choosing safer sex practices. However, they both agreed that 5 out of 12 standards under STDs and HIV were covered in a limited fashion. Six out of 12 standards were covered extensively in *Reducing the Risk* and 9 out of 12 in *Making Proud Choices*. All standards under STDs and HIV were covered in a limited or extensive fashion by at least one curriculum.

**Key Concept #6 – Healthy Relationships.** Of the 11 standards under Healthy Relationships, the highest number extensively addressed by any curriculum was 4 (*Cuidate!*). *Reducing the risk* included 3 out of 11 and *Making Proud Choices* included 1 out of 11. The standards listed below were missing from all curricula in the Healthy Relationships key concept:

- “Evaluate the potentially positive and negative roles of technology and social media in relationships”<sup>16(23)</sup> (HR.12.CC.4)
- “Explain how media can influence one’s beliefs about what constitutes a healthy sexual relationship”<sup>16(22)</sup> (HR.12.INF.1)
- “Demonstrate how to access valid information and resources to help deal with relationships”<sup>16(22)</sup> (HR.12.AI.1)
  - “Describe strategies to use social media safely, legally, and respectfully (HR.12.SM.2)”<sup>16(23)</sup>

**Key Concept #7 – Personal Safety.** Only *Cuidate!* addressed 1 of the 11 standards under Personal Safety. The standard stated: “Describe potential impacts of power differences (e.g., age, status or position) within sexual

relationships”<sup>16(23)</sup> (PS.12.INF.1). *Reducing the Risk and Making Proud Choices* did not contain any standards in Personal Safety.

**Curriculum Evaluation.** Eleven elements of the curricula were carefully examined in the evaluation section of the study. These included the breadth, depth, overall content accuracy and currency, skill building (breadth and depth), methods of instruction, developmental appropriateness, cultural sensitivity, ease of implementation, evaluation tools, and appearance and production quality. Each element was rated using black dots. A completely filled dot represented “Excellent”; “Good” represented a  $\frac{3}{4}$  filled dot; “Fair” represented a  $\frac{1}{2}$  filled dot; and “Inadequate” represented a  $\frac{1}{4}$  filled dot. Blank (or white) dots represented “Unacceptable” (Table 14).

**Table 14. Curricula’s rating on selected criteria\***

Curriculum Name	Breadth	Depth	Overall Content Accuracy/Currency	Skill Building Variety (Breadth)	Skill Building Variety (Depth)	Methods Variety	Developmental Appropriateness	Cultural Sensitivity	Ease of Implementation	Evaluation	Appearance/Production Quality
<b>Cuidate!</b>											
<b>Reducing the Risk</b>											
<b>Making Proud Choices</b>											

Rating Criteria are the following:

 Excellent   
  Good   
  Fair   
  Inadequate   
  Unacceptable

None of the curricula scored “Excellent” on all 11 elements. However, *Cuidate!* was rated “Excellent” on the most elements (8/11). *Reducing the Risk* and *Making Proud Choices* scored “Excellent” on less than 50% of the elements; 5/11 and 4/11, respectively. Together, all curricula were rated as “Excellent” on four elements: overall content accuracy and currency, developmental appropriateness, ease of implementation, and appearance and production quality. *Making Proud Choices* received 3 out of 11 “Good” ratings, more than any other curricula. These characteristics included skill building (breadth), methods variety, and cultural sensitivity. Additionally, skill building (breadth), methods variety, and cultural sensitivity were evaluated as “Fair” in *Reducing the Risk*.

*Cuidate!* received no “Unacceptable” ratings, yet *Reducing the Risk* and *Making Proud Choices* received it in one element each: breadth and evaluation, respectively.

**Breadth and Depth of Content.** The first two elements included breadth (key concepts’ coverage) and depth (standards’ coverage). If the curriculum contained most (90%) of the key concepts listed under the content section, the breadth received a score of “Excellent.” Similarly, if the curriculum contained most (90%) of the standards, the depth received a score of “Excellent.” The ratings of breadth varied for each curriculum. *Cuidate!* received a rating of “Good” with 6 out of 7 key concepts, *Making Proud Choice* was “Fair” with 5 out of 7 key concepts, and *Reducing the Risk* was rated “Inadequate” with 4 out of 7 key concepts. The average score of the breadth is 2.7. Collectively, all curricula received the same score of “Inadequate” (2) regarding the depth of the content.

**Overall Content Accuracy and Currency.** In order to determine the rating of the overall content accuracy and currency of each curriculum, *Cuidate!*, *Reducing the Risk*, and *Making Proud Choices* were examined for accuracy and currency of research and theory. Graphs, charts and tables were assessed for current representations of each curriculum’s target population. All curricula received an “Excellent” rating of 5.

**Skill Building.** Reviewers assessed the variety of personal and social skill building that was included within each curriculum, such as decision making,

general communication, assertiveness, refusal, conflict management, and goal-setting skills. Only *Cuidate!* received a score of “Excellent” for this element. *Making Proud Choices* was rated “Good” while *Reducing the Risk* included a “Fair” amount of skill-building activities.

The reviewers also examined how comprehensively curricula addressed each skill. This included how each skill was introduced focusing on steps for skill development, whether it was modeled for students, whether the students were able to practice and rehearse the skill in a variety of situations, and if feedback and reinforcement was provided. Two of the three curricula were rated “Excellent” in this category: *Cuidate!* and *Reducing the Risk*. *Making Proud Choices* received an “Inadequate” score. The curricula’s average score for both the breadth and depth of skill variety was “Good” (4).

**Methods Variety, Developmental Appropriateness, and Cultural Sensitivity.** *Cuidate!* met the diverse needs and learning styles of students, provided a variety of instructional strategies for presenting key information, encouraged creative expression, shared thoughts, feelings, and opinions, and developed critical thinking skills. However, *Reducing the Risk* was rated “Fair” and *Making Proud Choices* was rated “Good.” The average score regarding the variety of methods of instruction was also considered “Good” (4).

All curricula presented sexuality-related information, instructional strategies, and personal and social skills appropriate for the cognitive, emotional, and social developmental level and personal experience of the targeted grades.

Lessons were also adaptable to individual needs of students. The reviewers rated each curriculum as “Excellent.”

