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Abstract
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Addressing the Problem of Teenage Pregnancy with the Use of Comprehensive Sexual Education Programs in Forest Grove High School

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Abstract

Teen pregnancy rates in the U.S. are among the highest in the industrialized countries. Although the rate of teen pregnancies has been decreasing over the years, recently the birth rate for teens aged 15 to 19 has increased by 5%. Forest Grove is reported as having a higher teen pregnancy rate than the rest of the state of Oregon with a fertility rate for women aged 15-19 years of 39 per 1,000 women compared to Oregon’s 21 per 1,000 women. Current methods for sexual education use an abstinence-based curriculum, although studies have found that these programs are no longer effective. Comprehensive-based sexual education curriculums, however, have been gaining evidence in the effectiveness of their approach. This capstone presentation will describe the development of a comprehensive-based sexual education program that combines elements from several different programs into one curriculum. Some of the activities included are peer mentoring, role playing, an overnight parent project, video-based interventions, health center visits and an educational session for parents and families. The desired effects of this program will be to lower the incidence of teen pregnancy in Forest Grove High School. To determine the program’s effectiveness and longevity, an evaluation plan, in addition to a sustainability plan, have been designed.
In the world today there are many issues related to the Public Health perspective. A major concern pertaining to youth is teen pregnancy. This is a concern for Public Health because it affects the quality of life for the teen parent and the infant of the teen pregnancy. The impact of teen pregnancy can carry on through the generations of a family in a repeating cycle. The mother in a teen pregnancy also will have a higher probability of not completing high school, having a need for public assistance, and foster care for the child (Yoo, Johnson, Rice, & Manuel, 2004). In turn, this affects the workforce and productivity of the country and the community the teen pregnancy occurred in because the teen mother will not be able to participate in a job that would benefit the community.

Teen pregnancy rates in the U.S. are among the highest in the industrialized countries. While over the years there has been a decrease in the rate of teen pregnancies, recently the birth rate for teens aged 15 to 19 has increased by 5% (Fritz, 2010). Not only does this lead to problems for teen mothers, but for their children as well. The children of teenage mothers have an increased risk of preterm delivery, low-birth weight, and infant mortality (Fritz, 2010). A study found that babies born to mothers under age 19 were 1.025 times as likely to have low birth weight as compared to babies born to mothers aged 20 to 39 (Roth, Hendrickson, Schilling, & Stowell, 1998). In 2005, the infant mortality rate for babies of mothers aged less than 20 years was 10.28 deaths per 1,000 live births with an increase in 2006 for mothers under 15 years with an infant mortality rate of 16.4 deaths per 1,000 live births. For perspective, the average rate for all births in America at this time was 6.8 deaths per 1,000 live births (Lachner, 2011). To help alleviate these risks, sexual education programs have been developed. Comprehensive sex education programs (as defined later) have been shown to be more effective in reducing teenage pregnancies then abstinence only programs. This literature review will examine the priority population, organization, need in the population for an intervention, and existing interventions for sexual education programs, and it will identify why comprehensive-based sexual education programs need to be implemented over abstinence based programs.
Priority Population: Forest Grove High School Students

The specific population for this proposal is the City of Forest Grove’s high school students ranging from fourteen to nineteen years of age in Oregon. The number of teenagers specifically enrolled in the Forest Grove High School (grades 9-12) is 1,159 (U.S. Census Bureau, 2013b). The main characteristic shared by this population is high school enrollment. High schools offer classes, such as health and social sciences, which give the opportunity to reach this protected population. Due to this population consisting of “persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law of the jurisdiction in which the research will be conducted” or persons under the age of 18, they are included under the rules pertaining to protected populations (Texas Tech University, 2013). The specific students of Forest Grove high school will also share the same availability and accessibility to the Forest Grove School-Based Health Center. This allows them access to services that would be discussed during the educational classes provided by the program. Some of the differing demographics for this population are race, culture, and socio-economic status (SES). These varying characteristics throughout the population will add diversity that will be taken into consideration and calculated during the evaluation.

The demographics for the student population can be approximated based on the demographics found in the community. For the city of Forest Grove, the U.S. Census reported the population as being categorized in various races. Several bigger proportions of the population identified as White, American Indian and Alaska Native, Asian, Other and Hispanic or Latino. The two most prominent groups are White and Hispanic or Latino with 17,411 people identifying as White (70.2%), and 5,644 identifying as Hispanic or Latino (23.1%) (U.S. Census, 2013c; U.S. Census, 2013d). Specifically, 4,985 persons identified as Mexican. American Indian and Alaska Native are the next largest represented race with 557 persons, followed by Asian with 232 persons (U.S. Census, 2013b). Recently, Forest Grove School District was reported to have the highest Hispanic student population at 50% in the Portland Metropolitan area (Frazier, 2014).
Several factors attributed to encouraging risky sexual behaviors in teenagers will be identified later in this report. One such factor is living away from home before 18 years of age. According to the Kids Count data center (2013), 3% of students in Washington County in 2012 were homeless. This foundation recorded homeless students as “The percentage of students who lack a fixed, regular, and adequate nighttime residence during the academic year. A student is identified as homeless when they live in emergency shelter or share housing with others due to loss of housing or economic hardship and/or stay at motels or live in cars, parks, public places, tents, trailers, or other similar settings” (Kids Count data center, 2013).

