THE ROLE OF AFRICAN AMERICAN SOCIAL NETWORKS IN ADOLESCENT SEX EDUCATION AND PARENTAL MONITORING

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Anne Elizabeth George

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This thesis was presented

by

Anne Elizabeth George

It was defended on

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and approved by

Aletha Akers, MD, MPH
Assistant Professor
Department of Obstetrics, Gynecology, and Reproductive Sciences
School of Medicine
University of Pittsburgh

Thomas Songer, PhD, MPH, MSc
Assistant Professor
Epidemiology
Graduate School of Public Health
University of Pittsburgh

Diane Abatemarco, PhD, MSW
Assistant Professor
Behavioral and Community Health Sciences
Graduate School of Public Health
University of Pittsburgh

Thesis Director: Martha Ann Terry, PhD, MA
Senior Research Associate, Director, Master of Public Health Program
Behavioral and Community Health Sciences
Graduate School of Public Health
University of Pittsburgh

Martha Ann Terry, PhD, MA

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SEX EDUCATION AND PARENTAL MONITORING

Anne Elizabeth George, MPH

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Background: Parental sex communication and parental monitoring are associated with reduced adverse adolescent sexual health outcomes. Little is known about cultural nuances of these parenting skills within the African American community. Also, few studies have examined how non-parent adults function as sex educators and monitors of adolescent activity. **Objective:** To examine the process, barriers, and facilitators of sex education and monitoring by adults within African American adolescents' social networks as part of a larger study to develop a parent-targeted intervention to improve these parenting skills. **Methods:** We conducted 21 focus groups between December 2007- March 2008 with African American parents from Allegheny County Pennsylvania and their adolescents aged 15-17. Participants were recruited through community organizations, health centers and media advertisements. We used a directed approach to content analysis. **Results:** Parents felt community monitoring of children occurs less than when they were children. Parents expressed the need for more communication between parents and members of their children's social networks regarding the monitoring of their adolescents. Mothers often act as confidants for their children's friends but struggle over whether to disclose information revealed during these discussions to another child's parents. Fathers advise and role model expected social and sexual behaviors to their children and their friends informally as the children are hanging out. Parents work together using "parent networks" to monitor youth in the

community. **Conclusions:** African American parents feel their communities and social networks could play a greater role in monitoring children's social and sexual development. Parent-targeted interventions should be tailored to address the different styles mothers and fathers use to communicate with and monitor their children. **Public Health Significance:** Further understanding of how non-parent adults within the African American community influence adolescent sexual behavior will enable public health professionals to appropriately incorporate non-parent adults into intervention design, therefore increasing the likelihood of decreasing adverse sexual health outcomes among African American adolescents.

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PREFACE

I would like to thank Dr. Aletha Akers for her invaluable advice, guidance, and support not only during the process of writing this thesis, but in my professional career and personal life. I would also like to thank Drs. Martha Terry, Thomas Songer, and Diane Abatemarco for their continued support, guidance, and input throughout the process of writing this thesis.

1.0   INTRODUCTION

Social networks affect and influence virtually every aspect of our lives. We rely on those close to us for guidance and support. We have different relationships with people in the different levels of our social network. A social network is a map of relationships between individuals, ranging from casual acquaintance to close familial bonds (Heaney & Israel, 2002). The people who make up our social networks shape our behavior, values, beliefs and even health (Heaney & Israel, 2002). They can also influence behavior in our personal lives, including sexual behavior (Aronowitz, Rennells, & Todd, 2006; Walker, Rose, Squire, & Koo, 2008).

The overall purpose of this paper is to examine how social networks can be used to positively influence sexual health behavior and decrease adverse health outcomes, like teen pregnancy and sexually transmitted infections, among African American adolescents. This will be accomplished in two ways: 1) by examining the role that social networks play in sex education and parental monitoring in the African American community as reported in focus groups by African American mothers and fathers in Allegheny County, Pennsylvania; and 2) by examining the literature to understand how parent and youth social networks dispense information about healthy relationships and healthy sexual behavior. The combination of understanding how parents view their role in their own social networks, how they operate in the context of sex education and monitoring of adolescent dating and social activities, and how

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social networks have actually be used in public health interventions enables us to compare parents' reported experiences with examples of practice in the literature.

Based on the comments from the participants in the Teach Your Children Well focus groups this paper discusses: 1) how African American parents describe their social networks, 2) how adults within adolescents' social networks affect sex education, 3) how adults within adolescents' social networks affect monitoring of social and dating activities, and 4) how social networks have been included in adolescent sexual health interventions in the literature.

First, the epidemiology of adolescent sexual behavior, including national and local data, will be discussed. Second, the way that social network influences impact adolescent development, including influences on sex education and monitoring, will be discussed. Next, a review of how social networks have been used in health interventions will be covered. Finally, the comments and experiences of the parents in the Teach Your Children Well study will be presented, analyzed, and will inform recommendations for intervention design.

2.0 BACKGROUND

Adolescent sexual health is an important topic because so many young people are engaging in risky sexual behavior and are experiencing negative health outcomes as a result. The main adverse sexual health outcomes facing youth today are teen pregnancy, STIs, and HIV/AIDS. This section will cover adolescent sexual behavior in the United States and African American adolescent sexual behavior in the United States and in Allegheny County, PA. It will also define social networks and how the different members of an adolescent's social network are involved in general adolescent development, adolescent sex education, and adolescent monitoring. Finally, network analysis and how social networks have been used in lay health advisor interventions will be discussed.

2.1 EPIDEMIOLOGY OF SEXUAL BEHAVIORS AND SEXUAL HEALTH OUTCOMES AMONG AFRICAN AMERICAN ADOLESCENTS

2.1.1 Adolescent Sexual Health in the United States

In the United States 48% of all high school adolescents age 15-18 have had sex (CDC, 2008). When broken down by grade, 33% of all 9th graders, 44% of all 10th graders, 56% of all 11th graders, and 65% of all 12th graders have had sex. Nationwide, 35% of 9th-12th graders are

currently sexually active. Rates vary by age, gender and race. Rates of sexual activity increase with age for white, Hispanic, and African American youth. According to the Youth Risk Behavior Surveillance Survey (YRBS) in 2007 white males were just as likely to have ever had sex as white females; however African American and Hispanic males were more likely than African American and Hispanic females to have ever had sex. In 2007 a greater percentage of African American youth had ever had sex; 66.5% of African American youth had ever had sex compared to 52% of Hispanic youth and 43.7% of white youth (CDC, 2008).

Among 15-19 year olds in 2006 there were 63.7 births per 1,000 African American women compared to 26.6 births per 1,000 white women (Hamilton, Martin, & Ventura, 2007). Approximately 19 million new sexually transmitted infections occur each year (CDC, 2007). Almost half of these new cases occur in young people age 15-24 (Weinstock H, 2004). The rates of the three most frequently reported STIs, Chlamydia, gonorrhea, and syphilis, have increased since 2005 (CDC, 2007). Chlamydia, the most commonly reported STI, disproportionately affects African American females. In 2006 rates of reported Chlamydia among African American women were more than seven times higher than white women and double the rate of Hispanic women (CDC, 2007). Rates of gonorrhea have increased over the past years to 120.9 cases per 100,000 population (CDC, 2007). Rates of syphilis have also increased from 2.9 cases per 100,000 population to 3.3 cases per 100,000 population (CDC, 2007). African Americans bear the burden of HIV/AIDS; males account for 44% of new diagnoses and females account for 66% of new diagnoses (National Center for Health Statistics, 2007).

