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Life Events, Initial Sexual Behaviors, and Teenage Pregnancy Among African American Females

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Abstract

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MS, Villanova University, 2000

BS, Morgan State University, 1994

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Teenage pregnancy is disproportionate between African American and Caucasian females. This disproportion is notable because African American teenagers are 3 times more likely to become pregnant than their Caucasian counterparts are. The purpose of this study was to determine whether a relationship exists among major life events, sexual behaviors, and resultant teenage pregnancy among African American females in the United States. The theoretical framework for this study was social learning theory. Three key research questions focused on relationships among (a) major life events and initial sexual behavior, (b) ethnicity, and (c) teenage pregnancy. Independent variables were life event and ethnicity, and dependent variables were teenage pregnancy and initial sexual behavior. The population sample included a total of 12,284 data observations of African American and Caucasian females. Hypotheses were tested using logistic regression and independent sample *t* tests. The study used public domain data from the Centers for Disease Control and Prevention's National Survey of Family Growth. Study results indicated that Research Question (RQ) 1 confirmed that life events are a statistically significant predictor of teen pregnancy. RQ2 confirmed that no significant relationship exists between Caucasian and African American adolescent females and the existence of teen pregnancy. RQ3 confirmed significant mean differences in the age of first sexual intercourse between Caucasians and African Americans. This study may contribute to positive social change by educating and empowering teenage African American women about teen pregnancy, enhancing their social competence, and potentially preventing unwanted pregnancy.

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Dedication

For James L. Brooks, in memoriam, who has been and will always be a great source inspiration and motivation in achieving academic pursuits.

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Chapter 1: Introduction to the Study

In the United States, teenage pregnancy rates have declined for the past 10 years but continue to be a major public health concern (Centers for Disease Control and Prevention [CDC], 2011a). In 2000, teenage pregnancy rates were an estimated 54 per 1,000 females aged 15 to 19. In 2009, the national teen birth rate for ages 15 to19 was 39.1 births per 1,000 females (CDC, 2011a). In 2013, 26.5 births occurred for every 1,000 females aged 15 to 19 (Martin, Hamilton, Osterman, Curtin, & Mathews, 2015). Despite record low birth rates, teenage pregnancy causes substantial economic and social costs to adolescent mothers and their children (Manlove et al., 2013; Sedgh, Finer, Bankole, Eilers, & Singh 2015).

The health and welfare of teenage mothers affect their infants before, during, and after pregnancy. The demands of motherhood further complicate the life of teenage mothers with regard to balancing parenting, educational responsibilities, and social relationships (Martin et al., 2015; Osterman, Kochanek, MacDorman, Strobino, & Guyer, 2015). In particular, the African American population has one of the highest teenage pregnancy rates in the United States (CDC, 2011a; CDC, 2012a). The pregnancy rate for African American teens was 194 per 1,000 compared with Latino female adolescents at 51.5 per 1,000, and among Caucasian female adolescents the rate was below 23.5 per 1,000 (Martin, Hamilton, Ventura, et al. 2013).

The costs for unintended pregnancies in the United States go beyond medical expenditures. Adolescent mothers face socioeconomic issues such as a lack of educational achievement and gainful employment (Maxson & Miranda, 2011; Monea & Thomas, 2011). Further reduction in teenage pregnancy rates would improve adolescent

mothers and child health care outcomes, whilst diminishing the social cost of government spending associated with teenage pregnancies (Basch, 2011). Health care costs could be diverted and used to rectify other social problems. The economic, educational, and medical disparities for African American mothers and infants make teenage pregnancy a serious public health concern.

Background of the Study

In the past, community health agencies have modeled teenage pregnancy programs to address medical concerns. Specifically, health promotion strategies used to prevent and/or reduce unwanted pregnancies among adolescents included fear tactics (Barr, Simons, Simons, Gibbons, & Gerrard, 2013; McCave, 2007). Many intervention programs focused on sex education and contraception use and curricula centered on contraception methods and the health risks associated with unprotected sex. Safe sex practices were even taught after encouraging abstinence but showed little improvement in reducing teenage pregnancy (Benton, Roberts-Gray, & Lewis, 2011; Sieving et al., 2011). Peer pressure and bullying were factored into adolescent social development and social skills, but the social sciences did not include other social adversities' potential and major life events (Fletcher & Sarkar, 2012; Rowe, Walker, Britton, & Hirsch, 2012).

Adolescence is a stressful time for teenagers (Jovic, Delpierre, Ehlinger, Sentenac, 2015; Rowe et al., 2012; Young et al., 2014). The challenges and difficulties they face with parental and peer relationships, school, and the physical environment do not include the added stress of life events (Cheney et al., 2014, 2015; Commendador 2010, 2011). Adults have difficulties handling life events such as divorce, job loss, death, and health problems and as such, adolescents have both similar life events and those

specific to their population (Jovic et al., 2015; Rowe et al., 2012). Adolescents are aware of the social resources to manage the changes, which can trigger risky behaviors such as violence, sex, and substance abuse, which teens use as coping mechanisms (Cheney et al., 2014, 2015; Jovic et al., 2015; Rowe et al., 2012; Flethcer & Sarkar, 2012).

Teenage pregnancy within the African American population continues to cause poor physical health, low educational achievement, and minimal earning attainment (Partington, Steber, Blair, & Cisler, 2009; Santelli, Lindberg, Finer, & Singh, 2007; Martin et al., 2015; Osterman et al., 2015). The literature gap identified is that teenage pregnancy research lacks socio-cultural factors that plague African American adolescents (Barr et al., 2013; Cheney et al., 2014, 2015; Jovic et al., 2014). As a result, associations between social and cultural experiences affecting sexual initiation and teenage pregnancy among African American adolescent females are not explored. Seven life events were used to represent situations that can occur during the limited life experience until the adolescent years.

Problem Statement

The economical, educational, and medical disparities for African American mothers and infants continue to make teenage pregnancy a serious public health concern. In particular, many African American adolescents' childhood experiences are exposed to social and cultural and economic disadvantages such as family structure, or lack thereof; poverty stricken neighborhoods; and poor health (Upadhya & Ellen, 2011). These specific life changing occurrences have been identified as life events and can also include housing relocation, parents divorcing, death, separation, changing schools, and change in health status. Life events can shape an adolescent's perception about sexual behavioral

practices including making the decision to become pregnant (Angley, Divney, Magriples, & Kershaw, 2015; Cavazos-Rehg et al., 2013; Cheney et al., 2014, 2015; Mann, Kristjansson, Sigfusdottir, & Smith, 2014).

Adolescent social norms are a depiction of parental and peer relationships categorized as interpersonal and personal factors. These relationships are known to have a direct influence on teenage behaviors and thus sexual behaviors. In addition, poverty and geographic location have been strongly linked to teenage pregnancy, finding African American Adolescents most at risk for teenage pregnancy (Cheney et al., 2014, 2015; Mann et al., 2014). Because it has been well documented that African American adolescents live in the poorest of neighborhoods, they were the top population likely to have sex earlier in age and more sexual experiences than their Caucasian adolescent counterparts (Biello, Ickovics, Niccolai, Haiqun, & Kershaw, 2013; Carlson, McNulty, Bellair Watts, 2013; Tolma et al., 2011). Ultimately, teenage pregnancy is a consequence of poverty, poor parental relationships, and peer pressure.

The social norms for African American adolescents are marginally different than those for Caucasian adolescents. Discrimination and racial inequality cause a disadvantaged outlook on life goals and expectations. Educational, medical, and housing choices for African Americans are also on different scales simply because opportunities and choices are based on resources and finances (Scarborough et al., 2010; Sparks, 2015).

The differences in the type of religion and religious practices, dating practices, family structure, or dynamics and social/recreational activity are the disadvantages these lifestyle characteristics bring (Sparks, Lee, & Spjeldnes, 2012). Nevertheless, the variations in lifestyles gives Caucasians more opportunities and choices where, for

African Americans, disadvantages exist (Biello et al., 2013; Manlove et al., 2013; Stevens, Gilliard-Matthews, Nilsen, Malven, & Dunaev, 2014).

The expectations of African American adolescents' sexual behaviors are different for those of their Caucasians counterparts. Although an overwhelming acceptance of teenage pregnancy does not exist within the African American community, the tolerance level for its existence is higher than that of Caucasian families (Mollborn, 2010). Adolescents' coping skills have been linked to making an impression on their perceptions and views on sexual behaviors and life goals (Kappeler & Farb, 2014; Cavazos et al., 2013; Lang et al., 2013). As such, life events and experiences can influence how a teenager develops psychologically, emotionally, and sexually (Jovic et al., 2014).

Current research on teenage pregnancy has broached the connection between adolescent life experiences or life events that contribute to the social and cultural norms within a population. However, the research strictly supports the correlation between family structure and sexual activity role (Lee, Storr, Ialongo, & Martins, 2012; Lewis & Carmack, 2011; Tran & Lee, 2011). Research has to be shifted to focus on methods to address risky sexual behavior among adolescents relating to their social and cultural experiences.

The common thread throughout teenage pregnancy research and, in fact, for adolescent behavioral studies is that social, economic, and educational disadvantages breed risky behaviors (Carlson et al., 2013; Frost, Lindberg, & Finer, 2012; Hoskins & Simons, 2015; Sipsma, Ickovics, Lin, & Kershaw 2015). Risky behaviors are a derivative of discrimination. Discrimination and racism explained as social disadvantages permeate negative thoughts and cultural mistrust within the African American community

(Bullock-Yowell, Andrews, & Buzzetta, 2011). Educational and employment opportunities not afforded to the African American population are equally existent in social, personal, and intimate relationships.

The African American community way of thinking can be dysfunctional because their beliefs and values are not significant in Caucasian mainstream; this thought process is manifested in how intimate and personal exchanges are formed within the culture (Bullock-Yowell et al., 2011; Sipsma, Ickovicx, Lin, & Kershaw, 2011; Taylor, 2013).

Economic instability strains the possibility for marriage caused by unemployment and other financial stressors. Financial stressors strain marriages and are a primary precipitant to divorce. Therefore, African Americans are at a disadvantage engaging in marital bliss. Marital rates are lower for African Americans than for Caucasians. African Americans are less likely to marry and marriage tend to occur at a later age than Caucasians do. Divorce rates are higher for African Americans than for Caucasians (Doherty, Green, & Ensminger, 2012; Roxburgh, 2014; Raley, Sweeney, & Wondra, 2015). Prosperity and marriage are not associated themes in the African American community (Oberlander, Agostini, Houston, & Black, 2010; Roxburgh, 2014). From 2006 to 2010, African American females were less likely to marry than were Caucasian females by age 25. The probability for African Americans to wed by age 25 was 24% compared with Caucasian females at 48% (Copen, Daniels, Vespa, Mosher, & Madans, 2012).

In 2011, the birth rates among African American and Hispanic teens remained higher than among Caucasian teens (CDC, 2013b). By ethnicity, teenage birth rates

decreased by 20% for non-Hispanics, Caucasians; 24% for African-Americans; and 34% for Hispanics. Despite the decline in teenage pregnancy rates among all groups, attaining health equality and eliminating racial and ethnic disparities for all groups has yet to be achieved (CDC, 2012b, 2013b).

In 2011, 329,797 infants were born to teenagers aged 15 to 19 years, a slight drop of 8% from 365,000 in 2010 (CDC, 2013b). After the average teenage mother gives birth to a child, class attendance declines and school dropout rates increase (Coard, Nitz, & Felice, 2000; Maness & Buhi, 2013). Consequently, teen mothers often fail to obtain a high school diploma. By age 22, only 50% of teenage mothers obtain a high school diploma (Basch, 2011; CDC, 2011b). As a result, this group lacks the basic educational skills to gain adequate employment to support both mother and child (CDC, 2011b; Hall & Farkas, 2011).