The reason to address this population for a sexual education program is the higher fertility rates that are seen for this population. The 2008-2012 American Community Survey 5-Year Estimates found that the fertility rate for women aged 15-19 years in Oregon is 20 per 1,000 women while specifically in Forest Grove it is 43 per 1,000 women (U.S. Census Bureau, 2013b). The survey also reported the national rate to be 26 per 1,000 women (U.S. Census Bureau, 2013e). This shows that the rate for Forest Grove is higher than that of the state and the national average. The teenage population works well as the focus of a comprehensive sexual education program due to the rising teen pregnancy rates across the nation.

**Organization: Forest Grove School Based Health Center**

The organization that can be of most aid to this population is Virginia Garcia. This organization possesses four school-based health centers that collaborate with different high schools located in the Washington and Yamhill counties of Oregon. It was founded in 1975 as a result of the death of Virginia Garcia who was a migrant farmer’s daughter. Due to economic, cultural and lingual barriers, her family was unable to seek treatment for a foot injury. The surrounding community members decided to start Virginia Garcia in order to prevent any further unnecessary deaths that could be caused by the same barriers. As a result, the current mission statement evolved to: “To provide high-quality, comprehensive, and culturally appropriate primary health care to the communities of Washington and Yamhill Counties.
with a special emphasis on migrant and seasonal farmworkers and others with barriers to receiving healthcare” (Virginia Garcia, 2009a).

The Forest Grove School-Based Health Center (FG SBHC) is the Virginia Garcia site that interacts the most with the students of Forest Grove High School. As a branch of Virginia Garcia, the health center retains the same primary mission statement. Furthermore, there is a specific goal to provide care to students that might not get it otherwise in addition to eliminating school absences to visit an outside doctor or healthcare professional. This health center is open to school district students of all ages in Forest Grove, Cornelius, Banks and Gaston during the school year (Virginia Garcia, 2009b). There are four people on staff at the health center who make this service possible. Sue Bisgyer is the current Family Nurse Practitioner in charge of this clinic. She works with the behavioral and mental health provider, Theresa Crumpton. These two personnel are the ones with the most interaction with the students at Forest Grove High School and who have noted some of the more prevalent problems seen in this population (S. Bisgyer, personal communication, September 4, 2013).

The staff at the Forest Grove School-Based Health Center identified teen pregnancy as a problem in the high school. In order to combat this problem, there are several steps that they are willing to take in order to work towards decreasing the rate of teen pregnancy with the end goal of eliminating the issue altogether. Ideally, Ms. Bisgyer has said that it would be sensible to distribute birth control from the health center (S. Bisgyer, personal communication, May 28, 2013). However, this is something that will not be included in the proposed intervention as this relates to policy and Oregon law which is not a feasible change that could be accomplished by this intervention. The health center is equipped to collaborate with the proposed intervention. The services they currently offer as well as the resources they have access to will be emphasized in the curriculum distributed to the students. The services and resources that could be used by the comprehensive sexual education program are: routine physical exams (including vaginal exams), information regarding safe sex practices, distribution of condoms, and mental and behavioral health services for relationship or personal counseling (S. Bisgyer, personal communication, September 4, 2013).
The Need

The problem of teen pregnancy affects the population of Forest Grove High School students as interpreted from the 2008-2012 American Community Survey. As stated above, the survey reported that the fertility rate for women aged 15-19 years is 43 per 1,000 women in Forest Grove when compared to the 20 per 1,000 women for the state of Oregon (U.S. Census Bureau, 2013b). Currently, there is a limited program offered to the students consisting of a two-three day course that briefly covers material on STDs, STIs, and HIV/AIDS. However, during an interview with one of the former students, the student recollected that her most prominent memory from the experience was the distribution of condoms. (A. Schmitt, personal communication, 2014). According to the 2007 Youth Risk Behavior Surveillance Survey (Eaton, Kann, Kinchen, Shanklin, Ross, Hawkins, et al., 2008), 47.8% of high school students have had (vaginal) sexual intercourse, and 38.5% of students who are sexually active did not use a condom during their last experience of sexual intercourse. The high school currently has a functioning day care center located on the campus for students’ children. On average there are thirty parents and expecting parents that are still enrolled in the school. However, even though there are so many teenage pregnancies and unplanned families within this population, the center only has the capacity for eight children.

