2013

Adolescent Mothers: Factors Affecting Social and Sexual Decision-Making

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ADOLESCENT MOTHERS' DECISIONS IMPACTING ADDITIONAL PREGNANCIES

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A DISSERTATION

Submitted to the graduate faculty of The University of Alabama at Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

BIRMINGHAM, ALABAMA

2013

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ABSTRACT

Introduction: Adolescent pregnancy remains a public health concern despite decades of attempts to prevent it. The United States continues to have the highest adolescent pregnancy rates of any industrialized country (Kost, Henshaw, & Carlin, 2010). While adolescents of all ages (10-21 years) can become pregnant, pregnancy rates are highest among adolescents who are 15 to 19 years of age. Multiple factors have been identified that increase the likelihood of adolescent pregnancy and repeat pregnancy. Often times, adolescent pregnancy is the result of sexual risk-taking, which has been attributed to the changes that occur neurologically, physically, and emotionally (Reyna & Farley, 2006). The antecedents of adolescent pregnancy and repeat pregnancy are often the result of sexual and social decisions made by the adolescent.

Purpose: The purpose of this qualitative, descriptive, study is to examine the influences of social and sexual decisions made by adolescent mothers, 16 to 19 years of age, before and after delivery of their first child.

Methods: This study utilized a qualitative, descriptive inquiry approach. The participants were recruited from Jefferson County Department of Health. The sample (n = 6) was comprised of adolescent mothers ages 15-19 years of age, within the first year following delivery of their initial child. Semi-structured interviews were utilized for data collection and content analysis was used in order to analyze the data collected.

Results: The adolescent mothers' relationships with parents, romantic partners, friends, school, community, and newborn child influenced her decisions.

Conclusions: The findings of the current study agree with previous literature supporting the influence of relationships on adolescent mothers' social and sexual decision-making. The impact of adolescent mothers' transition into motherhood as well as the relationship with her newborn child on her decision-making addressed gaps observed in the literature.

Keywords: adolescent mother, teen mother, decision-making, influences, social decision-making, sexual decision-making

DEDICATION

I dedicate this to my grandmother, who has always given me love and support. I also dedicate this to my children, to inspire them to never give up on their dreams.

ACKNOWLEDGEMENTS

I extend an immeasurable amount of gratitude to my dissertation committee, Drs. Jean Ivey, Gwendolyn Childs, Ashley Hodges, Carden Johnston, and Tina Simpson for their support, patience, and direction. I am beyond grateful to my committee chair, Dr. Jean Ivey, for her support and encouragement during my program. Also, I thank my committee co-chair, Dr. Gwendolyn Childs, for her patience and direction and insight in the world of qualitative approach.

I also offer my appreciation and love to my friends and family. I especially thank my grandmother, who selflessly offered free babysitting, free meals, and free household assistance during my program. I am grateful for your lifelong love and support. I also thank the rest of my family for their support and understanding during this journey. Finally, I extend gratitude to my friends who continually kept me looking forward and offered numerous amounts of assistance. I love you all very much.

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CHAPTER 1

INTRODUCTION

Adolescent Pregnancy

Adolescent pregnancy remains a public health concern despite decades of attempts to prevent it. The United States continues to have the highest adolescent pregnancy rates of any industrialized country (Kost, Henshaw, & Carlin, 2010). While adolescents of all ages (10-21 years) can become pregnant, pregnancy rates are highest among adolescents who are 15 to 19 years of age. Adolescent repeat pregnancy rates are also higher among older adolescents (Kost et al.). Because there are high rates of pregnancy among 15-19 year old adolescents, this age group will be the group of interest for the proposed study.

Multiple factors have been identified that increase the likelihood of adolescent pregnancy and repeat pregnancy. Often times, adolescent pregnancy is the result of sexual risk-taking, which has been attributed to the changes that occur neurologically, physically, and emotionally (Reyna & Farley, 2006). Though there is no consensus concerning the primary cause of adolescent pregnancy, prior research has identified antecedents of both adolescent pregnancy and repeat pregnancy. There are certain antecedents that are static and are difficult to change, such as low socioeconomic status (Sing, Darroch, & Frost, 2001) and ethnic differences (Corcoran, Franklin, & Bennett, 2000). However, other antecedents may be amenable to change, such as type of contraception, sexual

activity resumption, use of alcohol or other substances, and residing with partner. The antecedents are often the result of sexual and social decisions made by the adolescent.

The process of adolescent social and sexual decision-making has been the topic of research for many decades in the United States. Sexual decision-making is defined as the process of choices made regarding sexual activity, contraception use (including hormonal and barrier methods; i.e., birth control pills and condoms, respectively), number of sexual partners, and early resumption of sexual activity after delivery (Chambers & Rew, 2003; Kotchick, B.A., Shaffer, A., & Forehand, R., 2001). Social decision-making is defined as the process of choices made by the adolescent mother regarding romantic partners, living situations, and continuance of education (Rilling & Sanfey, 2011). The consequences of social and sexual decision-making of adolescent mothers may be similar to non-parenting adolescents but could also increase their risk of experiencing a repeat pregnancy. Understanding influences on sexual and social decision-making in adolescent mothers is important because of the high rates of repeat pregnancy that occur during adolescence. By examining sexual and social decision-making in adolescent mothers, a greater understanding of the influences experienced by adolescent mothers can be obtained. This knowledge can lead to further studies and eventually create a greater ability to initiate interventions to reduce adolescent repeat pregnancy.

Prevalence

More than 800,000 adolescents, or about 3 of 10 adolescent females, become pregnant in the United States each year (Guttmacher, 2010). Among adolescents who become pregnant, more than 80% of their pregnancies are unintended (Klein, 2005). Ado-

lescent pregnancy rates vary among ethnic groups. In 2006, among adolescents 15-18 years of age, Hispanics and Blacks had the highest pregnancy rates (127/1,000 and 126/1,000 respectively) followed by non-Hispanic Whites (44/1,000). In 2005, Alabama ranked 16th among all states and had an adolescent pregnancy rate of 73/1,000 (Guttmacher Institute, 2010).

Adolescents who experience one pregnancy during adolescence are more likely to experience an additional pregnancy, especially within the first two years following delivery of an infant (Raneri & Wiemann, 2007). As reported by the Centers for Disease Control and Prevention (CDC), in 2007, about one in five adolescent pregnancies were experienced by an adolescent who had previously had a child. In the literature, the reported rates of adolescent repeat pregnancy vary considerably. One study found that adolescent repeat pregnancy rates were as low as 14% within 12 months of initial delivery (Thurman, Hammond, Brown, & Roddy, 2007), while others have reported rates to be 25% within the same period of 12 months of the initial delivery (Falk et al.). Raneri and Wiemann (2007) reported adolescent repeat pregnancy rates as high as 42% when adolescents were followed for 48 months after initial delivery. The different reported rates of repeat pregnancy can seem confusing and appear to be the result of the design of the study, varying with the length of time from the initial delivery and the size of the sample. However, researchers agree that the rates of adolescent repeat pregnancy warrant concern (Falk, Ostlund, Magnuson, Scholling, & Nilsson, 2006; Raneri & Wiemann; Thurman et al.). It is not understood why adolescents who experience an initial pregnancy and profess a contraceptive plan with no desire for future pregnancy, experience repeat pregnancy

(Falk et al.). Generally, healthcare providers expect the initial pregnancy to deter future pregnancies but according to the available research this is not the case.

Consequences of Adolescent Pregnancy

Adolescent motherhood has a multitude of consequences, both negative and positive, not only for the adolescent mother but also for her children. Adolescent mothers are less likely to finish high school and are often unable to maintain consistent employment, which leads to welfare dependence (Singh, Darroch, & Frost, 2001). Furthermore, many adolescent mothers continue through life as single parents, which also cause higher dependence on public assistance, higher stress, and more difficulty with childrearing (Black et al., 2006). Infants of adolescent mothers are more likely to be low birth weight, have childhood health problems, experience child abuse and neglect, be placed in foster care, and experience school problems such as truancy, grade repetition and early sexual initiation (Klerman, Baker, & Howard, 2003; Levine, Emery, & Pollack, 2007). Moreover, with each additional child born to an adolescent mother, the previous children are at higher risk for neglect, trauma, and delinquent behavior. These children often continue the cycle of adolescent pregnancy (Black et al.; Klerman et al.). These negative consequences of adolescent motherhood cited by researchers and healthcare providers demonstrate the need to reduce the rates of adolescent repeat pregnancy.

While the public health community views adolescent pregnancy and adolescent repeat pregnancy within a negative context, adolescents and researchers describe some positive consequences of adolescent pregnancy. Prior research demonstrates positive influences such as family, community, and social support can decrease the negative conse-

quences of adolescent repeat pregnancy (Kelly, Morgan-Kidd, 2006; Warner, Giordano, Manning, & Longmore, 2011). Previous studies demonstrate that adolescent mothers often view motherhood as an entry into adulthood and view pregnancy and motherhood as positive (Clifford & Brykczynski, 1999; Mackey & Tiller, 1998; Oxley & Weekes, 1997; Williams & Vines, 1999). Additionally, previous research describes the improvement of the relationship with family that is created by the new infant (Oxley & Weekes). Some adolescent mothers have also reported the positive transformation into motherhood and the increase in perceived stability and promising future (SmithBattle & Leonard, 1998).

It is difficult to separate the consequences of adolescent pregnancy from the risk factors that may lead to adolescent pregnancy. Many times the adolescent who has the highest risk of adolescent pregnancy is at a higher risk of experiencing the negative consequences whether or not the adolescent experiences a pregnancy (Geronimus & Korenman, 1993). Given the high rates and negative consequences of adolescent repeat pregnancy perceived by the public health community, there is a need of successful interventions in order to decrease unintended repeat pregnancy (Falk et al., 2006; Black et al., 2006; Raneri & Wiemann 2007).

Costs of Adolescent Pregnancy

Many of the financial costs of adolescent pregnancy can be attributed to the negative consequences for the children born to adolescent mothers. Pregnant adolescents frequently rely on public assistance, which results in a greater cost to society. According to The National Campaign to Prevent Teen Pregnancy (2007), in 2004 the increased costs consisted of

> health care for children of teen mothers ($1.9 billion), foster care for children of teen mothers ($2.3 billion), incarceration of the sons of teen mothers ($2.1 billion), total tax revenue losses due to lower earnings of the mothers, fathers, and the children themselves when they are adults ($6.3 billion), and offsetting public assistance savings costs for teen mothers ($3.6 billion) (p. 28)

These financial costs are compounded by the emotional and psychological stresses experienced by adolescent mothers during a time of complex physical, emotional, and cognitive maturation (Reyna & Farley, 2006).

Adolescent Development

Adolescent development, which seems to contribute to adolescent risk behavior, has been the focus of research for many decades. The primary task of adolescence is development of an identity, which includes separation from family, establishment of intimacy, and planning for economic independence (Erikson, 1963; Trad, 1999). While adolescents strive to develop an identity, they also undergo a transition in their cognitive processes. Adolescence, according to Piaget (1954), involves a cognitive transition from concrete to formal operations. Formal operations allow adolescents to think more abstractly and consider alternatives. Advancement through formal operations allows adolescents to engage in social perspective-taking (Gordon, 1990), in which the adolescent can view a social situation from an alternative perspective, and decrease egocentric thought, which Elkind (1967), believes is inherent to adolescence. Even in those adolescents who have transitioned into formal operations, regression into concrete thinking can occur in situations that are stressful or emotionally charged (Keating & Clark, 1980).

More recently, research has focused on the maturation of the brain during adolescence that influences cognition and behavior (Durston & Casey, 2006; Rubia, Overmey-

er, & Taylor, 2000; Yurgelan-Todd, 2007). During adolescence, the forebrain, which contributes to decision making, judgment, and inhibiting inappropriate behavior undergoes rapid development, but does not reach full maturity until the mid 20s (Behrman, Kleigman, & Jenson, 2004). In contrast, the limbic system, which is responsible for emotion, matures rapidly. When the mature limbic system is coupled with the immature forebrain, an environment is created in which the adolescent engages in novelty seeking and has difficulty inhibiting risky behavior (Rubia et al., 2000).

The maturation processes that occur during adolescence are individualized and can vary between each adolescent. Consequently, adolescents are undergoing changes in thought processes, reasoning abilities, and views of the world, which can be impacted by adolescent pregnancy. Adolescent pregnancy and the responsibilities associated with pregnancy and parenting can be extremely consuming to the adolescent. The new responsibilities leave the adolescent without much time to continue through the normal maturation processes inherent in this period. There is little time to develop meaningful relationships with peers or create greater autonomy from parents. Adolescent pregnancy thrusts the adolescent into an adult role without time to gradually transition into adulthood. The new role and responsibilities for the child can further hinder educational and occupational goals of the adolescent. Mylod, Whitman, and Borkowski (1997) found that adolescent pregnancy and parenting delays intellectual development and reduces interaction with peers which leads to the inability to successfully develop a sense of self. Many times adolescent mothers find it difficult to pursue educational or career goals with the new responsibilities of pregnancy or motherhood.

