A Comprehensive Study of the Effectiveness of Teenage Pregnancy Prevention Programs

by

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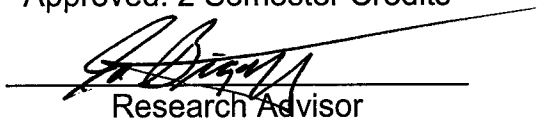

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ABSTRACT

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Teenage pregnancy prevention programs are the government's answer to teenage pregnancy. Teenage pregnancy not only effects the teenager and the child they bear but also society. Whether it is the tax payer's money used to support the children or the cost associated with educating the children who may have learning disabilities or behavioral disorders, society has to cope with the consequences of teenage pregnancy. States fund teenage pregnancy prevention programs in the hope of eliminating the problem. As money for funding state programs becomes less and less, it is imperative we become selective in choosing which programs receive much needed money and which do not. Evaluating the effectiveness of teenage pregnancy prevention programs, enables

us to draw conclusion about which components can be transported to communities that are in dire need of reducing teenage pregnancies.

This study examined the effectiveness of selected teenage pregnancy prevention programs. The focus of the research also provided insight into the components an effective teenage pregnancy prevention program. Numerous recommendations were made in order to design an effective teenage pregnancy prevention program.

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CHAPTER ONE: INTRODUCTION

While teenage pregnancy rates have decreased within the last ten years, statistics are showing that there is still a problem. Adolescents today are more at-risk for teenage pregnancy because they are engaging in sexual behavior at increasingly earlier ages. The problem is so abundant that the federal government has passed policies to reduce the number of teenage pregnancies. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PL 104-193) gave states incentives to achieve the following objectives: the "Bonus to Reward a Decrease in Illegitimacy"; funds for Abstinence-Only programs; and the "Bonus to Reward High Performance State" in order to reduce the number of illegitimate teenage births. According to Dr. Naomi Farber (1999), the possible effects of early childbirth are lower educational attainment and greater poverty. The poverty cycle is difficult to escape and sometimes takes generations to do so. Pregnancy prevention programs are a major means to save teenagers from making mistakes they are ill-equipped to deal with and keep the rest of society from cleaning up.

Statistics show that four out of ten girls currently age 14 in the United States will likely become pregnant before they reach their twenties (The Adolescent Pregnancy Prevention and Services Board, 1993). There are societal and individual factors that contribute to high teenage pregnancy rates. Some societal factors include poverty, sexism, racism, and the mass media images of sexuality and parenthood (The Adolescent Pregnancy Prevention and Services Board, 1993). Individual factors that place a teenager at risk for pregnancy are

poor self-concept, being subjected to sexual abuse, and family or personal abuse of alcohol or other drugs (The Adolescent Pregnancy Prevention and Services Board 1993).

Once a teenager has had a child their lives are forever changed and not just because they are children parenting a child. They have fewer life opportunities and higher rates of psychosocial disadvantages including leaving school early, educational underachievement, prolonged welfare dependence, decreased marital opportunities, less competent and more punitive parenting, maternal depression, and greater exposure to partner violence (Woodson, Fergusson, & Horwood, 2001).

Children born to teenage parents are also at-risk for adverse developmental outcomes. The children have an increased rate of emotional and behavioral disorders, language delay, learning problems, educational underachievement, delinquency, and adolescent drug and alcohol problems (Woodson, Fergusson, & Horwood, 2001). These factors also increase their chances of becoming teenage parents themselves and continuing the cycle to next generation.

Teenage pregnancy prevention programs are the government's answer to teenage pregnancy. Teenage pregnancy not only effects the teenager and the child they bear but also society. Whether it is the tax payer's money used to support the children or the cost associated with educating the children who may have learning disabilities or behavioral disorders, society has to cope with the consequences of teenage pregnancy. States fund teenage pregnancy prevention

programs in the hope of eliminating the problem. It is also imperative to understand that the funds used for teenage pregnancy prevention programs are taken away resources that could be used other programs society has deemed important.

Purpose of the Study

Although teenage pregnancy rates are beginning to decline, they are increasing in certain populations. The purpose of this study is to evaluate the effectiveness of teenage pregnancy prevention programs in reducing the number of teenage pregnancies. This is achieved by conducting a comprehensive review of literature and research associated with the topic. Recommendations are provided for teachers, administrators, and community members who are designing a pregnancy prevention program.

Research Objectives

The following research objectives guide this study:

1. To contrast the effectiveness of abstinence only programs and abstinence plus programs.
2. To discover, if any, a relationship between ethnicity and the effectiveness of pregnancy prevention programs.
3. To discover, if any, a relationship between socio-economic status and the effectiveness of pregnancy prevention programs.
4. To discover, if any a relationship between the level of risk for becoming a teenage parent if their parent was a teenage parent.

5. To take the results of this study to formulate recommendations to administrators and other professional educators.

Limitations of the Study

The fact that this study is a critical analysis of literature and does not include a measurement instrument limits this research to personal interpretation of chosen literature.

CHAPTER TWO: LITERATURE REVIEW

Introduction

This literature review examines the effectiveness of teenage pregnancies prevention programs. This chapter addresses the contrast between the effectiveness of abstinence-only and abstinence-plus programs; the relationship between ethnicity and the effectiveness of pregnancy prevention programs; the relationship between socio-economic status and the effectiveness of pregnancy prevention program; and, the relationship between the level of risk for becoming a teenage parent if their parent was a teenage parent.