Teenage mothers' inability to adequately provide health and welfare for their infants adds to the fiscal burden the U.S. government provides through community health initiatives that subsidize health care, food, and shelter (Maness & Buhi, 2013; Monea & Thomas, 2011). In 2010, despite declines in teenage pregnancy, the United States spent $9.4 billion on teen childbearing (The National Campaign to Prevent Teen and Unplanned Pregnancy, 2015). These costs also include social services, childcare provisions, and Planned Parenthood services (CDC, 2011b; Santelli et al., 2007). The social costs associated with teenage pregnancy included $3.1 billion in child welfare, $2 billion for incarcerated adolescent males who fathered children with adolescent females, and $2.2 billion in lost tax revenue for working and nonworking adults born to adolescent mothers due to lower wages (Solomon-Fears, 2014).

Researchers have measured the associations between parental and peer relationships and the effects these relationships have on teenagers' desires to become pregnant; however, a more in-depth examination into how social influences such as life events affect teenage pregnancy could improve pregnancy prevention efforts (Cavazos-Rehg et al., 2013; Commendador, 2010, 2011; Duffy et al., 2012; Hodgkinson, Beers, Southammakosane, & Lewin, 2013; Hoskins & Simons, 2014).

Purpose of the Study

The purpose of this study is to determine whether any relationship exists among major life events, adolescent sexual behaviors, and resultant teenage pregnancy amongst African American females in the United States. This study used a quantitative cross-sectional research design to understand the relationship between life events and initial sexual behavior and teenage pregnancy. Life events were characterized by death of a friend or family member, divorce, or change in housing status. The variables were life event, ethnicity (Caucasian, African American), teenage pregnancy (yes or no), and sexual behavior. The independent variables were life event and ethnicity. The dependent variables were teenage pregnancy and initial sexual behavior.

Research Questions and Hypothesis

This studywas informed by the following three research questions:

RQ_1: Are certain life events statistically significant predictors of teen pregnancy?

H_{01}: None of the measured life events are statistically significant predictors of teen pregnancy.

H_{a1}: One or more of the measured life events are statistically significant predictors of teen pregnancy.

RQ_2: Is there a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy?

H_{02}: There is no relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy.

H_{a2}: There is a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy

RQ3: Are there differences in age of first sexual experience between the two ethnicities in question (African American vs. Caucasian)?

H_{03}: The age of first sexual experience is not significantly different between African Americans and Caucasians.

H_{a3}: The age of first sexual experience is significantly different between African Americans and Caucasians.

Theoretical Framework

The theoretical framework for this study was social learning theory (SLT). Bandura's SLT originated in the 1940s, explaining the concept of animals and humans imitating behavior. For decades, research in the social sciences has created methods to influence behavioral modification in adolescents. Educating teenagers in social and personal development has advanced behavioral modification (Angley et al., 2015; Sparks, 2015). By identifying positive supports systems and encouraging personal interests, SLT proposes to conceptualize interest, development, and choice.

Social learning theory outlines specialized supports to help adolescents acquire the necessary life skills and mature into adulthood (Lewis & Carmack, 2011). Social learning theory is the key theoretical idea defining how adolescents learn to cope and

adapt to change. The concept of SLT is that one's learning ability is directly related to social interactions within one's immediate environment (Bandura, 2001).

Teenage pregnancy programming models have transitioned slightly from sex education to positive youth development. Such strategies have integrated personal perception and social competence to build developmental skills (Fetro, Rhodes, & Hey, 2010). From risk reduction for unplanned pregnancies and sexually transmitted diseases, to comprehensive developmental and cognitive skill building, teenage pregnancy programming has yet to incorporate relationship building as a model for prevention (Angley et al., 2015; Fetro et al., 2010).

The relationships in which one is involved influence their reaction and responses to situations presented in social settings. The health status and overall lifestyle of teenage mothers and their infants can improve through encouragement and positive reinforcements fostered by SLT (Barnet et al., 2009, Lewis & Carmack, 2011; Roberts, Hall, & Fargas, 2011; Martin et al., 2015; Osterman et al., 2015). The types of interactions within parental and sexual partner relationships can possibly build or diminish self -esteem and influence sexual behaviors and pregnancy intentions; (Commendador, 2010, 2011; Frost, Lindberg, & Finer, 2012; Nelson, Morrison-Beedy, Kearney, & Dozier, 2011).

Nature of the Study

This study is a quantitative secondary data analysis using the 2006 to 2010 NSFG dataset as a representative national sample. This study aimed to answer three research questions. The research questions focused on life events effect on African American female sexual behavior leading to teenage pregnancy and the differences, if any, between

African Americans and Caucasian females. The NSFG was designed to identify sexual risk behaviors among groups by age, education and female teenagers birthed by teenage mothers. NSFG also collected past and present data on contraceptive use, sexual activity, and childbearing experiences. In addition, NSFG collected information on teenager's sexual partners, such as his/her age, and information on the circumstances surrounding first sexual intercourse such as the degree to which a first encounter with sex was desired (Mosher et al., 2012).

The NSFG dataset was retrieved from the CDC public domain website. The independent variable, life events were explored through major life changes during adolescence years. The independent variable, ethnicity, was explored through comparisons in life events and sexual behaviors between African American and Caucasian teenage females. The dependent variables were teenage pregnancy, and teenage sexual behaviors were explored by extracting participant responses to sexual behavioral practices. The hypotheses were tested to see if life events and ethnicity were statistically significant predictors of sexual behaviors contributing to teenage pregnancy in African American and Caucasians.

Definition of Terms

Cognitive skills: One's capability to perceive, think, and learn with understanding (Hall & Farkas, 2011).

Collective beliefs: A phenomenon that attitudes adopted by a shared group (Caprara et al., 2004; Weinman, Small, Buzi & Smith, 2008).

Interpersonal skills: Ability to work well with others and develop relationships through communication, negotiation and cooperation (Fetro, Rhodes, & Hey, 2010).

Intrapersonal skills - Ability to handle emotions and practice self-discipline (Fetro et al., 2010).

Major life events (experience): a major life event in a social or physical environment that changes a person's status or circumstances, such as giving birth, marriage, divorce, death of spouse, loss of job (Lee, Storr, Ialongo, & Martins, 2012; Mann et al., 2014; Shirai & Higata, 2015}.

Parental relationship characteristics: Behaviors demonstrative of collective beliefs influenced by interactions with parents and parental figures (Azam & Hanif, 2011; Caprara et al., 2004; Weinman, Small, Buzi, & Smith, 2008).

Personal development: Setting goals to improve oneself without depending on others for assistance (Roberts et al., 2011).

Self-efficacy: Having a strong sense in one's ability to accomplish tasks (Basch, 2011; Weimann et al., 2008).

Sexual partner relationship characteristics: Behaviors adapted by the influence of engaging with sexual partners (Caprara et al., 2004; Weinman et al., 2008).

Prosocial skills: Behaviors directed toward peers with the intention of benefitting that person or persons (Griese & Buhs, 2014).

Socioeconomic status (SES): A term used to describe a compilation of income level, educational attainment, occupation and social status relative to one's community (Mollborn, 2010).

Social competence: Ability and motivation to positively respond in a social setting utilizing interpersonal and intrapersonal skills, coping skill and judgment skills (Cahill & Pittman 1992; Tran & Lee, 2011).

Assumptions, Scope, and Delimitations

Assumptions

It was assumed, using the National Survey of Family and Growth (NFSG) as the data source for this study, that the participants completed questions truthfully and to the best of their ability and provided accurate responses to the questions. Additionally, it was assumed that the computer-assisted instruments alongside highly trained surveyors were appropriate for abstracting answers without provocation of bias in yielding answers. Therefore, it was assumed that the respondents understood the survey questions and terminology and answered the survey questions honestly.

Scope

The scope of this study and its results were limited to African American and Caucasian females aged 15 to 17 years in the United States. The age group requirement is indicative of the age that is known as the adolescent population (CDC, 2011a, 2011b). The focus of this study, adolescent behavior notwithstanding, is assessing whether life events, sexual behaviors and ethnicity are predictors of teenage pregnancy. This information may provide important information for community and school-based prevention programs and surveillance systems.

In accordance with the NSFG, this study did not measure family income although there have been notable associations with sexual risk behaviors (Martinez et al., 2011; Mosher et al., 2012). According to NSFG, teenagers are not always able to disclose family income with and without parental input, for lack of interest or lack of knowledge. With regard to parental influences, parental characteristics are more noted by adolescents and have been correlated with sexual risk behaviors (Martinez et al., 2011; Mosher et al.,

2012). Generalizations of the population surveyed could not be determined as the NSFG was designed to provide national estimates for individual states.

Delimitations

For the purpose of this study, the population is delimited to heterosexual African American and Caucasian females 15 to 17 years of age in the United States.

Limitations

The limitations of the research are minimal, but exist due to the inability to control the question and response data. The following limitations include non-sampling errors such as:

Self-reporting and bias is common among survey data in that participants may not fully understand questions or answer to impress the interviewee who may not have correctly translated the question. Conducting interviews in short intervals minimizes such errors.

Recall error increases data error and limits data interpretation and conclusions when responses rely on historical events. Multiple interviews conducted over periods of time reduce the risk of reporting errors.

In using a cross sectional study, measuring adolescents' behavior and intentions does not allow for determination of causality, but can establish a relationship between two or more variables.

Significance of the Study

Historically, community health agencies have modeled reducing teenage pregnancy objectives as physical or medical health concerns. Specifically, the health promotion strategies used to prevent and reduce the number of unwanted pregnancies

among the adolescent population were fear effect tactics (McCave, 2007). Adolescents are educated on the health risks associated with unprotected sex, which includes alarming them of sexually transmitted diseases, but have not been very successful in decreasing teenage pregnancy (Sheeder et al., 2008; Van Horne et al., 2009). Safe sex practices were taught even after encouraging abstinence, but this showed little improvement in teenage pregnancy (Benton et al., 2011).

The Teenage Pregnancy Initiative endorses collaboration with the CDC and the Office of Adolescent Health (OAH) to campaign for sex education awareness in the community-based organizations such as churches, schools, and health care organizations (CDC, 2012b). The target population—low income and underserved adolescents—are lacking adequate knowledge about sexual health and sexual behavior which in turn leads to the health care community lacking adequate knowledge about how this behavior relates to the target population and keeps them from becoming productive members of society (Hall & Farkas, 2011). With the current approach, sex education and training, self-efficacy and self-worth fostering growing expectations and future goals is secondary to the importance of how sex plays a role in the life of an adolescent. Such behaviors continue to repeat throughout generations and the values and expectations of societal norms do not reflect a healthy, holistic life.

The social concern is that overall physical and mental health, as well as economic ramifications, not only affect the young mother, but spread to the extended family and society as a whole. Social change has been defined as any significant alteration over time in behavior patterns and cultural values and norms (Treas & Elliott, 2014). This study will support positive social change in teenage pregnancy prevention by drawing attention

to the sexual behavioral practices of female adolescents and the need for enhanced prevention programming to include cultural diversity as experienced by female adolescents of how female adolescents embody these behaviors into their daily lives (Marshall et al., 2015).

This researcher considered the implications of research for future applications of SLT aimed at improving the life chances of adolescents through the provision of programs predicated on the use of a positive development perspective for understanding and enhancing the lives of adolescents. These social learning principles and cognitive social learning will be further explained in chapter 2.