2.1.1.1 African American Adolescent Sexual Behavior and Health

African American youth are more likely to have had sexual intercourse before age 13 compared to Hispanic and white peers, and to have had four or more sexual partners in their lifetime (CDC,

2008). African American males are more likely to have used a condom at last intercourse than their Hispanic or white peers however, only 9% of African American adolescents reported using non-condom birth control at last sexual intercourse compared to 20% of white adolescents (CDC, 2008).

Compared to other ethnic groups, African Americans experience more adverse sexual health outcomes (CDC, 2008). African American adolescents initiate sex about one year earlier than their peers from all other ethnic groups meaning that they are more likely to have more lifetime sexual partners, therefore putting them at greater risk for unplanned pregnancy and STIs (Upchurch, Levy-Storms, Sucoff, & Aneshensel, 1998). The major adolescent sexual outcomes of concern are teen pregnancy and sexually transmitted infections (STIs). Teen pregnancy affects one million adolescent females aged 15 to 19 each year. African American female adolescents have higher birth rates compared to white female adolescents. National rates of teen pregnancy for African Americans are more than twice as much (63.7 per 1000) as those for whites (26.6 per 1000) (Hamilton et al., 2007). Of the 19 million STIs each year, half are among 15 to 24 year olds who represent only 25% of the sexually active population (CDC, 2007). STIs disproportionately affect African American youth as well. Annual incidence rates for each of the eight major STIs are five to thirty times higher among African Americans than their peers (CDC, 2007; Hunte, Bangs, & Thompson, 2002). Sixty percent of HIV cases among youth aged 25 and under are in African Americans (CDC, 2008; Upchurch et al., 1998). The high rates of STIs and teen pregnancy among African Americans are causes for concern.

2.1.2 Adolescent Sexual Health in Allegheny County, Pennsylvania

African American youth in Allegheny County, Pennsylvania experience higher rates of STIs and teen pregnancy compared to their peers. African American females (ages 15-24) have the highest rate of Chlamydia and gonorrhea compared to other racial groups in Allegheny County (Hunte et al., 2002). Between 1996 and 2000, African American females had 22 times the rate of Chlamydia, 46 times the rate of gonorrhea of white youth in Allegheny County and African American males had 56 times the rate of Chlamydia compared to white males (Hunte et al., 2002). When considering these high rates of STIs and the national rates of adolescent sexual activity it is clear that something must be done to increase responsible sexual behaviors that decrease adverse sexual health outcomes in this population. In order to understand why African Americans experience the most adverse sexual health outcomes social influences and people who influence their behavior must be examined.

2.2   SOCIAL NETWORK BACKGROUND

Adolescents receive messages about sex from many different sources. Parents are children's first sexual health educators; however families do not exist in a vacuum. Families exist within communities, each with its own unique characteristics. There is a small body of literature that has demonstrated that adults within adolescents' social networks influence adolescent sexual development (Aronowitz et al., 2006; Walker et al., 2008). This section examines how social networks influences adolescent development.

2.2.1 Adolescent Social Networks

Adolescents are influenced by the adults within their parents' social networks whom they see regularly. A person's social network is made up of the people that an individual interacts with and has relationships with in his or her life (Heaney & Israel, 2002). It is helpful to think of the different levels of a person's social network as a set of concentric circles which emanate out from the individual. Those people with whom you have the closest relationships with are located in the circles closest to the center. Those with whom you have more distant relationships fall in the outer circles. Figure 1 shows an example of the adults that comprise an adolescent's social network.
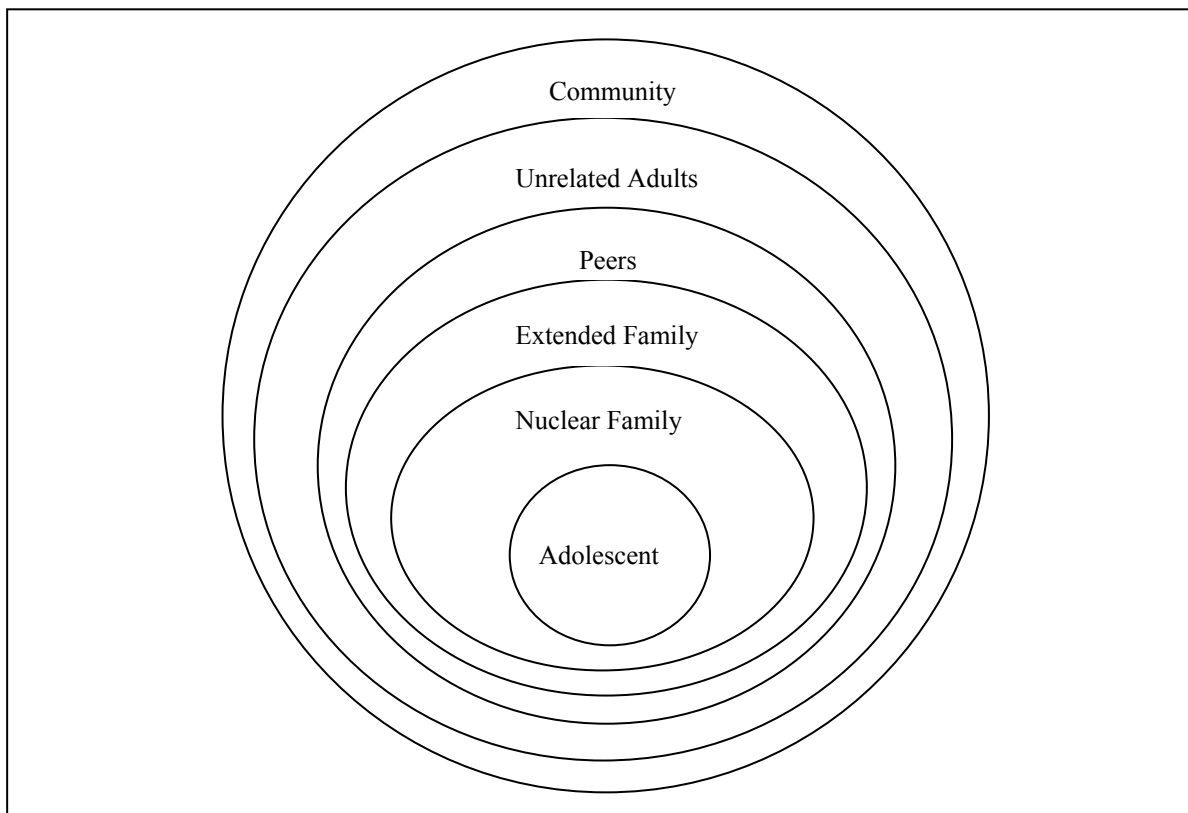

Figure 1: Adolescent Social Network

2.2.2 Role of Social Networks in General Adolescent Development

Cochran and Brassard (1979) developed a framework to measure the direct and indirect influence that parent social networks have on child development and well-being. They proposed that adult social networks can provide various resources to children including social stimulation, additional support, adult role models, and opportunities to interact with non-parent adults. Parents' social networks can also help them to be better parents by providing emotional and material support and additional examples and sanctions for parenting behavior. Exposure to many different types of adult interaction is beneficial to both the child and parent. Cochran and Brassard (1979) posited that children who have parents with heterogeneous social networks will report greater well-being. Parents with heterogeneous social networks will have multiple examples of parenting techniques from which they can choose the appropriate techniques for their family.