Types of Programs

There are basically two types of teenage pregnancy prevention programs: abstinence-only and abstinence-plus programs. Abstinence-only programs teach students abstinence is refraining from engaging in sexual intercourse. Abstinence-only programs are based on religion doctrine that believes sex is only for those who are married. Abstinence only programs do not teach about contraception use. They tend to focus on the negative aspects of sexually behavior and can be construed as using fear more than facts. Unfortunately, abstinence-only programs are prohibited by federal funding guidelines from teaching about contraception use. Abstinence-plus programs emphasize abstinence but also provide information about contraception.

One type of abstinence-only program is called taking the "Virginity Pledge." When students agree to take the pledge, they are refusing to have sexual intercourse until they marry. The Southern Baptist church started the

Virginity Pledge. A study conducted by Peter Bearman of Columbia University and Christine Bachrach of Yale "concluded that teenagers who took the pledge to abstain from intercourse until marriage are much less likely to have intercourse than adolescents who did not pledge" (Roleff, 2002, p. 65). The study also found that teenagers who took the pledge are less likely to use contraception than non-pledgers when they do engage in sexual intercourse (Roleff, 2002). The pledge is less effective for younger teenagers and not effective if too many teenagers take the pledge from the same school. Unfortunately, abstinence pledges do nothing to lower teenage pregnancy rates, the rate of sexually transmitted disease, or the rate of sexual experimentation which may include oral and anal sex (Roleff, 2002). According to Dominus, a quarter of the country's school districts sex education programs teach only two components: the only kind of acceptable sex is the married kind; and the only fact about contraception is that it fails a lot. The Virginity pledge seems to do more damage than good in preventing teenage pregnancy.

Teenage pregnancy prevention programs need to be effective if we intend on decreasing the number of teenage pregnancies. According to Lerner (1995), there are six key components to an effective full service (abstinence-plus) prevention program. The first component is a planning process which assesses the capacities and needs of the community in order to use the resources to meet specific needs of the children and families in the community. The second component is a service design process that integrates the new services with health, social, and counseling services already present in school. The third

component is a collaborative governance structure with an agreement to pursue a shared vision and have common goals, expect to share resources, participate in joint decision making, and use their personal and institutional power to change systems. The fourth component is a system to use space for primary health care and/or other services. The space may include examination rooms; a laboratory; confidential counseling; an office for referrals and files; a space for individual and group counseling; parent education; case management; career information; play; clothing and food distribution; food preparation; and, the opportunity for building leadership. With these components, a teenage pregnancy prevention program will be able to address the multi-level risk factors associated with teenage pregnancy.

Studies

Frost and Darroch-Forrest (1995) evaluated five teenage pregnancy prevention programs. They evaluated Postponing Sexual Involvement, Reducing the Risk, School/Community Program, Self-Center, and Teen Talk. Frost and Darroch Forrest summarized the components of the programs as follows:

- Postponing Sexual Involvement has a school based educational curriculum. It was implemented in Atlanta, Georgia, with eighth graders. Postponing Sexual Involvement is based on social influence and social inoculation theories and believes that children this young should abstain from sex. The program is taught by 11th and 12th graders, who help the participants identify the source of and motivation behind the pressures to

engage in risky behaviors and assist them in developing skills to resist the pressures.

- Reducing Risk is a school based educational curriculum and was implemented with high school students at several California schools. The curriculum for Reducing Risk is grounded in several social learning theories. It teaches skills needed to resist pressure to engage in risky behavior. Participants are taught that unprotected intercourse is to be avoided by either not having sex or using contraception.
- School/Community Program uses a multifaceted approach to reduce teenage pregnancy in a rural community in South Carolina. District teachers, administrators, and special personnel attended graduate level courses covering issues related to sex education and adolescent decision making, developing self-esteem, communication, and influences on sexual behavior. Program staff helped teachers integrate sex education into ongoing courses at all grade levels. Clergy, church leaders, and parents were recruited to attend mini-courses and used the newspaper and radio to spread its messages. A school nurse provides contraceptives to students and a comprehensive school linked clinic in adjacent building provided students with contraceptive services and supplies.
- Self Center is a program that links school based sexuality and reproductive health education and counseling with the provision of medical services. The program was implemented at a junior high and senior high school in Baltimore, Maryland. A social worker and nurse practitioner staff

each school's Self Center every morning, conducting homeroom and classroom lectures, informal individual counseling, small group rap sessions, and educational encounters. They also make appointments to obtain contraceptives and reproductive health services at a nearby clinic.

- Teen Talk is an educational curriculum based on health belief model and social learning theory, designed for educational and community based settings. The goal of Teen Talk is to alter adolescent behavior by raising awareness about the probability of becoming pregnant or causing a partner to become pregnant; the negative consequences of teenage maternity and paternity; the personal and interpersonal befits of delayed sexual activity and consistent contraceptive use; and the psychological, interpersonal, and logistical barriers to abstinence and consistent contraceptive use. The program uses the presentation of factual information and small group discussion. Role playing exercises are also used to practice communicating in sexual situations.