Summary and Transition

This chapter is an introduction to concerns surrounding teenage pregnancy, their social behaviors, and the need for further research in teenage pregnancy. The NSFG is the secondary source that will be used to examine aspects of social competence with teenage pregnancy. Chapter 2 reviews relevant literature on the early prevention and intervention programs in adolescent behavior modification as it pertains to teenage pregnancy. In addition, Chapter 2 provides additional review on the contributing factors of teenage pregnancy.

Chapter 2: Literature Review

Introduction

The purpose of this study was to determine whether any relationship exists between major life events, sexual behaviors, and resultant teenage pregnancy among African American females in the United States. Teenage pregnancy is disproportionate between African American and Caucasian females. This is notable because African American teenagers are three times more likely to become pregnant than their Caucasian counterparts are.

A disproportion in the number of teenage pregnancies exists between African American and Caucasian adolescents (Basch, 2011; CDC, 2011a; CDC, 2011b; Maxson & Miranda, 2011; Upadhya & Ellen, 2011). In pursuit of sound behavioral modification methods to address risky sexual behavior among adolescents, research on teenage pregnancy has transitioned from formulating educational models to analyzing the economic, social, and cultural influences on adolescent behavior (Issel, 2009). In identifying processes of learning, Bandura (1969, 2001) found that patterns of response to social stimuli and observations within the social environment could shape one's behavior.Overall, a significant difference in how research is conducted on teenage pregnancy.

Literature Search Strategy

I conducted a literature search to include scholarly peer-reviewed journal articles and books through various databases such as CINAHL, PsycInfo, PsycArticles, SocINDEX, and Academic Premier Search. The terms used in the search were teenage pregnancy, life events, abstinence, self-efficacy, social competence, personal

development, cognitive development, positive youth development, and social learning theory. The scope of available literature dates back to the early 1960s. Literature exists that demonstrate a high incidence of teenage pregnancy in urban neighborhoods, especially in the African American community (Monea & Thomas, 2011; Ventura et al., 2010; Ventura, Curtin, Abma, & Henshaw, 2012). Programs have been developed and implemented to reduce and even prevent pregnancies among teenagers. Many of these intervention programs focused on educating teenagers on contraception use and other birth control methods. The intervention methods were taught to prevent both pregnancy and sexually transmitted diseases (Benton et al., 2011; Sheeder et al., 2009; Van Horne et al., 2009). These approaches have not been very successful in significantly decreasing teenage pregnancy. Researchers have yet to explore social conditions that promote self-development and positive social skills in teenage pregnancy (Basch, 2011; Richardson et al., 2009).

Theoretical Foundation

The theoretical foundation for this study is SLT. Bandura's SLT originated in the 1940s, explaining the concept of animals and humans imitating behavior (Bandura, 1969, 1991, 2001; Bandura et al., 2003).

For decades, research in the social sciences has created methods to influence behavioral modification in adolescents. Educating teenagers in social and personal development has advanced behavioral modification (Hoskins & Simons, 2015; Angley et al., 2015). By identifying positive supports systems and encouraging personal interests, SLT proposes to conceptualize interest, development, and choice.

Literature Review Related to Key Variables and/or Concepts

Research and Programming on Teenage Pregnancy

Terms used in the literature search were *teenage pregnancy*, *abstinence*, *self-efficacy*, *social competence*, *personal development*, *cognitive development*, *positive youth development*, and *social learning theory*.

In an effort to research teenage pregnancy, I explored SLT to determine whether the experiences of life events influences how adolescent females make decisions to engage in sexual behaviors that led to teenage pregnancy (Lee, Storr, Ialongo, & Martins, 2012). Early research findings on adolescent behavior were developed after crisis emerged (Caplan et al., 1992). Solutions to adolescent concerns were addressed after problems in adolescent behavior became more prevalent (Bandura, 1991; Hergenhahn & Olson, 2005).

SLT has evolved in the field of adolescent behavior by demonstrating that individual, family, school, and community factors can predict both positive and negative outcomes in adolescent behavior (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Collins, Percy, Smith, & Kruschke, 2011; Hergenhahn & Olson, 2005; Sparks, 2015).

Social Learning Theory

SLT is a widely used cognitive developmental theory, and its evolution has advanced prevention approaches since before the 1960s (Bandura, 1991; Caplan et al., 1992; Hergenhahn & Olson, 2005). SLT has been around since 1966 when Spielberger and De Nike, Dunlany, and others alike tested subjects to establish theories of learned behavior (Bandura, 1991; Catalano et al., 2002). Prevention methods have since focused on predictable adolescent behavior solving problems before they occur (Catalano et al.,

2002; Hergenhahn & Olson, 2005). Expected outcomes from SLT are affected by observations and mental state, perceived self-efficacy, and intention (Caprara et al., 2003; Caprara, Regalia, Scabini, Barbaranelli, & Bandura, 2004).

SLT suggests a regimen of activities similar to real-life social situations and personal interactions to influence how we react to each other (Bradshaw, Rodgers, Ghandour, & Garbarino, 2009; Twente University, 2004). SLT is based on three principles: (a) People learn by example or what is witnessed; (b) people have internal awareness otherwise considered intuition as a way of understanding or acquiring knowledge; and (c) one can observe and think and still not change their behavior (Bandura, 2001; Hergenhahn & Olson, 2005). Using SLT to simulate real life situations and reinforce positive youth development can help examine how, if at all, motivational cues and social guidance can influence the future life choices of adolescent females (Hall & Farkas, 2011; Sparks, 2015).

It was not until the early 1960s when Bandura began researching behaviors in children, and how, with no incentive, they imitate the behaviors of other children. Since then, Bandura has been considered to be the chief architect of SLT became a theory for human behavior (Hagenhoff, Lowe, Hovell, & Rugg, 1987; Hergenhahn & Olson, 2005).

SLT is a theory rooted in the belief that human behavior has three determinants: cognitive factors, environmental influences, and behavioral characteristics. SLT is often used as a program evaluation tool. The theory is also known for helping educators determine whether certain learning tools are effective and if not, why are they not effective (Bandura, 1991; Hagenhoff et al., 1987; Hergenhahn & Olson, 2005).

Researchers have used SLT to examine causation of teenage pregnancy. Much of the research conducted on teenage pregnancy using SLT examined teenage sexual behavior and methods of birth control. As a result, research findings repeatedly show that sexual behavior is influenced by, interpersonal relationships and environmental influences (Franklin & Corcoran, 2000; Hagenhoff et al., 1987; Hergenhahn & Olson, 2005; Tabi, 2002).

Based on SLT, educating youth on specific behavioral skills is essential in preventing teenage pregnancy (Franklin & Corcoran, 2000). Unfortunately, many preventative programs narrow the focus to just cognitive learning while others focused on the behavioral aspects of healthy and safe sex practices. Research is very limited on combining both concepts but, what is agreed upon is that teenage pregnancy must be addressed in the context of family and community (Koniak-Griffin, Lesser, Uman & Nyamathi, 2003; Sieving et al. 2011, Strunk, 2008; Tabi, 2002; Zins & Elias, 2007).

Few researchers have used SLT as a direct approach to teenage pregnancy prevention. Their focus opted to contour programs toward higher achievement, grades, aspirations, or future economic opportunities (Franklin & Corcoran, 2000). Categorized as life options, life skills were taught through role-playing and adult mediated workshops. According to Tabi (2002) understanding teenage pregnancy is to understand the culture within the teenage population. Using developmental models based on SCT/SLT, foci on education and career-oriented goals for inner city adolescents, Tabi (2002) and Zins & Elias (2007) found participants lacked determination, ambition and did not have a sense of direction for professional or personal goals. Teenage pregnancy research lacks the

investigation into the socio-cultural factors that plague African American adolescents (Tabi, 2002; Minnick & Shandler, 2011).

Some studies even suggest that terminology and the true meaning of the outcomes can foster change in the thinking patterns of adolescents toward premarital sex (Edwards & Allen, 2007; Peng & Schoech, 2008). Parental responsibilities and childbearing are more defined as a set of tasks that are associated with having an infant and also denote the importance of caring for another human being (Benton et al., 2011). Using task-oriented language may appeal to ones' desire to take on the responsibility, or even evaluate the person's capability to complete such an undertaking. Again, this relates to how one views one's value which is connected to one's self-esteem (Mezey, Robinson, Gillard, & Mantovani, 2015; Meyer et al. 2015).

Self-Efficacy

Self-efficacy, self-esteem, and self-worth are inter-related and contribute to one's individual identity (Collins et al., 2011). Self-efficacy is considered the most crucial factors in changing one's behavior because it possesses the ability for behavioral controls, or self-regulation and self-examination (Peng & Schoech, 2008). The behavioral control starting point is self-awareness, recognizing the comparison to our social environment. Self-awareness has been documented to dictate how we make decisions according to or opposing social norms or expectations (Trencosta & Fine, 2010). Our personal goals and values are also aligned with how people see themselves, and how people believe others view them as members of society (Sparks, 2015). Self-esteem is essentially a self-image of how one identifies oneself in relation to a group of people or a

population. In the case of teenage pregnancy, self-esteem is influenced by social standards or norms (Wisnieski, Sieving, & Garwick, 2013).

Adolescent social norms placate the unfamiliar and uneasy nature of performing sex at the behest of being accepted and not rejected (Tomlin & McClelland, 2011). According to O'Sullivan, Meyer-Bahlburg & McKeague, (2006), adolescent females' concept of sex coincides with their self-image. The desires and motivations surrounding sexuality and the thought of having sex for the first time are regulated by their self-concept as it relates to being sexual and/ or sexually attractive (O'Sullivan, Meyer-Bahlburg & McKeague, 2006; Tomlin & McClelland, 2011). According to Koniak-Griffin et al., (2002), the level of self-efficacy was indicative of the level of risks taken during sex amongst a group of 572 adolescent mothers. Becoming vulnerable by risking health or becoming pregnant was not completely based on emotions, or sexual pleasure. Those outcomes were not a consideration at all (Wisnieski, Sieving, & Garwick, 2013).

Personal development and self-esteem are also related to one's cultural background or ethnicity. Self-bias stems from preconceived notions of one's capabilities, or lack thereof as viewed by other ethnicities (Lewis & Carmack, 2011; Roberts et al., 2011). As one's race or gender is valued or devalued, so is ones' positive or negative feelings of self-worth. The feeling of self-worth, whether or not it is positive or negative, accompanies perceptions of opportunities afforded to a gender or ethnicity that one identifies with (Mezey et al., 2015). Social environments are the foundation in which adolescents adapt to one's personal success of achievement. An adolescent's personal development depends on the nature of the influence of social supports and the progression of social skills (Monahan, 2003). Adolescent social interactions with one

another are a pivotal part of an adolescent's personal development (Bowers et al., 2010).

The interpersonal and intrapersonal skills that are cultivated through relationships allow adolescents to build self-esteem. Personal development is accomplished through their coping and judgment skills, both of which are related to the ability to solve problems (Roberts et al., 2011; Mezey et al., 2015). Self-awareness and self-perception heavily weigh on how one makes life's decisions (Hamarta, 2009). Self-awareness and how well one views one's own characteristics compared with others in their peer group is a formula for determining personal or social competence (Azam & Hanif, 2011).

While education and maturity play a role in how one function in society, social competence determines how a person functions within the community and how one relate to society. It is the basis of how we handle tasks, manage relationships, and connect with other members in society. Social goal setting, problem solving capabilities, and feelings of social support have been found to be relative to academic achievement or, furthermore, professional achievement (Myrick & Martorell, 2011; Stepp, Pardini, Loeber & Morris, 2011).