Comprehensive sex education programs focus not only on decreasing the rates of unplanned pregnancies, but also on lowering the rates of STDs and STIs. According to Ritchwood (2012), the increase of risky sexual behavior in adolescents accounts for approximately 25% of all new STD cases. As of 2010, Washington County has a Chlamydia rate of 262 per 100,000 population (Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, 2013). This may seem low when compared to the rate of Oregon with 322 per 100,000 population. However, both of these rates are extremely high when compared to the national benchmark of 92 per 100,000 population (Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, 2013). The rate of STDs and STIs in this region is a cause for concern which could be reduced by the implementation of a comprehensive sexual education program.
There are certain characteristics and factors that make particular subpopulations more susceptible to teen pregnancy. Factors such as being the child of a teen pregnancy, race, living away from home before 18 years of age (runaways and homeless), and living in poverty (Lau, Lin, & Flores, 2013). In a study that identifies clusters of markers indicating high and low prevalence of adolescent pregnancy in the US, findings reported that when the mother’s age at first child was less than 18 years old, 12.1% of adolescent females 15-19 years old had never been pregnant while 31.9% had been pregnant at one point (Lau et al., 2013). These percentages did not have as much of a difference when the mother’s age at first child was 18-19 years old with 16.4% of girls never having been pregnant and 22.2% having been pregnant. A correlation can be observed between the two that not only are the differences between the proportions of the adolescent population smaller when the mother’s age at first pregnancy increases, but also that there was a lower proportion of girls who had ever been pregnant. There are similar correlations observed when examining the data for girls who have ever lived away from home and the ones who have always lived with parents. The proportion of girls never having been pregnant was 9.7% for those ever having lived away from home as compared to the 76.0% who had always lived with parents (Lau et al., 2013). According to the United States Census 2007-2011 American Community Survey, 26.5% of all families with children under 18 years in Forest Grove had an income in the past 12 months that is below the poverty level (U.S. Census, 2013a). This information needs to be taken into consideration during program development so that the appropriate modifications can be made to specifically target this high risk population.

People can be influenced by many different factors, including peer pressure, family pressures, and personal values shaped during the identity forming process, as well as substance abuse, which influences adolescents to participate in risky sexual behaviors. The correlation between substance use and risky sexual behavior among adolescents is in a small to moderate range, indicating that other factors must be considered in examining this association (Ritchwood, 2012). The strength of the association also varied depending on gender, nationality, ethnicity, and methodological factors. Ritchwood (2012) also found that moderators of importance included relationship status, partner type, ethnic identity, personality, parenting
practices, peer influence, and neighborhood and school factors. All of these factors influence teens in ways that are not necessarily included in educational programs such as comprehensive- or abstinence-based sex education. However, it should be recognized that teens are usually affected by multiple factors which are magnified as a combination, rather than exclusively distressing the individual.

**Review of Existing Interventions**

**Abstinence Based Programs: What the Evidence Says**

Currently, the two programs being implemented in schools are abstinence based programs and comprehensive programs. In public health, abstinence-only programs are seen as unrealistic in the modern world of sexual images and sexual activity, and yet they have seemed to flourish under federal funding since about 1983 (Yoo, et. al, 2004). Abstinence-only programs are exactly what the name portrays, programs that focus on the importance of abstaining from sexual intercourse. Part of the program focuses on discussions of values, character building, and refusal skill, without teaching teenagers about contraception and condom use, while avoiding discussions about abortion, sexually transmitted diseases, and HIV/AIDS (Fentahun, Assefa, Alemseged, & Ambaw, 2012). Realini, Buzi, Smith, and Martinez (2010) also found that many of the abstinence based programs that provide information about condoms and contraceptives exaggerate the failure rates and even discourage their use. This report examined the results of three studies assessing the effect of abstinence-only programs. Findings were unable to ascertain strong evidence that these programs reduced the incidence of vaginal sex, number of partners, or sexual initiation when compared to control programs (Realini, Buzi, Smith, & Martinez, 2010).

A majority of the results found have shown support that comprehensive sexual education programs have been more effective in making a difference in the risky sexual behaviors that teens partake in. According to Hall and Hall (2011), when there is a higher prevalence of abstinence-only education in an area, there will also be a higher prevalence of teen pregnancies, resulting in a positive correlation between the two. However, they also took into account other factors that affect teen pregnancies such as socio-economic status, educational attainment, and ethnic differences across the studied population. Certain traits triggered correlations in the data such as a negative correlation between teen pregnancy and
household income (Hall, & Hall, 2011). Further research was conducted on abstinence-only programs but going over a range of ages from elementary school into high school (Denny, & Young, 2006). While findings showed that there were long term gains and knowledge and reduced likelihood of participating in sexual intercourse in middle school students, only short term gains (i.e. six months to a year) were found for supportive attitudes towards abstinence with the intent to remain abstinent in high school students.

**Comprehensive Programs: The Better Approach**

The other kind of program is referred to as a comprehensive program, which not only emphasizes the importance of abstinence but also the use of condoms and/or contraceptives among sexually active people. Evidence for comprehensive programs from four systematic reviews showed reductions in the prevalence and frequency of sexual activity as well as an increase in the use of condoms or contraceptives among the sexually active (Realini et al., 2010). No evidence was found that comprehensive programs result in an increase in sexual activity.