The programs were predominantly implemented in low income areas with black populations. Reducing Risk, however, had much more diverse participants – race, ethnicity, and socio-economic status. Since these programs do not include more diverse populations, it would be difficult to generalize the findings to all people of color populations and socio-economic status. The programs were evaluated using quasi-experimental methods. The effectiveness of the programs were evaluated by comparing the behavior of the students attending the program with the behavior of the students in alternate programs. Frost and Darroch-

Forrest (1995) measured the following areas: delay in sexual initiation; increased use of contraceptives; and reducing teenage pregnancy. In the area of delayed sexual initiation, where data was available, there was a lower rate of sexual initiation for students in the programs compared to students in the control group. In the area of increased contraceptive use, it was significantly higher for programs where contraceptive services were a component. In the area of teenage pregnancy reduction, programs that provided contraceptives did lower teenage pregnancies when compared to control groups. Unfortunately there was not enough data available to track the long term effectiveness in preventing teenage pregnancy. Frost and Darroch-Forrest found that the programs "changed the behaviors of participating adolescents" (1995, n.p.). They believe that measuring the impact of pregnancy rates is difficult. If fewer teenagers are having sex and among those who are sexually activity increase their use of contraceptives, there will be a decrease in teenage pregnancy rates. Frost and Darroch-Forrest (1995, n.p.) stated that, "none of the programs reviewed persuaded all participant to remain abstinent or to use contraceptives, and none kept all girls from becoming pregnant".

Another teenage pregnancy prevention program is Baby Think It Over. It was designed to create a realistic experience of the responsibility and burden involved with infant care. The infant is a computerized baby engineered to stimulate typical unpredictable infant behavior by crying at unpredicted intervals and durations. The students must tend to the baby using a special device until the baby ceases crying. The student takes the infant home over the weekend.

The goal of the program is to create a lasting impression on both teenage boys and girls of the personal sacrifice and challenges required of new parents. Somers and Fahlman's (2001) study sought to discover if Baby Think IT Over changed teenagers' attitudes towards parenting and actual sexual and contraceptive behaviors linked to avoiding teenage pregnancy. They also investigated the measures of self-efficacy to resist sexual activity, perceptions of others' acceptance of teenage pregnancy, personal sexual and pregnancy plans, general attitudes towards premarital sexual intercourse, and directly asks teenagers about their conscious perception of the stimulator's utility and impact (Somers & Fahlman, 2001). Somers and Fahlman used a quasi-experimental design and analysis. The students in the study were primarily white and middle class. The experimental group were students from three different high schools. The students were from health and child development classes. The control group students were from a fourth high school. The students surveyed were from several social studies classes and did come not into contact with students who were using stimulators. All the students were given, at the same time, a pretest before anyone was given a stimulator. After all the students had experience with the stimulators, they were given a post-test. According to Somers and Fahlman, there were no significant difference statistically between the experiment group and the control group (2001). The effectiveness of the Baby Think It Over program has inconsistent findings. Parents and teachers support using the infants as a method for pregnancy prevention. The primary purpose was to determine if teenagers experiencing the Baby Think It Over program would make

significant gains when compared to those who did not experience the program, which they did not. The short period of time the students had with the stimulator or the timing of the posttest may have effected the outcome of the study (Somers & Fahlman, 2001). Conversations had by the researchers with teachers who administrated the program felt that students may have not treated the stimulators as a "real baby" (Somers & Fahlman, 2001). When students were asked what the Baby Think It Over program taught them, the students stated, "being a parent is time consuming, a lot of responsibility, and can keep you from reaching future goals" (Somers & Fahlman, 2001, n.p.). This study does not nor does it disprove that the Baby Think It Over is effective in reducing teenage pregnancy.

A Journey Towards Womanhood is another teenage pregnancy prevention program. It takes an Afrocentric approach to teenage pregnancy prevention. Sisterhood Agenda, Inc. developed a thirteen week program designed for teenage girls of African descent. A Journey Towards Womanhood began in 1995 and meets once a week for four hours. There are four key components to this program:

- Reaching for Success explore self-definition and the importance of seeing oneself as an unique individual by examining the role of women in history; the aspects of different countries, critiquing current media images, sharing self-descriptions, viewing historical documentaries, and exploring diversity during weeks one thru four.
- Developing Inner Health for Outer Beauty explores diet and nutrition, exercise and fitness, holistic well-being, peer pressure, sexual health, and

healthy relationships. They tour a Planned Parenthood clinic, meet with a teenage parent, and attend a forum with African American teenage males who are participating in a local rite of passage program during weeks five thru seven.

- Progressing with Finesse, Dignity, and Pride uses role-playing and affirmations to help participants develop skills in public speaking, job interviewing, and interpersonal communication which will increase their social skills, self-confidence, dignity, and pride during week eight.
- Week nine consists of an out of town fieldtrip that fosters group bonding, widens their perspectives, helps develop social skill, and teaches planning techniques. In the past they have visited sites like a re-created Yoruba village in South Carolina, the Charleston, South Carolina historical district, and the Smithsonian's African Museum of Art, Frederick Douglass Museum, and Howard University in Washington D.C.
- Knowing the Tools for Survival encourages self-sufficiency with activities such as sewing a cultural garment, hosting a luncheon, budgeting, investing, saving money, and job hunting during weeks ten thru thirteen.
- The program ends with a graduation ceremony where graduates make individual presentations about the four principals of Sisterhood Agenda: sisterhood, self-knowledge, self-development, and self-esteem. The program is reinforced through a monthly support group for those who successfully complete the program (Dixon-Coleman, Schoonmaker, & Philiber, 2000).