To summarize, the immaturity that characterizes adolescence is displayed through impulsivity and risk taking (Casey, Jones, & Hare, 2008) including sexual experimentation. Often times the adolescent is actively trying to seek independence which may include experimentation with behavior that puts them at risk for adolescent pregnancy and other negative outcomes (Rubia et al., 2000).

Adolescent Risk Behaviors

Adolescents frequently engage in high-risk behaviors such as "activities that contribute to unintentional injuries, violence, tobacco use, sexual behavior, dietary practices, and physical activity" (Eaton et al, 2008, pg.1). High risk behaviors may begin early in childhood and continue throughout the adolescent and early adult years. Certain adolescents display a stronger propensity to participate in high risk behaviors because of the natural cognitive developmental process, personality trait, or learned behavior (Green, Krcmar, Walters, Rubin, & Hale, 2000; Trad, 1999).

Sexual risk-taking, such as unprotected intercourse or sexual intercourse with multiple partners, can have many consequences to the adolescent. It can lead to sexually transmitted diseases, including human immunodeficiency virus (HIV) and unintended pregnancy (Kotchick, Shaffer, Forehand, & Miller, 2001). Sexual risk-taking behaviors are higher for minority adolescents and adolescents of a lower socioeconomic status (Kotchick et al., 2001). The sexual activity rates of the United States are comparable to other developed countries. However, 15 to 19 year olds have the highest rates of sexually transmitted diseases, such as gonorrhea, syphilis, and chlamydia in the United States (Kotchik et al., 2001). Likewise, the rates of adolescent pregnancy are higher than other

developed countries. By taking into account the factors that affect risk taking behaviors and the impact of adolescent development, effective health interventions may be designed by healthcare professionals.

Adolescent Decision-Making

In light of risk-taking behaviors, adolescents' underlying decision-making processes have been examined (Galvan, Hare, Voss, Gover, & Casey, 2007). Several researchers have conducted research to investigate the unique process of decision-making in adolescents (Chambers & Rew, 2003; Janis & Mann, 1977; Reyna & Farley, 2006). Many traditional models of decision-making are rational, goal oriented models and do not consider the impulsivity of adolescents (Reyna & Farley). Decision-making models applied to adolescents often focus on the individual characteristics of decision-making instead of considering the influences of interpersonal interaction on decision-making (Chambers & Rew). While these decision-making models describe portions of the decision-making process, an extensive review of literature did not reveal decision-making models that explain the influences of sexual and social decision-making in adolescent mothers.

Although repeat pregnancy among adolescent mothers occurs, no published studies were found that examined influences of sexual and social decision-making in adolescent mothers. The impact of adolescent pregnancy and repeat pregnancy on the individual, family, community and economy is great. It is important to examine the influences of social and sexual decision-making of adolescent mothers in order to not only provide them with hope, support and guidance but also be able to effectively reduce adolescent

pregnancy and repeat pregnancy. The proposed research may contribute to a greater understanding and serve as a foundation for future studies and interventions that could prevent adolescent repeat pregnancy.

Purpose

The purpose of this qualitative, descriptive, study was to examine the influences of social and sexual decisions made by adolescent mothers, 16 to 19 years of age, before and after delivery of their first child. By examining the internal influences (i.e., moral development) and external influences (i.e., partner relationship status, family relationships, family history of adolescent pregnancy) of adolescent mothers' sexual and social decision-making, adolescent mothers' perceived influences of decision-making will emerge from the data and could lead to future studies and future interventions to prevent repeat pregnancy.

Aims

The specific aim of the study was as follows:

1. Describe influences that adolescent mothers report as affecting sexual and social decision-making before and after delivery of their first child.

Assumptions

Research is based on assumptions concerning events, conditions, or phenomena of a specific interest. An assumption of the proposed research is that the information supplied by the adolescent mothers will be truthful. This assumption is critical to continue

the investigation of the experiences and factors that affect sexual and social decision-making in adolescent mothers. Another assumption related to adolescent sexual risk-behavior is that adolescents have a choice in sexual behavior practices. Additionally, an assumption related to social decision-making is that adolescents are social entities.

Research Question

This study detected the internal and external influences that affected adolescent sexual and social decision-making before and after delivery of the first child. The following research question was addressed:

1. What are the internal and external influences of adolescent mothers' sexual and social decision-making before and after delivery of their first child?

Research Paradigm

As research is conducted that examines the social and sexual decision-making of adolescent mothers, qualitative descriptive methods can provide rich data and deeper understandings of the interactions and processes unique to the adolescent mother. The use of qualitative methods can contribute to theoretical development by expounding on the understanding of social and sexual decision-making unique to adolescent mothers. Descriptive inquiry, a qualitative methodology, will be used for examining the influences adolescent mothers perceive that impact their sexual and social decision-making.

Descriptive inquiry as a research method was initially used in social sciences (Sandelowski, 2000). Descriptive inquiry involves a thorough examination of an event

through interviews, observation, or questionnaire. Themes are derived from the data, which create a comprehensive description.

Employing descriptive inquiry can be an effective way in to understanding adolescents' perceptions of their influences on social and sexual decision-making. The adolescent mothers' interactions with their peers, parents, and partners can offer insight into the influences of social and sexual decision making. By conducting research, which addresses the adolescent mother's, perceptions and their associated meanings, a clearer understanding of influences on decision-making that increases the likelihood of experiencing a repeat pregnancy could be explored. By using a descriptive inquiry design to understand the influences on adolescent mothers' social and sexual decision-making, common patterns can be identified that may provide the foundation for further investigations in order to create successful interventions for reducing adolescent repeat pregnancy.

CHAPTER 2

REVIEW OF LITERATURE

A combined search of CINAHL, OVID, Pubmed, and dissertation abstracts was conducted using the following key word combinations: qualitative methods and adolescent repeat pregnancy, adolescent decision making and adolescent pregnancy, adolescent repeat pregnancy prevention, and adolescent decision making and repeat pregnancy. This produced a collection of abstracts and articles that pertained to adolescents, repeat pregnancy and decision making during the period of 1980 to 2013. Inclusion criteria for this review included studies based on adolescent pregnancy and decision making with an emphasis on repeat pregnancy. These criteria were chosen because they pertain to the research question. Major concepts that will be examined throughout this paper include: adolescent repeat pregnancy, adolescent social and cognitive development, and adolescent decision-making.

Adolescent Repeat Pregnancy

Pregnancies that occur during adolescence, both first and repeat pregnancies, are a public health concern. Adolescents that experience one pregnancy during adolescence are more likely to experience an additional pregnancy within the first 2 years following delivery of an infant (Raneri & Wiemann, 2007). The reported rates of adolescent repeat pregnancy are between 14%-42% (Falk et al., 2006; Raneri & Wiemann, 2007; Thurman

et al., 2007;). The wide variations of rates of repeat pregnancy are the result of rates increasing the further the adolescent is from the time of her initial delivery.

The first year after delivery, the adolescent mothers' risk of experiencing a repeat pregnancy has been reported to be between 14%-21% (Falk et al., 2006; Thurman et al., 2007). Falk et al. found, in adolescent mothers under age 20 years, 56 (25%) of the 250 mothers experienced a repeat pregnancy within 12 months following delivery. Thurman et al. examined the effects of contraceptive choice on rates of adolescent repeat pregnancy and found that 40 (14%) of 252 adolescent mothers experienced a repeat pregnancy within 12 months of initial delivery. Increased prevalence of adolescent repeat pregnancy was noted as time progressed from their initial delivery. Stevens-Simon, Kelly, and Kulick (2001) examined aspects of a maternity program that helped delay adolescent repeat pregnancies and found that 99 (35%) of the total 286 adolescent mothers experienced a repeat pregnancy within 24 months of the initial delivery. Raneri and Wiemann (2007) followed adolescent mothers for 48 months after their initial delivery and found that 245 (42%) of the 581 adolescent mothers experienced a repeat pregnancy. As demonstrated by previous studies, the adolescent mothers have an increased risk of experiencing a repeat pregnancy the further they become from their initial delivery.

Risk Factors

Risk factors have been identified that increase the likelihood of an adolescent mother experiencing a repeat pregnancy during adolescence. Several of the risk factors for adolescent repeat pregnancy are non-modifiable such as ethnicity, SES, and previous poor pregnancy outcomes (Boardman, Allsworth, Phipps, & Lapane, 2006; Raneri &

Wiemann, 2007; Stevens-Simon et al., 2001). Previous statistical analyses demonstrate that African American and Hispanic adolescents experience higher rates of adolescent pregnancy when compared to Caucasian adolescents (Kost, Henshaw, & Carlin, 2010). Pfitzner, Hoff, and McElligott (2003) investigated predictors of adolescent repeat pregnancy and found that repeat pregnancies were more common in Hispanic adolescents. Adolescent mothers' low SES also was identified as increasing adolescent mothers' risk of experiencing a repeat pregnancy. Raneri and Wiemann (2007) found that adolescent mothers were less likely to have economic resources than their non-parenting counterparts ($p < .05$). Likewise, residing in a single parent home and a history of a pregnancy loss increases the risk of adolescent mothers experiencing a repeat pregnancy. Boardman et al. (2006) investigated risk factors for unintended and intended repeat pregnancy during adolescence and found that adolescents were more likely to experience an unintended repeat pregnancy if the adolescent did not live in a two-parent home (adjusted ROR 1.66; 95 CI: 1.05-2.62) and had a prior poor obstetrical outcome (adjusted ROR 2.09; 95 CI: 1.12-3.90) such as preterm delivery.

However, some risk factors for adolescent repeat pregnancy are considered modifiable and are the result of social or sexual decision-making, such as dropping out of school, not utilizing consistent contraception, and living with a boyfriend (Black et al, 2006; Raneri & Wiemann, 2007; Stevens-Simon et al., 2001). Raneri and Wiemann (2007) examined predictors of adolescent repeat pregnancy in 12-18 year old adolescent mothers. They found that those adolescents who experienced a repeat pregnancy were less likely to be enrolled in school ($p < .01$), use long-lasting contraception, such as Depo-Provera or implantable contraception ($p < .001$), and have children with fathers

who were at least 3 years older than the adolescent mother ($p < .05$) (Raneri & Wiemann).

However, additional research only found that the age of the adolescent mother increased her risk of experiencing a repeat pregnancy (Black et al., 2006; Thurman et al., 2007). Black et al. (2006) conducted an intervention study examining the effects of a home-based intervention on adolescent repeat births. Black et al. found no significant baseline differences between adolescent mothers who did and did not have a repeat birth regarding risk behaviors, school attendance, or use of contraception. However, the older age of the adolescent mother increased the risk of experiencing a repeat pregnancy (Black et al.; Thurman et al.). Klerman (2004) acknowledged that although there are similarities between the risk factors of adolescents' initial and repeat pregnancy; however, the continual maturation processes characteristic of adolescence coupled with new responsibilities of a family create differences in the needs of adolescent mothers compared to adolescents who are not mothers.

Adolescent Development

Adolescence is often considered the period of maturation between childhood and adulthood. There is not a consensus regarding the onset and completion of adolescence. The World Health Organization (WHO) defines adolescence as the period between 10-19 years of age. The CDC uses 10-24 years as the ages that compose adolescence. Hazen, Schlozman, and Beresin (2008) propose to define adolescence by achievement of developmental tasks unique to this period instead of chronological age. However, all agree that adolescence is a time of transition. This time of transition is characterized by adolescents

attempting to increase their emotional stability, reasoning ability, and decision-making capability in order to become stable functioning adults (Casey, Jones, & Hare, 2008; Luna, Garver, Urban, Lazar, & Sweeney, 2004; Spear, 2000).