When reviewing the diversity of programs that are implemented in schools, findings showed that according to Kirby (2007), programs were divided into five major groups and two subgroups. These divisions are categorized as: 1. Curriculum-Based Sex and STD/HIV Education Programs, broken into two subgroups, comprehensive programs and abstinence programs; 2. Clinician-Patient Interactions in Clinic settings; 3. Stand-Alone Video-Based and Computer-Based Interventions; 4. Sex and HIV/AIDS Education programs for Parents and Their Families; and 5. Multicomponent Programs. In general, results found evidence which strongly supports that the program increased knowledge regarding STDs and HIV, and sexually risky behaviors, which led to decreased sexual behaviors. (Kirby, 2007). Also, increased knowledge raised the perception of risk of pregnancy and STDs, improved values and attitudes about abstaining from sex and using forms of contraception, changed the perception of peer norms about sex and contraceptive use, and increased self-efficacy to avoid sex or use protection. Some key features that were successfully implemented to help success are: focusing clearly on sexual behavior, giving a clear message about abstaining from sex or using protection, and actively involving young people in the programs. A similar study was conducted using a related set of guidelines that Kirby (2007) had
identified. The study had positive effects on sexual health knowledge, perceptions of the importance of birth control, an increased acceptance of a partner’s rejection of sexual activity, and a shift towards a more egalitarian sex-role attitude (Smylie, Maticka-Tyndale, Boyd, & the Adolescent Sexual Health Planning Committee, 2008).

Realini, Buzi, Smith, and Martinez (2010) reviewed systematic reviews that found about two thirds of comprehensive programs have demonstrated positive effects on youth behavior. Their evidence indicates that comprehensive programs reduce both the prevalence and frequency of sexual activity, and they increase the use of condoms or contraceptives among sexually active youth. This study evaluated the effectiveness of the Big Decisions curriculum, which includes balanced and accurate information about contraceptives without exaggerating failure rates, in order to reduce sexual risks when students eventually do become sexually active. However, this curriculum also emphasizes that abstinence is the healthiest choice for teens. This program includes the topics of anatomy, relationships, STDs (including HIV), abstinence, contraception, influence (positive and negative), goals and decisions, and dealing with sexual pressure (Realini et al., 2010). It also includes a parent session that provides basic information on helping teens avoid pregnancy and HIV/STDs, role-play practice for talking to their adolescent children about sex, and an overview of the curriculum is provided. This study found that there were positive changes in student attitudes about abstinence, STDs, condoms, contraception, and sexual pressure; behavioral intentions with regard to abstinence, STDs, and pregnancy; and self-efficacy regarding condom use and refusal of sex. It was also found that there were gender differences, suggesting that male participants are more likely to have risky behavior than those of female participants. It raised the question of whether confidence in condom effectiveness has been undermined in the student population who may have previously received abstinence only education (Realini et al., 2010). In order to address this discovery, Big Decisions curriculum has made revisions to strengthen the message about condom effectiveness without implying complete effectiveness.
Analysis of Existing Interventions

After reviewing the materials regarding existing interventions, there were several limitations found in different studies for comprehensive sexual education programs. The primary limitation that occurred for several studies was a lack of follow up research. This gap in the research leads to weakened internal validity for the findings. Further research suggests that findings could be strengthened by conducting a longitudinal study that would follow participants during the years after high school. Continuing post intervention tests will help to strengthen the information about the effectiveness of comprehensive based sexual education programs for short term and long term gains. Due to this limitation in previous programs, the proposed program will include more opportunities to fill out post-test surveys not only during high school, but also after graduation from high school. This will allow a better opportunity to evaluate the program’s effectiveness.

A longitudinal study design will not be the only change considered. To compensate for the potential lack of confidence against condoms and contraceptives that may have been established from previously received abstinence based education, the same revisions made to the Big Decisions curriculum will be adapted to this proposed program. Emphasis will be placed on strengthening the message about condom effectiveness without implying complete effectiveness.

Aside from changes that could be made from previous interventions, there were also some key components that helped to make comprehensive based programs successful. Focusing clearly on sexual behavior, giving a clear message about abstaining from sex or using protection, and actively involving young people in the programs are some of the key features highlighted by Kirby (2007) that will be incorporated into the structure of the proposed program. The program will also include the various successful characteristics as described in the previous section, identified by Kirby (2007), which categorize most programs. This program will be a multicomponent program composed from the strengths found in various comprehensive programs.
Design of Proposed Intervention

Mission

The mission of this program is to provide high-quality, comprehensive, and culturally appropriate primary health care and information regarding safe sexual practices and behaviors to students that might not receive it otherwise.

Goals and Objectives

The first overarching goal is: To implement a comprehensive sexual education program at Forest Grove High School. The following objectives aim to complete this goal:

- Involve the community by attending a community meeting and giving a presentation about comprehensive sexual education.
- The Forest Grove School District will allow the addition of a comprehensive sexual education program.
- By the end of Month 2, the staff of Forest Grove High School will accept the new sexual education program with 60% of teachers making a positive comment once a week regarding the program.

The second overarching goal for this program is: to reduce the incidence of teenage pregnancy in the students of Forest Grove High School. The following objectives aim to complete this goal:

- By the end of Month 4, every student in the program will have completed their parenting assignment with the RealCare baby.
- By the end of Month 6, at least 65% of students will report talking to their doctor about contraceptives during their yearly physical.
- By the end of the program, at least 95% of students will report to using condoms in the case that they do have sex.

Theory of Change

**Problem or need.** The 2008-2012 American Community Survey 5-Year Estimates found that the fertility rate for women aged 15-19 years for Forest Grove was higher than the rates found for Oregon and
the nation (U.S. Census Bureau, 2013b; U.S. Census, 2013e). Based on these findings, roughly 4% of the Forest Grove High School student population is estimated to be pregnant each year.