Sixty-five African American females age 14 to 19 from low income backgrounds were surveyed. Thirty-two of those surveyed did not participate in the Journey Towards Womanhood program. The study found 24% of the participants had experienced intercourse by the time of the survey compared to 69% of the non-participants. A Journey Towards Womanhood believes that by instilling a sense of pride and self-determination, African American females will be more likely to delay the initiation of sexual intercourse (Dixon-Coleman, Schoonmaker, & Philiber, 2000). In this situation, it has been effective. Non-participants (27%) were more likely than participants (17%) to engage in unprotected intercourse. Pregnancies were three times more frequent among non-participants than participants (Dixon-Coleman, Schoonmaker, & Philiber, 2000). Dixon-Coleman, Schoonmaker, and Philiber (2000) attribute the following to its success: the Afrocentric approach; a curriculum that emphasizes independence and self-determination; the program is based on active learning; meets in groups no larger than ten; the thirteen week length; a graduation ceremony that fosters a sense of accomplishment; and, the program's follow-up components to its effectiveness. This program is not meant to be effective in all populations, but possible can be used to make a difference around the country in similar populations.

The Inwood House Model of Pregnancy Prevention and Care for Teenagers (Project IMPPACT) is an abstinence-based model of the Teen Choice small group mental health program. Project IMPPACT curriculum focuses on the importance of abstaining from sexual intercourse. Topics, discussed in groups of

eight to twelve members over 12-14 sessions during one semester are male and female anatomy; understanding pressures to have sex; coping with peer pressure from media; risks of early sexual involvement; and, STDs, HIV and AIDS. Although abstinence is emphasized, contraceptives are discussed in terms of their failure to provide complete protection against pregnancy and STDs (Lieberman, Gray, Wier, Fiorentino, & Maloney, 2000). Project IMPPACT staff are invited to make presentations by teachers, where they describe the program and invite students to join. Small group discussions are guided by a trained and trusted adult, who help the participants incorporate new ideas and openly discuss with their peers issues they face as teenagers. The groups also work to build communication skills, support healthy adult-child and peer communication, and attempt to create peer groups in which new behavior patterns will be accepted and desired (Lieberman et al., 2000). The program is intended to enhance participants' ability to adopt or reject new ways of thinking by providing the opportunities to question and apply new information through guided interaction with significant others (Lieberman et al.,2000). The groups are either single sex or coeducational. Project IMPPACT staff are social workers with extensive training in adolescent development, group work, and human sexuality and meet with supervisors for weekly in-service training. The study used pretest, posttest, and follow-up surveys with intervention and comparison cohorts. There was an interval of three to four months between pretest and posttest with the follow-up survey conducted one year after the posttest. The participants in the study were from the same middles schools. The ethnicity of the participants was Black,

Caribbean, and Latino. There were 312 students who completed the pretest, posttest, and follow-up. The socioeconomic status of the participants was not given. The study took place in New York City. The students who had the intervention were more likely to be depressed; repeated a grade; to have been touched sexually when it was not desired; and, to have been slapped, punched, or kicked by a parent or guardian than the comparison group. Two-thirds of the intervention group and one-half of the comparison group stated most or all of their friends had already had sex. The study hypothesized that participants in the Project IMPPACT would report significantly positive changes from pretest to posttest and pretest to follow-up in the following areas: psychosocial measurements of self-esteem, locus of control, and self-efficacy; the ability to communicate with their parents or other adults about sexuality and other concerns; attitudes consistent with preventing pregnancy; intentions to engage in sexual intercourse in the next six months; and the onset of sexual intercourse than the student in the comparison group (Lieberman et al., 2000). Lieberman et al. described the results of the study in terms of short and long term outcomes. In terms of short term outcomes, there was no statistical difference between the intervention group and the comparison group. In fact, the intervention students were doing worse than comparison students in short term outcomes like depression and self-esteem or attitudes about teenagers having sex or in intentions to have sex. In long term outcomes, the parental relationship variables were higher in the intervention group than the comparison group. During the follow-up, there were nine pregnancies, five were in the intervention group.

Project IMPPACT appears to not be an effective pregnancy prevention programs for this population. The students in the intervention group were in need of help in other areas such as counseling for the sexual and physical abuse they have experienced. They are already disenfranchised and are not even in high school yet. The students in this study attend schools in environments where a predominant number of middle school students are sexually active and there is no negative social consequence associate with early sexual intercourse. Project IMPPACT might be more effective with different populations who have not been so disempowered.

Another pregnancy prevention program is the School/Community Sexual Risk Reduction Replication Initiative. It was implemented in three Kansas communities: Geary County, Franklin County, and Wichita. This multi-component school and community based model had the following objectives: to reduce teenage pregnancies; to delay the age of first intercourse; and increase contraceptive use among sexually active teenagers. The objective were shown through the following components: sexuality education for teachers and parents; comprehensive, age appropriate sexuality education from kindergarten through 12th grade; increased access to health services; collaboration with school administrators; the use of mass media; increased awareness and involvement of the entire community in teenage pregnancy prevention; peer support and education; alternative activities for young people; and the involvement of the faith community.