These prosocial skills are expected to develop better decision-making skills in teenagers and reduce risky sexual behavior, avoiding the chance of a teenager becoming pregnant (Lewis & Carmack, 2011). Setting life goals and having expectations in one's life is the basis for social cognitive learning theory (Scarborough, Lewis & Kulkarni, 2010). A prerequisite to being able to set short-term goals such as completing secondary education or achieving academic excellence is self-motivation and self-direction. Setting long-term goals also requires a level of social and developmental cognition, such as financial stability and following a career path (Scarborough et al., 2010). These

psychosocial factors have an effect on how one reacts to methods meant to influence changing behaviors (Koniak-Griffin et al., 2003; Shernoff, 2010).

Life Events

Social supports for adolescents are parents, siblings, adult authority figures and peers (Wisnieski et al., 2013). These relationships, particularly with parents, are known to affect adolescents' life choices. Studies have shown that adolescent' intimate relationships choices are influenced on the amount of attention and acceptance shown by social supports (Angley et al., 2015; Wisnieski, Sieving, & Garwick, 2013). The changes within the relationships with social supports help shape coping skills that may result in risky behavior (Cheney et al., 2014, 2015; Jovic et al., 2014). A life event has been defined as a change, either negative or positive that impact life routines (Cheney et al., 2014, 2015; Jovic et al., 2014; Lee, Storr, Ialongo & Martins, 2012; Realini, 2010).

In 1989, Allen, Weissberg & Hawkins explored the relationship between adolescent values and social interactions and found that adolescents formed their behaviors after observing adults versus adherence to negative or positive effects. It was adolescents who had positive relationships with adults who developed positive relationships with their peers. In addition, this research study identified the need to explore further the other value not experienced or different within other populations in order to measure values with regard to other behaviors (Allen, Weissberg & Hawkins, 1989).

Caplan et al. (1992), described the benefits to programs modeled by social influences are to enhance personal and interpersonal effectiveness and prevent the development of maladaptive behavior. The methods to achieve coping abilities are to

teach students developmentally appropriate skills and information, foster pro-social and health-enhancing values and beliefs and create environmental supports to reinforce the real-life application of skills (Caplan et al., 1992; Bradshaw, Rodgers, Ghandour & Garbarino, 2009). Some researchers hypothesized that teaching students a general set of competencies that can be broadly applied to cope with diverse stressors is sufficient to prevent specific problem behaviors (Peng & Schoech, 2008).

Ongoing research, however, indicated that social skills are not automatically and consistently applied to every social task encountered (Dodge, Pettit, McClaskey & Brown, 1986; Caplan, Bennetto & Weissberg, 1991;; Monahan, 2003; Stepp et al., 2011). To produce meaningful effects on specific target behaviors, it also appears necessary to include opportunities in social developmental programs for students to practice and apply learned skills to specific, relevant social tasks (Allen, Weisberg & Hawkins, 1989). The combination of general social skills training and domain-specific instruction may be the most effective way to prevent particular psychosocial problems accompanied by teenage pregnancy (Basch, 2011).

Social development begins with experiences in social settings with family and peers. Therefore, home and school environments influence social development. Social situations help mold one's emotional growth, which is tied to social skills (Way & Greene, 2006). The social or life skills help teenagers to become productive members of society. Social development endorses self-efficacy and teaches teenagers to visualize and plan their futures, and to hone in on their ability to achieve educational, economical, and psychological stability (Larson, Whitton, Hauser & Allen, 2007; Steese et al., 2006).

Parental influence marked by the parents' own identity as a female or male

authority figure in the home has an impression in relation to the amount of time spent with the adolescent (Renk & Phares, 2006). Informal interaction with peers weighed less on learned behaviors in comparison with parental influence, among the Caucasian population, as found by Renk & Phares, (2006). The key indicator in the level of social competence passed on from parents was not just the amount of time spent, but the type of activity shared during time spent (Azam & Hanif, 2011). Also, parents perceived levels of social competence as a direct reaction to the emotional support shown to their children during time spent (Caprara et al., 2004; Renk & Phares, 2006).

In social settings, relationships expound on the importance of social interest as a qualification in altering one's pattern of thinking (Shernoff, 2010; Taurina & Ivanova, 2011; Trencosta & Fine, 2010). Social interest and a person's feelings and attitudes toward self are determinates of how one adapts to life events (Shirai & Higata, 2015). Self-examination gives awareness of self, which translates into self-esteem (Trencosta & Fine, 2010). Self-esteem is essentially a self-image of how one identifies oneself in relation to a group of people or population. In the case of teenage pregnancy, self-esteem is influenced by social standards or norms, and that is magnified by their environment (Wisnieski, Sieving, & Garwick, 2013).

Interaction with society is an important aspect of self-esteem. The attention and exchange between society and the individual, in this case adolescents' with their peers, is viable to adapting to circumstances (Shernoff, 2010; Sorlie, Hagen & Ogden, 2008).

Intervention and Prevention Methods

In efforts to prevent teenage pregnancy, community health organizations and public health advocates have instituted programs that focused on educating adolescents

about the risks of having sex. Moreover, primary prevention initiatives, such as abstinence and safe sex practices have been at the forefront of attempts to influence teenage behavior (Rolleri, Wilson, Paluzzi & Sedivy, 2008). The programs did not reflect the cultural norms of the targeted population (Dale Jr., 2008). The health care community has acknowledged the need for in-depth analysis of adolescent concerns such as teenage pregnancy. Public health practitioner, Grady Dale, Jr. (2008) agreed when he wrote "understanding the culture of the community and the art of connecting is a must" (Dale Jr., 2008, p. 794).

There are studies that incorporated educational and behavioral objectives that included self-esteem awareness through mentorship from members of the community. Members of the community comprised teachers, clergy, and parents passing down their expectations or personal views, as opposed to an objective format (Edwards & Allen, 2008; Vincent, Clearie & Schluchter, 1987).

The onset of intervention and prevention programs particularly in schools and family planning clinics exposed adolescents to some form of education about the transmission of sexually transmitted diseases. Condoms along with an oral birth control had become accepted and commonly used among teenagers, but not consistently (Weinman, Small, Buzi & Smith, 2008). As the time in relationships increased, the use of condoms decreased. While the expectation of monogamy exists, the notion of becoming pregnant vanishes (Perper, Peterson & Manlove, 2010).

Abstinence

Abstinent programs emphasized the health risks, such as acquiring sexually transmitted diseases, associated with having sex. Abstinence-only programs do not

introduce contraceptives or protective sex as an alternative but rather act as a deterrent to their use (Realini, Buzi, Smith & Martinez, 2010). Pregnancy was not highlighted as a risk from having premarital sex because the topic appeared to borderline on sex education and promiscuity. In fact, pregnancy was seldom mentioned because of the belief that unwanted pregnancies would not occur if sexual activity simply stopped. Therefore pregnancies were viewed as a non-factor (Sherr & Dyer, 2010; McCave, 2007).

Abstinence-only programs did not achieve the level of improvement in reducing teenage pregnancies that was desired. Abstinence only programs reduced teenage pregnancy by only 14% (Koniak-Griffin et al., 2003; Santelli et al., 2007). This refutes the effectiveness of abstinence programs encouraging teenagers to refrain from having premarital sex because 88% of adolescents attesting to being virgins had actually sex before marriage (Santelli et al., 2007). What was missed in the abstinence studies was the examination of what prevented those adolescents who did not engage in sex to practice abstinence, and how their thoughts and perceptions on the topic differed from those who had premarital sex and unwanted pregnancies (Abbott & Dalla, 2008). Since abstinence programs excluded safe sex practices, they lacked the necessary change agent to influence behavior (Sherr & Dyer, 2010). Abstinence programs also missed targeted populations such as gay and lesbian teenagers, who were not considered as part of the average teenage population.

Some researchers suggest that pre-adolescents and teenagers not wanting to have premarital sex are the most appropriate audience to promote abstinence-only interventions. Abstinence-only programs set values and teach communication and decision-making skills. These methods are used to postpone or stop sexual activity, but

more challenging is to influence adolescents versus pre-adolescents (Blinn-Pike, Berger, Hewett & Oleson 2004; Buhi, Goodson, Neilands & Blunt, 2011).

While morals and values are the cornerstone of abstinence-only programs, some programs use a more liberal approach to promoting abstinence. Advocates for abstinence believe in educating teenagers on their sexuality and how they feel about sex. With these topics teetering on sex education, exposures to protective measures are also incorporated into the programs' prevention itinerary (McCave, 2007). Abstinence-only programs have also included information on sexually transmitted diseases as a component to deter or delay premarital sex. This aspect of abstinence-only stresses the social and health-related issues associated with premarital sex but not necessarily teenage pregnancy (Blinn-Pike, Berger, Hewett & Oleson 2004; McCave, 2007).

Historically teenage pregnancy programs focused on its consequences as it relates to the physical health. Oral sex or even anal sex comes under the category of premarital sex and sexually transmitted diseases (STD's). STD's are the deterrent used to discourage adolescents from all types of sex, and most important why it is crucial to practice abstinence (Salazar et al., 2011). Actually, it has been found that oral and anal sex were not only a precursor to the vaginal-penis form of sexual intercourse, but usually both occurred at the same time (Hensel, Fortenberry & Orr, 2008). This would suggest that abstinence-only programming should include all aspects of sexual activity. Abstinence has not convinced adolescents as a formidable approach to preventing pregnancy (Lewis & Carmack, 2011).

Sex Education/Contraception

Sex education began as providing information to youth on the mechanics of

puberty and how babies are conceived. The most consistent themes in pursuing teenage pregnancy prevention and/or intervention were based on sex education policies practiced in the United States (Frost, Lindberg & Finer, 2012). To push community-based abstinence programs, some states were granted federal funding as long as abstinence-geared programs promoted marriage before sex and exclude using birth control or any other contraception. Contraception could be mentioned for the sole purpose of describing how it falls short compared with abstinence (Nelson, Morrison-Beedy, Kearney & Dozier, 2011; Santelli et al., 2007). Researchers and public health officials alike transitioned from abstinence to sex education as a motive to empower teenagers to make an educated choice based on knowledge. The awareness was to influence behaviors and prevent sexually transmitted diseases (Tomlin & McClelland, 2011). In response to the HIV/AIDS epidemic that began in the 1980's, it had become evident that abstinence-based sex education initiatives favored by conservatives had been ineffective (Salazar et al., 2011; Sendziuk, 2008).

Condoms were hardly used among adolescents who had sex for the time (Brückner & Bearman, 2005). In a study conducted to in part to determine the reasons why adolescents don't use condoms, subsequent reactions to direct influences were directly related to their psychological state or thinking patterns. The direct influences on adolescent behaviors consisted of the dynamics within the family structure and home environment. Dysfunctional relationships and family conflict were reflective of socioeconomic status. As a result, adolescents experienced mental illness such as depression, and feeling worthless and unimportant. Consequently, these adolescents lacked insightfulness and showed a willingness to engage in careless and reckless

behavior as demonstrated by practicing unprotected sex and dropping out of high school (Koniak-Griffin et al., 2003).

Using a condom became secondary to fulfilling their primary need, which is affection, attention, and feeling important (Van Horne et al., 2009). We found that their decisions to use condoms always, never, or sometimes were based on partner type and on emotional and relationship factors. Another significant part of the social aspect of teenage pregnancy is involuntary sex among the female adolescent population (Jamaluddin, 2013). Female adolescents view having an infant as something that will bring them feelings of acceptance, love and/or being wanted (Nelson, Morrison-Beedy, Kearney & Dozier, 2011).