Project Overview

Existing Successful Strategies: Previous studies have proven certain strategies to be more successful than others. Big Decisions is one such strategy that was effective due to the curriculum it implemented. Particular traits of this curriculum included parent information sessions, peer mentoring, and role playing real life scenarios will be used as a guide (Realini, Buzi, Smith, & Martinez, 2010). Kirby (2010), also identified successful characteristics including clinician-patient interactions in clinic settings, stand-alone video-based and computer-based interventions, and sex and HIV/AIDS education programs for parents and their families. Furthermore, it was shown that a community can be more inclined to accept an intervention with the use of a culturally sensitive strategy (Doyle, Ward, & Early, 2010). A culturally sensitive strategy that could be more successful in this population then, includes the use of parent information sessions with heavy emphasis of parent involvement as a key component in the program due to the larger Hispanic proportion of this population. Furthermore, to efficiently market this information to students and the Forest Grove community, all materials will be available in Spanish as well as English.

Influential Factors: The most influential factor affecting the students is the convenient location of the FG SBHC on the high school’s campus. As the staff is available and willing to include their services in the program, this will especially influence the program’s success. Specifically, the health center inclusion will encourage student use of the clinic in addition to making students more comfortable in talking to their healthcare providers. Due to this, the health center staff will be especially utilized in different program activities such as role-playing and talking about STDs/STIs and HIV/AIDS.

Assumptions: Different pre-existing assumptions regarding the implementation of a sexual education program in Forest Grove High School are interwoven with the main goal of lowering the incidence of teen pregnancy rates in the student population. Providing the students with a proper education regarding safe sex practices, and the related topics, will allow them to make informed decisions
and the safer choices that will cause the decrease in teen pregnancy rates. In addition, involving students in an active role of the program increases the likelihood of their being receptive to the program and therefore giving it a higher chance of success (Doyle et al., 2010). Also, involving the families by offering parent information sessions will help to increase community receptiveness. This assumption is made based on the high Latino population in the area and the importance of family in the Latino culture (CDC, n. d.).

**Proposed Project Activities**

Before implementing the proposed program in the high school, a needs assessment survey will be conducted to gather pertinent information that will help tailor the curriculum and materials for this population. This survey will include questions regarding race and ethnicity, primary language used, age, gender, sexual competence, and intention towards sexual behaviors and activities. The results from this survey will show the final alterations needed to finish customizing the program for this population. One such customization, will be the availability of all educational materials in English and Spanish.

To implement the program at Forest Grove High School, there will be activities aimed to increase community receptiveness. Community acceptance will be harder to obtain in this area due to a dominant conservative view. As a controversial topic, earning the community’s acceptance will be the main barrier in this process. To overcome this barrier, a presentation will be given during one City Council meeting, and be available for a later request, to brief the community about what the program will offer the students. This presentation will also be offered to the District Meetings as well as the high school’s staff meeting. Due to the significance of this presentation, there will be several advertising mediums used to reach a larger part of the population such as Facebook, newspapers, posters around the community, and radio broadcasts. To further encourage teacher acceptance, reports and focus groups will also be conducted during staff meetings to continue modifying the program.

The specific proportion of the community demanding particular attention, is the parent population. As 50% of the student population is Hispanic (Frazier, 2014), with a heavy importance of family in the Latino culture, parents will be offered a sexual education class much like the one
implemented in Big Decisions (Realini, Buzi, Smith, & Martinez, 2010). These classes will help them to talk to their children about safe sexual practices, how to avoid pregnancy and STDs/HIV, as well as give them an overview of the curriculum. A meeting will be offered at the beginning of the year to continue once a month throughout the school year. These meetings will give an overview of what the students have covered over the previous month. The goal of this activity is to facilitate open communication between parents and students. As a result of this communication, students will be less likely to participate in risky sexual behaviors since the taboo was stripped from this sensitive topic and they will not have to hide their behaviors. This indicates that parental support will be crucial to the program’s success.

The remainder of the activities will be offered to the students enrolled in the program during scheduled class time. The educational materials used in the different activities will include: flyers and brochures distributed during classroom lessons that will also be available in the school-based health center; posters placed around the campus and the health center; video-based and computer-based interventions; and interactions with health center staff during classroom activities, such as role-playing, or visits to the health center.

The main project required of each student in the program will be a teen parent simulation. Every student will be assigned to watch a RealCare baby, which mimics a newborn, as the activity component of the project. In order to ensure a realistic teen parent simulation, this assignment will occur over three days and nights. After completing the simulation, the report from the baby’s chip will be read to see what errors the student made while watching the child. Possible negative marks could be taking too long in responding to the cries to feed it, or failing to burp it after feeding. The student will then have to write a report on the negative outcomes those mistakes can cause a child. Unlike some health classes, this project will not be one option for a final project, but an assignment required for every student. The final project will be a continue from this assignment with a reflection on the experience of the teen parent simulation, in addition to the proposal of a complete budget designed to accommodate a single parent or couple with a child. The budget will need to include a place of residence that the parent/couple can afford as well as an example of a job that would allow them to earn the minimum income to still live in adequate comfort.
The student will also provide the criteria it takes to qualify for the job. This project will be a cumulative report of the lessons learned through the program focused to make the students realize the hardships that occur from a teen pregnancy.