Early adolescence (10-14 years old) is characterized by the onset of puberty as well as the preoccupation with appearance and being perceived as normal by peers (Oberle, Schonert-Reichl, Thomson, 2009). Bowker and Spencer (2010) examined friendships in early adolescence and found that early adolescents are more likely to have same sex friendships. Friendships may create the impetus to begin to distance themselves from their parents (CDC.gov). The early adolescent viewpoint is directed towards the present and near future (Austrian, 2008). Middle adolescence (14-16 years old) is characterized by heterosexual relationships with decisions being made regarding social interactions, such as sexual behaviors as well as substance use (Austrian, 2008). During this time, the adolescent is in search of an identity and can demonstrate mood labiality. Peers and social interactions are still important and influence development of social skills (Crockett & Petersen, 1993). Relationships with parents oscillate between dependency and independence (Austrian, 2008). Physically, the adolescent is concerned with being perceived as sexually attractive, frequently changes romantic relationships, and experiences feelings of love and passion. During late adolescence (17-19 years old), there is a firmer sense of identity, the adolescent can delay gratification, has stable interests, and takes pride in work (Austrian, 2008). The late adolescent has a high level of concern for the future, concern for serious relationships, and has a clear sexual identity (Short & Rosenthal, 2008).

Cognitive and Brain Development

Cognitive development defines the intellectual development of an individual. Piaget (1954) described the period of adolescence as a transition from concrete thinking, which is composed of rule-bound considerations, to formal operations, which is more abstract and includes flexible problem solving. Formal operations usually begin around 11 years of age, which corresponds to early adolescence. In addition to this early work by Piaget, more recent brain imaging has added to knowledge concerning cognitive and brain maturation.

As a result of recent work in understanding brain development, it is now known that brain development continues until the mid 20s. Structural brain imaging demonstrates that during adolescence brain gray matter decreases while the white matter increases (Giedd, 2004). Some believe that the decrease of gray matter begins around age 11 or 12 years and is the result of pruning in which connections that are not utilized are lost (Giedd, 2004; Lenroot & Giedd, 2006). The increase in white matter is thought to be the result of an increase in myelination and might influence cognitive control and decision making (Casey et al., 2008; Yurgelin-Todd, Killgore, & Young, 1999). The prefrontal cortex is responsible for controlling reasoning, planning, and behavior and does not reach full maturity until the early 20s and has been linked to impulsivity (Casey et al., 2005; Fuster, 2002). Based on these findings, it seems as if risk-taking behavior may have a neurologic basis.

As a result of the gap between intellectual ability, impulse control, pleasure seeking, and the natural impact of the physical and emotional processes, adolescents are at an increased risk to engage in risky behaviors, and endure consequences such as injury, de-

pression, pregnancy, and drug use especially in western cultures (Kelley, Schochet, & Landry, 2004; Spears, 2000; Steinberg, 2008). Steinberg (2008) described the combination of two systems, the socio-emotional system and the cognitive-control system, that are responsible for the part of development that impacts risk taking behaviors of adolescents. The rapidly maturing socio-emotional system, which involves pleasure-seeking behaviors, can lead to an increase in risk taking behaviors. In contrast, the cognitive-control system, which involves self-regulation, matures at a slower rate. The gap between the rapid maturation of the socio-emotional system and the gradual maturation of the cognitive-control system increases the likelihood of adolescents engaging in risk taking behaviors.

Adolescents can demonstrate adult intellectual capability before exhibiting impulse control (Reyna & Farley, 2006). Gullone and Moore (2000) examined the relationship between adolescent risk taking behaviors and personality and found that older adolescents (15-19 years) were more likely to engage in risky behaviors than younger adolescents (11-14 years). This seems to be the result of the difference in maturation between the socio-emotional system and the cognitive-control system. Galvan, Hare, Voss, Glover, and Casey (2007) found that there are differences in brain structures and individual development that impact risk taking behaviors. Galvan et al. found that children and young adolescents under 15 years of age were less likely to engage in risky behavior if there was an anticipated negative consequence. However, older adolescents and adults are more likely to engage in risky behavior as a result of the perception that positive consequences outweigh the negative consequences. In contrast, younger adolescents are

more likely to engage in risky behavior with little consideration for the long-term negative consequences of the behavior as a result of the perceived immediate gratification.

Identity/Social Development

One of the main goals of adolescence is to achieve a stable, healthy self-image (Hazen, Scholozman, & Beresin, 2008). Erik Erickson (1963) described the main goal of adolescence as identity development of personal identity versus role diffusion. During this developmental phase many adolescents experience uncertainty while attempting to feel comfortable and accepted by important people in their life. Erickson (1963) held the belief that if adolescents did not form a sense of self during this period that the adolescent would lack a sense of identity and would demonstrate an uncertainty that would continue into adulthood.

Moral development describes the interpretation of social situations and individual behavior as good or bad, right or wrong (Lefton, 2000). Moral development continues from childhood through adolescence. Kohlberg (1969) build upon Piaget's investigation of cognitive development and proposed six stages of moral development created from investigation of participants' answers regarding a moral dilemma. Gilligan (1982) expanded Kohlberg's moral development theory and proposed that gender influences moral development and believed that females make moral decisions based on caring and relationships. The basis of moral development is important when considering adolescent decision-making.

Adolescent Decision-Making

Decision-making is integral to human behavior. Decisions can be made spontaneously or after much deliberation. Traditionally, decision-making is viewed as a logical process of steps in which the individuals can choose different paths. These decision-making models are consistent with a behavioral decision framework that includes health-belief models, theory of reasoned action, and theory of planned behavior (Reyna & Farley, 2006). Traditionally, the individual (a) identifies options, (b) identifies consequences of all possible actions, (c) evaluates appeal of each consequence, (d) assess likelihood of each consequence happening, and (e) makes a decision by identifying the best option (Halpern-Felsher, 2009). However, adolescent decision-making is complex and multidimensional (Kambam & Thompson, 2009). Research investigating adolescent decision-making has demonstrated multiple influences on decision-making, such as cognitive and emotional maturation, along with peer and family influence (Kambam & Thompson). These multiple influences on decision-making were described in the dual-processing model of decision-making. This model includes a path composed of the traditional decision-making model but also includes another emotional, reactive, less deliberate path in which other factors contribute (Gibbons et al., 2009). The dual-processing models can help explain the risky behaviors of some adolescents (Reyna & Farley, 2006). A model of decision-making for adolescent mothers needs to incorporate the influences on their decision-making, as well as components of the traditional decision-making model.

There is no consensus regarding the process in which adolescents make decisions (Weiss, 2007). Sexual risk behaviors, such as unprotected intercourse, frequent intercourse, and the failure to use contraception can lead to adolescent pregnancies and repeat

pregnancies. Variables such as being popular, being a black male athlete, being depressed, and early physical maturation can increase the likelihood of engaging in risky sexual behaviors. Having future aspirations, greater self-esteem, making good grades and being involved in school activities decrease the likelihood of engaging in risky sexual behaviors (Cooper, Wood, Orcutt, & Albino, 2003; Cubbin, Santelli, Brindis, & Bravemann, 2005). Acknowledging that there are factors that contribute to sexual risk taking behaviors does not fully explain the process of sexual and social decision-making utilized by adolescents. Likewise, the lack of literature regarding the unique process of social and sexual decision-making in adolescent mothers is apparent. By obtaining a clearer understanding of the influences that impact adolescent mothers' social and sexual decision-making, further research can be designed to examine the unique population of adolescent mothers.

Influences on Adolescent Decision-Making

In addition to the prior experience and brain development discussed earlier: age, social/peer influences, and social development also influence adolescent decision-making (Halpern-Felsher, 2009). Gordon (1990) examined decision-making of adolescent females regarding first pregnancies. Gordon discovered three groups of factors that influenced decision-making in the adolescent: cognitive development, social and psychological factors, and cultural and societal factors. Burns and Porter (2007) conducted a phenomenological investigation of adolescent mothers' decision to become sexually active. Burns and Porter suggest that adolescents are influenced by numerous factors when deciding to become sexually active, such as, an attempt to feel safe, bond with their part-

ners, define a new sexual self, and assert their independence from their family. Burns and Porter found that adolescents do not make sexual decisions in a direct procession by identifying a problem, making a decision, and evaluating choice. Adolescents often have a difficult time deciphering the choices available and the potential consequences and might not view a pregnancy as a problem (Hulton, 2001; Stevens-Simon et al., 2005).

Age. While researchers believe that adolescents as young as 14 years of age can make medical decisions, there is strong evidence to suggest that adolescents decision-making are influenced by their developmental stage (Flores, Tschann, & Van Oss, 2002; Stephenson, Quick, Atkinson, & Tschida, 2005). Hulton (2001) explored the usefulness of the transtheoretical model of change in adolescent sexual behavior. She found that is important to consider the developmental stage of an adolescent in order to understand decisions made by the adolescent. Strauss and Clarke (1992) found that the developmental stage of adolescent females influence the level of decision-making. Strauss and Clarke (1992) described three decision-making patterns (immature, transitional, and mature) that parallel the developmental stages of adolescence (early, middle, and late). The difference in decision-making patterns among adolescents in different stages of normal adolescent development, demonstrate the affect development may have on decision-making. Noam (1999) promoted the psychology of belonging, which describes early adolescents' pursuit of group belonging. This theory demonstrates how young adolescents are at risk of being influenced by peer pressure at a greater rate than older adolescents. It also illuminates the varying needs of an adolescent depending on the adolescent's stage of maturation (Noam, 1999).

Social/Peer Influences. Adolescent risk-taking behaviors are more likely to be impacted by peers than adult behaviors. Gardner and Steinberg (2005) examined different groups (ages 13-16 years, 18-22 years, and 24 years and older) and found that the 13-16 year olds had a 100% increase in risky behavior after exposure to peers. Steinberg and Mohahan (2007) found that adolescents 10-14 years of age had an increase in vulnerability to peer pressure, and resistance to peer pressure increases from 14-18 years of age. Chambers and Rew (2003) criticize prior applications of decision-making models related to adolescent decision making. They believe that many times decision-making models fail to consider the interpersonal interaction of influences on adolescent decision-making. Studies have suggested that decisions are made based on an individual's perception of risks or benefits instead of the actual risks and benefits (Gullone & Moore, 2000; Gutnik et al., 2006). These perceptions can be created by interaction between peers, family, and the community. Rosengard, Pollock, Weitzen, Meer, and Phipps (2007) conducted a qualitative study of 247 pregnant adolescents to investigate the perceptions of teen childbearing and found that pregnant teens perceived more disadvantages than advantages of teen pregnancy. Rosengard et al. (2007) highlights many times the advantages of teen pregnancy stated seemed unrealistic and as if they were created to justify the current pregnancy.

Impulsivity and sensation seeking. An additional factor that has been demonstrated to affect decision-making is the social behavior of impulsivity and sensation seeking. Many traditional models of decision-making assume decision-making is goal oriented and rational and do not consider the impulsivity of adolescents (Reyna & Farley,

2006). Impulsivity, as well as the sensation seeking, influences decisions (Chambers & Rew, 2007; Gutnik et al., 2006; Kambam & Thompson, 2009). Impulsivity, which is decreased self control, is thought to be regulated by the cognitive system, while sensation seeking, which is actively searching for new experiences that may involve risk is controlled by the socio-emotional system (Kambam & Thompson, 2009). Individual differences in the natural maturation process of adolescents can lead to risk taking behaviors. Steinberg et al, 2008 found that sensation seeking peaks between 12 and 15 years of age then begins to steadily decline. Impulsivity decreases in linear pattern from 10 to 30 years of age. Galvan et al. (2007) also demonstrated a decline in impulsivity with increase in age.

Summary

Previous research has examined social and sexual decision-making but there is limited information available that addresses the unique role of adolescent mothers. Motherhood during adolescence is a public health concern and can have negative effects as well as positive effects on the adolescent mothers and children. The decision-making of adolescent mothers presents a unique challenge as a result of the new responsibilities associated with motherhood. Adolescent mothers are attempting to navigate the challenges of adolescence, assuming new roles of motherhood, head of household and responsibilities for the new family. This new role demonstrates unique influences on the adolescent mother and unique opportunities to reduce the likelihood of experiencing a repeat pregnancy during adolescence. While some decision-making models describe portions of the decision-making process applicable to adolescent mothers, no models fully

explain the influences on adolescent mothers' social and sexual decision-making. For these reasons, descriptive inquiry approach is likely to yield the most accurate and comprehensive understanding of the influences on social and sexual decision-making by adolescent mothers before and after delivery of their first child.

CHAPTER 3

METHODOLOGY

Study Design

Descriptive inquiry, a qualitative method, was used in this study to offer a comprehensive description and truthful account of adolescent mothers' social and sexual decision-making before and after delivery of their first child. The principal goal of descriptive inquiry is to gain a greater understanding of human or social perceptions collected from observation, interviews, focus groups, or field notes (Neergaard, Olesen, Anderson, & Sondergaard, 2009; Sandelowski, 2000; Sullivan-Bolyai, Bova, & Harper, 2005). By remaining close to the data collected, the descriptions collected from the participants portray the participant's own perceptions and depictions (Sandelowski, 2000).