The traditional format in teaching sex education focused on human reproduction and biological changes to the body. The curriculum has changed to incorporate teaching awareness of social pressures and decision-making skills (McCave, 2007; Tomlin & McClelland, 2011). Discovery on why teenagers choose to engage in sexual activity before marriage led to an understanding among researchers that the decision is thought out and processed well before sexual activity begins (Tomlin & McClelland, 2011). This suggests that educating teenagers on sex should include the social and cultural experiences that influence teenagers when making the choice about having sex. In addition, strengthening positive outcomes goes beyond assessing adolescents' decision-making skills. It targets adolescents' ability to establish rational or reasoning in deciding whether or not to have unprotected and premarital sex. Programming will strengthen their social skills and move intervention and prevention beyond fearing negative consequences (Tomlin & McClelland, 2011; Salazar et al., 2011; Smith, Wilson, Menn, & Pulczinski,

2014).

Both abstinence and sex education are expected to develop better decision-making skills in teenagers and reduce risky sexual behavior to eliminate the chance of a teenager becoming pregnant (Vieno, Nation, Perkins & Santiello, 2007). Again, there are gaps when reaching these teenagers as teenage pregnancy continues to exist in significant numbers (Reininger et al., 2005). Franklin & Corcoran (2000) and Basch (2011) found that most promising programs are, in order of effectiveness, community-based programs, school-based programs and, sex education programs. Franklin & Corcoran (2000) and Collins et al., (2011) also deciphered that social learning theories proved to exhibit most effective with either of these programs.

Overview of Adolescent Attitudes toward Premarital Sex

Overall, teenagers do not focus on future goals in achieving higher education nor are there aspirations to attain financial security prior to high school years (Realini, Buzi, Smith & Martinez, 2010; Tijuneliene & Jonutyte, 2009). The African American culture believes that because of their race, despite graduating from a college or university, opportunities are limited (Klaw, 2008). Marriage goals and expectations are also null and void. Expectations, in this group, are low while there is a higher motivation to pursue professional careers for their counterparts, which does not include early pregnancy (Trentacota & Fine, 2010). In the Caucasian culture, parents lean toward finding reasons for behavior versus the consequences of behavior is done in the African American culture (Tijuneliene & Jonutyte, 2009). In addition, negative experiences when engaging with other races are viewed as discrimination and skew their outlook on an equal opportunity for chances in life (Klaw, 2008; Tran & Lee 2011).

Adolescent females welcome the physical experience that accompanies childbearing and pregnancy because they perceive weight gain and labor pains as an insignificant occurrence in becoming a mother. Motherhood is perceived as a vehicle for reciprocated love between mother and infant, and/or that they will receive love from their partner and recognition from those around them. More often, the life of a teenage mother is one of isolation, loneliness and neglect, the complete opposite of what is expected (Minnick & Shandler, 2011).

Goals and values are replaced by the notion that being sexual or sexually attractive secures the expectation of obtaining higher education and subsequent marriage. Teenage pregnancy is a prelude to the expectation of marriage. The pregnancy is anticipated to secure a relationship and thus marriage (Minnick & Shandler, 2011; Oberlander, Agostini, Houston & Black, 2010).

Peer influence is a factor in the personal values and individual beliefs of an adolescent. Although parents' expectations may influence adolescents' perceptions, cultural norms, and environments such as school and church also contribute to adolescents' attitudes (Reininger et al., 2005). A correlation between positive peer influence and risky behavior has been found in several studies (Reininger et al., 2005; Vieno et al., 2007). Adolescents having alternative activities accompanied by positive peer influence are strong variables that may keep them from engaging in risky behavior (Harris, Halpern, Smolen & Haberstick, 2006; Reininger et al., 2005; Vieno et al., 2007).

Cultural Norms/Youth Development

Although parental influence is linked to the likelihood of an adolescent engaging in premarital sex, the nature and type of relationships adolescents have with both their

older siblings and parents has an impression on their train of thought. Making decisions such as engaging in sex, abstaining from sex, and/or using contraception, is patterned after the beliefs and thoughts passed down through their caregivers. The closeness of these relationships is also a contributing factor. Beyond household and familial influence, adolescents have a considerable effect on their peers (Abbott & Dalla, 2008; Kolburn, Kowal & Blinn-Pike, 2004).

The small minority of adolescents who practiced abstinence admitted to doing so from fear of sexually transmitted diseases, religious belief and embarrassment about either having sex or using contraception (Berger, Hewett & Oleson 2004; Kolburn et al., 2004). In contrast, the general consensus for consensual sex is not really agreeable among both adolescent parties. It appears that adolescent females did not desire nor enjoy sexual activities and that the act was a result of peer pressure or an expectation from their partner (Salazar et al., 2011; Tomlin & McClelland, 2011). While adolescents admit to having premarital sex, they admit they believe but do not practice that a condom should be used more so to protect against pregnancy even in conjunction with an oral birth control methods (Smith, et al., 2014; Weinman et al., 2008).

Parental communication plays a big part of an adolescent's social skills and decision-making though processes. Those adolescents who are able to express their feelings and thoughts openly and freely are more prone to seek counsel and parental guidance. Communication by way of sharing school events and situations with friends and occurrences in the local news can give a parent a sense of what is going on in the adolescent's life (Smith, et al., 2014; Weinman et al., 2008).

Incorporating school and community based activities into the daily lives of high–

pregnancy-risk adolescents, depending on the adolescents' family structure and support system, can aid in establishing time management and social responsibility. Parents who are strong supports for teenage mothers may be involved in sex education programs and the prevention of teenage pregnancy and unintended pregnancy. This provides positive adult influence in the lives of high pregnancy risk adolescents (Barnet et al., 2009; Chapman & Werner-Wilson, 2008).

Cultural Influences/Personal Development

In American society, it is expected that under parental tutelage, a child grows into an adult and functions independently from their family. As an independent adult, financial stability and social maturity is a normal progression in one's life. While there is no set formula for the level of progression, or the time it takes to transition into adulthood, adolescent years are considered impressionable when it comes to social learning (Sparks, 2015). Transitioning from adolescence to adulthood is part of personal development.

Summary and Transition

The literature demonstrated a need to examine how life events affect adolescent sexual behaviors, particularly those that lead to teenage pregnancy for the African American adolescent population. The literature is also clear in the connection of interpersonal and intrapersonal related factors such as life changing events with pregnancy incidence in adolescent behaviors. Life events affect social relationships and how adolescents interrelate with parents and peers, particularly sexual partners. However, parental and sexual relationships are not exclusive to a life events having a bearing on sexual behaviors and thus teenage pregnancy and would benefit from additional inquiry and analysis. Moreover, there is importance to considering the effect of social supports

and social environment on adolescent sexual behavior. It is evident how life events influences teenage desire to become pregnant or disregard safe sex practices to avoid becoming pregnant. Life events association with teenage pregnancy must be considered. Chapter 3 will provide the quantitative design and methodology to examine life events and teenage pregnancy.

Chapter 3: Research Methodology

Introduction

The purpose of this study is to determine whether any relationships exist among major life events, sexual behaviors, and resultant teenage pregnancy among African American females in the United States. The economic, educational, and medical disparity for mother and infant makes teenage pregnancy a serious public health concern (Martin et al., 2013; Mollborn, 2010; Santelli et al., 2007; Taylor, 2013). This chapter on research methods includes the research design, study variables, instrumentation, data, sample description, and sample selection process. In addition, the discussion of the data collection procedures will be based on NSFG conducted by the CDC under the Health and Human Services Department.

Research Design and Approach

I used a quantitative cross sectional study design, using secondary data from the 2006–2010 NSFG. The data within the NSFG study directly correlate to the dependent variables, teenage pregnancy, and initial sexual behavior and the independent variables, life events and ethnicity, of African American and Caucasian females.

The NSFG study was designed to identify sexual risk behaviors among groups by age, education of the teenager's mother, and age of the teenager's mother when she had her first child. NSFG also collected past and present data on contraceptive use, sexual activity, and childbearing experiences. In addition, NSFG collected information on sexual partners, such as his/her age, and information on the circumstances surrounding first sexual intercourse, such as the degree to which a first encounter with sex was desired (Lepowski et al., 2010; Martinez et al., 2010; Mosher et al., 2012).

The rationale for using the NFSG study was to substantiate the limited studies on teenage pregnancy that examine the life events life and its relationship to sexual behaviors and teenage pregnancy. Measuring adolescent sexual relations (first sexual encounter) have been used in previous studies in determining probability of pregnancy (Hamarta, 2009; Monahan, 2003; Richardson et al., 2009). Further, studies have linked pregnancy intent and the nature of social situations as a major influence on sexual behaviors and practices as it relates to teenage pregnancy (Azam & Hanif, 2011; Stepp et al., 2011; Taurina & Ivanova, 2011; Zins & Elias, 2007). Therefore, the NSFG is an appropriate study to examine how, if at all, life events have an effect on adolescent sexual behaviors and teenage pregnancy between Caucasian adolescents and African American females.

A quantitative research design was deemed best for using a previously conducted cross-sectional study. A most valuable technique for quantitative design is determining relationships between variables. This observational study is used to track the differences, if any, in characteristics in time. Researchers suggest when preparing to embark on a large scale of information gathering initiative, one should consider previously conducted studies within the same context of the research (Hoe & Hoare, 2012, 2013; Andersen et al., 2011). Applying the NSFG data set to be obtained directly from the public domain will reduce the amount of time and resources required to interview thousands of participants to retrieve similar if not the same data already compiled (Murray, 1998; Sheeder et al., 2009).

Many aspects of teenage pregnancy and adolescent sexual behaviors, researched independently, have been measured using sociometric scales such as nominal or

categorical scales to analyze social structures and social processes. Quantitative assessment tools have increased to test social relationships ranging from informal friendships to social participation to marital adjustment using self, peer, and parental reporting (Dorius, Heaton, & Steffen, 1993; Larson et al., 2007; Myrick & Martorell, 2011; Sorlie et al., 2008; Stepp et al., 2011; Trencosta & Fine, 2010; Pires, Araújo-Pedrosa, Pereira, & Canavarro, 2014). However, because findings using solely self-reports on live events as a predictor of teenage pregnancy are limited, further research can assist in developing a measure of life events in adolescents.

Methodology

Population

Following the same demographics choices as the NSFG, I focused on demographic and survey responses from African American and Caucasian female teenagers, aged 15 to 17 years, living within the United States, as this group is defined as adolescent (NFSG, 2010a; NFSG, 2010b). The population was drawn from 110 primary sampling units (PSU) composed of counties or adjacent counties. PSUs were from across the entire United States. The NSFG focused on female adolescents, ages 15 to 19, living in the rural and urban neighborhoods within the United States.

The NSFG study focused in part on female adolescents and women because they are characterized as having the highest rates of unintended pregnancy and significant instability and change in the dynamic determinants of unintended pregnancy. This data set was chosen because the participants were representative a significant number of teenage African Americans having variations in economic circumstances, allowing comparison between poor African Americans, poor Caucasians, middle-class African

Americans, and middle-class Caucasians **(**Lepkowski et al, 2010, Martinez et. al, 2010, 2 013; Mosher et al., 2012**).**

Sampling and Sampling Procedures

I utilized a cross sectional study using secondary public use data from the 2006-2010 Growth (NSFG). The population sample included national samples of females ages 15 to19 **(**Anderson, Prause & Silver, 2011; Lepkowski et al., 2010). The representative population-based sample included over 12,279 women aged 15 to 44, from June 2006 to June 2010, which were living in the United States **(**Lepkowski, et al, 2010, Martinez et. al., 2010, 2013; Mosher et al., 2012**)**.