Marshall, Noonan, McCartney, Marx, and Keefe (2001) used the Cochran and Brassard framework in a study of urban neighborhoods and found that parents with heterogeneous social networks were more likely to have well adjusted children and to be more competent and responsive parents. They also found that African American families are more likely to socialize with extended family members than friends, which is consistent with results from other studies, (Benson, Mangen, & Williams, 1986; Marshall, Noonan, McCartney, Marx, & Keefe, 2001). While the Cochran and Brassard framework has shown the importance of parental social networks for the well-being of children and the capacity of parents in general, it does not address the role that social networks can play in sex education and monitoring of adolescents.

Little research has explored the influence of parent social networks on adolescent sexual education and parental monitoring. Upchurch, Aneshensel, Sucoff, and Levy-Storms (1999)

examined the impact that neighborhoods have on sexual activity of adolescents by analyzing data from a longitudinal survey of Los Angeles youth, ages 12-17. Their definition of a neighborhood did include social networks and social contexts, but focused on the structural design of the neighborhoods rather than on the relationships between community members. Since their definition of a neighborhood was based on socioeconomic status (SES), geographic boundaries, and ethnicity, they proposed that variation in age of first sex, after SES and racial composition were controlled for, was due to the quality of social networks within the neighborhood. The study examined how parent-youth relationships impact adolescent behavior and found a strong correlation between close mother-daughter relationships and delayed sexual initiation.

Aronowitz, Rennells, and Todd (2006) explored how social support systems influence sexual activity and monitoring of adolescents in their study of urban African American adolescents and their mothers. Data collected through a focus group methodology revealed that mothers often disagree with the parenting styles of their daughters' friends' parents. If they feel that other parents do not share their views or behavior they will not allow their daughters to go to their homes, but will instead invite the friend to their house. Differences in parenting style and standards of behavior are often one of the biggest issues parents face while trying to monitor their adolescents' whereabouts and sexual activity. Mothers also reported that they work together to monitor not only their own children but all neighborhood children by making sure all activities are supervised, taking adolescents home, and letting other parents know where their adolescent is and what they are doing. The adolescent girls in this study were often annoyed at the involvement of nosey aunts and neighbors who let parents know if they see questionable behavior. Aronowitz, Rennells, and Todd (2006) recognized, "a type of unwritten agreement within the community (i.e. everyone's mom and sisters) that helped with protecting youth from unwanted exposures" (p. 120). The community is an environment in which to talk about

sexuality and as Aronowitz, Rennells, and Todd (2006) recommend, the community must be a part of any intervention targeted at impacting adolescent sex education.

Neighborhoods play a significant role in the development of adolescents. Many studies have shown how neighborhood structural components, physical layout, amount of violence, and perceived level of safety influence inhabitants, specifically adolescents (Kuo, Voorhees, Haythornthwaite, & Young, 2007; Leventhal & Brooks-Gunn, 2000; Stevenson, 1998; Walker et al., 2008). Participation by community members in the supervision and guidance of adolescents have been shown to delay sexual activity (Walker et al., 2008).

Gender may also affect the number of influential social relationships between unrelated adults and adolescents (Blythe, Hill, & Thiel, 1982; Scales & Gibbons, 1996). In a study by Blythe, Hill, and Thiel (1982) adolescent girls were more likely to list non-parent adults as a part of their social networks than adolescent boys. Seventy five percent of the adolescent girls in that study identified at least one unrelated adult as an important person in their lives as compared to 60% of adolescent boys. Adolescent girls also report greater emotional intimacy with non-parent adults than adolescent boys. Given that African American adolescents prefer seeking support from extended family members more than unrelated adults this is an important fact to remember for youth (Benson et al., 1986; Marshall et al., 2001).

Adolescents with social support from adult kin are less likely to experience abuse, neglect, anxiety, and problem behavior (Garbarino, 1976; McLoyd, Jayaratne, Ceballo, & Borquez, 1994; Taylor, Casten, & Flickinger, 1993). Further, African American single-parent, working-class homes with social support from adult kin were more likely to employ an authoritative parenting style, including firm supervision, democratic decision making, and acceptance, which are positively associated with well adjusted adolescents (Steinberg, 1990; Taylor et al., 1993). In a study with African American adolescents in a northeastern public high

school, Taylor (1996) found that the more adolescents perceive social support of their family from adult kin and the more organized they feel their home is, the less they are involved in problem behavior and the more they report self-reliance and receive higher grades. Adolescents who perceive social support from adult kin are also less likely to report psychological distress. These results are from an African American, urban, working-class population and may not be generalizable to other populations.

Neighborhood characteristics have been linked to adolescent mental health and adjustment. In a study by Stevenson (1998) adolescents who lived in highly supportive and involved neighborhoods were less likely to be depressed. Many studies point out that psychological approaches will be more successful if they take the larger community into account when designing programs instead of focusing on individual level change (Stevenson, 1998; Tabi, 2002). This is consistent with Bandura's (1986) social learning theory, which emphasizes intervention at individual and community levels for behavior change.

Neighborhood structure and geographic characteristics may play a part in the frequency of contact between adolescents and extra-familial adults. In a study by Garbarino, Burston, Raber, Russell, and Crouter (1978) urban adolescents saw extra-familial adults whom they considered important more frequently than did adolescents in rural or suburban neighborhoods. For African Americans, family structure also influences the way adolescents relate to non-parent adults. In a study that looked at kinship support among African American working class adolescents in grades 9-12, adolescents from single-parent households listed a greater number of kin in their social networks than adolescents from two-parent homes (Taylor et al., 1993). Youth from single-parent, low-income households are more likely to engage in risky behaviors; however, the role that unrelated adults play in decreasing those risks has yet to be appropriately examined (Scales & Gibbons, 1996).

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This paper will focus on sex education and monitoring because these are the two areas that have been most consistently shown to affect adolescent sexual health behaviors (Huebner & Howell, 2003; Hutchinson & Cooney, 1998; Luster & Small, 1994; Rodgers, 1999). The following sections will describe the roles each of the major spheres of influence: parents, extended family, unrelated adults, and community members, play both in sex education and monitoring of adolescents.

2.2.3   Social Network Influences on Sex Education

2.2.3.1 Parents

Parents are children's first sexual health educators. Certain parent practices like communicating, monitoring, supervising, and family cohesion support reduced sexual engagement (Maccoby & Martin, 1983 ; Rossi & Rossi, 1980). Studies have shown that involvement from parents and a close parent-adolescent relationship can delay sexual initiation and reduce youth's involvement in risky sexual behavior (Aronowitz et al., 2006; Hovell et al., 1994; Walker et al., 2008). In order to understand how parents and families influence adolescent sexual behavior it is important to first understand how they influence overall development.