Descriptive Inquiry

Descriptive inquiry offers a comprehensive description of participants' experiences (Crabtree & Miller, 1992; Neergaard et al., 2009; Sullivan-Bolyai et al., 2005). Descriptive inquiry supports both descriptive and interpretive validity (Sandelowski, 2000). Descriptive validity describes the likelihood that most individuals observing the same event would offer similar descriptions (Maxwell, 1992). Interpretive validity describes the accuracy of the meanings attributed to the event that is being studied (Maxwell).

Descriptive inquiry is most often utilized in social research in which documentation and description of events are desired. It offers descriptions for events, beliefs,

attitudes, and social structures that occur around a specific event (Marshall & Rossman, 1999). There is not a strict guideline for sampling, data collection and analysis for descriptive inquiry (Sandelowski, 2000). For the purpose of the current study, purposeful sampling, open-ended interviews, and content analysis were chosen in an attempt to remain close to the participants' perceptions of events. Purposeful sampling was utilized for participant recruitment. Purposeful sampling describes recruitment for potential participants based on the purpose of the study (Patton, 1990). Data collection utilized interviews and observation in order to obtain participants' accounts of events (Sandelowski, 2000). Content analysis was employed in order to analyze the participants' interviews. By using these data collection and analysis methods a clear, accurate account of participants' perceptions of influences on social and sexual decision-making before and after their initial pregnancy was obtained.

Setting

Naturalistic settings are integral to descriptive inquiry (Neergaard et al., 2009; Sandelowski, 2000). This would be a setting in the where the participant feels comfortable and is similar to the participants' regular environment (Neergaard et al.). This allows the researcher to observe the participant as well as their environment including details that might not be apparent in a controlled setting (Creswell, 2003; Sandelowski, 2000). In order to foster open communication, the setting of the current research occurred at locations chosen by the participants, one was in the home, one was in the library, and four were completed at the health department.

Sample

Purposeful sampling involves the use of inclusion and exclusion criteria that are based on the needs of the study (Morse 1992; Patton 1990). When utilizing purposeful sampling it is important to obtain interviews that offer comprehensive descriptions (Patton). In this study, purposeful sampling was used in order to obtain a sample of participants that had experienced pregnancy and delivery of their first child.

Participants for the proposed study were recruited from health departments in an urban county in the southeastern United States. The health departments are located in medically underserved neighborhoods. In 2011, the county's population was estimated to be 658,931, and ethnic diversity was reported as Whites (54.7%), Blacks (42.3%), Asians (1.5%), Hispanic/Latino (4%) and a median income of $45.750 (census.gov, 2011). The Principal Investigator (PI) screened and recruited participants during visits to the local health departments. These visits may include any of the following: family planning visit comprised of 6-week postpartum visit, annual exam, or contraceptive follow-up visit; pediatric visits comprised of well-baby checkup or sick baby visits. Five local health departments agreed to assist in recruitment (Appendix A). Inclusion criteria required that participants were (a) between 15-19 years of age, (b) have had only one child during the previous year, (c) be heterosexual, (d) be English speaking, and (e) be able to read on a third-grade level. The PI recruited potential participants by sitting in the waiting room and discussing the study with the patients. After the initial identification and brief inquiry concerning interest in involvement in research, the potential participant was given information regarding the benefits/risks of participating in the study and well as the purpose of the study. Upon verbal consent to participate in the study and verbal review of

inclusion/exclusion criteria, written informed consent was obtained and the interview was either scheduled or began depending on the desires of the participant. Participants were compensated with a five dollar Wal-Mart card after completion of the interview to aid in travel expenses.

In addition to the first interview, all participants were contacted via telephone within 1-2 months after the initial interview in order to obtain a second interview. Participants were compensated with a five dollar Wal-Mart card after completion of the first interview. In the second interview, the participant and PI reviewed the transcripts from the initial interview and checked the accuracy of the participant's description. Participants were compensated with a ten dollar Wal-Mart card after completion of the second interview. Two participants participated in the second interview.

Protection of Rights of Human Subjects

All parts of the study were approved after a full board review by University of Alabama at Birmingham's (UAB) Internal Review Board for Human Subjects (IRB) and the health department review board (Appendix B and C, respectively). The study involved minimal risk to the participant, was non-invasive, and maintained patient confidentiality. Informed consent form is attached in Appendix D. The study was described in detail to the potential participant, including the inclusion and exclusion criteria, by the principal investigator. Emphasis was placed on the voluntary nature of the participant's participation in the study. The interview time and place was scheduled according the potential participant's preference but usually took place in quiet room with privacy at the participant's home or in a private space at the health department. When the potential par-

ticipant arrived at the interview, the consent form was reviewed, and all questions were answered. Then if the participant desired to participate, written informed consent was obtained. Informed consent was obtained for those participants ages 15 years and older.

All information received from the participant was kept confidential. The data transcribed from the interview had no identifying information but instead had a unique identifier, which cannot be linked to the participant. If the participant referred to specific names or locations that might be identifiable, those were omitted during transcription. After the investigator reviewed the transcript for accuracy, the file was placed in a locked cabinet. All information for the study was kept in a locked cabinet in a private office on UAB campus to which only the investigator has access.

Data Collection

The goal of data collection in this descriptive inquiry was to obtain a comprehensive understanding of the influences on the social and sexual decision making of adolescent mothers. Sandelowski (2000) suggests utilizing individual interviews, focus groups, observations, and examination of documents in order to collect data. For the purpose of this study, individual, semi-structured interviews and field notes were utilized.

Crabtree and Miller (1999), discuss three dimensions ("who", "how", and "about what") that direct the type of data collection interview conducted (p.15). The first dimension pertains to who will be included in the interview (i.e., individual or group interviews). Traditionally, individual interviews provide richer information while group interviews provide a broader span of information (Crabtree & Miller, 1999). The second aspect refers to the amount of structure in the interview; unstructured, semi structured, or

structured. According to Crabtree and Miller, unstructured interviews are similar to daily conversation, in which the interviewer examines specific areas within the conversation. Semi structured interviews are guided interviews that are composed of open ended questions that allow comfortable conversation. Structured interview guides are rigid, non flexible interviews. The type of interview performed is also dependent on the third dimension, which describes what type of information is desired. If the researcher desires information such as a genogram, structured interviewing would be beneficial. However, if the goal of the research is exploration of social processes, semistructured interviews would be more appropriate (Crabtree & Miller, 1999). Individual semi-structured interviews will be the primary source of data for the proposed study (Artinian, Giske, & Cone, 2009; Charmaz, 2006). This will allow directed comfortable conversations, which will allow the researcher to obtain rich interview data. The principal investigator created an interview guide during a pilot study, which was conducted to develop appropriate open-ended questions addressing the study questions and to refine interviewing techniques (Artinian, Giske, & Cone, 2009; Charmaz). The interview guide consists of 10 open-ended questions with additional probes to be used if needed (Appendix E).

Field notes are another type of data collection. According to Crabtree and Miller (1999), fieldnotes are notes and interpretations from the researcher regarding observations during the interview of the participant, environment, and interactions. Fieldnotes provide a deeper understanding of behaviors and social situations by allowing unstructured observation of the participant. Many times fieldnotes are written immediately after an interview in order to record as many observations as possible (Creswell, 2003). Observational data from the interview were recorded in a field note form (Appendix F) in

which the participants' behaviors and activities within the interview environment were documented. These types of data collection were chosen because participants provide rich, historical data while the researcher can influence the direction of the interview (Creswell, 2003).

In the study, informed consent and demographic data were obtained before the interview began. The interviews were conducted by the principal investigator. All participants had at least one interview with the principal investigator; all participants were contacted for a second interview. This allowed the participant to have input into what themes have become apparent and to update the investigator. Two participants completed a second interview. The first interviews lasted 60-90 min, while the second interview lasted 20-30 min. All initial interviews were conducted face to face, while the second interview was over the phone, all interviews were digitally recorded. The environment in which the interview was conducted was free of distractions, with cell phones, telephones, and other distractions turned off. As a result of the nature of the research, small children were present in two of the initial interviews, but did not cause a disruption. Also if a private space was unable to be selected, the interview was rescheduled. However, this event did not occur. A transcriptionist transcribed the digital recording verbatim. Field notes were written by the principal investigator immediately after the interview. After initial data collection of the first interview, data analysis began and continued concurrently with data collection. Data collection continued cyclically until data saturation occurred, which was when additional interviews provided no new data (Artinian et al., 2009).

Data Analysis

The goal of descriptive inquiry is to make certain that the data is precise and the participants' meanings are accurately reported (Neergaard et al., 2008; Sandelowski, 2000). In order to remain close to the original meaning of the date, descriptive inquiry utilizes content analysis (Sandelowski, 2000). Content analysis examines data by creating codes that closely correspond to the data, thus producing a comprehensive description (Graneheim & Lundman, 2003).

NVivo, qualitative data analysis software, was utilized to assist with coding of the interview data. Six analytic strategies outlined by Miles and Huberman (1994) were followed during the content analysis of the interviews and field notes. The first step involves coding of the data obtained during data collection. After the initial interview was transcribed and reviewed by the PI, coding was begun. The second step outlined by Miles and Huberman is the process of writing memos, which details the PI's thoughts and reflections while examining the data. This was done throughout before and during the coding process. The third step entails identification of patterns, themes, and important features that become evident during analysis. Identification of the patterns was noted when examining the codes. The fourth step involves considering similarities and differences in the data and evaluating these further. This step involved putting the patterns that were previously identified together, which then resulted in the fifth step which describes creating small groups that accurately represent the data. The sixth and final step is examination of the groups and evaluating them against current knowledge. By utilizing content analysis, an accurate depiction of the processes that influence adolescent mothers' social and sexual decision making was obtained.

Quality of Descriptive Inquiry

The quality of qualitative research can be evaluated based credibility, transferability, dependability, and confirmability (Glaser, 2001). Credibility refers to truthfulness of the reported findings of the data (Morse, 1992). According to Glaser, credibility is supported by the ongoing constant comparison of the data, codes, and categories that emerge from data. Constant comparison is inherent to descriptive analysis and occurs during data collection and analysis. Another avenue in which credibility is supported is by member checks which involve validation of the findings from the study by the participant themselves. Also, credibility is supported by an expert in qualitative analysis reviewing the analysis in order to ensure accurate analysis (Creswell, 2003). Transferability describes the ability of findings from the primary research to be able to be transferred to another setting with similarities (Morse). As a result of the inherent nature descriptive inquiry to evolve from a particular context and event, many times it is not transferable. The goal of descriptive inquiry is not generalizability; therefore many studies might not generalize to other situations (Sandelowski, 2000). Constant comparison between the data and categories support dependability, which illustrates the degree to which the findings are an accurate description of the data from the participants (Morse). Confirmability ensures that the data was analyzed appropriately and the influence of the PI's judgment is minimized (Morse). Because qualitative research is interpretive, the researcher needs to be cognizant of personal bias in order to stay true to the data and support dependability, creditability, and confirmability. By remaining close to the interview data and acknowledging their own beliefs, the data retrieved will remain truthful (Creswell).

In the present study, the PI took measures to support the quality of descriptive inquiry. Constant comparison was utilized consistently throughout data collection and analysis. Member checks were also employed for the participants to be able to review their earlier interview. Two qualitative experts were also used in order to review the coding trail of data analysis. A detailed account of data analysis was kept, in addition to an external reviewer in order to reduce the impact of the PI's judgment on the data analysis.

Limitations

An overall limitation of the study is the type of data collection method might affect the data obtained. Interview and observations may create difficulty in gaining responses of the participant. Initially, the participants' home was thought to be a convenient, ideal place to conduct the interview. However, after the initiation of the study, it was found that most participants desired to meet at the local health department.

Summary

Adolescents are in a constant process of interaction with others. Within the complex developmental period of the adolescent, the perceptions of adolescent can be difficult to ascertain within their changing environmental network. Research which addresses the adolescent's perception and meaning that they attach to events in their life would be useful in gaining a greater understanding of why adolescents engage in risky behaviors, specifically unprotected sexual intercourse which can lead to adolescent pregnancy. This study may provide the basis for further research concerning adolescent mothers' social and sexual decision-making affecting repeat adolescent pregnancy.

CHAPTER 4

FINDINGS

Introduction

The purpose of this study was to discover the internal and external influences on adolescent mothers' social and sexual decision making. The study results are illustrated in this chapter and include the description of the sample as well as themes that emerged from the data.