In order for the curricula to be considered as having “Excellent” cultural sensitivity, it could not contain information or activities that were biased in terms of race, ethnicity, sex or gender roles, family types, sexual orientation, and/or age. The curriculum also had to portray a variety of social groups and lifestyles, and cultural and ethnic values, customs and practices of the community had to be considered. None of the curricula received a score of “Excellent,” but both *Cuidate!* and *Making Proud Choices* were rated as “Good.” *Reducing the Risk* received a “Fair” rating.

**Ease of Implementation, Appearance and Production Quality, and Evaluation Tools.** The reviewers assessed the ease of implementation and appearance and production quality. All curricula received ratings of “Excellent” for these elements. Each curriculum was considered “user-friendly,” clearly written, up-to-date, aesthetically pleasing, and likely to elicit student interest.

The only curricula that provided methods for evaluating levels of student knowledge, attitudes, and skills consistent with curriculum goals and lesson objectives was *Cuidate!*, which received an “Excellent” score. Conversely, *Reducing the Risk* lacked evaluation tools and was considered “Inadequate.” *Making Proud Choices* did not contain assessments of any kind and was deemed “Unacceptable.”

**Overall Quality Rating.** In order to determine the overall quality rating of each curriculum, the values were summed and then divided by the number of elements, 11. The scores were on a five-point scale. No curricula received a perfect score of 5. *Cuidate!* received the highest score of 4.55. *Making Proud Choices* was next with a 3.64, and last was *Reducing the Risk* with 3.55. Although *Making Proud Choices* and *Reducing the Risk* were close in score, they possessed a variety of different rankings of elements throughout.

## **Discussion**

This study is significant because it is the first to examine three teen pregnancy prevention curricula and how they align with the NSES. The findings support that evidence-based curricula do not comply fully with these standards that were established for comprehensive sexuality education. There are many standards for comprehensive sexual health education that is absent from the TPP programs that are evidence-based and encouraged to be replicated.

The Anatomy and Physiology and Puberty and Adolescent Development key concepts were lacking in the curriculum that were reviewed. The majority of standards for these concept areas are included in grades K-8 of the NSES. From the perspective of the authors, it is assumed from the NSES and the teen pregnancy prevention curricula that youth are receiving information in grades earlier than high school; however, pregnancy, STD, and HIV prevention are taught in only 28% of U. S. high schools.<sup>17</sup> The identity concept addresses the concept of individuals understanding themselves. Only one curriculum covered a

standard in this concept, yet identity is an important aspect in our society and culture.

Pregnancy and Reproduction had the most standards included in the curricula than any other key concept. This is appropriate given that these are teen pregnancy prevention programs; therefore, the concept Pregnancy and Reproduction would understandably be covered. However, this was one area where the reviewers came to a disagreement. The disagreement was not in what was included or not in the curriculum, but interpretation of the standard itself. The standard included the concept of “a decision making model.” This is one area where training and more education is needed on the NSES to ensure that curriculum developers, administrators, and teachers understand the meaning of vague standards. In this particular case, it could not be determined whether the decision making model was a framework or theory in itself or if it was just the idea of youth acquiring decision making skills.

Compared to other key concepts, standards related to STDs and HIV were included in each of the curricula that were reviewed. The idea of STDs and HIV being taught in the classroom is quite common, and is also commonly taught cross curricular (i.e., science). Healthy relationships and Personal Safety standards, also important components of sexuality education, were also limited in the curricula.

*Cuidate, Reducing the Risk, and Making Proud Choices*, three evidence-based TPP curricula, align modestly with the NSES. Each curriculum was developed more than ten years ago when the NSES did not exist, yet some of the standards were incorporated without intention, which should be valued. It is also important to note that these TPP

curricula have been identified as effective for preventing teen pregnancies or births, reducing sexually-related behaviors, and/or decreasing STDs.<sup>5</sup> The goal of the NSES is to provide clear guidance for teachers and educators on the minimum content that is essential for developmentally and age-appropriate sexuality education in grades K-12.<sup>15</sup> Therefore, it is imperative that schools and health educators who implement TPP programs recognize that these programs are not a “catch-all” for comprehensive sexuality education.

Future studies would be beneficial within this area of sexuality education research. As suggested by this study’s findings, although evidence-based, teen pregnancy prevention curricula do not necessarily align with the NSES. These findings suggest that the interpretations of these standards and how they are used in sexuality education are multi-faceted and require more research to better comprehend how curricula could contain as many of the standards as possible and still be effective with the target population.

**Limitations.** The following limitations should be considered when reflecting on this study’s findings. Although the curricula analysis tool was designed with careful thought and consideration, the instrument itself could be improved to limit subjective interpretation by the reviewer and to allow more direct input from the curricula content. All reviewers could have participated in more regularly scheduled debriefings to ensure consistency and uniformity when evaluating each curriculum. Two reviewers examined each curriculum; however, due to the natural subjectivity of the evaluation process, involving a third or even fourth reviewer would have increased the reliability of the findings. Additionally,

the review of additional curricula to prevent teen pregnancy could improve this study to understand the true depth of the curricula.

### **Implications for School Health**

The data gathered from this study will provide educators and curricula decision makers with a place to start when looking to adopt curricula for sexual health education. The newly published NSES will be critical as more people understand and teach comprehensive sexuality education. Educators need to be trained on the application, significance, and meaning of each of the NSES. These standards should be reviewed by individuals who are utilizing them, including teachers of every grade level (K-12), health educators, facilitators, and any other individual who has academic connection to the standards and their purpose.

Further, the concept of a curriculum review before adoption is critical. Before educators adopt and implement curricula in schools, they will need to carefully analyze it alongside considering their target population and whether the methods within the curricula meet the student's learning needs. In the case of these three evidence-based curricula, stakeholders may have felt that they were implemented what they needed to in comparison to the NSES. Yet, this study clearly indicates that there is a distinct difference between comprehensive sexuality education and evidence-based teen pregnancy prevention programs.

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## **APPENDIX A**

Content Analysis of Teen Pregnancy Prevention Curricula:  
(*Cuidate!*, *Reducing the Risk* and *Making Proud Choices*)

### **A – CURRICULUM OVERVIEW**

1. COMPLETE REFERENCE

2. COST FOR PURCHASE

3. WHAT IS THE CURRICULUM'S MAIN THEME?

4. CURRICULUM HISTORY

Who developed?

Professional background of developers:

First developed in... (year):

Revised in... (date/year):

Changes made to 1<sup>st</sup> edition?