Parents provide examples of intimate relationships and sexual conduct (Hovell et al., 1994). It is natural for adolescents to look to their parents for guidance about behavior and social norms, but little has been done to understand how other adults in parents' social networks influence the development and sexual activity of adolescents.

2.2.3.2 Extended Family Members

Extended family members who are positively involved in an adolescent's life can serve as protective agent for that adolescent (Scales & Gibbons, 1996). Extended family members may include grandparents, aunts, uncles, and older cousins (Blythe et al., 1982). Research studies show that families influence adolescent development on multiple levels (Maccoby & Martin, 1983 ; Rossi & Rossi, 1980; Upchurch, Aneshensel, Sucoff, & Levy-Storms, 1999). Families are able to influence children throughout their development through social learning, role modeling, social control, monitoring and supervision (Maccoby & Martin, 1983 ; Rossi & Rossi, 1980).

2.2.3.3 Unrelated Adults

Similar to extended family members, unrelated adults that have a positive relationship with an adolescent can serve as a protective agent for that adolescent and also increase the positive impact that a parent has on the adolescent (Scales & Gibbons, 1996). Unrelated adults can include teachers, clergy members, neighbors, coaches, and mentors (Blythe et al., 1982). Positive relationships with unrelated adults have the potential to help guide adolescents as they develop and mature, but little research has been done on how unrelated adults impact adolescent sexual development specifically (Conrad & Hedin, 1991; Feldman & Elliot, 1990; Garbarino, Dubrow, Kostelny, & Pardo, 1992; Werner & Smith, 1982; Wynn et al., 1988). Further, unrelated adults are rarely included in adolescent intervention design (Scales & Gibbons, 1996).

2.2.3.4 Community Members

As has been shown for extended family members and unrelated adults, community members who have positive relationships with adolescents are able to guide adolescents as they develop but very little research has been done on how community members serve as sex educators for

adolescents. They are also rarely included in adolescent intervention design (Conrad & Hedin, 1991; Feldman & Elliot, 1990; Garbarino et al., 1992; Scales & Gibbons, 1996; Werner & Smith, 1982; Wynn et al., 1988). A review by Scales and Gibbons (1996) found that the literature on how extra-familial adults impact adolescent development is sparse, which led them to emphasize the "need for further empirical assessment of how those positive relationships with adults, particularly relationships with non-parental adults, act to promote young adolescents' optimal development and reduce the likelihood of their engaging in risky behaviors" (p. 367).

2.2.4 Social Network Influences on Monitoring Adolescent Behavior

2.2.4.1 Parents

Parents serve as adolescents' main monitors. Studies have shown that levels of high parental monitoring are linked to delay of first intercourse, fewer lifetime partners, and greater use of contraception (Capaldi, Crosby, & Stoolmiller, 1996; Danzinger, 1995; Ku, Sonenstein, & Pleck, 1993; Luster & Small, 1994; Meschke, Bartholomae, & Zentall, 2000; Miller, Forehand, & Kotchik, 1999; Rodgers, 1999). Studies have shown that this is true for African American youth as well (Hogan & Kitagawa, 1985; Miller et al., 1999). Although there is a wealth of knowledge about how parent monitoring practices influence adolescent sexual behavior, relatively few studies have examined the role that non-parent adults play in adolescent development.

2.2.4.2 Extended Family Members

Many times extended family members influence adolescent behavior and participate in monitoring, supervision, role modeling, and socialization (Taylor et al., 1993). Kinship networks and social support can enhance the impact parents have on adolescents (Taylor, 1996; Taylor et

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al., 1993). Positive health practices related to diet, exercise, safety, and sexual health have been positively associated with strong social support from family and friends (Boyer, Tschann, & Shafer, 1999).

2.2.4.3 Unrelated Adults

Few studies have looked at the way unrelated adults discipline and monitor adolescents. A neighbor has great potential to assist parents in the difficult task of supervising adolescents. A study by Korbin and Coulter (1997) used ethnographic interviews to understand neighborhood dynamics. They interviewed people from a variety of ethnic and economic backgrounds and with varying rates of child maltreatment in Cleveland, Ohio. Many adults thought the neighborhoods and their inhabitants were very different from neighborhoods during their own childhoods. Residents felt that when they were young any adult in the community had the right to discipline and monitor them, but that now involvement from unrelated adults was unacceptable and resulted in negative consequences.

Most of the respondents felt that when they were growing up any adult had the right to punish them for misbehaving and would certainly tell their parents, who upon hearing of the misbehavior would be grateful to the adult for intervening. Parents felt that nowadays they did not have permission to discipline other people's children or even to point out misbehavior to other parents. They reported that parents will often take their own child's side and either do not believe an outsider's account of the situation or make excuses for their child.

Parents also feared verbal and physical retaliation from both youth and parents if they intervened in adolescents' lives. Examples of verbal retaliation included swearing, threats of lawsuits, and telling them that they had no right to interfere because they are not the parent. Examples of physical retaliation included being put on a "hit list," arson, and home vandalism.

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Even if adults want to help or guide a child, the sense of community responsibility for discipline has changed into a hostile environment in which fear outweighs the benefits of correcting an adolescent. In contrast, adults still thought that if they saw a child in need, for example lost or hurt, they would have a responsibility to help that child and notify caregivers (Korbin & Coulton, 1997).

2.2.4.4 Community Members

Few studies have examined how community members monitor adolescent activity. Some studies suggest that the loss of involvement in one's community and the members of the community has led to a decrease of the involvement of community members in the lives of youth (Bould, 2003; Coleman, 1987). A number of hypotheses exist regarding why a sense of community monitoring has changed. Parents' sentiments about the loss of the community's influence on adolescents are not unfounded; they reflect the trend of more private neighborhoods in which people socialize less than they used to (Bould, 2003; Coleman, 1987). Another hypothesis for why community members are no longer permitted to monitor the activity of adolescents with whom they do not have a relationship is because adolescents have less respect for adults in general. In a study by Walker, Rose, Squire, and Koo (2008) parents cited "disrespect" as a reason why monitoring and disciplining children in the community is harder now than it was when they were growing up.

The next section discusses network analysis and how it has been used in public health to describe the ways members of a social network can influence health.

2.3   NETWORK ANALYSIS

Network analysis is a relatively new science in public health but it is gaining momentum as a way to understand relationships between individual people and groups of people and how those relationships relate to health. Luke and Harris (2007) describe network analysis as "an approach to research that is uniquely suited to describing, exploring, and understanding structural and relational aspects of health" (p.69).

The idea of mapping social networks dates back to the 1920s when scholars started becoming interested in how they could link large populations of people with only a handful of connections. Early work on social network analysis consisted of publications by educational psychologists that explained influence, interaction, and companionship as variables of social ties (Freeman, 1996). Psychiatrist Jacob L. Moreno was the first to develop a visual representation of social networks by representing people as dots connected by lines that represented their interpersonal relationships, which he called a "sociogram" (Moreno, 1934). The "sociogram" was the first specific analytic tool of its kind and was influential in establishing social network analysis as a unique science (Wasserman & Faust, 1994). Various fields such as anthropology, sociology, and mathematics have contributed to the development of theories and methodological tools that make up social network analysis today (Barnes, 1954; Harary, Norman, & Cartwright, 1965; White, 1963).