Participants eligible for the study had to be at least 15 years of age at the time of inception and residents of the United States **(**Martinez et. al, 2010; Mosher et al., 2012). The number of female participants in the study ages 15-19 years in 2006-2010 was 12,284 females, and a 77% response rate. The sampling from across the United States produced national estimates versus state estimates (Martinez, 2010).

Weighted Sample

Sampling weights were used to compensate for reasons such as selection bias or early participant withdrawal that lead to underrepresentation or overrepresentation between the sample and the reference population. The subgroups, adolescents, age 15 to 17 years were subject to non-response and non-coverage error. A model was designed to predict the non-response rate of eligible persons based on successfully screened households. Post stratification weights were calculated to determine if the demographic characteristics in the adolescent subgroup were over or underrepresented in comparison to the overall adolescent population based from the 2000 Census of Population and

Housing reports. The adjusted weighted sample distribution for key variables of interest such as parental income, age and race, made the adolescent sample conform to a known population distribution (Groves, & Couper, 1998; Kish & Leslie. 1965; Kish & Hess, 1950; Lepkowski, et al., 2010, 2013).

Sample Size Justification

Because the sample is readily available for examination and is in the public domain, G*Power version 3.1.7 was used to determine the power that the proposed analyses were expected to have given the available number of observations. The study includes two logistic regressions and two independent sample *t*-tests. The independent sample *t*-tests have the most stringent sample size requirement, and were thus used as the baseline for calculating the study's assumed power. To determine the power, a-priori, a medium effect size was assumed. A medium effect size represents a "typical" difference between the groups that would be visible to the naked eye (Cohen, 1988). Given that 12,284 observations are included in the data set, and assuming a medium effect size and a 95% confidence interval ($\alpha = .050$), the study's power was calculated to be greater than .99 if group sizes are equal (Faul, Erdfelder, Buchner, & Lang, 2013). This provides near complete confidence that the analysis detected medium sized differences where they existed. This conclusion (i.e., $\beta > .99$) holds true even if a small effect size is assumed.

Data Collection

The secondary data was obtained from the CDC public domain website. The original data collected performed by NSFG was obtained in three ways using both audio and visual and computer aides. Participant acquisition was abstracted from the 2000 Census Bureau. The participants were followed for a 2.5-year period. Parental consents

were required from a parent or guardian and the adolescent. Potential respondents were not allowed to participate if parental consent was not acquired (Lepkowski et al., 2010; M artinez, 2010). The NSFG survey includes patterns of sexual behavior and its correlation to teenage pregnancy rates.

Surveyors inputting data directly into computerized questionnaires downloaded on laptops recorded the face-to-face interviews. The interviews were conducted by trained female surveyors in the home of the respondents and were approximately 55 minutes in length. Questions of a sensitive nature such as questions relating to first sexual encounters were self-disclosed to the interviewer. The third data collection method was generated from audio computer assisted tool that allowed the participant to listen to the questions while simultaneously reading the question and entering the response on the computer. This method was used for the most sensitive of questions without the interviewing knowing of the responses first hand (Lepkowski et al., 2010).

This study used responses to questions posed in the study to complete the binary logistic regression analysis to determine how significant social determinants are to the targeted population (Bandura, et al., 2004; Caprara et al., 2003). The NSFG was also used to analyze and measure the particular sexual activity and behaviors of female adolescents. The face-to-face interviews were used for two reasons; to gain insight on the role of life events in adolescent life and to share with the community the importance of sexual behavioral practices (Sipsma, Ickovics, Lin, & Kershaw, 2015; Wisnieski, Sieving, & Garwick, 2013).

Operational Definition of Variables

The predictor variables are life events and ethnicity. The dependent variables are

sexual behaviors and teenage pregnancy.

Life events: Personal life changes, such as bereavement, marriage, or loss of job, which alter the individual's social setting which signifies a change in the individual's ongoing life pattern (Kail & Cavanaugh, 2015; Wagner, Berenson, Harding & Joiner, 2014).

Teenage pregnancy refers to female adolescents that conceived an infant during the ages of 15 to 17 years.

Prosocial skills: Behavior skills that are intended to have a positive effect on peers and others encountered in social settings (Griese & Buhs, 2014).

Study Measures

The purpose of this study was to explore three research questions:

$RQ_{1:}$ Are certain life events statistically significant predictors of teen pregnancy?

H_{01}: None of the measured life events are statistically significant predictors of teen pregnancy.

H_{a1}: One or more of the measured life events are statistically significant predictors of teen pregnancy.

To assess Research Question 1, a binary logistic regression analysis was conducted. This analysis was used with the intent to determine which, if any, of the life events measured from the archival 2011-2013 NSFG national survey are statistically linked to instances of teen pregnancy. Binary logistic regression is the appropriate analysis when the purpose of research is to estimate the probability of a dichotomous event's occurrence based on one or more independent (predictor) variables (Stevens,

2009). In this analysis, the dichotomous dependent variable will be the teen pregnancy (yes vs. no), and the independent (predictor) variables will be various life events, which are hypothesized to correlate with teen pregnancy. These life event variables include the following:

1. Whether the individual was in foster care, and the number of times an individual has moved from one foster care setting to another for those who were in foster care.
2. Whether the individual lived away from their parents or guardians before the age of 18.
3. How much the individual's mother worked during the individual's childhood.
4. Whether a biological father or other male relative raised them.
5. Change in residency since birth.
6. Religion.
7. Frequency of attendance to religious services.

For item one, responses were categorized as 0 = individual was not in foster care, 1 = one move, 2 = two moves, and so on. For item two, responses were dichotomously coded such that 0 = did not live away from parents before 18, and 1 = did live away from parents before 18. For item 3, responses were coded such that 0 = did not work, 1 = part time, and 2 = full time. For item 4, responses were coded dichotomously such that 0 = was no raised by biological father, 1 = raised by biological father. Item 5 was also coded such that 0 = responded had remained at the same residency since birth (up to April 1, 2010) and 1 = did not remain at the same residency since birth. Item 6 was dummy coded to include each religion that is sufficiently represented in the sample. As such, the

majority's religion was the reference category, and each other religion was represented as its own variable in reference to this category. Attendance to religious services was operationalized as an ordinal variable, wherein 0 = never, 1 = once or twice a year, 2 = 3-11 times a year, 4 = once a month, 5 = 2-3 times per month, 6 = once a week, and 7 = more than once a week.

This analysis was used to evaluate the odds of membership in one of the two groups based on the combination of predictor variable values. The two groups were defined by the possible outcomes of the dependent variable, which included a group for respondents who were pregnant as a teen, and a group who was not pregnant during teen years. Due to the nature of logistic regression, the assumptions necessary for other linear regression models were overcome and did not need to be assessed.

The overall model's significance was examined by the collective effect of the independent variables, presented with a χ^2 statistic. This statistic indicates whether the collective relationship between the set of live events are statistically linked with placement into the teen pregnancy group. For a significant model, the Nagelkerke R^2 value was examined to describe the amount of variance in outcome determined by the independent variables. Predicted probabilities of an event occurring were determined by the standardized beta value, β (Tabachnick & Fidell, 2012). An alpha of .05 was used to determine statistical significance.

RQ_2: Is there a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy?

H_{02} There is no relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy.

H_{a2} There is a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy.

To examine Research Question 2, a chi square analysis was conducted to examine the extent to which ethnicity (Caucasian vs. African American) is related with instance of teen pregnancy. Chi-square analysis is the appropriate hypothesis test when the goal of the research is to examine the relationship between two categorical variables (Tabachnick & Fidell, 2012). For the chi-square analysis, row and column frequencies were interpreted for each variable. In this analysis, placement in one of two rows indicates whether a responded was pregnant in their teens, while the columns indicated whether participants identified as Caucasian or African America. This creates four cells, with one for respondents who were Caucasian and pregnant in their teens, one cell for respondents who were Caucasian and not pregnant in their teens, and two cells for African American respondents; one cell will identify those who were pregnant in their teens and one for those who were not.

To determine significance of the results the calculated chi-square coefficient (χ^2) and the critical value χ^2 coefficient were compared; when the calculated value is larger than the critical value, given the degrees of freedom and an alpha of 0.05, this suggests a significant relationship. In this event, the null hypothesis was rejected and the alternative hypothesis was accepted. Prior to analysis the assumptions of chi-square were assessed. For chi-square to operate properly, data must come from random samples of mutually exclusive categorical groups, and the expected frequencies should not be too small. In chi-square examination, it is expected that frequencies below five should not compose more than 20% of the cells, and no cell should have an expected frequency of less than

one (Pagano, 2009). Observations should be independent of one another, meaning that participants can only contribute one observation to the data, for example, the same participant should not be included in the teen pregnancy and non-teen pregnancy group simultaneously (Howell, 2010). Due to the data coding which occurred during data collection, this assumption was not violated.

RQ3: Are there differences in age of first sexual experience between the two ethnicities in question (African American vs. Caucasian)?

H_{03}: The age of first sexual experience is not significantly different between African Americans and Caucasians.

H_{a3}: The age of first sexual experience is significantly different between African Americans and Caucasians.

To examine the third research question, an independent sample t-test was conducted to examine differences in ages of first sexual experience by ethnicity. The independent sample t-test is the appropriate analysis to conduct when the purpose of research is to determine statistically significant differences on a continuous dependent variable between two groups represented through a binary grouping variable. In this analysis, the scale type variable: age of first sexual experience variable was the dependent variable, and the data was grouped by the binary variable of ethnicity (African American vs. Caucasian).

Prior to analysis, the assumptions of the independent sample t-test were assessed. The independent sample t-test assumes that the dependent variable is distributed normally through all participant responses (normality), and that variability of scores are roughly equal for both groups over which differences will be analyzed (homogeneity of variance).

Subjecting the dependent variable, age of first sexual experience, to a one-sample Kolmogorov-Smirnov test, will assess normality; however, the t-test is quite robust against violations of normality (Morgan, Leech, Gloekner, & Barrentt, 2007). Homogeneity of variance was assessed by use of Levene's test. If this assumption is violated, the degrees of freedom unequal variances must be used to determine significance. An alpha of 0.05 was used.

Table 1 shows a view of the three research questions including two independent variables social competence and ethnicity (predictor) and one dependent variable teenage pregnancy planned to test each hypothesis.

Table 1

Components Associated with Each Hypothesis Including, Predictors, DV, and Planned Statistical Equation

Hypothesis	Predictor variables	DV criterion variable	Statistical equation
H1	Life events	Caregiver, religion, residency change. Foster care placement during adolescent years.	Binary Logistic Regression
H2	Ethnicity	Pregnancy(live birth) during adolescent years	Chi Square
H3	First sexual reencounter	Initial sexual Practice	*t* test

Note. DV=Dependent Variable

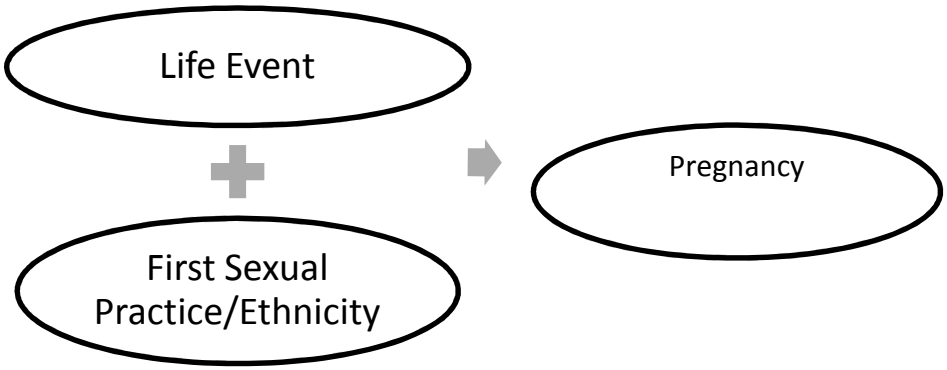

Figure 1. Structural equation model.