5. MAIN OBJECTIVE/GOAL/PURPOSE OF CURICULUM (VERBATIM)

6. SETTING ACCORDING TO CURRICULUM DEVELOPERS: (mark all that apply)

- In-school/classroom
- After school
- Youth group
- Church
- Not specified
- Other:

7. TARGETED AGE GROUP(S): (please provide age ranges)

8. TARGETED GRADE LEVEL(S):

9. TARGETED SEX:

- Girls
- Boys
- Both girls and boys

10. TARGETED ETHNIC GROUP(S):

- Hispanic or Latino
- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White
- Not specified
- All or various
- Comments:

11. IS THE CURRICULUM THEORY-BASED ACCORDING TO DEVELOPERS?

- Yes
- No

If yes, describe/Name theories used:

12. IS TEACHER TRAINING PROVIDED?

- Yes, specifically for the curriculum
- Yes, training in general, not specific to this curriculum
- No

Describe information provided about training (who trains, when, where, costs?).

Duration of teacher training:

13. A) ARE EVALUATIONS OF THE CURRICULUM MENTIONED IN CURRICULUM ITSELF? (publications, testimonials of previous users) Please describe:

B) LIST OF PUBLICATIONS THAT ARE NOT INCLUDED WITHIN CURRICULUM:

14. WHAT ARE THE CURRICULUM'S COMPONENTS? (mark all that apply)

- Teacher's book
- Student's book/workbook
- Parent's book/workbook (or other materials for parents)
- Mentor's book/workbook (or other materials for mentors)
- Handouts
- PowerPoint Presentations
- DVD/videos (indicate number) \_\_\_\_\_

DVD/videos included with curriculum

- Yes, DVD/Video provided
- Yes, web link to video provided
- No

Target audience for DVD/videos (mark all that apply)

- Youth
- Parents
- Schools/teachers
- Mentors
- Community

- Promotional materials (t-shirts, buttons, stickers, pens, posters, pamphlets, etc.)
- Other:

## 15. DOES THE CURRICULUM HAVE EVALUATION ASSESSMENT TOOLS?

- Yes       No

For whom?

- For the students to fill out  
 For the teachers to fill out  
 For the parents to fill out  
 Other: \_\_\_\_\_

Student Evaluation Tool Measures/Assess:	
Mark all that apply:	
<input type="checkbox"/>	Knowledge
<input type="checkbox"/>	Satisfaction with program
<input type="checkbox"/>	Attitudes
<input type="checkbox"/>	Behavior
<input type="checkbox"/>	Knowledge and attitudes
<input type="checkbox"/>	Knowledge, attitudes, and satisfaction with program
<input type="checkbox"/>	Knowledge, attitudes, behavior, and satisfaction with program

Teacher Evaluation Tool Measures/Assess:	
Mark all that apply:	
<input type="checkbox"/>	Teaching performance
<input type="checkbox"/>	Knowledge
<input type="checkbox"/>	Attitudes
<input type="checkbox"/>	Satisfaction with program
<input type="checkbox"/>	Provides only a checklist of tasks performed in class

## 16. ADAPTABILITY – How adaptable (as opposed to “scripted”) and easy to use is the curriculum?

Teachers can “pick and choose” among modules/lessons (does not require strict adherence to specific sequence or ordering of lessons).

- Yes       No

Curriculum suggests several methods/strategies for teaching specific content.

- Yes       No

Lessons can be easily adapted to different genders, ages, and ethnic groups.

- Yes       No

## 17. USER-FRIENDLY

Requires minimal preparation time for teacher.

- Yes       No

Materials are ready to use (ready for copying, distributing, etc.).

- Yes       No

There are plenty of ready-to-use materials such as handouts, transparencies, charts, PowerPoint presentations, etc.

- Yes       No

Lesson plans are described in sufficient detail.

- Yes       No

Contains clearly specified goals or objectives for each lesson.

- Yes       No

Suggests amount of time to be spent in each activity

- Yes       No

Lists all the materials needed in each lesson.

- Yes       No

Overall, is easy to use.

- Yes       No

18. PROPOSED CONTEXT FOR TEACHING CURRICULUM: (mark all that apply)

- To be taught within a comprehensive health education program. Curriculum contains explicit recommendation that it should be included in a comprehensive health education program/class. (page # \_\_\_\_)
- Stand-alone. Curriculum contains explicit recommendation that it should be taught outside of the context of other classes or activities. (page # \_\_\_\_)
- May be incorporated in other classes. Curriculum contains explicit recommendation that it is easily adaptable to other classes science classes, after-school activities, etc. (page # \_\_\_\_)

## B – CURRICULUM CONTENT

For the purposes of completing this section, the term “extensive” means the curriculum develops the key concept as a focused lesson or a unit; significant student engagement with the topic is proposed; students spend academic time on the subject (as opposed to a brief mention of the topic).

Key Concept #1: <b>Anatomy and Physiology</b>	Concept Treatment			Comments, page #, etc.
	Limited	Extensive	Absent	
Provide accurate information about sexual anatomy and physiology, including reproduction, contraception, and sexual health*				
Describe the human sexual response cycle including the role of hormones AP.12.CC.1				
Key Concept #2: <b>Puberty and Adolescent Development</b>	Concept Treatment			Comments, page #, etc.
	Limited	Extensive	Absent	
Analyze how brain development has an impact on cognitive, social and emotional changes of adolescence and early adulthood PD.12.CC.1				
Analyze how friends, family, media, society and culture influence self-concept and body image PD.12.INF.1				

Apply a decision-making model to various situations relating to sexual health PD.12.DM.1				
<b>Key Concept #3: Identity</b>	<b>Concept Treatment</b>			<b>Comments, page #, etc.</b>
	Limited	Extensive	Absent	
Differentiate between biological sex, sexual orientation, and gender identity and expression ID.12.CC.1				
Distinguish between sexual orientation, sexual behavior and sexual identity ID.12.CC.2				
Analyze the influence of friends, family, media, society and culture on the expression of gender, sexual orientation and identity ID.12.INF.1				
Explain how to promote safety, respect, awareness, and acceptance ID.12.SM.1				
Advocate for school policies and programs that promote dignity and respect for all ID.12.ADV.1				