Social network analysis has traditionally been used in public health to study communicable diseases, specifically HIV/AIDS, and other behaviors like smoking (Luke & Harris, 2007). In their review of social network analysis in public health Luke and Harris (2007) identify three categories of public health problems; transmission networks, social networks, and organizational networks. This paper focuses on social networks as a vehicle to facilitate

information transmission. Information transmission networks have been used in public health to model diffusion of messages in family planning (Boulay, Storey, & Sood, 2002; Mohammed, 2001; Stoenbenau & Valente, 2003), reproductive health campaigns (Entwisle et al., 1996; Valente & Saba, 2001), and HIV education and prevention messages (Broadhead, Heckathorn, Weakliem, Anthony, & Madray, 1998; Mohammed, 2001).

Understanding how information is transmitted in a community is central to the success of public health interventions, all of which seek to transfer some type of knowledge to a population of interest. Despite the fact that most interventions rely on the exchange of information between educators and participants, very little research has been done on the dynamics of information exchange within a community. If messages are not tailored to a population in a way that facilitates open transmission, those messages will likely be lost in translation. As Valente and Fosados (2006) conclude, "who delivers the message, and in what interpersonal context may be just as, if not more important than the message itself, [and] may result in better, more relevant, and perhaps more effective programs" (p.22). This suggests that community members themselves, who are totally immersed in the environment in which the intervention is being delivered, would be an appropriate pathway through which to communicate health messages.

The area of social networks within network analysis focuses on how relationships act to promote and influence behavior, both positively and negatively (Luke & Harris, 2007). Research on social networks in public health has focused primarily on how social support influences mental health, physical health, and behavioral health (Berkman, 1984; Kessler, Prince, & Wortman, 1985). Many studies have found that large social networks have a positive effect on health. Studies have shown that people with large social networks live longer (House, Robbins, & Metzner, 1982), are less likely to be homeless (Bassuk et al., 1997), are more successful in alcohol treatment (Barber & Crisp, 1995), less likely to be depressed (Goldberg, Van Natta, &

Comstock, 1985; Lin, 1999), and less likely to have high blood pressure (Bland, Krogh, Winkelstein, & Trevisan, 1991).

The next section reviews how social networks have been used in health interventions. It will also highlight the practical ways that social networks can be utilized to spread health information through lay health advisors.

2.4   RELEVANCE OF LHA INTERVENTIONS

Lay health advisor (LHA) interventions rely on social networks within a community and are commonly used in the field of public health to disseminate health information. LHAs, also known as community health workers or community health advisors, have been widely used in public health interventions to address health issues in community settings (Jackson & Parks, 1997; U.S. Department of Health and Human Services, 1994a, 1994b). Lay health advisors are community members identified by their peers to be "natural helpers." This means that people naturally go to them for advice and help and that they enjoy helping others with their problems. Two advantages of training LHAs to distribute health information in their community are that first, community members will be more likely to understand and accept information when it is delivered by someone they already know and trust (Levin, Katz, & Holt, 1976); and second, that the LHAs themselves receive recognition for their role in the community, which increases their self-confidence and self-efficacy around helping others (Jackson & Parks, 1997).

The LHA intervention study design is suited to the African American community because studies have shown that African Americans regularly turn to others within their community for information and help (Chatters, Taylor, & Jackson, 1985; Frate, Whitehead, & Johnson, 1983;

Salber, 1981). The LHA model can also help to empower underserved communities and serve as a springboard for other areas of community development (Rody, 1988; Twumasi, 1981).

2.5   SUMMARY

Extended family and social networks have been shown to enhance the effect parents have on adolescents (Taylor, 1996; Taylor et al., 1993). Extended family and unrelated adults who have positive relationships with adolescents serve as a protective agent for those adolescents (Scales & Gibbons, 1996). Compared to adolescents of other ethnic groups, African American adolescents prefer seeking support from extended family more than unrelated adults (Benson et al., 1986; Marshall et al., 2001). Adolescent females have more relationships with non-parent adults than adolescent males (Blythe et al., 1982). Increased perceived social support and family organization is associated with decreased problem and risk behavior among adolescents (Taylor, 1996).

Support from extended family and unrelated adults has been shown to have positive effects on adolescents' health in general including diet, exercise, and safety (Boyer et al., 1999) but little research has been done on how non-parent adults impact adolescent sexual development specifically (Conrad & Hedin, 1991; Garbarino et al., 1992; Werner & Smith, 1982; Wynn et al., 1988). A lot of literature on the impact that parents have on adolescent sexual health exists but there is not as much about unrelated adults. Further analysis of parental social networks is needed to understand how they influence adolescent sexual behavior and monitoring and how this in turn can influence adolescent sexual behavior. A review of the literature shows plenty of information on how parents can positively influence adolescent sexual behavior through various

techniques including monitoring, supervision, and family cohesion. Even though parents report that non-parent adults are involved in similar activities, very few studies have examined how non-parent adults can influence adolescent sexual behavior (Conrad & Hedin, 1991; Taylor et al., 1993; Werner & Smith, 1982).

3.0   TEACH YOUR CHILDREN WELL

This section of the paper describes the results of focus groups from the Teach Your Children Well Study (TYCW). An inductive analysis of the focus groups revealed that non-parents adults, including extended family members, unrelated adults, and community members, participate in adolescent sex education and monitoring.

3.1   STUDY BACKGROUND

The Teach Your Children Well (TYCW) study was designed to collect data to inform a web-based multi-media intervention aimed at increasing parent-adolescent communication about sex and decreasing sexually transmitted infections (STI) and teen pregnancy among African Americans in Allegheny County, Pennsylvania. The intervention intends to decrease adolescent risky behavior by improving parent skills for parental monitoring of adolescent behavior and parent-adolescent communication about sex. TYCW has a three-part study design. Phase I of the study was a formative research phase involving focus group discussions. Phases II and III are ongoing and include the development and testing of the intervention.

3.2   STUDY DESIGN

The data for this paper come from the qualitative portion of Phase I. The Aims of Phase I are:

1) To describe the process, content, barriers, and facilitators of parent-provided sex education in African American families from the perspective of parents and adolescents;

2) To obtain recommendations for the intervention content and format from both parents and adolescents; and

3) To identify culturally-specific factors that affect parent-provided sex education in African American families.

The focus group guide was based on theoretical concepts from the Integrative Conceptual Model developed by Fishbein, Bandura, Triandis, Kanfer, Becker, and Middlestadt (1991). The focus group guide assessed eight of the ten concepts from the model: 1) skill or ability to change a behavior, 2) absence of environmental barriers to behavior change, 3) perceived self-efficacy, 4) perceived social norms, 5) perceived net benefits, 6) emotional response balance, 7) knowledge, and 8) beliefs (Fishbein et al., 1991).

The focus group guide covered four thematic areas, 1) parental engagement in communication about sex and supervision of adolescent social and dating activities, 2) process and content of communication about sex, 3) culturally specific factors that affect parent-provided sex education and supervision in African American families, and 4) recommendations for the intervention format and content.