Scale

Using the NSFG survey, questions relating to attitudes towards sex, contraception use, gender, pregnancy intentions were scored using a scale measurement. Survey data used was described in detail. Score calculations are illustrated from the responses to the survey. There should be a linear relationship between the odd ratio and the independent variable. There should be no outliers in the data, which can be achieved by converting the independent variables to a standardized z score and anything ≥3.29 or greater can be deleted (Tabachnick & Fidell, 2012).

Descriptive Statistics

Data was entered into SPSS version 21.0 for Windows. Descriptive statistics were conducted to describe the sample demographics and the research variables used in the analyses. Means and standard deviations were calculated to describe continuous variables such as relationship characteristics or age. Frequencies and percentages were calculated to describe any nominal (categorical) demographics, such as race or parental education (Howell, 2010).

Data Analysis Plan

Data was screened for accuracy, missing data and outliers or extreme cases. Descriptive statistics and frequency distributions were conducted to determine that responses are within possible range of values and that outliers did not distort the data. Cases with missing data were examined for nonrandom patterns. Participants who did not complete major sections of the survey were excluded.

Threats to Validity

External Threats

External threats to validity were addressed by the NSFG sampling procedures. African America females were selected at higher rates to yield an oversample of the population comparative in number to Caucasian females for consistency in prediction. Exposure to external influences, since the participants were not isolated, was addressed with scheduling interviews in close proximity in time. Parental consents were required from a parent or guardian and the adolescent. Potential respondents were not allowed to participate if parental consent was not acquired **(**Lepkowski, et al, 2010; Martinez, 2010).

Internal Threats

There were no perceived internal threats to conducting this study, as it was a secondary data analysis.

Ethical Procedures

Ethical considerations include participants' right to anonymity as provided by NSFG. NSFG provides coded data to ensure anonymity for public use. Parental consents were required from a parent or guardian and the adolescent. Potential respondents were not allowed to participate if parental consent was not acquired **(**Lepkowski, et al, 2010; Martinez, 2010).

Summary and Transition

This chapter presented the methodology and research plan using a quantitative method. The NSFG provided the dataset for the study's variables. SPSS for windows was used for the statistical analysis in determining if there was any association between social

competence and teenage pregnancy. Chapter 4 will present the descriptive statistics, logistic regression analysis and results.

Chapter 4: Results

Introduction

The economical, educational, and medical disparities for African American mothers and infants continue to make teenage pregnancy a serious public health concern. The purpose of this quantitative study was to examine how life events influence sexual behavior contributing to teenage pregnancy (Lee, Storr, Ialongo, & Martins, 2012; Shirai & Higata, 2015). Life events were characterized by transitions between foster care facilities, living away from parents before the age of 18, the amount a mother worked (i.e., full time, part time, or equal), being raised by a biological father, changing residency, religion, and religious service attendance. This study was conducted using a quantitative cross- sectional research design to understand the relationship between life events and initial sexual behavior and teenage pregnancy, and to understand the differences in these behaviors based on ethnicity.

Data Treatment

Data were gathered from the CDC's public domain website. The original data from surveys and self reports were collected by NSFG was obtained in three ways using both audio and visual and computer aides. Data from this database were downloaded and aggregated to combine information regarding teen pregnancies with information regarding these respondents' life experiences. Once these data were fully compiled into a single data set, they were recoded for appropriate use in the proposed analyses. The study variables included the following:

1. Whether the individual was in foster care, and the number of times an individual has moved from one foster care setting to another for those who were in foster care.
2. Whether the individual lived away from their parents or guardians before the age of 18.
3. How much the individual's mother worked during the individual's childhood.
4. Whether a biological father or other male relative raised them.
5. Change in residency since birth.
6. Religion.
7. Frequency of attendance to religious services.

For Item one, responses were categorized as (0) = individual was not in foster care, (1) = one move, (2) = two moves, and so on. For Item 2, responses were dichotomously coded such that (0) = did not live away from parents before 18, and (1) = did live away from parents before 18. For Item 3, responses were coded such that (0) = did not work, (1) = part time, and (2) = full time. For Item 4, responses were coded dichotomously such that (0) = was no raised by biological father, (1) = raised by biological father. Item 5 was also coded such that (0) = responded had remained at the same residency since birth (up to April 1, 2010), and (1) = did not remain at the same residency since birth. Item 6 was dummy coded to include each religion that was sufficiently represented in the sample (i.e., no religion, Catholic, and other). As such, the majority's religion was Protestant and was used as the reference category, whereas each other religion was represented as its own variable in reference to

this category. Attendance to religious services was operationalized as an ordinal variable, wherein (0) = never, (1) = once or twice a year, (2) = 3 to 11 times a year, (3) = once a month, (4) = 2 to 3 times per month, (5) = once a week, and (6) = more than once a week. Finally, data for the dependent variable were coded such that (0) = not pregnant as a teen, and (1) = pregnant as a teen.

Description of the Sample

Participants in the overall sample consisted of 1,331 Black respondents (11.40%) and 3,549 White respondents (30.50%). A majority did not fall into either of these categories, but were spread among several different ethnicities or races (6,761, or 58.10%). Though many participants did not respond with any religious affiliation (6,040, or 51.90%), many reported Protestant as their religion (2,771, or 23.80%). As such, Protestant was coded as the reference category when dummy coding for religion. A large portion reported either no religion (1,109, or 9.50%) or Catholic (1,285, or 11.10%). Because only a total of 449 (3.90%) provided information regarding a teen pregnancy, these composed the total sample for the first analysis. This subsample consisted of 153 (34.10%) who were not pregnant as a teen and 296 (65.90%) who were pregnant as a teen. Descriptive information for these participants is presented in Table 2 below.

Table 2

Descriptive Information for Final Sample (*N* = 11,641)

Demographic	*n*	%
Ethnicity		
Black	1,331	11.40%
White	3,549	30.50%
Other	6,761	58.10%
Religious affiliation		
No religion	1,109	9.50%
Catholic	1,285	11.10%
Protestant	2,771	23.80%
Other religion	436	3.70%
No response	6,040	51.90%
Pregnant as a teen		
Yes	153	1.30%
No	296	2.50%

Detailed Analysis

Research Question 1

Are certain life events statistically significant predictors of teen pregnancy?

H_{01}: None of the measured life events are statistically significant predictors of teen pregnancy.

H_{a1}: One or more of the measured life events are statistically significant predictors of teen pregnancy.

To address Research Question 1, a binary logistic regression was proposed. In order to conduct this analysis, only the 449 participants who provided information regarding teen pregnancy were included, so that they could be grouped into either a “yes” or “no” group within the dependent variable. Due to the non-parametric nature of the

binary logistic regression, none of the restrictive assumptions typical to a regression analysis required assessment (Lehmann, 2006). However, though there appeared to be sufficient cases with all applicable data, the parameter covariance matrix could not be computed, and all variables were excluded from the equation.

Due to this mathematical limitation, a series of point biserial correlations were conducted in place of the single overarching binary logistic regression. The point biserial correlation is used when a continuous or ordinal level variable is assessed for a correlation with a binary variable, such as teen pregnancy, which acts as the dependent variable in the study (Stevens, 2009). The only limitation to this design is that there is no way to parse out the effects of each variable. However, this correlation matrix was used to provide information regarding which of the variables proposed for the binary logistic regression were significant predictors.

Results of the series of point biserial correlations indicated that there was a significant correlation with instances of teen pregnancy for the following life events: (a) number of foster homes a participant lived in ($r_{pb} = .17$, $p < .001$), (b) whether the participant lived away from their parents before age 18 ($r_{pb} = .20$, $p = .010$), and (c) whether the participant had changed residences since birth ($r_{pb} = -.16$, $p = .039$). Thus, it was found that as the number of foster homes a participant lived in increased, so too did their odds of placement into the "pregnant as a teen" group. Similarly, participants who moved away from their parents before age 18 had a higher chance of being placed in the "pregnant as a teen" group. However, participants who had changed residences since birth were less likely to be in the "pregnant as a teen" group. As several of the correlations were found to be significant, the null hypothesis was rejected in favor of the

alternative. The full series of point biserial correlations are presented in Table 3, where grey rows identify significant correlations.

Table 3

Point Biserial Correlations Between Teen Pregnancy and Life Events

	Teen pregnancy	
Life event	r_{pb}	*P*
Number of foster homes	.17	< .001
Lived away from parents before 18	.20	.010
Female caregiver work schedule	.03	.736
Biological father male caregiver (vs. other)	-.07	.509
Changed residence since birth	-.16	.039
No religion (vs. Protestant)	.07	.395
Catholic (vs. Protestant)	-.07	.402
Other religion (vs. Protestant)	-.07	.355
Frequency of attendance: religious services	.30	.315

Research Question 2

Is there a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy?

H_{02}There is no relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy.

H_{a2}There is a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy.

To examine Research Question 2, a chi-square analysis was conducted. Using this analysis, placement in one of two rows indicates whether a responded was pregnant in their teens, while the columns indicate whether participants identify as Caucasian or African American. This resulted in four cells, with one for respondents who were

Caucasian and pregnant in their teens, one cell for respondents who were Caucasian and not pregnant in their teens, and two cells for African American respondents; one cell for those who were pregnant in their teens and one for those who were not. Prior to analysis, cell counts were assessed to determine whether they met the assumption of the analysis.

In chi-square examination, it is expected that frequencies below five should not compose more than 20% of the cells, and no cell should have an expected frequency of less than one (Pagano, 2009). Within the cross tabulation, none of the cells consisted of less than five observations, and expected counts did not fall below 20. As such, the assumptions of the analysis were upheld, and the results could be interpreted with confidence. Results of the chi-square analysis did not indicate any significant relationship between ethnicity (i.e., Caucasian versus African American), and instances of teen pregnancy ($\chi^2(1) = 0.27$, $p = .601$). As there was no significant finding, the null hypothesis could not be rejected, and must be maintained. Results of the chi-square, and a full cross tabulation are presented in Table 4. This table shows that the actual counts did not differ greatly from what would be expected given a random chi-square distribution among the variables of interest.

Table 4

Cross Tabulation between Ethnicity and Teen Pregnancy

	Teen pregnancy			
Ethnicity	No	Yes	$\chi^2(1)$	*p*
African American	18 [20]	40 [41]	0.27	.601
Caucasian	32 [31]	62 [64]		

Note. Bracketed values express expected counts given a random chi square distribution.

Research Question 3

Are there differences in age of first sexual experience between the two ethnicities in question (African American vs. Caucasian)?

H_03: The age of first sexual experience is not significantly different between Afric an Americans and Caucasians.

H_a3: The age of first sexual experience is significantly different between African A mericans and Caucasians.