The students will also participate in role-playing. This activity will require the students to act out situations depicting real-life scenarios to prepare them to handle potential outcomes that can result from risky sexual behaviors. The scenarios will include topics of: healthy relationships and communications, the importance of abstinence, safe sex practices, types and uses of contraception, and the consequences of a teenage pregnancy. A key component to any type of relationship is communication. “Part of being in a healthy relationship is having good communication” (Oregon Teen Pregnancy Task Force, 2013). Methods for healthy communications will be taught in three sections, how to heave a healthy conversation, using body language, and how to communicate when angry. Schools and resources everywhere do not seem to explore communication amongst partners (Rojas, 2013). One objective for this activity is to teach students how to communicate in a healthy manner for any relationship. Specifically, students will learn how to effectively communicate in a romantic relationship. This communication will not only encourage students to be open and honest with their partners, but also stand up for their own wants and needs as an individual. The overall goal for this activity is for the students to be prepared for most of the difficult situations many adults face.

Abstinence will be another feature used in role-playing. It will still be emphasized as the best practice for safe choices. However, students will also be taught about using safe sexual practices. In the instance that the students will inevitably decide to have sex, this education should influence them to make safer decisions that involve using protection. Scenarios will also be delivered about talking to a physician about sexual habits, problems and forms of contraception. The goal for these scenarios is to break down the barrier between youth and medical providers and encourage students to start utilizing their healthcare providers. Additional scenarios of role-play will force the students to experience the consequences of a teen pregnancy. Such topics will include, healthy relationships and communications, potential consequences of sex: talking to your parents, childcare scenarios, and future education and career options.
Peer mentoring will be another opportunity for students in the program, which specifically targets the at-risk youth living in poverty and/or disconnected homes as mentioned earlier. Students will have the opportunity to apply to be a peer mentor through a standard application process. They will need to fill out the general application, include two letters of recommendation, and have a minimum GPA of 2.5 on the 4.0 scale. The general application will include sections regarding basic information, availability, levels of social interest, school performance and special skills (Garringer & MacRae, 2008). One desired quality is the ability to speak Spanish, although it will not be required. If chosen, mentors will be required to attend an initial weekend training session and continue attending “mini” training sessions throughout the rest of the year. Mini training sessions will be held once a month after the initial weekend training to reinforce key concepts. The training will prepare the mentors to talk to their peers about the materials being covered in class, and to be an outlet for students experiencing uncomfortable situations in life, who are not confident enough to talk to the instructor about more personal information. Mentors will be trained to be nonjudgmental, help clarify the issues, advise the decision-making processes, and to offer alternative solutions for different situations (Garringer & MacRae, 2008). The objective for peer mentoring will be to find and train eight to ten peer mentors within the first year of implementation. This system will reinforce the concept of utilizing resources for students.

Last, the program will employ the use of multiple educational films. These films will focus on the topics of STDs, STIs, HIV and AIDs. Graphic images will be employed in these visual aids. These images will depict the reality of the potential negatives consequences. Showing students the severity of STDs and STIs through the use of videos is a different strategy to ensure that students comprehend the lesson. Many educators have found visual aids have been found to be helpful in securing and retaining attention, increasing comprehension for all students, and help recall ability.

The parent outreach will be heavily stressed in the program because of the Hispanic influence on the population. This will help to target participation from Latino girls through involving their parents, specifically their fathers. Ensuring that the parents agree with the fundamentals this program will help facilitate an open space for the students to talk to their parents about this subject, including using parents
as a resource for sexual inquiries. This will encourage students to be honest about what behaviors they are participating in. As a result of the ability to share things with their parents should help to lessen the need to participate in risky sexual behaviors as the students experience the freedoms through openly talking with their parents about this previously tabooed topic. Also, since accountability is collective in the Hispanic culture, treating all family members as equals in this subject will encourage the students to act as responsible adults (CDC, n. d.). By involving the parents in the program and making them feel comfortable to talk to their children about this subject, the odds are increased of successfully lowering the incidence of teen pregnancy.

In addition to parent outreach, the program will also heavily emphasize utilizing physicians and medical resources. As a listed activity earlier, role playing will be a primary method used to normalize the notion of talking about sex with a doctor. This concept will also include the importance of regular screenings for the sexually active. One rule that students will be recommended to employ is waiting to have sex with a new partner until both parties have been tested for STDs and HIV. Commonly talking about STD screenings should lessen the squeamishness that generally accompanies the subject. Students will also be shown how to talk to their physician about the type of contraceptive they will use. Girls will be encouraged to ask their provider about different types of birth control including which one would work best for their body.

**Expected Benefits and Outcomes**

Due to the nature of the behaviors this program is trying to affect, most of the desired outcomes, long- and short-term (immediate), overlap. There is one outcome, however, that is different for the two intervals. Immediately, there will be a greater percentage of students reporting to abstain from sex. The follow-up survey two years later, representing long-term results, will show the largest proportion of students will use condoms and other forms of contraceptives in the event that they decide to have sex. An increase in the use of condoms and other contraceptives will be seen for both intervals, but there will be a shift from more students using abstinence to using safe sex practices. This change in expected behaviors takes into account that people are more likely to engage in sexual behaviors as they get older. This is
influenced from changes occurring in other behaviors and environment as people age. There will also be a higher proportion of students that report feeling comfortable in talking to their provider about contraceptives and other questions they may have regarding sex. The remaining expected outcomes and benefits apply to both intervals.