Key Concept # 4: <b>Pregnancy and Reproduction</b>	Concept Treatment			Comments, page #, etc.
	Limited	Extensive	Absent	
Compare and contrast the advantages and disadvantages of abstinence and other contraceptive methods, including condoms PR.12.CC.1				
Define emergency contraception and describe its mechanism of action PR.12.CC.2				
Identify the laws related to reproductive and sexual health care services (i.e., contraception, pregnancy options, safe surrender policies, prenatal care) PR.12.CC.3				
Describe the signs of pregnancy PR.12.CC.4				
Describe prenatal practices that can contribute to or threaten a healthy pregnancy PR.12.CC.5				
Compare and contrast the laws relating to pregnancy, adoption, abortion and parenting PR.12.CC.6				

Analyze influences that may have an impact deciding whether or when to engage in sexual behaviors PR.12.INF.1				
Analyze internal and external influences on decisions about pregnancy options PR.12.INF.2				
Analyze factors that influence decisions about whether and when to become a parent PR.12.INF.3				
Access medically-accurate information about contraceptive methods, including abstinence and condoms PR.12.AL.1				
Access medically-accurate information and resources about emergency contraception PR.12.AL.2				
Access medically-accurate information about pregnancy and pregnancy options PR.12.AL.3				
Access medically-accurate information about prenatal care services PR.12.AL.4				

Demonstrate ways to communicate decisions about whether or when to engage in sexual behaviors PR.12.IC.1				
Apply a decision making model to choices about contraception, including abstinence and condoms PR.12.DM.1				
Assess the skills and resources needed to become a parent PR.12.DM.2				
Describe the steps to using a condom correctly PR.12.SM.1				
<b>Key Concept # 5: Sexually Transmitted Disease and HIV</b>	<b>Concept Treatment</b>			<b>Comments, page #, etc.</b>
	Limited	Extensive	Absent	
Describe common symptoms of and treatments for STDs, including HIV SH.12.CC.1				
Evaluate the effectiveness of abstinence, condoms and other safer sex methods in preventing the spread of STDs, including HIV SH.12.CC.2				

Describe the laws as relate to sexual health care services, including STD and HIV testing and treatment SH.12.CC.3				
Analyze factors that may influence condom use and other safer sex decisions SH.12.INF.1				
Explain how to access local STD and HIV testing and treatment services SH.12.AI.1				
Access medically accurate prevention information about STDs, including HIV SH.12.AI.2				
Demonstrate skills to communicate with a partner about STD and HIV prevention and testing SH.12.IC.1				
Apply a decision-making model to choices about safer sex practices, including abstinence and condoms SH.12.DM.1				
Develop a plan to eliminate or reduce risk for STDs, including HIV SH.12.GS.1				

Analyze individual responsibility about testing for and informing partners about STDs and HIV status SH.12.SM.1				
Describe the steps to using a condom correctly SH.12.SM.2				
Advocate for sexually active youth to get STD/HIV testing and treatment SH.12.ADV.1				
<b>Key Concept # 6: Healthy Relationships</b>	<b>Concept Treatment</b>			<b>Comments, page #, etc.</b>
	Limited	Extensive	Absent	
Describe characteristics of healthy and unhealthy romantic and/or sexual relationships HR.12.CC.1				
Describe a range of ways to express affection within relationships HR.12.CC.2				
Define sexual consent and explain its implications for sexual decision making HR.12.CC.3				
Evaluate the potentially positive and negative roles of technology and social media in relationships HR.12.CC.4				

Explain how media can influence one's beliefs about what constitutes a healthy sexual relationship HR.12.INF.1				
Analyze factors, including alcohol and other substances, that can affect the ability to give or perceive the provision of consent to sexual activity HR.12.INF.2				
Demonstrate how to access valid information and resources to help deal with relationships HR.12.AI.1				
Demonstrate effective strategies to avoid or end an unhealthy relationship HR.12.IC.1				
Demonstrate effective ways to communicate personal boundaries as they relate to intimacy and sexual behavior HR.12.IC.2				
Demonstrate respect for the boundaries of others as they relate to intimacy and sexual behavior HR.12.SM.1				

Describe strategies to use social media safely, legally, and respectfully HR.12.SM.2				
<b>Key Concept # 7: Personal Safety</b>	<b>Concept Treatment</b>			<b>Comments, page #, etc.</b>
	Limited	Extensive	Absent	
Compare and contrast situations and behaviors that may constitute bullying, sexual harassment, sexual abuse, sexual assault, incest, rape and dating violence PS.12.CC.1				
Analyze the laws related to bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.CC.2				
Explain why using tricks, threats or coercion in relationships is wrong PS.12.CC.3				
Explain why a person who has been raped or sexually assaulted is not at fault PS.12.CC.4				
Describe potential impacts of power differences (e.g., age, status or position) within sexual relationships PS.12.INF.1				

\*Not part of the standards but reviewers should check for medical accuracy.

### C – METHODOLOGICAL CHARACTERISTICS

When filling out the table below, if the answer is “yes” concerning a specific characteristic, please write in the number that corresponds to the type/category of method being used, according to Dr. Pruitt’s 4-point scale of the methods pyramid (see handout).

1 = Symbols 2 = Demonstrations 3 = Skill Development 4 = Purposeful Experiences

<b>Methodological Characteristics</b>	<b>Yes Method Category #</b>	<b>No</b>
<p><b>Anonymous Question Box</b> An anonymous question box is set up so that students can ask questions or express feelings and concerns without fear or embarrassment.</p>		
<p><b>Teacher Lecture</b> The teacher provides key information directly to students with a minimum of class participation and interruption.</p>		
<p><b>Large-Group Discussion</b> In an open discussion involving the entire class, students are guided by the teacher to share ideas, thoughts, and beliefs about a sexuality-related issue.</p>		
<p><b>Student Worksheets</b> A variety of written questions or forms are used to help students focus on particular topics. This strategy allows the sharing of opinions and ideas without having to discuss them openly with the rest of the class.</p>		
<p><b>Journals/Story Writing</b> Students are given opportunities to write their thoughts and feelings about the sexuality-related issues discussed in class in personal journals or diaries</p>		
<p><b>Cooperative Learning/Small Groups</b> Lessons include small-group discussions about sexuality-related issues. Students are assigned certain roles and responsibilities within the group.</p>		
<p><b>Case Studies/Scenarios</b> Lessons include case studies and real-life scenarios to help students practice personal and social skills</p>		