Description of Sample

Fifty-two participants were screened, of those screened, 21 participants qualified and agreed to participate in the research process. Reasons for lack of participation given by the screened participants were a lack of time or interest, or that they did not want to disclose personal information. Of the 21 eligible participants, 6 completed at least one interview and 2 participants completed a second interview. The original study design allowed for a 24 hr wait time in order to obtain informed consent. Upon identifying a potential participant, the study purpose and design was reviewed and the initial interview was scheduled at another time and location. This became problematic because often the potential participant would not keep the scheduled interview, even after telephone calls were made as reminders. The study design was then amended through approval of the IRB and the potential participant was able to give informed consent as well as proceed with the interview the same day as recruited. A similar problem arose with the six

participants contacted for a second interview; they either did not answer when called or the telephone number was no longer in service. The participants' ages ranged from 15 to 19 years of age. Four participants lived with their mothers and only in a single-parent home; one participant lived with both parents; and one participant recently moved in with the father of the baby. Three participants had their babies at 15 years of age, two participants delivered at 16 years of age, and one participant delivered her baby at 18 years of age. One participant had just experienced a miscarriage.

Data Analysis

Content analysis, utilizing qualitative research software QSR NVivo, was utilized to code, sort and analyze data. Each interview was uploaded into NVivo and labeled as a separate case. Line-by- line analysis of each interview was conducted, with the significant text being recorded as free nodes. The free nodes, composed of texts from the interview, were then grouped together based on similar meanings and recorded as tree nodes. Evaluation of the tree nodes continued until themes from the interviews became apparent.

Themes

Overall, the content analysis of the behaviors and perceptions reported by adolescent mothers allowed the perceived influences of social and sexual decision-making before and after delivery of their first child to be discovered. It described challenges, changes, and triumphs that the adolescent mothers experienced. Internal and external influences such as relationships, environment, and responsibility influenced sexual and social decision-making in adolescent mothers.

Relationships

Adolescence is a period in which relationships are created and undergo major transformations. This study demonstrated the influence that relationships with parents, romantic partners, teachers, schools, family members, and the new child had on sexual and social decision-making by adolescent mothers. Likewise, components of the relationships, such as communication, structure, and context also influence social and sexual decision-making of adolescent mothers.

Relationships with parents. The participants discussed the influences that their relationships with their parents had on their decision-making. Parental influence was noted throughout the interviews, especially when the adolescent mother recalled how she found out about the pregnancy, how she informed her parents of the pregnancy, and her current relationship with her parents.

Discovery of pregnancy. The adolescent mothers began to discuss their story, many times beginning with the discovery of their pregnancy. The adolescent mothers reported different amounts of parental influence related to discovering the pregnancy. One participant's mother suspected she was pregnant and made the adolescent obtain a pregnancy test,

> My momma said my stomach was getting big. So, she took me to get a pregnancy test and it came up positive so we came here [to the clinic] and I took another one and it was positive and that's how we find out. But I kind of figured it but I didn't know for sure.

Another participant who did not know she was pregnant, discussed going to get a check-up, without her parents' knowledge,

> My breasts was blowing up and I was like something is not right. And I never was getting a period. But once I got on Depo, I was never getting a period. But I had stopped Depo and then my period still didn't come. But I didn't think nothing of it. I was like yes I ain't got no period. I was excited. So then when I went for a checkup she was like baby girl you're pregnant.

The participants' parents and the participant were unaware of her pregnancy. Another participant, who knew she was pregnant, recalled that her parents were unaware of the pregnancy but realized there was a change, "at one point my dad was like 'are you gaining weight?' And I was just like 'yeah'." This participant continued to discuss how she did not tell her parents about the pregnancy until she was close to delivery,

> [I knew I was pregnant] a week after I was supposed to have started my cycle and I didn't…[I thought] I'm not even going to worry about it I'm pregnant what the heck am I going to do…I took it upon myself to just hide it [the pregnancy] as much as I could and by the time they found out I was already seven months pregnant. No, I was eight months because I remember that not even a month later I delivered.

Like this participant, many of the adolescents divulged that they did not immediately inform their parents of the pregnancy.

Informing parents of pregnancy. As the pregnancy progressed, the adolescent mothers' discussed the influence their relationships with their parents had on the decision to inform them about the pregnancy. One participant recalled the reason she did not initially inform her parents of the pregnancy was because "the first thought would have been an abortion….[my dad would think] you're fifteen and the way our culture is…you're too concerned about what people would say about you." This adolescent mother refrained from telling her parents initially because of her perceptions of their beliefs. In contrast,

an adolescent mother, who reported her mother also had a child at age fourteen, recalled her mother's reaction, "She was just like really upset. She didn't say too much. She just frowned at me when we left." Another participant discussed that her sister, who was her caregiver while her parents were at work, made her get a pregnancy test. When the participant's sister found out she was pregnant, the participant stated, "My sister, my older sister, made me tell them [my parents]…she was like 'if you don't tell them, I'm going to drag you in there and I'm going to make you tell them'." The participant continued to discuss how she informed her parents separately of the pregnancy. She recalled telling her mother about the pregnancy,

> My mom was sitting on the couch and we started talking about something because I was a really bad, not a real bad child, but I was you could say I had my own personality. My other brothers and sisters they did what my parents did…I was the rebel I guess you could say in the family and I still am. Ah, my mom was just kind a telling me she was like you need to act right you know your daddy is always working hard for you. And I guess you could say it kind a hit me. I'm like oh my God it's true you know my parents are always trying, and I'd go up and screw everything up. It just kind a hit me, and I was like oh my God. And I start crying and my mom was like 'what's wrong with you?' I'm like 'mom I have to tell you something.' And she's like 'what?' And she's like 'what's wrong why are you crying?' And then she starts crying. I'm like 'momma, don't start crying you're going to make me cry even more'. And she's like what's wrong? And I just kind a looked at her and I said 'mom I'm pregnant.' My mom just broke down and she was like 'oh my God, why? Why did you do that? I mean were we not giving you enough?' She kind of felt like I did it because she felt like it was on them. I guess you could say she felt like they weren't home enough and that that's why we screwed up. And I'm like 'it's not ya'll it's just me. I wasn't paying attention'.

She then continued to describe her reluctance to tell her father about the pregnancy, "I'm like 'what? I was expecting you to be like I'm going to go talk to your dad and calm him down and then you can come in and talk to him'." However, the participant recalled that her mother felt as if the participant should inform her father, " [she said] you were grown

enough to make that decision you're going to be grown enough to go in there and tell your dad that you are pregnant."

As the participant accounts demonstrate, the different amounts of parental involvement influenced the adolescents' decisions to inform their parents of the pregnancy. Likewise, the relationships that the adolescent mother has with each parent influence their social and sexual decision-making.

Relationships with each parent. Even though the majority of the participants were from single-family homes, they still reported relationships with both parents. One participant discussed the different influences that her relationships with her mother and father have on decision-making,

> I talk to my mom about girl stuff. And then, it's like, but something with a guy, I will go to my daddy because I know he's going to tell me what the guy's thinking or what's the best thing to do because he's looking from both perspectives. He's looking from my perspective because I'm his little girl, then looking from the guy's perspective because he's a man. So, it kind of works out even when he do tell me and it will always be right.

Another participant recalled the close relationship that she had with her father,

> Me and my dad was always close but me and my mom were like, you know, we was close but not close, close. But me, and my dad had the relationship where I could tell him things that he will understand what I was going through and stuff like that.

The relationships that the participants had with each parent influenced decisions they made and who they divulged information. The participants repeatedly discussed how each parent influenced their decisions. One participant stated,

> It was always my dad making the decisions…my mom had no say…in our culture it's like the dad is always the tough one…I missed out on a lot because I wouldn't even want to ask my dad because I already knew his answer was going to be no.

Another participant who was influenced by her father, who lives with his wife, made decisions for her and her mother though he didn't live with them. "My daddy don't stay with us…he just come and tell (us) what to do, what to do when it needs to be done and it's like he's still there even though he's not there." Only one participant reported that her mother influenced her decisions, "my momma is the leader." Even though the adolescent mother may not live with both parents, each parent influences the adolescent mothers' social and sexual decision-making. Another influence on decision-making discussed by the adolescent mothers was the amount of communication between them and their parents.

Communication. The amount of communication was recognized to be an important influence on adolescent mothers' social and sexual decision-making. Throughout the interviews, the lack of communication with many individuals but specifically parents became apparent. Many participants reported little to no communication with their parents about sexual activity. One participant noted, "in my house we didn't really discuss the topic of, you know, sex and babies. That wasn't something that we discussed." Another participant discussed the lack of communication with her mother about sexual activity stated, "she [my mother] never let me know what she knew [about me having sex], but I think she did." Repeatedly, the adolescent mothers reported low levels of communication with their parents. The lack of communication with parents caused the adolescent mothers to search for others in which they felt comfortable to engage in communication. One participant discussed that because there was a lack of communication with her mother she often turned to her aunt, "sometimes I'll be scared to tell her (my mom) something

so I'll tell my auntie and she will tell her." The lack of communication between adolescent mothers and parents influence their decisions. Additionally, the amount of parental supervision was also described as an influence on decisions made by adolescent mothers.

Parental supervision. The degree to which the participant had parental supervision influenced adolescent mothers' social and sexual decision-making. One participant recalled when she told her father about the pregnancy, he was unaware of who her boyfriend was, "he was like 'I've got to meet this boy'." Another participant recalled that her parents were unaware that her boyfriend would sneak into her bedroom many nights,

> They never really noticed because they never you know, I slept with the radio on. I always had the radio on. That way if I hit something or if I knocked something out the window, because I remember in the winter the window squeaked when you put them up. And I'd be like, so when the window squeaks they can't hear anything, the radio is on. And I always locked my door to sleep. I had a habit of locking the door. When my dad always told us 'since I'm not home at night ya'll need to lock ya'lls door.' It's like 'daddy I locked the door and I opened the window.' You know. So, it was never strange to them that I would lock my door and sleep with the radio on. To them everything was normal not knowing that someone was sneaking into the window.

The influence of parental supervision on adolescent decision-making became apparent throughout the interviews.

Parental support. Often parental support for adolescent mothers influenced their decision-making. All of the participants reported that their parents assisted financially or by offering to care for the child. One participant endorsed that, "my momma buy whatever he [the baby] needs and she keeps him…she get's up with the baby at night and feeds him." Another participant recalled the large amount of assistance her parents give her,

> They keep him during the day. And ah, like now I work, so, while I'm at work you know they keep him while I'm at work. And then, all I really have to do is when I get off work or come from school, I have to like take care of the other part.

Sometimes this large amount of time spent with the child by the participants' mother created concern. One participant, who felt left out of her child's life because her mother always cared for him,

> They get used to the person that watches them because they're with that person more than with you. So, you kind of feel left out I guess to a certain point and feel left out. Like they feel they get more attention from that person then they're more used to that person than you. So you do feel left out to a certain extent.

The parental support offered assistance to the adolescent mothers but also created an environment of conditional support. One participant recalled that her dad told her the, "only condition for you to stay here is you've got to keep going to school and you know take care of the baby and your mom will help as much as she can." The conditional support became evident when an adolescent mother recounted that she was unable to participate in activities outside of the house though she was allowed to live at home, "my only going out was from the bus stop to school and from school to home…they were trying to not let people know." One participant described that she "felt like they were trying to hide me and like I felt like what I had done to them was like worse than killing somebody because they were trying to stop people from knowing that I was pregnant." While the parents offered support to the adolescent mother, the conditional environment influenced her decisions.

Parental environment. One participant, who had just moved out of her parents' home, discussed how the family environment her parents created influenced her decisions. She recalled,

> My parents, my parents always taught us that even though they worked hard they were doing it for us because they wanted something better for us. They grew up in I guess you could say a home where they didn't have everything they wanted. So, they always try even if it was them not being at home, so they could work to try to give us. What they didn't have they wanted us to have… we grew up as in, yeah you made a mistake, but now for you to make up for that mistake you've got to be responsible for what you did.

The participant discussed that the environment created by parents influenced decisions because, "If I see my mom doesn't care about me, I grow up and have my kids and be like well heck my mom did this with me why can't I do it with you…I guess it's just what you grow up with." As demonstrated by the current study, adolescent mothers' relationships with parents influenced social and sexual decision-making the adolescent mother; however, other relationships influenced decision-making as well.

Relationships with romantic partners. The relationship and communication with the romantic partner influenced decisions made by the adolescent mother. One participant discussed that sex was not discussed in her relationship with her romantic partner "[we] never talked about it [sex], until today we don't talk about it." Another participant discussed that prior to the pregnancy her and her partner, "weren't worried about getting pregnant…it never crossed my mind…we were too concerned about the moment to be concerned about what could happen from that moment." This lack of concern influenced the participants' decision to not utilize condoms or hormonal contraception prior to getting pregnant. Another participant attempted to discuss the possibility of getting pregnant with her romantic partner stated, "he was like, 'if we do [get pregnant] we just do and all that. I'm going to take care of it'." The romantic partner's lack of communication re-

garding sexual activity and the lack concern regarding the possibility of pregnancy influenced the adolescent mothers' decision-making.