In Geary County, the racial population was broken down as 66% white, 23% black, 6% Hispanic, 4% Asian, and 1% Native American. The median income was $24, 000. The estimated teenage pregnancy rate was 69 pregnancies per 1,000 females aged 14-17. The focus of the program for Geary County was to promote healthy choices for middle school and high school youth by providing alternative activities for young people, mentor programs, sexuality education, peer support groups, and contraceptive access at the school-linked clinic (Paine-Andrews & Harris, 1999).

In Franklin County, a rural community, the racial population was broken down as 97% white, 2% Hispanic, and 1% black. The median income was $30,000. The estimated pregnancy rate was 80 pregnancies per 1,000 females aged 15-19. The focus of the program for Franklin County was the development of healthy children and families by placing an emphasis on sex education for youth and parents; peer support program for males and females; family communication; and alternative activities for after school and summer programs (Paine-Andrews & Harris, 1999).

The Wichita program was located in a low income neighborhood in Northeast Wichita. No information was given about the racial make up of the population. The adolescent birthrate was 65 per 1,000 females aged 14-17. The focus of the Wichita project was on health choices for youth and family by placing emphasis on alternative activities after school, during summer breaks, and school holidays; peer support groups for both males and female; sex education in the community for youth and parents; life options programs such as mentoring,

tutoring, and peer leadership; and media attention to problems and solutions associated with adolescent pregnancy prevention (Paine-Andrews & Harris, 1999).

The researchers hypothesized that changes in the estimated pregnancy rate and associated risks and protective factors are associated with the implementation of the community actions and interventions. The researchers also felt that the interventions will only occur with an understanding of the community context and with local planning (Paine-Andrew & Harris, 1999). There were three process measures: the importance of the project goals to build consensus on and to set priorities for changes outlined in the project action plan; community member satisfaction with the leadership, planning, services, community involvement, and the progress toward accomplishing project goals; and, the project implementation of community actions, media coverage, services provided, community health education, sex education provided to students and teachers, and resources generated. The intermediate outcomes of the initiative were as follows: community changes in reference to the new or modified programs, policies, and/or practices that were consistent with the mission; the importance of intermediate outcome with community members and experts in the field of teenage pregnancy prevention in reducing the risk for adolescent pregnancy; and, the evaluation of critical events associated with the project that had occurred in order to document a history of the initiative and discern the value of the initiative to the community (Paine-Andrews & Harris, 1999). The three distant outcomes measured were as follows: the reported behavior change of

students' self reports of abstinence or intercourse, age at first intercourse, and contraceptive use; estimated teenage pregnancy rates; and teenage birthrates. There was data from only Geary County and Franklin County because Wichita did not grant permission for data collection of students. The research findings for process measures were as follows:

- Importance of goals - the highest rated goals were forming new programs and providing services related to the mission such as support groups and parent networks at the Geary County site; adopting effective sexuality education in Franklin County; and developing public service announcements to discourage youth participation in risky behavior in Wichita.
- Member satisfaction – the highest ratings were in the areas associated with staff, leadership, and program development such as the strength and competence of staff in Franklin County; leadership in Geary County; graduate training for teachers in Franklin County; and sensitivity to cultural issues in Wichita.
- Project implementation – data indicated that each site demonstrated high levels of community activities such as calling a local supermarket to solicit support for a family movie night; meeting with peer leaders to develop fpr educational presentations; and contacting local pharmacies to develop a program to address the social consequences sometimes associated with purchasing contraceptives in small rural areas, media coverage such as radio call-in shows, billboards, and public service announcements, and

services provided such as health screening for children, job fairs, and meetings of support groups(Paine-Andrews & Harris, 1999).

The research findings for intermediate outcomes were as follows:

- Community change – during four year period, each of the three sites facilitated more than 100 community changes such as establishing support groups, extending the hours of school-linked clinic, and making referrals to agencies.
- Importance of intermediate goals – the goals that received the highest importance were extending clinic hours to accommodate student schedules in Geary County; establishing support groups in middle schools in Franklin County; and creating a referral system for adjudicated teenage fathers to participate in project activities in Wichita.
- Critical events interviews – events rated as strengths of the projects were collaboration among initiative partners; the establishment of programs for males and females; strong and committed leadership and staff; open and positive communication; and teacher training (Paine-Andrews & Harris, 1999).

The research findings for the more distant outcomes were as follows:

- Sexual intercourse – in Geary County, students' reports of ever having sex decreased significantly among females 51% to 38% and males 63% to 43%; and in Franklin County, students' reports of ever having sex did not change significantly.

- Condom use – in Franklin County, more males in the upper grades reported using condoms from 39% to 55%; there no significant changes in condom use in Geary County.
- Age at first intercourse – in Geary County, the proportions who reported the first intercourse took place either at age 14 or at 15 increased among males 34% to 36% and females 55% to 56%; in Franklin County, the proportion decreased among males from 40% to 34% and females from 57% to 52%.
- Estimated teenage pregnancy rates and birthrate – for Geary County, the estimated pregnancy rates decreased from 63 pregnancies to 56 pregnancies per 1,000 females; for Franklin County, the estimated pregnancy rate decreased from 41 pregnancies to 37 pregnancies per 1,000 females; the birthrate for Wichita in Target Area A decreased from 106 births to 92 births per 1,000 and in Target Area B increased from 50 births to 55 births per 1,000 (Paine-Andrews & Harris, 1999).