<p><b>Skills Practice and Rehearsal (Role-playing)</b> Students are given a variety of opportunities to practice newly learned personal social skills, including role-plays, small group activities and worksheets.</p>		
<p><b>Audiovisual Materials</b> The curriculum contains audiovisual materials that may be used by the teacher when presenting information and/or skills (transparencies, videos, slides, films, etc.).</p>		
<p><b>Community Speakers/Involvement</b> Outside speakers from community agencies are asked to present sexuality-related information or skills.</p>		
<p><b>Peer Helper Component</b> Same-age or cross-age peers are used in the presentation of sexuality-related information or skills.</p>		
<p><b>Parent/Guardian Involvement</b> Homework assignments and curriculum activities are designed to be implemented by parents or caregivers and their children.</p>		
<p><b>Mentoring Component</b> Adults or peers are involved in the program and expected to interact with participating youth a minimum number of hours per week.</p>		
<p><b>Pledge Component</b> Students pledge to commit to a particular behavior.</p>		

In the table below, check the box for “yes” or “no” according to whether the characteristic is present or absent (do not use the scale you were using previously).

	Yes	No
<p><b>Ground Rules</b> With student input, the teacher establishes ground rules for classroom discussion of sexuality-related issues.</p>		
<p><b>Same-Gender Classes</b> Curriculum suggests that teaching of specific topics should occur in same-gender groups (all girls; all boys) NOTE: Write N/A if the curriculum is already gender-specific (for girls only, for instance).</p>		

<b>Accounts for different learning styles</b> Curriculum activities are varied and address different learning styles (auditory; visual learner, etc.).		
<b>Can be incorporated</b> Curriculum can be used in classes other than Health or Abstinence Education (such as English, Math, Sciences, etc.).		
<b>Three main learning domains are addressed</b> Curriculum addresses the cognitive (knowledge), affective (emotional, attitudinal) and skill domains of learning.		

### D – EVALUATION

Evaluation Criteria	On a scale of 1 to 5... (1 = Unacceptable; 2 = Inadequate; 3 = Fair; 4 = Good; 5 = Excellent)				
	1	2	3	4	5
<b>1. Breadth</b> The curriculum contains most (90%) of the key concepts listed under the “content” section (B).					
Comments:					
<b>2. Depth</b> The curriculum contains most (90%) of the subconcepts within each key concept listed under the “content” section (B).					
Comments:					

<p><b>3. Overall Content Accuracy/Currency</b> All information provided in the curriculum is accurate and based on current research and theory. Graphs, charts and tables are current and representative of the target population.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
<p><b>4. Skill-Building Variety (Breadth)</b> The curriculum provides activities to build a variety of personal and social skills: decision-making, general communication, assertiveness, refusal, conflict management and planning/goal-setting skills.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
<p><b>5. Skill-Building Variety (Depth)</b> The curriculum addresses each personal and social skill comprehensively: the skill is introduced focusing on its importance steps for skill development are presented; the skill is modeled for students; the skill is practiced and rehearsal with a variety of situations; and feedback/reinforcement is provided.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					

<p><b>6. Methods Variety</b> To meet the diverse needs and learning styles of students, the curriculum provides a variety of instructional strategies for providing key information; encouraging creative expression; sharing thoughts, feeling and opinions; and developing critical thinking skills.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
<p><b>7. Developmental Appropriateness</b> The curriculum presents sexuality-related information, instructional strategies, and personal and social skills appropriate for the cognitive, emotional and social developmental level and personal experience of the targeted grades. Lessons are adaptable to individual student needs.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					

<p><b>8. Cultural Sensitivity</b> The curriculum does not contain information or activities that are biased in terms of race or ethnicity, sex or gender roles, family types, sexual orientation, and/or age. It portrays a variety of social groups and lifestyles in its examples, pictures and descriptions. Instructional strategies take into account the cultural and ethnic values, customs and practices of the community.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
<p><b>9. Ease of Implementation</b> The curriculum includes features that make it “user-friendly.” That is, all materials and master copies necessary for implementation are included; it is well organized, with clear, thorough instructions; it can easily be updated; and it provides references and support materials for teachers.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
<p><b>10. Evaluation</b> The curriculum provides methods for evaluating levels of student knowledge, attitudes, and/or skills that are consistent with curriculum goals and lesson objectives.</p>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					

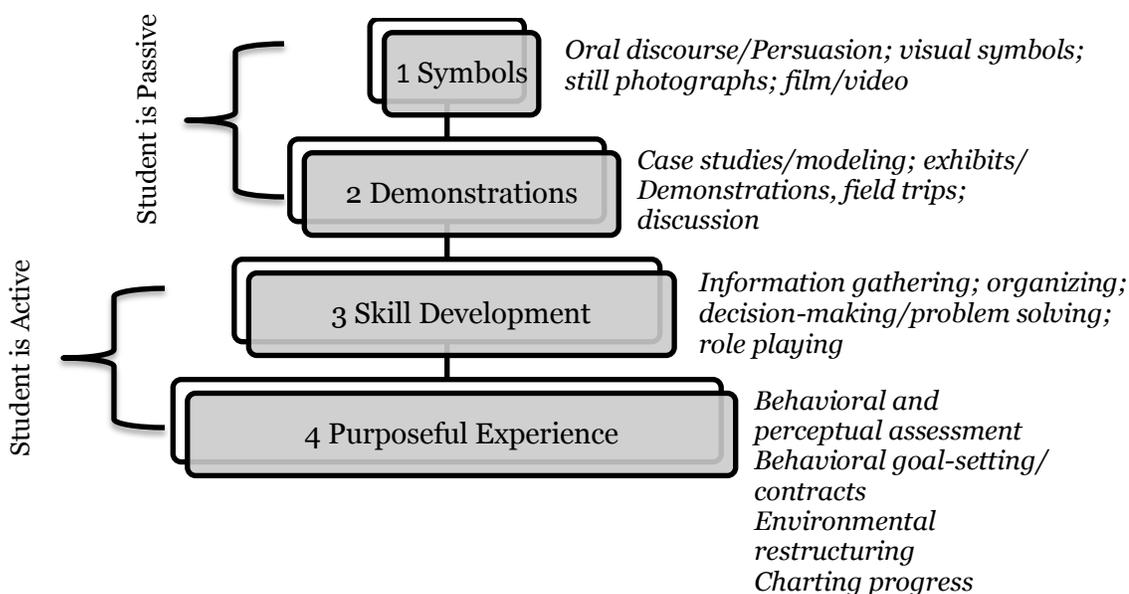
<b>11. Appearance/Production Quality</b> The curriculum is clearly written, up to date, aesthetically pleasing (including print quality) and likely to elicit student interest.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	Comments:				