In addition to the change in attitude to refrain from sex to using condoms and other contraceptives, there will also be a decrease in the incidence of teenage pregnancy for the student population, and students will continue to utilize their resources. This will result, in part, from the students being well informed on the potential negative outcomes from participating in risky sexual behaviors. More knowledge about sexual behaviors will allow them to make informed decisions and more likely to make safer choices. Dependent on these behavior changes is the most desired benefit (addressing one overarching goal) of the program, to decrease the incidence of teen pregnancies in the student population. Last, more students will also report to attending regular physicals and needed trips to their healthcare provider. These regular visits will increase the likelihood that students will inquire about screening for STIs and HIV. The final percentages of students will be found after the initial, pre-test surveys are collected and analyzed. All outcomes expressing an increase in behaviors and actions will aim to show a 15% change in student responses.

**Evaluation Plan**

**Evaluation Design**

Key indicator data will be gathered at pre- and post-test surveys to determine the effectiveness of the program. Pre-test data will be gathered during needs assessment surveys, and post-test data will be accumulated during surveys at the end of the school year upon program completion. A follow-up survey will also be given a year following the completion of the program.

Data will also be collected during the program. It will be collected from students and staff recommendations to determine any necessary alterations for the materials or curriculum. To ensure the best possible outcomes, this data will be gathered more frequently during the year (see Process Evaluation below).
Process Evaluation

Several different strategies will be employed to evaluate the program as it progresses through the year. Interviews, focus groups, and surveys will be conducted at various points throughout the year to determine levels of acceptance, sexual competence, and areas needing improvement. Focus groups will be held every other month for teachers to express their opinions regarding the program’s effect on the students and the campus. They will be encouraged to offer suggestions for improvements, and highlight current successful and/or unsuccessful characteristics. There will also be mini surveys distributed at these meetings to rate the level of acceptance and perceived effectiveness.

The students will be offered opportunities to participate in surveys, interviews, and focus groups. Surveys will be distributed at the end of every month that the students will answer anonymously. They can include their name on the survey if they would like to receive feedback directly from the instructor. These surveys will include questions to measure the students’ sexual competence, in addition to space for the students to request certain adjustments to be made to the curriculum regarding activities, materials or other aspects of the program. For example, results could be comprised of opinions about the lessons that were particularly effective, or certain concepts they cannot comprehend. Interviews will be another option for bolder students. Semi-structured interviews will be utilized when talking to students to help facilitate a relaxed atmosphere and encourage students to be more vocal. Focus groups will also be offered to students to give them comfort in numbers. Students will be encouraged to talk to the instructor any time they experience difficulties in the class or dilemmas that could be solved using class lessons.

Outcome Evaluation

In order to determine whether the program was successful in its implementation, surveys will be used as the measuring tool by comparing responses from pre- and post-test surveys. These surveys will be distributed to the students at the beginning and the end of the year to measure the general level of students’ sexual competence and intended sexual behaviors. The behaviors that will be the focus of these surveys, is the intention to refrain from sex, and in the event that they should take part in sexual behaviors, they will use condoms. A third follow-up survey will be given to the students two years
following their enrollment in this program. It will follow the same format as the other surveys, but it will specifically determine whether or not the program has positive long-term outcomes in addition to short-term. Not only does this benefit the program, but will also aid the field by providing additional data on the effectiveness of comprehensive sexual education programs.

**Sustainability Plan**

This program will require the use of grants, donations, and fundraising to be implemented and sustained over time. Initially, this program will rely directly on grant funding that will be sought from the Department of Education. One reason is the rationale to work with the RESPECT (Recognizing Educational Success, Professional Excellence, and Collaborative Teaching) framework that would connect this program to lessons from higher-performing countries and from hundreds of schools across this country whose students academically exceed despite significant challenges (U.S. Department of Education, 2013). After the first year of the program, data can be gathered and analyzed to determine the program’s progress on RESPECT. This could be a positive tool to be used by the school as well.

At the end of the year, fundraising will be held in the form of a Condom Con. This event will be a fair dedicated to safe sex awareness. It will include different booths and activities that will educate the participants about various topics covered by the program or thought relevant by students. Students will be offered a chance to earn extra credit by hosting a booth or activity. This will also be an opportunity for them to research and share a topic about sexual health that they have an interest in. The fair will be held on a Friday night when it would be the best opportunity for families and community members to attend. The main event will be YOUTH which will be a themed Bingo event. People will buy cards for each round they want to participate in, and there will be a small assortment of markers for sale. All money will be used in funding the program the following year. There will also be a donation box on the YOUTH table available during the entire fair for people to make contributions. All money raised through the fair will be used in funding the program the following year.