Focus groups were planned to be conducted until thematic saturation was reached. The focus groups were moderated by African American professional moderators, lasted about 2.5 hours, and included a meal. Parents who participated received a $50 gift card and teens who participated received a $25 gift card. Families in which both parents participated received an

additional $25 gift card in order to encourage participation by fathers, a group shown to have low participation rates in family based studies (Corbie-Smith, Thomas, Williams, & Moody-Ayers, 1999). Upon arrival families checked in, completed consent forms, and completed a questionnaire, after which participants split up into their respective groups (mother, father, son, or daughter).

3.3   STUDY POPULATION SETTING

Participating families were recruited from Allegheny County, Pennsylvania. African Americans make up 10.8% of the population in Allegheny County (Allegheny County Health Department, 2000). Furthermore, 31% of those African Americans live in poverty and 14% are unemployed (U.S. Census Bureau, 2000b). Only 8% of African Americans in Allegheny County have received a bachelor's degree. A large portion of the African American community in Allegheny County is young: 32% of the African American population in Allegheny County is under the age of 17 while only 11% is over the age of 65 (U.S. Census Bureau, 2000b). Also, 65% of African American families with children under 18 are headed by a single female (U.S. Census Bureau, 2000b) .

3.4   RECRUITMENT

To be included in the study participants had to self-identify as African American, have at least one parent or legal guardian and youth (age 15-17) pair agree to participate, and reside in Allegheny County, PA. In order to capture a representative sample of the African American

population in Allegheny County a variety of recruitment techniques were employed. Participants were recruited using a hospital-based research registry, posting flyers at community centers, libraries, and doctors' offices, advertising on websites and broadcast voicemail messages, local newspaper advertisements, presentations at local community groups and youth programs, and snowball sampling. People who were interested in participating called the study office and were screened for eligibility. If they qualified they were mailed a consent packet, once the consent packet was returned they were scheduled for a study session.

3.5   DATA ANALYSIS

All focus groups were audio taped, transcribed, and coded in Atlas.Ti, a computer program for managing qualitative data. Transcripts were coded using a grounded theory approach to content analysis and a constant comparison method (Strauss & Corbin, 1998). This analysis focused only on the Mother and Father transcripts for several reasons. First, their discussions of social networks were richer than the youth transcripts, second issues around social networks did not emerge to a significant degree in the youth discussions, and third because the youth could not compare how things were in the past as parents were able to. We used a semi-structured coding template to identify themes related to three main concepts:

1) Construction of the social networks that provide sex education or assist with monitoring adolescents' social and dating behaviors;

2) The content of sex education provided by members of an adolescent's social network or by parents to youth within their children's peer network; and

3) How social networks function to monitor children's social and dating activities.

The coding process followed a structured plan. The transcripts were inductively coded by reading through them line by line and identifying new themes within participant comments, referred to as open coding. The prevalence of themes across individual focus groups, gender, and participant type was compared to identify those themes that were most commonly endorsed. Two researchers then worked together to conduct axial coding, a collaborative process to place the codes into a hierarchical structure that resulted in the development of a codebook. The codebook was then used by two researchers who independently applied the codes to each transcript. Any discrepancies between the two researchers were brought to the principal investigator and were resolved via consensus.

4.0   RESULTS

Between December, 2007 and March, 2008, twenty focus groups were held at Magee Womens Hospital in Pittsburgh, PA. Focus groups were stratified by gender and family member type (mother, father, son, or daughter). There were five mothers groups, five fathers groups, four daughter groups, and four son groups. We initially pilot tested the question guide in mixed-gender focus groups involving parents and adolescents. Data from these mixed gender groups are included in the current analysis. There were only four single gender youth groups because the final focus group was also mixed gender involving one adolescent male and ten adolescent females. Data from this group is also included.

4.1   PARTICIPANT DEMOGRAPHICS

Tables 1 and 2 compare the adult and youth study populations to citizens of Allegheny County and African Americans in Allegheny County respectively. The African American parents in our sample were more likely to be married and have completed college than other African Americans in Allegheny County (U.S. Census Bureau, 2000a). As a whole, the adult study population was more highly educated and more likely to be married than the majority of African Americans in Allegheny County. Almost 40% of the study population had completed college compared to only 8% of African Americans in Allegheny County and about half of the study population was

married compared to one third of African Americans in the county (Bangs, Anthou, Hughes, & Shorter, 2004; U.S. Census Bureau, 2000b). Our sample was also less likely to have never been married compared to the majority of African Americans in Allegheny County. These types of characteristics imply that overall our study population had more resources than the majority of African Americans in the county. The implications for our results are discussed in the limitations section.

The youth in our sample were representative of African American youth in Allegheny County within the context of sexual health. They were slightly more likely (2.7%) to have been pregnant compared to youth in Allegheny County (2.57%). Comparative data on sexual activity rates and STD rates are not currently available for African American adolescents in Allegheny County.

Table 1: TYCW Parent Focus Group Participant Characteristics

Parents (Persons ≥ 18)	Allegheny County, PA	African Americans in Allegheny County, PA	Study population
Number of people	1,000,490	108,135	77
% African American	10.8%		97.4%
% Female	53.7%	56.9%	71%
% Male	46.3%	43.1%	27%
Mean Age			41.8 ± 8.6 Range: 22-61
Highest Level of Education (adults over age 25)			
Less than high school degree	13.7%	21%	2.7%
High school/GED	33.9%	34%	21.6%
Some college, no degree	17.0%	23%	36.5%
College	35.5%	8% (BA only)	39.2%
Job Status			
Employed (part or full time)	61.1%	56.2% (males) 50.3% (females) (full-time)	61.1% (total) 78.9% (males) 52.7% (females)
Unemployed	5.4%	15% (males) 13% (females)	18.1%
Disability	15.8%		9.7%
Retired			2.8%
Other			8.3%
Marital Status			
Married	51.1%	39% (male) 26% (female)	48.7% (total) 71.4% (males) 40.0% (females)
Widowed	9.3%		1.3%
Divorced	8.4%		13.2%
Separated	2.0%		2.6%
Never Married	29.1%	43% (male) 43% (female)	34.2% (total) 19.0% (males) 40.0% (females)

Table 2: TYCW Adolescent Focus Group Participant Characteristics

Adolescents (Ages15-17)	Allegheny County, PA	African Americans in Allegheny County, PA	Study Population
Number of people	48,022	7,521	63
% African American	15.7%		97%
% Female	48.8%	49.9%	57%
% Male	51.2%	50.1%	43%
Mean Age			16.3 ± 0.96 Range: 15-17
Has had sexual intercourse			45.2%
Has been pregnant (among females)	2.54%	8.67%	2.7%
Has had an STD			4.8%

4.2   THE SOCIAL NETWORKS INVOLVED IN SEX EDUCATION AND MONITORING

Although the focus group guide did not explicitly ask about parent networks, mothers and fathers across focus groups discussed how they interact with their children's friends and how they rely on other adults within their own and their children's social networks to help monitor youth's behavior and informally discuss sex education and appropriate sexual behavior. Three major themes arose from the grounded theory analysis:

1) Parents operate within social networks that are defined by their children;

2) Parents and non-parent adults informally discuss expected social and sexual behavior and values related to dress and interaction between young men and women with their children's friends; and

3) Parents work together using what they call a "parent network" to monitor their children's dating and social activities.