The romantic partner's reaction to the news of the pregnancy also influenced the adolescent mothers' decision-making. One participant recalled informing the father of the baby about the pregnancy and how his reaction impacted her decision to hide the pregnancy,

> I told him and he freaked….he's like oh my God your parents are going to kill us…I took it upon myself that I was going to just hide it as much as I could for as long as I could.

Romantic relationships influenced social decisions as well. An adolescent mother discussed that as a result of financial responsibilities, her and the father of her baby decided that she wouldn't return to school after she had the baby, "we decided I was gonna work instead of going back to school." Another participant, who was living with the father of her baby, relayed the impact that he had on her living arrangements "I only finished ninth grade because I moved in with the baby's dad." The romantic partner, who may or may not be the father of her baby, influenced adolescent mothers' social and sexual decision-making.

None of the adolescent mothers in this study planned marriage with their partner. One participant lived with her partner and was not married. Another participant who still resided with her mother stated,

> It's a good thing to do but they could do the same thing while they're married because a lot of folks do the same thing while they are married but they are just married. They still go cheat and have their thing and go to the clubs.

Relationships with Friends. Adolescent mothers' relationships with her friends influenced social and sexual decision-making. One participant noted the impact of her

pregnancy on her friends, “after I got pregnant…this whole chain of people started getting pregnant.” Many times friends that had children were a source of support and influenced decisions, “My friend is pregnant now. She’s eighteen. She’s already got one.” Another participant stated, “My best friend she’s got, well she’s fixing to have a baby now, like it’s her due date is passed due…she got pregnant right behind me.” Many times the adolescent mother reported that she had several friends who were pregnant at the same time. Relationships with friends of the adolescent mothers influenced decisions made by the adolescent mother.

Friends were a source of support for adolescent mothers. One adolescent mother who desired to further her education after not completing high school, stated “one of my friends [will] start together to get our GED.” Another participant whose friend was also pregnant discussed how they researched important subjects to help with care of their babies,

> We did a lot of research together when we was pregnant. A lot of library and a lot of reading, a lot of research, breast feeding … day care, how to find a good day care, how to take care of the baby, like going through postpartum depression, and what signs to look for to know you are going through, and just a lot of stuff.

The positive influence of the adolescent mothers’ friendships became evident through the participants’ accounts.

Likewise, the adolescent mothers in this study, observed actions of their pregnant friends that they did not want to replicate. One participant recalled that many of her friends were acting like, “I did it [had a baby], nothing can be done about it, if you want the baby you take care of him, I’m still a teenager I’m going to do what I want to go do as their attitude.” The participant was concerned that her friend was not taking responsibility for her child, and made her consider the responsibility of a new child. Additionally,

another participant recalled that one of her friends put her baby up for adoption because "she couldn't handle it…she was too concerned about her teenage years and what she was going to give up and I personally don't think I could ever give my child up." The adolescent mother was in disbelief that one of her friends could put her child up for adoption, though she realized that her changes occurred in her life as a result of the child.

The adolescent mothers' relationships with friends changed once the adolescent became a mother. One participant stated, "we kind of got distant because they were always…going to the movies or school stuff." This participant acknowledged the change that occurred in her relationships with her friends because of motherhood.

All of the participants realized that they were not able to participate in activities with their friends because of their child. One participant realized, "I have a responsibility and I can't go partying because I have that responsibility depending on me." The participant realized that she was responsible for her child. Another adolescent mother realized, "you missed out on a lot…sometimes you don't have somebody to watch him and I mean you can't just leave him at home by himself." Another participant recalled, "I remember all my friends going, like, to parties and stuff and I'd have to come home and take care of the baby." One adolescent mother relayed frustration with her increased in responsibility and decreased ability to enjoy times with friends, "I get frustrated because I'm sixteen, almost seventeen, I don't go out anywhere. I don't go shopping. I'm always stuck at work." However, some of the participants discovered a compromise in which they would continue to care for their child but also be able to spend time with her friends. One participant who chose to remain active with friends stated, "I'd want to go to a football game so bad to see all my friends, I'd even take him with me." Another participant recalled

that her and her friends did not go out, instead, “we’ll just go over to my friend’s house and just sit or whatever for a minute and then I’ll just, I’ll come back home.” As demonstrated throughout the study, relationships with friends influenced adolescent mothers’ social and sexual decision-making.

Relationships with teachers/school/community. Relationships with teachers and the school system influenced adolescent mothers’ decisions. One participant who returned to school after having her child admitted “my teachers helped me out a lot…[they told me] ‘you’re going to come in here and I’ll help you do your study guide’.” She recalled that the teachers were flexible and supportive towards her. The participant continued to discuss the support the teachers offered her, “they were flexible around my schedule and they tried to work it to where since I had came back to school and I was trying to do something for myself, they tried to help me out.” The connection the participant perceived with her teachers contrasts another participant who dropped out of school because she missed too many days of school. The adolescent mother recalled, “my mom was going to court because I missed too many days of school and they [the court] told me the best thing would be to get my GED.” Another adolescent mother recounted the embarrassment she felt being an older adolescent still in 10th grade. She discussed that she “dropped out of school… in the 10th grade. I was too old to be in tenth grade…I was seventeen fixing to turn eighteen…I was fixing to get transferred to another school but I was too old…I just said I will go on and get my GED.” The relationship between the school, teachers, and adolescent mothers influenced decision-making.

The adolescent mothers' perceived relationship with the community also influenced sexual and social decision-making. One participant discussed her safety concern of the surrounding community and the influence on going out,

> When we go out, stuff just happening, like folks get shot and stuff, and it ain't no fun. You know, I look at it like I have something to come home to and I just choose not to go out.

Another participant said that her friends come over to her house because "there's nothing but trouble out there." Another participant admits that she doesn't, "go out like I used to…because it's so much going on out there now." These adolescent mothers demonstrate the concern they have for their safety and the influence that the concern had on their decision-making.

Religious beliefs and faith also influenced decisions made by the adolescent mother. One adolescent recalled the role of her faith in the acceptance of her unplanned pregnancy, she stated "if God didn't want [me] to have it then I wouldn't have it. It was like he let [me] have it for a reason." Religious faith also assisted the adolescent mother in times of medical emergency. One participant who during labor experienced a drop in fetal heart tones that necessitated a cesarean section delivery recalled, "I was nervous but the Lord wouldn't have sent me through a whole nine months of pregnancy for it to end like that. So I just started praying and when I woke up she was here." These statements demonstrated the influence of faith and religious beliefs in adolescent mothers' decision-making.

Relationship with child. The adolescent mothers reported that the relationship with their child influenced decisions. The influence of this relationship became apparent

as many of the participants began to take responsibility for the child and subsequent decision-making. One participant admitted that it would be ideal to have a baby in the mid-twenties, "you made a mistake, but now for you to make up for that mistake you've got to be responsible for what you did." Another participant recalled her realization that "it was nobody's fault except mine…I'll take responsibility…nobody could have done anything." The acceptance of the pregnancy and additional responsibilities of motherhood influenced decisions made by the adolescent mother.

The relationship with her child and the additional responsibilities caused the adolescent mother to realize that things had changed from before they were pregnant. One participant stated, "you have too much going on to even think about you time." Another participant admitted the baby was the reason she wouldn't stay away from home too long, "I'll be gone from the baby probably like an hour, it don't be long because I'll be ready to come back home."

With the responsibilities of the new baby, challenges became apparent and influenced decisions made by the adolescent mother. One participant acknowledged the challenges and the need to complete her education, "it was rough at first…you've got diapers and formula and all that good stuff for the baby…you can't really get a good job without your diploma." The relationship with her child and his needs helped her to realize the need to finish her education. Initially, adolescent mothers' relationship with their new child and the added responsibility proved difficult, one participant stated "it was a lot more crammed in with a little bit of amount of period of time for you to cram everything in. It was kind of hectic." After the birth of her daughter, another participant realized,

"life hits you hard and you have to grow up right there and then because you've got a child depending on you."

The additional responsibilities of the baby and other duties influenced adolescent mothers' decisions for childcare and work. One participant who reported that her mother would care for her son while she went to work, stated, "[I]go to my mom's and spend time over there with him [my son]…come back home, because early in the morning I've got to be back at work." Another participant reported that she started back to work three weeks after she delivered her child because, "I just can't sit around when my baby needs pampers, I go back to work so she's taken care of."

The relationship with the new child influenced future plans of adolescent mothers. One participant recalled,

> I really had big plans for the Air Force… I still want to leave and go to the Air Force. So, I've been kind of checking on that to see you know what I've got to do about my baby because I don't want to leave her [the child] behind.

Many participants discuss that their desire to complete high school changed during the pregnancy. One participant recalled that "I started to go get my GED but I was pregnant so when it was time for me to have my baby I had to stop." She in turn decided that she would go to cosmetology school. Another participant who regreted that she decided to quit school and worked, "At my age you can't really get a decent job without your GED or your diploma so you had to work with…minimum wage." She planned to obtain a GED at a later date to help her obtain better employment.

Many of the participants discussed the increased motivation to take care of themselves because of their baby and the additional responsibility. One participant stated, "my child is my motivation now." Another participant explained "I feel like I need to

keep stepping up, keeping my body up now that I've done had my baby. So if she ever needs me I won't be down and out and can't take care of her." She realized that, "you can't take care of a baby if you are not taking care of yourself." Another participant discussed that she welcomed the relationship with her child because it's "that feeling of somebody actually does need you for everything."

Additional Information

Many of the adolescent mothers in this study desired future children. One participant stated that she desired to have another child, "so my baby can have someone to play with." All but one of the participants was taking hormonal contraception. The one participant that did not use contraception, and had recently experienced a miscarriage stated, "if it's going to happen, it's gonna happen. I just don't want it to be too soon." Another participant who utilized Depo-Provera for control of her menses, discussed her decision regarding celibacy, "I've been really strong about my decision of celibacy because…I don't want to mishap and have another one."

Many adolescent mothers recalled the search for normalcy that they had before their pregnancy and parenthood. One participant discussed that, "the first thing I did I ran into the closet and I tried on all my jeans." She seemed to be searching for her pre-pregnancy self. One participant found school as a respite from motherhood, "you were able to be normal among everybody else, and at home you couldn't because it was you and your kid." She continued to discuss that "you get used to going back to school…you didn't want to feel like they were pinpointing you because you had a kid and you had to drop out of school." Another participant expressed that she had not realized much differ-

ence in her life since she became a mother, “everything is going to go back to normal, it’s just now I have a baby.” The adolescent mothers attempted to resume their normalcy that they had before they delivered their child.

After the conclusion of the semi-structured interview, the participants offered advice to adolescent and adolescent mothers concerning pregnancy and parenting. One participant said that ideally she “would have waited” to get pregnant until “probably in my mid twenties.” Another participant felt as if “fifteen is a little too early to have a baby.” One participant offered this tidbit of information, “In the long run it’s great to have a kid, but at the beginning it’s really, really rough and tough and some people can handle it, some people can’t.”

Summary

The adolescent mothers in this study described internal and external influences on their sexual and social decision-making before and after their initial delivery. The themes identified include relationships, environment, community and responsibility. Of these themes, relationships of adolescent mothers appeared to have the most significant influence on social and sexual decision-making. Consequently, components of the relationships such as communication, context, and structure influenced their decisions as well.

CHAPTER 5

DISCUSSION, CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of the study was to examine the influences on social and sexual decision-making in adolescent mothers 15-19 years of age before and after their initial delivery. This chapter discusses the findings of the study as they relate to current literature and help formulate implications and recommendations for future research.

Discussion

Six adolescent mothers contributed to the findings of the study. As discussed previously, adolescence is a period in which the adolescent experiences transformation: physically, emotionally, cognitively and within their relationships. The findings of the current study illustrated the influence that adolescent mothers' relationships have on her social and sexual decision-making. There are a number of previous research findings that described the influence of relationships on social and sexual decision-making in adolescents (Crosby et al., 2000; Jaccard et al., 2006; Stevens-Simon et al., 2005). The perceptions of the influences of adolescent mothers' social and sexual decision-making in the current study are discussed.