**OVERALL QUALITY OF CURRICULUM**

<b>Overall Quality</b> Sum the values you have circled in the table above, and average the sum (divide by 11). Provide a final overall quality score:	<i>Example: final quality score = 2.42</i>
Comments:	

**Dr. Pruitt's 4-Point Scale**

**LEVELS OF STUDENT INVOLVEMENT**



## APPENDIX B

Content Analysis of Teen Pregnancy Prevention Curricula:  
(*Cuidate!*, *Reducing the Risk*, and *Making Proud Choices*)

### AGREEMENT FORM

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#### A – CURRICULUM OVERVIEW

1. BREIF REFERENCE:

2. INFORMATION ABSTRACTED BY: (Pair of abstractors):

3. WHAT IS THE CURRICULUM'S MAIN THEME?

	AGREE	DISAGREE
TOTALS		

4. CURRICULUM HISTORY

	AGREE	DISAGREE
Who developed?		
Professional background of Developers		
First developed in... (year)		
Revised in... (date/year)		
Changes made to 1 <sup>st</sup> edition		
TOTALS		

5. MAIN OBJECTIVE/GOAL/PURPOSE OF CURICULUM (VERBATIM)

	AGREE	DISAGREE
TOTALS		

## 6. SETTING ACCORDING TO CURRICULUM DEVELOPERS

	AGREE	DISAGREE
TOTALS		

## 7. TARGETED AGE GROUP(S)

	AGREE	DISAGREE
TOTALS		

## 8. TARGETED GRADE LEVEL(S)

	AGREE	DISAGREE
TOTALS		

## 9. TARGETED SEX

	AGREE	DISAGREE
TOTALS		

## 10. TARGETED ETHNIC GROUP(S)

	AGREE	DISAGREE
TOTALS		

## 11. IS THE CURRICULUM THEORY-BASED ACCORDING TO DEVELOPERS?

	AGREE	DISAGREE
TOTALS		

## 12. IS TEACHER TRAINING PROVIDED?

	AGREE	DISAGREE
TOTALS		

Duration of teacher training:

	AGREE	DISAGREE
TOTALS		

13. ARE EVALUATIONS OF THE CURRICULUM MENTIONED IN CURRICULUM ITSELF? (Publications, testimonials of previous users) Please describe:

	AGREE	DISAGREE
TOTALS		

LIST OF PUBLICATIONS THAT ARE NOT INCLUDED WITHIN CURRICULUM:

	AGREE	DISAGREE
TOTALS		

14. WHAT ARE THE CURRICULUM'S COMPONENTS?

	AGREE	DISAGREE
Teacher's book		
Student's book/workbook		
Parent's book/workbook (or other materials for parents)		
Mentor's book/workbook (or other materials for mentors)		
Handouts		
PowerPoint Presentations		
DVD/videos		
Promotional materials (t-shirts, buttons, stickers, pens, posters, pamphlets, etc.)		
Other:		
TOTALS		

Target audience for DVD/videos

	AGREE	DISAGREE
TOTALS		

15. DOES THE CURRICULUM HAVE EVALUATION ASSESSMENT TOOLS?

	AGREE	DISAGREE
Evaluation Tools		
Student Tools		
Teacher Tools		
TOTALS		

16. ADAPTABILITY – How adaptable (as opposed to “scripted”) and easy to use is the curriculum?

	AGREE	DISAGREE
Teachers can “pick and choose” among modules/lessons (does not require strict adherence to specific sequence or ordering of lessons).		
Curriculum suggests several methods/strategies for teaching specific content.		
Lessons can be easily adapted to different genders, ages, and ethnic groups.		
TOTALS		

17. USER-FRIENDLY

	AGREE	DISAGREE
Requires minimal preparation time for teacher.		
Materials are ready to use (ready for copying, distributing, etc.).		
There are plenty of ready-to-use materials such as handouts, transparencies, charts, PowerPoint presentations, etc.		
Lesson plans are described in sufficient detail.		
Contains clearly specified goals or objectives for each lesson.		
Suggests amount of time to be spent in each activity.		
Lists all the materials needed in each lesson.		
Overall, is easy to use.		
TOTALS		

18. PROPOSED CONTEXT FOR TEACHING CURRICULUM

	AGREE	DISAGREE
To be taught within a comprehensive health education program		
Stand-alone		
May be incorporated other classes		
TOTALS		

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**B – CURRICULUM CONTENT**

<b>Key Concept #1: Anatomy and Physiology</b>		
	AGREE	DISAGREE
Provide accurate information about sexual anatomy and physiology, including reproduction, contraception, and sexual health*		
Describe the human sexual response cycle including the role of hormones AP.12.CC.1		
TOTALS		

\*Not part of the standards but reviewers should check for medical accuracy.

<b>Key Concept #2: Puberty and Adolescent Development</b>		
	AGREE	DISAGREE
Analyze how brain development has an impact on cognitive, social and emotional changes of adolescence and early adulthood PD.12.CC.1		
Analyze how friends, family, media, society and culture influence self-concept and body image PD.12.INF.1		
Apply a decision-making model to various situations relating to sexual health PD.12.DM.1		
TOTALS		

<b>Key Concept #3: Identity</b>		
	AGREE	DISAGREE
Differentiate between biological sex, sexual orientation, and gender identity and expression ID.12.CC.1		
Distinguish between sexual orientation, sexual behavior and sexual identity ID.12.CC.2		

Analyze the influence of friends, family, media, society and culture on the expression of gender, sexual orientation and identity ID.12.INF.1		
Explain how to promote safety, respect, awareness, and acceptance ID.12.SM.1		
Advocate for school policies and programs that promote dignity and respect for all ID.12.ADV.1		
TOTALS		