Parents explained that the social networks that assist in sex education and monitoring are made up of extended family members and the parents and extended family of their children's friends. Parents get involved with adult members of their children's social networks and reciprocally serve as members of their children's friends' social networks. Parents reported feeling shared responsibility for all children in their social networks. Parents get to know their children's friends' families by default because they see them regularly and also because they want to know what kind of people their children are hanging out with. Mothers and fathers play a role in educating youth about sex in their social network and community, and have specific roles related to sex education.

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4.3 SEX EDUCATION PROVIDED BY SOCIAL NETWORKS

Within the context of sex education, parents discussed how siblings and extended family members, such as grandparents and cousins, are the main sex educators for their youth. Several examples were given of how an older sibling or cousin provided the majority of sex education when the adolescent or parent did not feel comfortable discussing sex. One father explained how he handled talking about puberty with his daughters:

> I was a single parent, I raised my four kids, I did everything. Books, like male, female thing[s] except when it came to their periods. I know nothing about that and my attitude is if there is a subject I know nothing about I got my mom and my sister to come in and talk to them about that.

Another father described learning about sex from his grandmother:

> My mom was always at work. I mean, but my grandmother was different. She told me anything and everything you wanna know! She'd say you need condoms, let me know, I'll get them for you.

Information may be provided directly by extended family members or through indirect learning through role modeling. Parents often use family members as examples of what not to do, for example a pregnant cousin or an uncle who has contracted HIV/AIDS. Parents also use peers within an adolescent's social network as positive and negative role models; for example, a young man who got a girl pregnant at 16 and how that changed his life or a young woman who waited until she was married to have kids.

Parents described unrelated adults as people who are not biologically related but have some established familiarity with the child or family, compared to community members who are totally unfamiliar with the child at the time they discuss appropriate sexual behavior with that child. Unrelated adults and community members informally discuss appropriate sexual behavior

with adolescents, discussed further later. See Appendix A for a visual representation of the roles that the different spheres of social influence play as related to sex education.

It is important to note that parents felt that traditional sex education topics like anatomy, puberty, pregnancy, STIs, HIV/AIDS, and contraception should be discussed by parents and at school in health classes. Non-parent adults within an adolescent's social network are more likely to discuss non-traditional sex education topics, like healthy relationships, responsibility, appropriate dress, and appropriate behavior with the opposite sex than traditional sex education topics. One mother shared a story about discussing appropriate behavior with her son's friend:

> All of a sudden her arm went around his neck and I am sitting there like what is this all about. I went to her and said what are you doing? She said we're just friends I said well that is nice but young girls don't carry yourself out in public like that if you are friends just sit by him and talk to him like normal and then she said okay and we didn't have any more issues.

Another mother shared how she talks with her friend's son because his mother does not feel comfortable talking with him about sexual topics:

> I have a best friend who says, "Oh no my child would never do that" and her son introduced my son to everything. I told her a long time ago you got to stop it, I caught him coming out of an apartment building with a girl and they just looked too guilty. She doesn't know how to ask those questions so I ask them for her, I am not afraid.

In addition to discussing how adults within their children's social networks provide sex education, parents described how members of their children's social network serve as educators by modeling sexual behavior and outcomes. One father described how the experience of one of his son's friends affected his own:

> My son goes to an all boys' school and one of his best friends got a girl pregnant and they are 16. I think that woke my son up right there.

4.3.1 Gender-Specific Roles for Parents as Educators of Children within their Sphere of Influence

4.3.1.1 Mother's Role

Mothers reported acting as confidantes for their children's friends who may not have a close relationship with their own mothers or may not have a mother figure in their lives. As one mother described,

> Just to try to help that child, when someone comes to you and confides in you something. Maybe that girl doesn't have that relationship with her mother, to tell her mother.

Mothers struggle over whether or not to disclose this information to the youth's parents. There was disagreement across the mothers' groups over whether or not it is an adult's responsibility to tell the youth's parents if they are having sex. Some mothers felt that if you did tell you were betraying the trust of the youth, therefore making it less likely that the youth would come to them again for guidance or advice. Other mothers felt that parents have a right to know what their child is doing and that the other adults must disclose anything that their child tells them in confidence for their own safety. As one mother said,

> …you should also tell her, listen you need to build that relationship with your mother, you need to let your mother know this happened to me so they can have that communication but I would also tell her I am going to give you a certain amount of time to get that done because a friend to a friend, she needs to know.

4.3.1.2 Father's Role

Fathers advise about and model expected social and sexual behaviors for their children's friends in informal settings. The fathers emphasized the importance of good male role models in young people's lives recognizing that many young African American males may not have a good male role model in their lives. As one father said,

I think it's of vital importance, especially for us black men because there are so many young out there that don't have any male role models at all, especially the black boys that don't have a father figure in their life. It's so much more important for us to be able to talk to young men and talk to even the girls, be that male role model.

Another father said,

Parents, we have to be an example for our kids at a young age. Before they get to be 15. I have to treat my wife the way I want someone to treat my daughters…I think role modeling is very, very important.

Fathers bring up subjects spontaneously while hanging out with youth. One father described an occasion when he informally brought up what dating means with his son's friends:

We met the parents, we met the boys, and it was very uncomfortable for the young men because when they were sitting in the back of the car I was driving asking questions, very open, very honest, "So what do you guys think you're going to do this evening?" So we are very involved, not to the point where we are overbearing but we have defined what we think dating is.

Fathers also emphasized setting an example for how men should treat women by treating their own wives with respect. Fathers want to be the only "man" that their daughters need in their lives. They provide anything their daughters need so they do not go looking for attention or material things from other young men. As one father said,

They need to make sure someone treats you like I treat your mother and how you have been treated. And they need to have that, otherwise they don't have any self-respect of their own or someone to model after, they'll just go after any guy, oh okay this guy says he can do this. My dad does this, my dad takes me to the show, my dad takes me to Red Lobster. You ain't doing nothing special for me…Be a male role model so they don't listen to the fast talkers out there. Tell them you don't need this guy, anything you need mom and dad will get for you, new coat or new anything, because I love you.

4.4   SOCIAL NETWORKS' ROLE IN MONITORING ADOLESCENT SOCIAL AND

DATING BEHAVIORS

Within the context of monitoring, parents discussed how adults within an adolescent's social network participate in a variety of ways. Similar to sex education, parents and extended family members act as the primary monitors of an adolescent's whereabouts and dating activities. Unrelated adults assist parents by letting them know how their teen is behaving when they are not around and by working together to make sure that teens are properly supervised. Parents felt that the community used to be much more involved in monitoring youth than they are now. See Appendix B for a graphic representation of how the adults within an adolescent's social network function to monitor adolescents.

Adults employ specific techniques within the community to monitor and educate adolescents. The main techniques adults use to monitor their children's dating and social activities are getting to know their children's friends and their families, visiting homes of their children's friends and girlfriends or boyfriends, using technology to stay connected to other parents, and relying on other adults within the community to supervise and monitor their children's activities when they are unable to.

4.4.1   Then vs. Now

Parents felt that they have less support from the community now than parents did when they were growing up. As one parent described,

> And I think that shows some of the changes in, you know, in our culture and our neighborhoods from when I was a kid, anybody's mother could correct you.