Relationships between adolescent mothers and their parents influenced decision-making. Within this relationship, the adolescent mothers' level of moral development became apparent. Gilligan (1986) views adolescent moral development as a progression through three levels: self-interest, concern for others, and the ability to balance

self-interest and the concern for others. The levels of moral development, as described by Gilligan, are evident through the participants' recollection of events around the discovery of their pregnancy. The decision to postpone disclosure of the pregnancy was consistent with existing literature which showed that adolescent mothers are hesitant to inform their mothers of the pregnancy because of fear of disappointment (Wiemann et al., 1997). In the current study, the adolescent mothers initially were hesitant to acknowledge the pregnancy and did not seek to inform others of the pregnancy. As supported by the findings of the current study, the levels of moral development influenced the adolescent mothers' decision to tell family and friends about the pregnancy.

The adolescent mothers continually recognized the influence that their parents have on their decisions, which agrees with prior research on adolescents. Communication and parenting styles are components of the relationship that have been recognized as influencing adolescent decision-making (Facente, 2001).

Communication, which is an important part of adolescent mothers' relationships with parents, influenced social and sexual decision-making. Prior research suggested that non- parenting adolescents' decisions are influenced by the degree of communication between parent and child (Li, Feigelman, & Stanton, 2000; Whitbeck, Hoyt, Miller, & Kao, 1992). The adolescent mothers in this study reported little to no discussion with their parents regarding sexual behavior before, during, or after the pregnancy. They reported often times they felt more comfortable talking with siblings, aunts, or friends instead of parents. This lack of communication influenced decisions made by the adolescent mother for multiple reasons. By not having open communication with the parent, the adolescent may be unaware of available contraceptive options, be uncomfortable discussing sexual

activity with sexual partner, or not feel compelled to abstain from sexual activity. Prior research supports that the more open the parents are with discussions regarding safe sexual behavior and birth control, the more likely the non-parenting adolescent is to practice safe sexual behaviors (Asby et al., 2007; CDC, 2010; Jaccard et al., 1996). Likewise, adolescents prefer to receive information about sexual activity and the potential consequences from parents (Asby et al.; DiClemente et al., 2001; Fantasia, 2011; Hutchinson, Jemmott, Jemott, Braverman, & Fong, 2003). Asby et al. comments that family communication may be the most important component of a healthy family. Increasing communication and creating an environment in which adolescent mothers would be comfortable to ask questions and receive age- appropriate information, positive influences on adolescent mothers' social and sexual decision-making can be created.

Additionally, the adolescent mothers in this study repeatedly described scenarios that illustrated low levels of parental supervision. The participants discussed recurrent episodes of romantic partners spending the night unknown to parents. The participants also described incidences of sneaking to see their forbidden romantic partner. The parents of the participants were unaware of how the participants spent most of their time. These findings were similar to prior research that demonstrated non-parenting adolescents' decisions are influenced by the type of parenting and subsequent family environment (Pittman & Chase-Lindsay, 2011). The findings of the current study are supported by previous literature in that the degree of parental supervision influenced adolescent mothers' social and sexual decision-making.

Support offered to adolescent mothers also became a component of adolescent mothers' relationship with their parents. This support was evident through care of the

new baby and assistance offered to the young mother. Often times, family members became the primary caregiver of the infant. Previous literature demonstrated the positive influence that support people have on the level of stress that is common with new parenthood (Oxley & Weekes, 1997; Unger & Wandersman, 1988). Several participants discussed how family members provided the majority of care for the child. However, while this support decreases stress and is often viewed as one of the positive consequences of adolescent pregnancy, it can also influence decision-making of the adolescent. It might cause the adolescent to consider another pregnancy because they have not experienced the full responsibility of a newborn. This concern was evident in the current study, in which one participant, who reported that her mother took care of the baby, had already experienced another pregnancy that ended as a miscarriage.

Another component of the relationship between adolescent mothers and parents was the family organization and hierarchy of power. Prior research demonstrated that adolescents who are from single parent homes are more likely to decide to engage in sexually risky behavior that can lead to an unintended pregnancy (Cubbin, Santelli, Brindis, & Braveman, 2005). All but one of the participants, including those who resided in single-family homes headed by their mother, reported a family composition where their fathers were functioning as the decision-maker. The participants described that they would actively seek advice from their father because they trusted his direction. However, some adolescent mothers reported that their father would come to their house and demonstrate control over their decision-making. The decision-making power given to males and their impact on decision-making is evident by prior research (Kelly & Morgan-Kidd, 2001).

Similar to the male parental role, many adolescent mothers had relationships with male partners who exerted control over decision-making. This was in agreement with previous research that demonstrated the high occurrence of adolescent females having a male partner that demonstrates control over social and sexual decision-making (Crosby, et al., 2000). In the current study, the romantic male partner of the adolescent influenced decisions made regarding sexual activity, contraception, education and work. Based on participant accounts, the adolescent mothers' male partner consistently regarded contraception as unimportant. The attitude towards contraception by the adolescent mothers' partners influenced the participant to not deem contraception necessary. Also, the romantic partner communicated little to no concern about the possibility of becoming pregnant. Again the views of the partner influenced the adolescent mother to not be concerned about the possibility of pregnancy. Others also found that the influence of the romantic partners' ambivalence about the possibility of pregnancy influences the adolescent mothers' social and sexual decision-making (Jaccard et al., 2006; Stevens-Simon et al., 2005). Similarly, friends also influenced adolescent mothers' decisions.

In the current study, friends influenced the adolescent mother regarding acceptance of the pregnancy, continuing education and types of entertainment. Most of the adolescent mothers that participated in this study had friends who were currently or had been pregnant. The influence of friends on social and sexual decisions is supported by prior research findings (Kelly & Morgan-Kidd, 2001; Millstein & Moscicki, 1995). Relationships with friends can positively or negatively influence social and sexual decision-making.

Many participants reported the relationship with their friends helped them accept the reality of the pregnancy. Likewise, one adolescent mother discussed the influence that her pregnant friend had regarding the decisions she made to breastfeed the baby or even in which daycare to enroll her baby. Another adolescent reported that her friend encouraged her to obtain her GED and the friend would enroll with her. While the positive influences of friends are evident throughout the interviews, the negative influences on decision-making also became apparent.

The adolescent mothers continued to recall how friends influenced some of their decisions. One participant described the amusement she felt when she realized the number of friends who became pregnant around the same time as she did. Another participant described how her friends suggested that she stop attending school because she was too old to be in her current grade. As previous research suggests, adolescents often want to part of a group and there is evidence that they attempt to become pregnant to be like others (Kelly & Morgan-Kidd, 2001). The findings of the current study support findings from previous studies regarding the influences of friends on adolescent decision-making.

The relationship adolescent mothers have with their school and teachers influenced their decisions to return to school after delivery of the child. One participant discussed the positive influence teachers had on her decision to return to school after delivering the baby. She recounted the support, encouragement, and understanding her teachers demonstrated and her desire to continue in school. The adolescent mothers' relationship with teachers and school are important to positively influence an adolescent mothers' decision to continue with school. This is in contrast to the participant who reported that she dropped out of school because she missed too many days, or the participant who

reported she was too old to continue in tenth grade. These participants did not perceive a connection with their teachers or school and did not return to school after delivery of their child. Prior research suggested that adolescents, who perceive support from teachers and school, are more likely to continue in school (Voisin et al., 2005). The decision to remain in school and plan for the adolescent mothers' future has important implications for the adolescent mother.

Previous literature demonstrated that adolescents who have career goals or plan to attend colleges are less likely to experience unplanned pregnancies (Halpern, Joyner, Udry, & Suchindran, 2000). The adolescent mothers in this study repeatedly discussed future aspirations of careers and attending colleges. Considering the findings of the current study, previous literature did not seem to support the positive influence of career goals on adolescent decision-making. However, it is uncertain if the aspirations reported by the adolescent mother were realistic as none of the adolescent mothers had completed high school or obtained a GED. All of the participants had quit high school at a young age and had plans to obtain a GED and had career goals.

Prior research suggests that adolescents who make better grades in school, strive to attend college, and are more involved in school activities are less likely to engage in risky sexual activity leading to adolescent pregnancy (Halpern et al., 2000: Kegler et al., 2003). While superficially findings from the study disagreed with this literature, consideration regarding realistic goals need to be assessed. The findings from the study demonstrate that adolescent mothers perceive that additional responsibilities related to motherhood influences decisions made to engage in activities, future goals, and continue in school. The additional responsibilities of the new baby could increase the adolescent

mothers' risk of experiencing a repeat pregnancy by her not deciding to engage in protective factors. Considering the findings of the current study and prior research, adolescent mothers' would benefit from remaining involved in school activities and formulating realistic future goals.

The influence of community characteristics influenced social and sexual decisions made to engage in activities in the surrounding communities. Safety while living in the community was a concern for the adolescent mothers that participated in this study. Several adolescents identified the high incidence of crime as a contributing factor for staying home. This finding is similar to findings from previous studies in which perceptions of community safety influence decisions to engage in activities outside of the home (Kegler et al., 2005; Kegler et al., 2003; Leventhal & Brooks-Gunn, 2000). Additionally, all of the participants were from low SES and obtained medical care at local health departments. Prior research has shown that adolescent women who live in neighborhoods that are poorer are more likely to decide to engage in sexual risky behavior that could lead to adolescent pregnancy (Averett, Daniel, & Argys, 2002; Ramirez-Valles et al., 1998). In this study both the low SES and the safety of the community influenced decisions made by the adolescent mother.

Religious beliefs and faith was also a factor that influenced decisions made by the adolescent mother. Though a comprehensive examination of religious belief was not conducted within this study, the participants in this study referred to their religious beliefs as assisting them in accepting the pregnancy. Repeatedly through the research literature, religious beliefs and faith are reported as influencing adolescents' social and sexual decision-making (Facente, 2001; Ott et al., 2006). The depth that religious beliefs influenced

decisions within this study is not fully understood, but acknowledgement of its influence on decision-making is important.

The new relationship with her child also influenced adolescent mothers' social and sexual decision-making. Several adolescent mothers reported the need to return to work after delivering the baby because of the financial requirements inherent to the care of a newborn. Prior research findings were not found that supported this influence for adolescent decision-making. However, the adolescent mothers' need to care for their newborn was the impetus to return to work or drop out of school.

An interesting finding of the current study was that all but one participant was using contraception. All of the adolescent mothers voiced a desire to postpone having additional children and most were using a type of long acting reversible contraception. This is in contrast to their lack of birth control use prior to the initial pregnancy. Often the adolescent lacked knowledge regarding resources for contraception prior to the initial pregnancy. However, through the course of the pregnancy and into motherhood, the adolescent mother became exposed to multiple contraception options. This transformation was also found in prior studies that reported that the adolescent mother becomes familiar with family planning and feels more comfortable to access resources for birth control after an initial delivery (Iuliano, Speizer, Santelli, & Kendall, 2006).

Conclusion

The purpose of the current study was to examine internal and external influences on social and sexual decision-making in adolescent mothers before and after their initial delivery. The methodology of descriptive inquiry provided comprehensive descriptions

of influences on decision-making provided by adolescent mothers. The findings from the current study reinforced previous findings from other researchers who examined influences on social and sexual decision-making in non-parenting adolescents. There is, however, limited data examining influences on social and sexual decision-making in adolescent mothers. The current study provided new insight into the perceived influences on decision-making in those adolescents who had a child within the last year. The transition into motherhood creates additional influences not previously reported in the literature.

The participants reported multiple influences on their social and sexual decision-making. However, most of the influences were centered on the adolescent mothers' relationships with parents, romantic partners, friends, school, and their community. The participants reported that the arrival of the baby, financial responsibility, and their transition into motherhood, influenced decisions made. The influences of the relationships with parents, friends, romantic partners and school were consistent with prior research on non-parenting adolescent decision-making. Examinations of influences on the adolescent mother concerning social and sexual decision-making provides a basis for further research and assist with creating successful interventions.

Limitations

Several limitations became apparent through the course of the current study. Components of sampling method could be a limitation. Purposeful sampling was employed, thus the participants were expected to have experienced adolescent motherhood, and however, it was not known whether they truly experienced motherhood. Also, recruitment of the adolescent participants proved to be a challenge. Initially, it was diffi-

cult to identify adolescent mothers' that might be interested in participating in the study. Once recruitment was changed into specific clinics, the number of adolescent mothers increased. It then proved difficult to recruit adolescent mothers and to reschedule the potential participants to return for an interview. Upon reassessment, it was decided to offer a monetary incentive and to offer the adolescent mother the ability to proceed with the interview once approached. In addition, semi-structured interviews were conducted to obtain the participant's perspective, creating a need to trust the validity of the participants account. The participant was encouraged to be truthful by ensuring confidentiality, offering a private space for the interview, and guaranteeing that their information would not be shared with others. Additionally, all of the participants were from local county health departments, which did not provide participants from diverse backgrounds.