<b>Key Concept #4: Pregnancy and Reproduction</b>		
	AGREE	DISAGREE
Compare and contrast the advantages and disadvantages of abstinence and other contraceptive methods, including condoms PR.12.CC.1		
Define emergency contraception and describe its mechanism of action PR.12.CC.2		
Identify the laws related to reproductive and sexual health care services (i.e., contraception, pregnancy options, safe surrender policies, prenatal care) PR.12.CC.3		
Describe the signs of pregnancy PR.12.CC.4		
Describe prenatal practices that can contribute to or threaten a healthy pregnancy PR.12.CC.5		
Compare and contrast the laws relating to pregnancy, adoption, abortion and parenting PR.12.CC.6		
Analyze influences that may have an impact deciding whether or when to engage in sexual behaviors PR.12.INF.1		

Analyze internal and external influences on decisions about pregnancy options PR.12.INF.2		
Analyze factors that influence decisions about whether and when to become a parent PR.12.INF.3		
Access medically-accurate information about contraceptive methods, including abstinence and condoms PR.12.AL.1		
Access medically-accurate information and resources about emergency contraception PR.12.AL.2		
Access medically-accurate information about pregnancy and pregnancy options PR.12.AL.3		
Access medically-accurate information about prenatal care services PR.12.AL.4		
Demonstrate ways to communicate decisions about whether or when to engage in sexual behaviors PR.12.IC.1		
Apply a decision making model to choices about contraception, including abstinence and condoms PR.12.DM.1		
Assess the skills and resources needed to become a parent PR.12.DM.2		
Describe the steps to using a condom correctly PR.12.SM.1		
TOTALS		

<b>Key Concept #5: Sexually Transmitted Disease and HIV</b>		
	AGREE	DISAGREE
Describe common symptoms of and treatments for STDs, including HIV SH.12.CC.1		

Evaluate the effectiveness of abstinence, condoms and other safer sex methods in preventing the spread of STDs, including HIV SH.12.CC.2		
Describe the laws as relate to sexual health care services, including STD and HIV testing and treatment SH.12.CC.3		
Analyze factors that may influence condom use and other safer sex decisions SH.12.INF.1		
Explain how to access local STD and HIV testing and treatment services SH.12.AI.1		
Access medically accurate prevention information about STDs, including HIV SH.12.AI.2		
Demonstrate skills to communicate with a partner about STD and HIV prevention and testing SH.12.IC.1		
Apply a decision-making model to choices about safer sex practices, including abstinence and condoms SH.12.DM.1		
Develop a plan to eliminate or reduce risk for STDs, including HIV SH.12.GS.1		
Analyze individual responsibility about testing for and informing partners about STDs and HIV status SH.12.SM.1		
Describe the steps to using a condom correctly SH.12.SM.2		
Advocate for sexually active youth to get STD/HIV testing and treatment SH.12.ADV.1		
TOTALS		

<b>Key Concept #6: Healthy Relationships</b>		
	AGREE	DISAGREE
Describe characteristics of healthy and unhealthy romantic and/or sexual relationships HR.12.CC.1		
Describe a range of ways to express affection within relationships HR.12.CC.2		
Define sexual consent and explain its implications for sexual decision making HR.12.CC.3		
Evaluate the potentially positive and negative roles of technology and social media in relationships HR.12.CC.4		
Explain how media can influence one's beliefs about what constitutes a healthy sexual relationship HR.12.INF.1		
Analyze factors, including alcohol and other substances, that can affect the ability to give or perceive the provision of consent to sexual activity HR.12.INF.2		
Demonstrate how to access valid information and resources to help deal with relationships HR.12.AI.1		
Demonstrate effective strategies to avoid or end an unhealthy relationship HR.12.IC.1		
Demonstrate effective ways to communicate personal boundaries as they relate to intimacy and sexual behavior HR.12.IC.2		
Demonstrate respect for the boundaries of others as they relate to intimacy and sexual behavior HR.12.SM.1		

Describe strategies to use social media safely, legally, and respectfully HR.12.SM.2		
TOTALS		

<b>Key Concept #7: Personal Safety</b>		
Compare and contrast situations and behaviors that may constitute bullying, sexual harassment, sexual abuse, sexual assault, incest, rape and dating violence PS.12.CC.1	AGREE	DISAGREE
Analyze the laws related to bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.CC.2		
Explain why using tricks, threats or coercion in relationships is wrong PS.12.CC.3		
Explain why a person who has been raped or sexually assaulted is not at fault PS.12.CC.4		
Describe potential impacts of power differences (e.g., age, status or position) within sexual relationships PS.12.INF.1		
Analyze the external influences and societal messages that impact attitudes about bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.INF.2		
Access valid resources for help if they or someone they know are being bullied, harassed, sexually abused or assaulted PS.12.AI.1		
Demonstrate ways to access accurate information and resources for survivors of sexual abuse, incest, rape, sexual harassment, sexual assault and dating violence PS.12.AI.2		

Demonstrate effective ways to communicate with trusted adults about bullying, harassment, abuse or assaulted PS.12.IC.1		
Identify ways in which they could respond when someone else is being bullied or harassed PS.12.IC.2		
Advocate for safe environments that encourage dignified and respectful treatment of everyone PS.12.ADV.1		
TOTALS		

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### C – METHODOLOGICAL CHARACTERISTICS

	AGREE	DISAGREE
Anonymous Question Box		
Teacher Lecture		
Large-Group Discussion		
Student Worksheets		
Journals/Story Writing		
Cooperative Learning/Small Groups		
Case Studies/Scenarios		
Skills Practice and Rehearsal (Role-playing)		
Audiovisual Materials		
Community Speakers/Involvement		
Peer Helper Component		
Parent/Guardian Involvement		
Mentoring Component		
Pledge Component		
TOTALS		

### PROCEDURAL CHARACTERISTICS

	AGREE	DISAGREE
Ground Rules		
Same-Gender Classes		
Accounts for different learning styles		
Can be incorporated		
Three main learning domains are addressed		
TOTALS		

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**D – EVALUATION**

	AGREE	DISAGREE
1. Breadth		
2. Depth		
3. Overall Content Accuracy/Currency		
4. Skill-Building Variety (Breadth)		
5. Skill-Building Variety (Depth)		
6. Methods Variety		
7. Developmental Appropriateness		
8. Cultural Sensitivity		
9. Ease of Implementation		
10. Evaluation		
11. Appearance/Production Quality		
<b>TOTALS</b>		

**OVERALL QUALITY OF CURRICULUM**

	AGREE	DISAGREE
Overall Quality		
<b>TOTAL</b>		

## APPENDIX C

### National Sexuality Education Standards (Grades 9-12)

#### **Key Concept #1: Anatomy and Physiology**

- Provide accurate information about sexual anatomy and physiology, including reproduction, contraception, and sexual health\*
- Describe the human sexual response cycle including the role of hormones  
AP.12.CC.1