To examine Research Question 3, an independent sample *t* test was conducted. This analysis was chosen because it is applicable when the goal is to determine significant differences between two independent groups on a single continuous scale measurement. In this instance, the continuous number of years (i.e., age) before a first sexual intercourse experience was compared between African Americans and Caucasians within the given sample. Prior to analysis, the assumptions of the independent sample *t* test were assessed. These assumptions included normality and homogeneity of variance. Normality was assessed with a one-sample Kolmogorov Smirnov (KS) test, which determined that the data were distributed in a significantly different manner from

the normal bell curve ($p < .001$). Next, the assumption of homogeneity of variance was assessed using Levene's test, which identified significant differences in the variance between the two groups of interest ($F = 10.90$, $p = .001$). However, Stevens (2009) suggested that, for large samples (i.e., $N > 30$), these assumptions might be violated with relatively little harm. As a total sample of 4,242 contributed data to this analysis, the *t* test was conducted as planned; however, the results were interpreted using modified statistics that to not make the assumption of equal variances.

Results of the independent sample *t* test suggested that there were significant differences in the age of a first sexual intercourse between the group of African Americans and the group of Caucasians ($t(4240) = -7.30$, $p < .001$). Thus, the null hypothesis was rejected in favor of the alternative. Examination of group means suggested that the group of Caucasian participants had a slightly higher age of first sexual intercourse experience ($M = 16.98$, $SD = 3.10$) than the group of African American participants ($M = 16.26$, $SD = 2.75$). Thus, Caucasians tended to report an age of first sexual experience approximately 0.72 years older than the African American participants. Results of this analysis are presented in Table 4 below.

Table 4

Independent Sample t Test for Age of First Intercourse Between African Americans and C aucasians

			Caucasian		African American	
Source	*t*(4240)	*p*	*M*	*SD*	*M*	*SD*
Age	-7.30	< .001	16.98	3.10	16.26	2.75

Summary and Transition

Chapter 4 opens with a restatement of the purpose and problem, to frame the results and findings, and follows with a description of the data treatment and coding procedures necessary for the following analyses. The sample used in the following analyses is then described, and demographic features are tabulated for ease of interpretation. Results are listed in order of research question. Examination of research question one indicated that the proposed binary logistic regression could not be used, and a series of point biserial correlations were conducted, resulting in rejection of the null hypothesis, and indicating that the number of foster homes, living with parents before 18, and changes in residence were all significantly related with instance of teen pregnancy.

Examination of research question two followed the proposed chi-square procedures, but failed to reject the null hypothesis, indicating that there were no differences in teen pregnancy between Caucasian and African Americans in the sample. The final examination was also conducted following the proposed independent sample *t* test, and indicated significant mean differences in the age of first sexual intercourse between Caucasians and African Americans, and a rejection of the null hypothesis. Assessment of group means suggested that African Americans tended to be slightly younger at their first sexual experience, though group averages differed by only 0.72 years. Chapter Five will include an interpretation of the results as they inform social learning theory, as well as the study implications and any suggestions for future research.

Chapter 5: Discussion, Conclusions and Recommendations

Introduction

The purpose of this study was to determine whether any relationship exists among major life events, sexual behaviors, and resultant teenage pregnancy among African American females in the United States. The nature of the study was to explore how life events' in an African American adolescents females' life affect, or do not affect, adolescent sexual behaviors leading to teenage pregnancy. This study was prompted by my close observation witnessing educational consequences to teenage pregnancy during my high school years. Classmates and neighborhood friends dropped out of school, choose abortion, and some even opted for putting their unborn child up for adoption as a means to remedy being pregnant as a teen. The consequences, unfamiliar to me at the time, were social ramifications that as research has found, was social disparities (Maness & Buhi, 2013). Current research has identified socio-cultural disparities among African American female adolescents and teenage pregnancy as a gap in the literature and as key factor to risky behaviors within the adolescent population (Pires, Araújo-Pedrosa, Pereira, & Canavarro, 2014; Stevens et al., 2014; Treas & Elliott, 2014). As such, this research topic served as the catalyst for this study.

The findings in this study are in relation to how adolescent develop and adapt to life situations and how their responses in a social setting referred by SLT. Reviewing responses to the questions with regard to life events and sexual behaviors showed both ethnicities share similar experiences and similar outcomes. The implications of these findings are examined in terms of their social importance to the physical health, educational, and economic relevance to teenage life. The limitations of the study are

discussed and conclusions and recommendations for future research are noted (Rowe et al., 2015).

Interpretation of Findings

The SLT theoretical framework used for this study documented the essence of learning, particularly for adolescents, as the adaptation of situations experienced within social environments such as but not limited to occurrences in the home, neighborhood, school and church. As such, RQ1 alternative hypothesis (One or more of the measured life events are statistically significant predictors of teen pregnancy) was confirmed due to life events showing as a statistically significant predictor of teen pregnancy. The specific life events referencing housing or home environments indicated a predictor of teen pregnancy. The increased number of foster homes correlated to the likelihood of teen pregnancy. The same is with adolescents who were not in foster homes but lived away from their parents before age 18. Adolescents who did not live with their parents at some point before age 18 had a significant predication of teenage pregnant. This suggests the importance of parental influence and home environment on adolescent sexual behaviors (Smith, et al., 2014).

Research has also found teenage pregnancy interventions that have strategically incorporated parenting; parental monitoring and parent-child communication have developed and strengthened self-worth and positive self-perceptions among adolescent girls (Azam & Hanif, 2011; Cheney et al., 2014, 2015; Commendador, 2010 and 2011; Oman, Vesely, Aspy, & Tolma, 2015). Moreover, public health programming has shown improvements in positive health outcomes teenage pregnancy by integrating community capital in the form of family, school, and church affiliations. Instilling social competence

in adolescent life has shown to protect youths from risky behavior, particularly early sexual activity and advance successful transition to early adulthood (Boyer & Nelson, 2015).

Examining RQ2 (Is there a relationship between ethnicity (Caucasian vs. African American) of adolescent females and teenage pregnancy, indicated there were no differen ces in teen pregnancy between Caucasian and indicated there were no differences in teen pregnancy between Caucasian and African Americans in the sample. This means there wa s no indication of any significant relationship between Caucasian and African American a dolescent females and the existence of teen pregnancy.

Differences or disparities in teenage pregnancy by ethnicity have not shown to enhance both programs and clinical services to prevent teen pregnancy through individual behavioral change (Oman et al., 2015). In fact, research has been (Oman et al., 2015; Tolma et al., 2011). Research on adolescent risky behaviors has been discovering the complexity of social determinants of violence among teens as well as teenage pregnancy that contradicts ethnicity as a primary predictor of teenage pregnancy (Harris & Marshall, 2015; Tolma et al., 2011).

The final RQ examination, Are there differences in age of first sexual experience between the two ethnicities in question, African American vs. Caucasian, assessed signifi cant mean differences in the age of first sexual intercourse between Caucasians and Afric an Americans. The comparison between both ethnicities showed African Americans were just shy of a year younger when they engaged in their first sexual experience than Caucas ians. While the age gap does not appear large in margin, this definitely demonstrates how

parental presence can be important social factor in adolescent female decisions to delay sexual intercourse for both ethnicities (Boyer & Nelson, 2015; Harris & Cheney, 2015). Additionally, the social environments in which life events are experienced help influence adolescent teens to make decisions regarding sexual behaviors. This finding also gives credibility to life events affecting adolescent teenage sexual behaviors regardless of age or ethnicity. Adolescent females in social settings amongst their peers, stimulates engagement in sexual behaviors contributing to pregnancy and increases risky sexual behaviors. Current research had concluded public health interventions must incorporate social environments that support healthy sexual decision making (Angley et al., 2015; Stevens et al., 2014).

Limitations of Findings

The limitations of the research were minimal and included self-reporting, recall and bias errors. The CDC's cross sectional study, addressed the external threats by the NSFG sampling procedures. The CDC chose African America females at higher rates than the Caucasian population allowing for the sample used in this study ample size to compare the populations with matched ratios. The interviews scheduled in short intervals remedied external influences altering responses to face-to-face and computerized questioning (Lepkowski, et al, 2010; Martinez, 2010). Using a secondary data set eliminated internal threats.

Recommendations

In examining the data, what was not found was the existence in the difference in life events and ethnicity leading to teenage pregnancy and if the findings would contribute to cultural norms? While comparing African American and their Caucasian

counterparts, African American adolescent females were more likely to encounter a sexual experience earlier in age suggesting teenage pregnancy at an earlier age. Beneficial to continued research is the need for deciphering which sexual encounters had the highest occurrence for each ethnicity and if the differences correlated to teenage pregnancy.

In conclusion, this research has found adolescent sexual behaviors have an association with social characteristics as developed through life events. Adolescent females, both African American and Caucasian have engaged in sexual behaviors leading to teenage pregnancy according to similar experiences in life events. Recommendations for future studies include additional guidance on operationalization of social and cultural tailoring of intervention and programming aimed at improving adolescent sexual behaviors.

Anticipated Implications

The inclusion of social factors such as life events and social experiences can help gain understanding of adolescent sexual behavioral practices and other risky behaviors such as violence and substance use. The findings and conclusions discussed describe how adolescents develop responses to social situations. This implies social competence is an antecedent to sexual behaviors and teenage pregnancy. Furthermore, the most vulnerable adolescent population is those subject to foster care at an early age. Lastly, teenage pregnancy programming to strengthen youth assets may be a promising strategy for reducing youth sexual risk behaviors and socio-cultural characteristics such as religious practices (Duffy et al., 2012).

Summary and Conclusions

Summary

The main goal of the study was to examine the correlation between life events, sexual behaviors and teenage pregnancy. While comparing African American and their Caucasian counterparts, African American adolescent females were more likely to encounter a sexual experience earlier in age suggesting teenage pregnancy at an earlier time during their teenage years. Adolescents experience with life events exhibited a relationship becoming pregnant. Consequently ethnicity does not play a part with regard to the relationship between life events and teenage pregnancy concluding social and cultural dynamics influence adolescent decision-making abilities.

Conclusion

Social development and social competence can have positive influence on preventing teenage pregnancy when explored with cultural dynamics and diversity of the population. The presence of parental guidance has shown to a lucrative social asset influencing adolescent behaviors. Therefore, focusing on social and cultural dynamics, not limited to race or ethnicity, developing prevention programs for teenage pregnancy can contribute to improving adolescent's decision making in life's choices. Interpersonal relationships with co-workers, family and friends are all a part of a multidimensional society, which determines how we interact with one another (Collins, Percy, Smith & Kruschke; Angley et al., 2015). It becomes a part of our individual culture in relation to one another based on the physical setting that is shaped by behaviors (Tran & Lee, 2011). Acknowledging the need for greater social supports for advancement in adolescent health

outcomes can improve social competence and more specifically, self-esteem, self-efficacy and self-worth, all pertinent factors in adolescents making life altering decisions in social settings (Fedorowicz, et al., 2014; Nelson, et al, 2011).

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Appendix A:CDC Public Domain Permission of Data Use

Public Use Data Files and Documentation: National Survey of Family Growth (NSFG)- Questionnaires, Datasets, and Related Documentation

The National Center for Health Statistics (NCHS) is pleased to offer downloadable public-use data files through the Centers for Disease Control and Prevention's (CDC) FTP file server. Users of this service have access to data sets, documentation, and questionnaires from NCHS surveys and data collection systems. Downloading instructions are available in "readme" files.
Public-use data files are prepared and disseminated to provide access to the full scope of the data. This allows researchers to manipulate the data in a format appropriate for their analyses. NCHS makes every effort to release data collected through its surveys and data systems in a timely manner.

Users of NCHS public-use data files must comply with data use restrictions to ensure that the information will be used solely for statistical analysis or reporting purposes.

http://www.cdc.gov/nchs/data_access/ftp_data.htm