Implications

The current study can contribute to advancing knowledge in the areas of nursing research, nursing education, and nursing practice. By utilizing information obtained from the adolescent mothers' reports, all three of these areas can be affected.

Nursing Research

The current study contributes to the understanding of influences on social and sexual decision-making as perceived by adolescent mothers. The firsthand accounts of the adolescent mothers' perceived influences on their decision-making provided a basis for further research. By having a greater understanding of the influences on adolescent mothers' social and sexual decision-making, appropriate interventions could be created to

prevent adolescent pregnancy. The role of moral development and additional responsibility of the adolescent mother were findings not previously found in the literature. Larger studies are needed to further investigate these influences that might be specific to adolescent mothers. Furthermore, future studies focused on the development of theories and models of adolescent decision-making are needed.

Nursing Education

Nursing education has a pivotal role in creating future nurses. It has the opportunity to assist the adolescents and adolescent mothers. By incorporating knowledge from this study into nursing curricula and clinical practice, nursing students may consider the effect of the adolescent's family, peer and partner relationships on her ability to make decisions about contraception and motherhood. The financial and economic pressures on adolescent mothers who have not completed their education may be incorporated in discussion with adolescent clients.

Nursing Practice

Nurses and healthcare providers have the opportunity to provide appropriate support, education, and care for their patients. The findings of the current study enable nurses and healthcare providers to better understand the unique needs of adolescent mothers. This increase in understanding creates an opportunity to provide support for adolescents during and after pregnancy. Also nurses and healthcare providers can increase communication about healthcare, safe sex practices, and implications of decision-making with adolescent mothers. By understanding the influences on decision-making in adolescent

mothers, nurses and healthcare providers can provide the adolescent mother with hope, encouragement, and become advocates. Likewise, this understanding can assist in creating effective, age-appropriate interventions may be designed.

Recommendations

The findings and conclusions from this study have provided information to begin to understand the perceived influences of adolescent mothers on social and sexual decision-making.

1. Further studies need to be done examining influences on adolescent mothers' social and sexual decision-making

2. A study should be conducted involving adolescent mothers from different backgrounds and socioeconomic statuses.

3. A pregnancy prevention program targeting adolescent mothers and their unique responsibilities need to be created and tested.

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APPENDIX A

PARTICIPATING HEALTH DEPARTMENTS

Health Department	Address
Bessemer Health Department	2201 Arlington Avenue, Bessemer, AL 35020
Central Health Department	1400 6th Avenue, South Birmingham AL 35233
Eastern Health Department	5720 1st Avenue, South Birmingham, AL 35212
Western Health Department	1700 Avenue E, Ensley Birmingham, AL 35218
West End Health Department	1308 Tuscaloosa Ave, S.W. Birmingham, AL 35211

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Institutional Review Board for Human Use

Form 4: IRB Approval Form
Identification and Certification of Research
Projects Involving Human Subjects

UAB's Institutional Review Boards for Human Use (IRBs) have an approved Federalwide Assurance with the Office for Human Research Protections (OHRP). The Assurance number is FWA00005960 and it expires on January 24, 2017. The UAB IRBs are also in compliance with 21 CFR Parts 50 and 56.

Principal Investigator:	CAMPBELL, DONNA MARIE
Co-Investigator(s):	
Protocol Number:	**F101123004**
Protocol Title:	*Adolescent Mothers' Decisions Impacting Additional Pregnancies*

The IRB reviewed and approved the above named project on 1/30/2013. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services. This Project will be subject to Annual continuing review as provided in that Assurance.

This project received FULL COMMITTEE review.

IRB Approval Date: 1/30/2013

Date IRB Approval Issued: 1/30/13

Identification Number: IRB00000726

Ferdinand Urthaler / JEM

Ferdinand Urthaler, M.D.
Chairman of the Institutional Review
Board for Human Use (IRB)

Investigators please note:

The IRB approved consent form used in the study must contain the IRB approval date and expiration date.

IRB approval is given for one year unless otherwise noted. For projects subject to annual review research activities may not continue past the one year anniversary of the IRB approval date.

Any modifications in the study methodology, protocol and/or consent form must be submitted for review and approval to the IRB prior to implementation.

Adverse Events and/or unanticipated risks to subjects or others at UAB or other participating institutions must be reported promptly to the IRB.

470 Administration Building
701 20th Street South
205.934.3789
Fax 205.934.1301
irb@uab.edu

The University of
Alabama at Birmingham
Mailing Address:
AB 470
1530 3RD AVE S
BIRMINGHAM AL 35294-0104

APPENDIX C

JEFFERSON COUNTY HEALTH DEPARTMENT APPROVAL FORM

JEFFERSON COUNTY DEPARTMENT OF HEALTH
1400 SIXTH AVENUE SOUTH P.O. BOX 2648 BIRMINGHAM, AL 35202 phone (205)/930-1114
fax (205) 930-1576

Policy, Grants and Assessments
Research Recruitment Review

Research Request Review: **September 15, 2008**
Protocol No. ***None listed***

TITLE: Factors affecting adolescent mother's decisions affecting future conception following delivery of the first child

PRINCIPAL INVESTIGATOR: **Donna Campbell, CNM**
COORDINATOR/CONTACT: **Donna Campbell, CNM**
UAB
205 731-7138
donnamsn@uab.edu

SPONSOR: **Dissertation project**

Final Protocol: **In development**

Reviewer	Recommend (Yes / No)	Signature	Date
Richard J. Sinsky, MS, DrPH Epidemiological Analyst Public Health Policy, Grants and Assessment	yes	Richard J Sinsky, MS, DrPH	15 Sep 08
Stephen Mallard, MD Medical Director, Clinical Services	yes	S Mallard MD	9/15/08
Lannie Sears-Mitchell, RN, BSN Assistant Director, Adult Health/Reproductive Health	Yes	Lannie Sears-Mitchell RN	9/15/08
Final JCDH Recommendation:			
Claude Ouimet, MD Deputy Health Officer Jefferson County Department of Health	yes	Claude	9/15/08

Project Start Date: 30 Sep 08 **Project End Date: ———**

Comments:
Already involved with Western Clinic ***passive recruitment only***

PROTECTING ***YOUR*** HEALTH

APPENDIX D

PARTICIPANT CONSENT FORM

Participant Consent

TITLE OF RESEARCH: Adolescent Mothers' Decisions Impacting Additional Pregnancies

IRB PROTOCOL: F101123004

INVESTIGATOR: Donna Campbell

SPONSOR: **UAB School of Nursing**

Explanation of Procedures

We are asking you to take part in a research study. I am talking to teen mothers about their feelings and decisions they have made since having the baby. I hope that I can help other nurses and healthcare workers help teen mothers. If you choose to participate, it will take about 1 to 1 ½ hours of your time to answer the questions, initially. Then I would like to meet with you again in 2-3 weeks to go over your answers and make sure I understand them. If you agree, I will digitally record our interview and then will transcribe it so I can read what was said. The tape and transcription will be identified with a code only. I will erase the recording after it has been transcribed. I will also take notes after the interview. No names or identifying information will appear on the transcription or notes. I would like to talk with you here at the health department or meet at a convenient place, such as a local library or your home, to talk to you.

Risks and Discomforts

You may be uncomfortable with some of the questions asked during the interview. You will not have to answer any question that makes you feel uncomfortable.

Benefits

You may not benefit directly from taking part in this study. However, this study may help other nurses and healthcare workers help teen mothers.

Alternatives

The alternative to participation in the study is not to participate in the study.

Confidentiality

Information obtained about you for this study will be kept confidential to the extent allowed by law. However, research information that identifies you may be shared with the UAB Institutional Review Board (IRB) and others who are responsible for ensuring compliance with laws and regulations related to research, including; the Office for Human Research Protections (OHRP).The results of the interview may be published for scientific purposes. These results could include your discussions with the interviewer. However, your identity will not be given out. Information obtained during the course of the study which, in the opinion of the

Participant's initials_____

UAB-IRB
Date of Approval 1/30/13
Not Valid On 1/30/14

investigator, suggests that you may be at significant risk of harm to yourself or others will be reportable to a third party in the interest of protecting the rights and welfare of those at potential risk.

Refusal or Withdrawal without Penalty

Whether or not you take part in this study is your choice. There will be no penalty if you decide not to be in the study. If you decide not to be in the study, nothing about the care you receive will change. You are free to withdraw from this research study at any time. Your choice to leave the study will not affect your relationship with the health department or UAB. You may be removed from the study without your consent if the investigator decides it is not in the best interest of your health.

Cost of Participation

There will be no cost to you for taking part in this study.

Payment for Participation in Research

You will be given a $5 Wal-Mart gift card for your participation in the initial interview. Then you will receive $10 Wal-Mart gift card for the follow-up interview.

Payment for Research-Related Injuries

UAB has not provided for any payment if you are harmed as a result of taking part in this study. If such harm occurs, treatment will be provided. However, this treatment will not be provided free of charge.

Significant New Findings

You will be told by the principal investigator if new information becomes available and might affect your choice to stay in the study.

Questions

If you have any questions, concerns, or complaints about the research or a research-related injury including available treatments, please contact Donna Campbell, CRNP. She will be glad to answer any of your questions. Donna's number is 205-934-2170.

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the Office of the Institutional Review Board for Human Use (OIRB) at (205) 934-3789 or 1-800-822-8816. If calling the toll-free number, press the option for "all other calls" or for an operator/attendant and ask for extension 4-3789. Regular hours for the Office of the IRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

Participant's Initials_____

Legal Rights

You are not waiving any of your legal rights by signing this informed consent document.

Digital Recording

The investigator for this study, Donna Campbell, would to like to digitally record the interview. The digital recording (without any information identifying you) will be used so that she can accurately write down all your responses to the interview questions. Please initial below to indicate whether or not you agree to let your interview be recorded.

_____ Yes, I agree to have my interview recorded

_____ No, I do not agree to have my interview recorded

Future Contact

The investigator for this study, Donna Campbell, would like to contact you at a later date to conduct an additional interview. The interview would be used to check your previous answers, make corrections, and check on your current well-being.

_____Yes, I agree to be contacted at a future date.

_____No, I do not agree to be contacted at a future date.

Participant's Initials_____

Signatures

Your signature below indicates that you agree to participate in this study. You will receive a copy of this signed document.

Signature of Participant Date

Signature of Principal Investigator Date

Signature of Witness Date

University of Alabama at Birmingham
AUTHORIZATION FOR USE/DISCLOSURE OF HEALTH INFORMATION FOR RESEARCH

What is the purpose of this form? You are being asked to sign this form so that UAB may use and release your health information for research. Participation in research is voluntary. If you choose to participate in the research, you must sign this form so that your health information may be used for the research.

Participant Name:_____
Research Protocol: Adolescent Mothers' Decisions Impacting Additional Pregnancies

UAB IRB Protocol Number: F101123004
Principal Investigator: Donna Campbell

Sponsor: SON

What health information do the researchers want to use? All medical information and personal identifiers including past, present, and future history, examinations, laboratory results, imaging studies and reports and treatments of whatever kind related to or collected for use in the research protocol.

Why do the researchers want my health information? The researchers want to use your health information as part of the research protocol listed above and described to you in the Informed Consent document.

Who will disclose, use and/or receive my health information? The physicians, nurses and staff working on the research protocol (whether at UAB or elsewhere); other operating units of UAB, HSF, UAB Highlands, The Children's Hospital of Alabama, Callahan Eye Foundation Hospital and the Jefferson County Department of Public Health, as necessary for their operations; the IRB and its staff; the sponsor of the research and its employees; and outside regulatory agencies, such as the Food and Drug Administration.

How will my health information be protected once it is given to others? Your health information that is given to the study sponsor will remain private to the extent possible, even though the study sponsor is not required to follow the federal privacy laws. However, once your information is given to other organizations that are not required to follow federal privacy laws, we cannot assure that the information will remain protected.

How long will this Authorization last? Your authorization for the uses and disclosures described in this Authorization does not have an expiration date.

Can I cancel the Authorization? You may cancel this Authorization at any time by notifying the Director of the IRB, in writing, referencing the Research Protocol and IRB Protocol Number. If you cancel this Authorization, the study doctor and staff will not use any new health information for research. However, researchers may continue to use the health information that was provided before you cancelled your authorization.

Can I see my health information? You have a right to request to see your health information. However, to ensure the scientific integrity of the research, you will not be able to review the research information until after the research protocol has been completed.

Signature of participant:_____ Date:_____
or participant's legally authorized representative:_____ Date:_____
Printed Name of participant's representative:_____
Relationship to the participant:_____