The replication of this South Carolina school/community based teenage pregnancy prevention program changed the communities in which it was implemented. It was slightly effective. The grant given to implement the programs only lasted four years. If strides made in the communities are to continue and grow, the projects must find funding. Information was not given on which racial populations benefited most from the interventions.

Another pregnancy prevention program is operated by the Minneapolis Department of Health and Family Services. The school based clinics (SBCs) are

operated in five traditional high school. Parents are given a choice in whether their child receives any service, any service other than contraceptive counseling and birth control prescriptions, or no services. At first, when students requested contraceptives from the SBCs, they were given vouchers to pick up the contraceptives at community clinics at no cost. Later, because many vouchers went unfilled, direct on-set distribution of contraceptives was instituted. Sidebottom, Bimbaum, and Nafstad (2003) conducted a retrospective chart review of both systems of distribution. There were 312 students in the study, 79.1 % female, 39.1% white, and 36.8% African American. Under both systems the percentages of students requesting contraceptives were 11%. Students using the vouchers systems received all the requested contraceptives was 41%. While under the direct distribution system 99% of the students received all requested contraceptives. The study showed that under the direct distribution system teenagers were more likely to receive and possibly use contraceptives. Unfortunately, when the new policy of direct distribution came into effect, there was no advertisement. Therefore, it is unclear whether direct distribution is an effective component of a teenage pregnancy prevention program.

Due to the increased risk to teenagers with siblings who are teenage parents, California's Adolescent Sibling Pregnancy Prevention Program was established to target these teenagers. The program is dispensed to siblings of pregnant and parenting teenagers at 44 nonprofit social service agencies, community based organizations, school districts, and county health departments across California. Programs at each site provide a variety of services depending

upon the needs of the clients. Two Adolescent Sibling Pregnancy Prevention Programs were describe in the study – Stand Tall and Achieve Responsibility and San Bernardino County Siblings Program.

The Stand Tall and Achieve Responsibility (STAR) is administered by the County of Santa Cruz Health Services Agency. The STAR goals are to support teenagers in delaying childbearing; help youth do well in school; and help youths be physically healthy. In the area of sex and contraception, participants are counseled about abstinence and contraception; provided access to quality reproductive health care; take clients to health or medical clinic, if needed; provide rewards for not having sex or for being responsible about using contraceptives; and incorporated goal setting concepts. In the area schooling and job skills, link clients with tutors and help with homework; help with homework; help with writing and typing school reports; take students to the library to do research; help students deal with teachers and connect with school counselor; help clients prepare a resume; advocate for clients at explosion and court hearings; and meet with teachers and principal. In the area of health and general well-being, staff make appointments and take clients to the doctor, dentist, optometrist, sports, sports exam, and vaccine updates; sign up clients up for medical insurance; provide access to sport teams, games, and swimming program at the local high school; help teenagers recognize media pressure for fashion and thinness; educate clients about healthy eating and exercise; and go on fieldtrips and engage in group activities to strengthen social skills and competence in new situations (East, Kiernan, & Chavez, 2003). There were 35

participants in this program. After one year, the program had no pregnancies and no STDs.

The San Bernardino County Sibling Program is facilitated by the County of San Bernardino Depart of Public Health. The goals of the program are to prevent pregnancy; promote healthy lifestyles; and inspire and empower young people and their families toward self-discover, positive personal growth, goal attainment and self-sufficiency. Strategies for the program include sibling groups meet bimonthly to participate in sports; visit museums and historical places; visit colleges or vocational schools; and participate in socio-cultural events and volunteer activities. Events are structured and developed with specific goals and objectives to build clients' self-esteem and internal strengths by exposing them to opportunities that increase their skills in decision making, problem solving, goal setting, and communication (East,, Kiernan, & Chavez, 2003). There were 200 participants in this program. After one year, there was a reduction in the rates of teenage pregnancy.

East, Kiernan, and Chavez (2003) sought to discover whether program participants showed more favorable outcomes – incidence of problem behaviors know to be risk factors for teenage pregnancy; adolescents' perceived likelihood that they would engage in pregnancy related behaviors; and rates of first intercourse, contraceptive use, and pregnancy – than comparison youths at the conclusion of their evaluation and whether positive outcomes were related to the content area of services received, their mode of delivery, and the dosage of the intervention. The criteria for participation in the study was the same of clients and