There will be some pieces of the program that will be more difficult to implement than others. One difficult aspect will be ensuring high attendance at the parent informational sessions. As academic
and social calendars fill up in the fall months, it will be difficult to schedule sessions that will fit into everyone’s schedule. To address this limitation, meetings will be scheduled for different evenings of the week. They will also be heavily advertised in advance through the use of emails, flyers, posters, and letters with the students. Another limitation to this study will be community resistance. It will take more time to convince the community that this is an appropriate program to give the students. This is a more conservative area that will require extra attention before yielding acceptance. There will be information explaining why comprehensive programs are successful in reducing teen pregnancy rates and risky sexual behaviors. These brochures will be distributed by hand delivered mail.

In order to ensure the program’s sustainability, the program instructor could be chosen from among the staff at the health center. It would be more economic to alter a current position instead of creating a new one. Also, lessons will occur during an existing class during weekdays. It will take the place of one regularly scheduled class time. Since the instructor will be working at the health center, the position can be sustained by Virginia Garcia. The location on campus helps to promote student access to resources and helps to increase utilization.

**Conclusion**

Teen pregnancy rates in the U.S. are among the highest in the industrialized countries. Forest Grove has a rate nearly double that of Oregon and that of the nation. Currently, there is a limited program offered to students in which necessary information is only briefly discussed. It has been an ineffective intervention that has not successfully lowered the incidence of teen pregnancy in the student population. A comprehensive sexual education program emphasizes the importance of abstinence in addition to contraceptives, STIs and HIV, and safe sexual practices. Studies have found that these types of programs have been successful in reducing the prevalence and frequency of sexual activity and increasing condom/contraceptive use among the sexually active. These programs have also been found to have positive short-term and long-term outcomes for changes in sexual behaviors. The review of the literature recommended the implementation of a comprehensive-based program in Forest Grove High School.
The FG SBHC mission inspired that of this program, to provide high-quality, comprehensive, and culturally appropriate primary health care and information regarding safe sexual practices and behaviors to students that might not receive it otherwise. To meet this mission, the program has been tailored to fit the students of Forest Grove High School, taking into consideration the available resources for this population. All educational materials used will be available in English and Spanish, peer mentoring will be implemented to specifically target the at-risk youth in the area, and the staff at the FG SBHC will be utilized throughout various activities such as role-playing. To encourage continued support and acceptance from parents and the community, parent information sessions will be held throughout the year. These sessions are done with the intention that it will help to facilitate an open, honest relationship between students and their parents as a result of mutual education. By illuminating the unknown, the fear of addressing it goes away. This fear is a barrier constricting their relationships, and removing that barrier can decrease participation in risky sexual behaviors. Decreasing participation in risky sexual behaviors helps fulfill the overarching goal of the program: to reduce the incidence of teenage pregnancy in the students of Forest Grove High School.
References


### Appendix

<table>
<thead>
<tr>
<th>Input/resources</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short-term outcomes</th>
<th>Long-term outcomes</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order to accomplish these activities, we need:</td>
<td>In order to address our goal, we will practice the following set of activities:</td>
<td>If you carry out these activities, the following evidence should be created:</td>
<td>If you carry out your planned activities to the extent intended, the following measurable short-term benefits will occur</td>
<td>If you carry out your planned activities to the extent intended, the following measurable longer-term benefits will occur</td>
<td>If you carry out your planned activities to the extent intended, they should contribute to the following larger public health impact</td>
</tr>
<tr>
<td>Cooperation from the Forest Grove School District</td>
<td>Presentation for the community at a City Council meeting.</td>
<td>A comprehensive based sexual education program will be offered at Forest Grove High School</td>
<td>More students will choose to refrain from sex.</td>
<td>More students will choose to use condoms and other forms of contraceptives in the event that they have sex.</td>
<td>More students will refrain from having sex.</td>
</tr>
<tr>
<td><strong>People:</strong> Sue Bisgyer, Jami Fordyce, FGHS Principle and staff, students willing to participate in different roles as actors and mentors</td>
<td>Parent information sessions</td>
<td>8-10 students will be peer mentors</td>
<td>Students will be well informed on the potential negative outcomes from participating in sexual encounters.</td>
<td>Students will be more likely to use condoms and other forms of contraceptives if they choose to have sex.</td>
<td>Students continuing to have sex will be more likely to use condoms and other form of contraceptives.</td>
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<tr>
<td><strong>Partnerships:</strong> FG SBHC, local free clinics, planned parenthood</td>
<td>Distribute pamphlets and information from clinics on safe sex practices and unplanned pregnancies</td>
<td>Parents will be supportive of this program.</td>
<td>The incidence of teen pregnancies will drop in Forest Grove High School students.</td>
<td>Doctors and clinics will be better utilized for regular exams and consults.</td>
<td>The incidence of teen pregnancies will drop.</td>
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<tr>
<td><strong>Curricula and materials:</strong></td>
<td>Role playing within class</td>
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<tr>
<td>RealCare babies; lesson plans for: STDs and STIs including HIV and AIDS, safe sex practices, and healthy relationships and communication.</td>
<td>Educational movies depicting the different topics that will be covered</td>
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<td><strong>Funds:</strong> will need to be procured through grants initially and continued through fundraising</td>
<td>Peer mentoring</td>
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<tr>
<td></td>
<td>A teen parent project with the RealCare Baby assignment.</td>
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<tr>
<td></td>
<td>Condom Con: A safe sex awareness fair that will have educational games to earn money for funding.</td>
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