#### **Key Concept #2: Puberty and Adolescent Development**

- Analyze how brain development has an impact on cognitive, social and emotional changes of adolescence and early adulthood PD.12.CC.1
- Analyze how friends, family, media, society and culture influence self-concept and body image PD.12.INF.1
- Apply a decision-making model to various situations relating to sexual health  
PD.12.DM.1

#### **Key Concept #3: Identity**

- Differentiate between biological sex, sexual orientation, and gender identity and expression ID.12.CC.1
- Distinguish between sexual orientation, sexual behavior and sexual identity  
ID.12.CC.2
- Analyze the influence of friends, family, media, society and culture on the expression of gender, sexual orientation and identity ID.12.INF.1
- Explain how to promote safety, respect, awareness, and acceptance ID.12.SM.1
- Advocate for school policies and programs that promote dignity and respect for all  
ID.12.ADV.1

**Key Concept # 4: Pregnancy and Reproduction**

- Compare and contrast the advantages and disadvantages of abstinence and other contraceptive methods, including condoms PR.12.CC.1
- Define emergency contraception and describe its mechanism of action PR.12.CC.2
- Identify the laws related to reproductive and sexual health care services (i.e., contraception, pregnancy options, safe surrender policies, prenatal care) PR.12.CC.3
- Describe the signs of pregnancy PR.12.CC.4
- Describe prenatal practices that can contribute to or threaten a healthy pregnancy PR.12.CC.5
- Compare and contrast the laws relating to pregnancy, adoption, abortion and parenting PR.12.CC.6
- Analyze influences that may have an impact deciding whether or when to engage in sexual behaviors PR.12.INF.1
- Analyze internal and external influences on decisions about pregnancy options PR.12.INF.2
- Analyze factors that influence decisions about whether and when to become a parent PR.12.INF.3
- Access medically-accurate information about contraceptive methods, including abstinence and condoms PR.12.AL.1
- Access medically-accurate information and resources about emergency contraception PR.12.AL.2
- Access medically-accurate information about pregnancy and pregnancy options PR.12.AL.3
- Access medically-accurate information about prenatal care services PR.12.AL.4
- Demonstrate ways to communicate decisions about whether or when to engage in sexual behaviors PR.12.IC.1
- Apply a decision making model to choices about contraception, including abstinence and condoms PR.12.DM.1

- Assess the skills and resources needed to become a parent PR.12.DM.2
- Describe the steps to using a condom correctly PR.12.SM.1

### **Key Concept # 5: Sexually Transmitted Disease and HIV**

- Describe common symptoms of and treatments for STDs, including HIV SH.12.CC.1
- Evaluate the effectiveness of abstinence, condoms and other safer sex methods in preventing the spread of STDs, including HIV SH.12.CC.2
- Describe the laws as relate to sexual health care services, including STD and HIV testing and treatment SH.12.CC.3
- Analyze factors that may influence condom use and other safer sex decisions SH.12.INF.1
- Explain how to access local STD and HIV testing and treatment services SH.12.AI.1
- Access medically accurate prevention information about STDs, including HIV SH.12.AI.2
- Demonstrate skills to communicate with a partner about STD and HIV prevention and testing SH.12.IC.1
- Apply a decision-making model to choices about safer sex practices, including abstinence and condoms SH.12.DM.1
- Develop a plan to eliminate or reduce risk for STDs, including HIV SH.12.GS.1
- Analyze individual responsibility about testing for and informing partners about STDs and HIV status SH.12.SM.1
- Describe the steps to using a condom correctly SH.12.SM.2
- Advocate for sexually active youth to get STD/HIV testing and treatment SH.12.ADV.1

**Key Concept # 6: Healthy Relationships**

- Describe characteristics of healthy and unhealthy romantic and/or sexual relationships HR.12.CC.1
- Describe a range of ways to express affection within relationships HR.12.CC.2
- Define sexual consent and explain its implications for sexual decision making HR.12.CC.3
- Evaluate the potentially positive and negative roles of technology and social media in relationships HR.12.CC.4
- Explain how media can influence one's beliefs about what constitutes a healthy sexual relationship HR.12.INF.1
- Analyze factors, including alcohol and other substances, that can affect the ability to give or perceive the provision of consent to sexual activity HR.12.INF.2
- Demonstrate how to access valid information and resources to help deal with relationships HR.12.AI.1
- Demonstrate effective strategies to avoid or end an unhealthy relationship HR.12.IC.1
- Demonstrate effective ways to communicate personal boundaries as they relate to intimacy and sexual behavior HR.12.IC.2
- Demonstrate respect for the boundaries of others as they relate to intimacy and sexual behavior HR.12.SM.1
- Describe strategies to use social media safely, legally, and respectfully HR.12.SM.2

**Key Concept # 7: Personal Safety**

- Compare and contrast situations and behaviors that may constitute bullying, sexual harassment, sexual abuse, sexual assault, incest, rape and dating violence PS.12.CC.1
- Analyze the laws related to bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.CC.2
- Explain why using tricks, threats or coercion in relationships is wrong PS.12.CC.3

- Explain why a person who has been raped or sexually assaulted is not at fault PS.12.CC.4
- Describe potential impacts of power differences (e.g., age, status or position) within sexual relationships PS.12.INF.1
- Analyze the external influences and societal messages that impact attitudes about bullying, sexual harassment, sexual abuse, sexual assault, incest, rape, and dating violence PS.12.INF.2
- Access valid resources for help if they or someone they know are being bullied, harassed, sexually abused or assaulted PS.12.AI.1
- Demonstrate ways to access accurate information and resources for survivors of sexual abuse, incest, rape, sexual harassment, sexual assault and dating violence PS.12.AI.2
- Demonstrate effective ways to communicate with trusted adults about bullying, harassment, abuse or assaulted PS.12.IC.1
- Identify ways in which they could respond when someone else is being bullied or harassed PS.12.IC.2
- Advocate for safe environments that encourage dignified and respectful treatment of everyone PS.12.ADV.1

\*Not part of the standards but inserted to check for medical accuracy

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Future of Sex Education. National sexuality education standards: Core content and skills, K-12. *J Sch Health*. 2012.