comparison group being 11-17 years old, never been pregnant or caused a pregnancy, and having a biological sibling who was pregnant or parenting and enrolled in California's Adolescent Family Life Program. The gender distribution of the study was 59% females and 41% males. The racial distribution of the program participants were 77% Hispanic, 9.5% black, 8.1% white, and 5.4% other. The racial distribution for the comparison group was 71.4% Hispanic, 11.3% black, 8.6% white, and 8.6% other. The following categories were used to evaluate the effectiveness of the program in the form of pretest/posttest: parent-youth communication; perceived likelihood of having sex; perceived likelihood of remaining abstinent; perceived likelihood of early parenthood; perceived likelihood of contraceptive use; truancy; drug or alcohol use; gang activity; sexual behavior; contraceptive behavior; and pregnancy and sexually transmitted disease history. According to East, Kiernan, and Chavez (2003), there were positive outcomes for females in the pregnancy prevention programs. The frequency of the truancies declined and the number of females with the intention to continue abstinence was higher in the program group when compared to the comparison group. Most important, the odds of becoming pregnant were significantly higher for the females in the comparison group. The more services a client in the pregnancy prevention program received and longer they received them, the better the chances the program would have at being effective at preventing teenage pregnancy. East, Kiernan, and Chavez (2003, p.69) identified certain types of services as being effective – "receipt of group services was correlated with the delayed sexual debut among males and services that

strengthen psychosocial skills were correlated with increase contraceptive use among sexually active youths." Because California's Adolescent Sibling Pregnancy Prevention Program targets so many of the at-risk behaviors associated with teenage pregnancy, it has been an effective program for populations were it was more likely to conceive a child than graduate from high school.

The Children's Aid Society in New York City runs a teenage pregnancy prevention program called the Carrera Program. The Carrera program is an year round after school program. It meets five days a week for about three hours a day. The Carrera program runs during summer breaks as well with activities that reinforce participants' sex education and academic skills, receive job assistance, participate in social events, recreational activities, and cultural trips. It originated in Harlem for high risk adolescents. The interventions for the Carrera program were guided by the following principles: staff were to treat children as if they were their own; each young person is viewed as pure potential; a holistic approach is used; contact with participants is continuous and long term; services aim to involve parents and other adults; and services offered under one roof in the community in a non-punitive, gentle, generous, and forgiving environment (Philliber, Williams-Kaye, Herrling, & West, 2002). There were seven parts to the program: five activity and two service. The activity components were – work related component, an academic component, a comprehensive family life and sex education, an arts component, and an individual sports component. The manifestation of the work related component was called Job Club. Students

received stipends to help manage bank accounts, graduated employment experiences, and career awareness. During the academic component, student can receive individual assessments, tutoring and homework help, PSAT and SAT preparation, and assistance with the college admissions process. The comprehensive family life and sex education entails weekly sessions emphasizing sexual knowledge given at age appropriate and developmentally appropriate levels by a reproductive health counselor. The arts component was designed to help young people discover and develop talent and confidence through weekly music, dance, writing, or drama workshops led by theatre and arts professionals. The individual sports component emphasizes activities requiring impulse control that can be practiced at all ages such as squash, golf, snowboarding, and swimming (Philliber et al., 2002). The service components of the program were mental health care and medical care. Mental health care includes counseling and crisis intervention and weekly discussion groups. Medical care is provided by Mt. Sinai Hospital Adolescent Health Center. Staff schedule and accompany program participants to appointments which may include annual physicals, testing for sexually transmitted disease, contraceptives including condoms, and dental care. For this study, the researcher recruited students who were between the age 13-15 who were not pregnant or parents. The individual Carrera agencies recruited the participants in the survey. Participants were randomly assigned to the Carrera program or an alternative pregnancy prevention program. The racial population of the program group was as follows: 60% Black, 39% Hispanic, and 1% Other. The gender distribution of

the program group was of 54% female and 46% male. In the control group, the racial population was as follows: 52% Black, 45% Hispanic, and 3% Other. The gender distribution of the control group was 57% female and 43% male. The data was collected over a three year period using the following: annual surveys of teenagers' characteristics and program outcomes; annual tests of knowledge of sexual topics; and monthly attendance records provided by program staff (Philliber et al., 2002). The study found that females in the program group 75% were more likely than females in the control group 36% to resist pressure to have sex. Program females were also more likely than control groups to practice abstinence. Program females 36% were more likely than control group females 20% to use a condom and birth control. Females in the Carrera program had lower rates of pregnancy and births when compared with females in the control group. Program males did not fair as well as the females. Program males 9% were less likely than control group 20% to use a condom with birth control. Carrera participants 94% were more likely than the control group 83% to receive health care at a place other than the emergency room. The Carrera program appears to be effective. It is difficult to state whether the program would be effective in all populations. In both, the program group and control group, participants were predominantly Black and Hispanic from urban areas. However, it is not too much of a stretch to say that the more time spent eliminating the circumstances that have placed children at higher risk for teenage pregnancy the less likely they are to become teenage parents.

Project Taking Charge is another teenage pregnancy prevention program targeted at early adolescents. Project Taking Charge is a six week curriculum for seventh graders enrolled in home economics classes with three parent-youth sessions offered to the students and their parents during evening hours. The program promotes family values and abstinence from sexual activity. The program teaches adolescent participants to deal with their psychosexual development; relationships with parents and peers; and planning for their future lives in the world of work. The program teaches parental participants to communicate sexual information and standards to their children and assist their children to achieve the career goals. Jorgensen (1991) hypothesized the following outcomes for adolescents in the treatment groups when compared to the control group:

- Score higher on a measure of self-esteem;
- Score higher on a knowledge test tapping their understanding of the complications caused by teenage pregnancy in the adolescent's educational and job future;
- Score higher on knowledge tests tapping their understanding of human sexuality, sexual development (anatomy and physiology), and sexually transmitted diseases;
- Exhibit greater clarity of sexual values;
- Express less favorable attitudes toward adolescent sexual activity, in terms of acceptance and behavioral intentions;

- Increase the frequency and comfort with which they communicate with parents about sexual issues;
- Exhibit an increase in their educational aspirations.

Jorgensen (1991) also hypothesized the following outcomes for parents in the treatment group when compared to the control group:

- Score higher on a knowledge test tapping their understanding of human sexuality, sexual development (anatomy and physiology), and sexually transmitted diseases;
- Increase the frequency and comfort with which they communicate with adolescent about sexual issues;
- Increase the frequency and comfort with which they communicate with adolescent about vocational planning;
- Express less favorable attitudes toward adolescent sexual activity.

A pretest was given before the intervention, and the posttest was given at the end of the six week intervention. There were 136 adolescents and 126 parents involved in the study from Wilmington, Delaware; West Point, Mississippi; and Ironton, Ohio. The majority of the participants were from low income homes, a minority, and from a single parent home. The study found adolescents and parents in the treatment group made significant gains in the areas of human sexuality, sexual development, and sexually transmitted disease. Adolescents in the treatment group were communicating with their fathers about vocational issues. Unfortunately, adolescents in the Project Taking Charge made no more gains than students in the control group. This program may not have work in

predominantly low income, single parent homes where other issues need to be addressed along with the issues of pregnancy prevention. Because participants were early adolescents, it was unclear if this program would prevent participants from engaging in at-risk sexual behaviors.

This chapter has extensively researched available and selected literature associated with the topic. The summary, conclusions, and recommendations of the thesis are found in Chapter Three.

CHAPTER THREE

Summary

The literature review focused on the examination of current literature by experts in the field of teenage pregnancy prevention. Studies have shown that abstinence only programs are not effective in preventing teenage pregnancy. They only discourage sexual intercourse without providing participants with the necessary information that would protect them from sexually transmitted diseases or unwanted pregnancy. Abstinence plus programs are more effective programs when compared to abstinence only programs. They teach a more comprehensive sex education curriculum. Abstinence is stressed as the only 100% effective means to preventing pregnancy and sexually transmitted diseases. Abstinence plus programs also incorporate community and parental involvement into its components. These programs are providing participants with life experiences that are deterring them from participating in at-risk behaviors such as drugs, gangs, and dropping out of school. When teenage prevention programs focus on the teenager as a whole being instead as a potential statistic, they are effective.

Conclusions

The effectiveness of a teenage pregnancy prevention program has more to do with the goals of the participant rather than its components. Teenage pregnancy is not just a problem for families of teenagers but for the communities in which they live in as well. Abstinence only programs are not as effective as abstinence plus programs. Since there is a larger proportion of pregnancies for

minority teenagers, programs have been designed specifically for certain ethnicities. There was not sufficient data to determine if there was a relationship between ethnicity and the effectiveness of teenage pregnancy prevention programs. Most of the programs investigated in the literature review were targeted toward lower income areas. The number of pregnancies that occur to lower income families has begun to decline. The lower the socio-economic status of a teenager, the higher the risk of a pregnancy. There was not sufficient data to determine if there was a relationship between the socio-economic status and the effectiveness of teenage pregnancy prevention programs. There was not sufficient data to determine if a teenager's level of risk for becoming a teenager parent if their parent was a teenage parent. Data did show that if a teenager's parent was a teenage parent, they are more supportive towards their teenager using birth control as a method to prevent pregnancy. Although there has been a lot of research in the area of teenage pregnancy and its causation, there has not been enough research done to determine the long term effectiveness of teenage pregnancy prevention. Most of the studies in the literature review used a quasi-experimental approach where there was little randomness. With the rise in teenage pregnancies in certain populations and the decrease of available federal funds, there will be a need for more statistical proof of teenage pregnancy prevention programs' effectiveness.

Limitations

The fact that this study is a critical analysis of literature and does not include a measurement instrument limits this research to personal interpretation of chosen literature.

Recommendations

The following are recommendation addressed to teachers, administrators, and community members who are designing a pregnancy prevention program.

1. During the designing process, invite area community members including social services, representatives from local businesses and media, clergy, and parents.
2. During the designing process, find a common and shared vision for the program.
3. Follow a consistent set of rules of governance during the implementation process.
4. The program should incorporate sex education; homework help including tutoring, writing, and research help; reproductive health services; school-linked clinic; direct distribution of contraceptives including condoms and other forms of birth control; counseling services, individual and group; alternative activities before school, after school, and during school breaks; provide cultural experiences that instill pride and hope; the use of active learning as the method of instruction; job training including internships, job interviewing, and job hunting; and, parent-child component in which can practice communicating with each other.

5. The program should be comprehensive and should be incorporated into the curriculum from kindergarten to 12th grade.
6. Teachers, administrators, and staff should be trained in sex education and taught how to teach sex education age appropriate.
7. Local media should be used to discourage sexual intercourse among teenagers; encourage condom use; and, advertise activities and events the program is sponsoring.

These are components that have helped in the fight against teenage pregnancy. Only when we begin to accept that teenagers are engaging in sexual behaviors and provide them with the tools to prevent the at-risk behaviors associated with teenage pregnancy, will we begin to win in the fight against teenage pregnancy.

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