4.4.2   Parent Networks

Parents use what they call a "parent network" to help keep track of where their adolescents are

and what they are doing. These quotes demonstrate how mothers say they work together.

> If she say she's going to such and such, I want to talk to her mom, make sure
> you're gonna be there.

> I kind of have a parent network where when my son and his friends are planning on doing
> something all the mothers have talked or the fathers have called back and forth so
> somebody is aware, going to see what movie, who is picking them up, who is taking them
> and they don't even know half of the time that we've already figured it out.

4.4.3   Getting to Know Children's Friends and Their Parents

Parents felt it was important to get to know the parents of their children's friends and girlfriends

or boyfriends. As demonstrated below, parents felt that their children would be more selective

about who they hang out with if they knew that their parents would want to meet them and get to

know their families:

> I am different; I want to meet his parents. If you want to date my daughter you
> can come to my house on Sunday, we can have dinner, I need to meet your
> mother, I need to meet your father, and then this date can happen.

> A lot of times when the child knows my mother is going to want to meet this
> person or she is going to want to meet their parents, it makes them a little more
> selective about who they want to keep company with.

4.4.4   Home Visits

Parents also visit the home of their children's friends, girlfriends or boyfriends in order to see

what the family is like. Parents felt that this was an important step in order to determine if they

had similar standards for behavior; for example are adolescents of the opposite sex allowed in a

room with the door closed? Parents also wanted to find out if they have similar parenting styles. The following quote from a mother illustrates how parents describe home visits:

> Well, first we would meet with the parents of the child and exchange information. For example, basically find out what goes on at their home…just to get a feel, exchange phone numbers, introduce each other on a first name basis would be nice as well, just to kind of break the ice to see who your child is actually involved with.

4.4.5 Technology

Another monitoring technique was using technology, specifically cell phones. Parents had rules for their youth to call to check in. They also used cell phones to communicate with other parents and their children's friends. One parent mentioned having phone numbers for all her teen's friends so that she could contact her daughter if she was not answering her phone for some reason. Parents also reported that other adults would call to let them know how their child was behaving. As one mother shared,

> Most of the time when my son date, wherever he is, I may not be there but someone we know will call and say, I saw your son over at such and such, he was doing okay. Or I saw your son at Subway with so and so he was acting the same way he would act as if he was with you.

4.4.6 Community Members

Parents rely on adults within the community to help monitor their children's activities when they are unable to. Many parents discussed the difficulty of working long or late hours and still providing sufficient supervision for their adolescents. Many parents felt that neighbors, extended family members, and other parents help to supervise their adolescents, provide support, and serve as additional adult role models. As one mother said,

I think it takes a group; my neighbor is great. He's 70 years old; he will come over and play basketball with my son, so I think that village effect is needed to monitor these kids.

Another mother said,

I work two jobs so we all go home together, so that's how I handle it, and if I'm not there their grandparents are there or their dad.

4.4.7 Challenges

Some of the challenges to the monitoring success of the parent networks are differences in parenting styles and lack of support from other parents. Parents thought that youth would purposefully go to the home of someone who had more lenient parents and would let them get away with more, as this quote from a mother illustrates:

Because there are so many parents that are lax that you find yourself to be the minority of the parent, because it's like...oh, "Well they don't care what she do, and we don't care what…" and I'm like well I care. I'm sorry, I care.

Parents also felt that it is difficult to monitor what their adolescents are doing when other parents are not as involved as they are, and they try to limit the amount of contact with children who have less involved parents. One mother said:

The pivotal thing is that all parents are on the same page. Like you said, some parents just don't care. Don't care what their kids do with who, where they're at, whoever comes in the house…anybody that wants to come over we meet their parents.

Another mother described what happened when her son got a new homecoming date at the last minute with whom she was not familiar:

…she seemed like a really nice girl but I didn't like her mom because her mom was like I am locking my door she is on the porch so you better hurry up and come get her. I am like no you don't do that don't you lock the door let her stay in the house. Then she couldn't even get back in after the date so I wound up having to take this child home with me and search for her mother and that was horrible. I had to stay up all night with my arm

around my son's neck so that him and her didn't end up doing nothing. So if you don't have help on both sides. I told the girl you all can't date.

Not only did parents feel that they did not have a lot of support from other adults in the community, but they also said that if they were to intervene when a young person was acting inappropriately, parents would be defensive, would side with their child, and would not believe that their child was misbehaving. One participant said that one parent told her, "My child didn't do that, no way!" Parents feared the response from both youth and their parents for interfering. These quotes from mothers illustrate how a parent might respond when another adult interfered in their child's life:

> Because when we were growing up, a sister…if somebody saw you acting up you got it, and nowadays it's like everybody's taking after their kids. It's like, "You better not touch my kid!" Well, your kid was wrong.

> You know, back in the day, if your kid acted a fool the whole community could handle that. Nowadays, "you better not say anything to my child."

Parents also reported that they were scared about verbal and physical retaliation from the youth themselves for commenting on their behavior. These quotes from fathers illustrate how youth might respond to an adult interfering in their behavior.

You mess around and get beat up.

They look at you like, "You invade my privacy."

5.0   DISCUSSION

As described by the parents in our study, the major spheres of influence in an adolescent's life include nuclear family, peers, extended family, unrelated adults, and community members. African American adults who fall within the spheres of extended family, unrelated adults, and community members act as sex educators and monitors for that adolescent. A parent's social network is defined by who her own child chooses to be friends with and date and their families. Parents of their children's friends or boyfriends/girlfriends will reciprocally serve as sex educators and monitors for their own children.

Similar to our findings, other studies that have examined social network influence on adolescent health related behaviors have found that individuals within an adolescent's nuclear family such as siblings, those in an extended familial network such as grandparents, aunts, and uncles, and unrelated adults are influential (Aronowitz, Rennells, & Todd, 2006). Other studies have also shown that the individuals who participate in African American sex education and monitoring are similar to those of the participants in this study (Korbin & Coulton, 1997). The few studies that have looked at social network influence on sexual behaviors found that extended family members and unrelated adults within the African American community help parents by monitoring adolescents' activities when parents are not around, which is consistent with our results (Aronowitz, Rennells, & Todd, 2006).

Studies have found that parents of youth from many different ethnic backgrounds feel they have less support now from unrelated members of their social networks than they used to when it comes to monitoring and guiding their children, which is also consistent with our findings (Korbin & Coulton, 1997). Our findings are strengthened by similarities to the findings of other studies.

Although other studies have concluded that non-parent adults influence adolescent development and can reduce adolescent risky behavior few studies have included non-parent adults in sexual health interventions with this population (Conrad & Hedin, 1991; Feldman & Elliot, 1990; Garbarino et al., 1992; Scales & Gibbons, 1996; Werner & Smith, 1982; Wynn et al., 1988). The current study is additional support for the inclusion of non-parent adults in sexual health interventions. Parents in our study described their children as seeking support from extended family members, like aunts, uncles, and cousins, which is consistent with other studies that found that African American youth prefer seeking support from extended family members more than unrelated adults (Benson et al., 1986; Marshall et al., 2001). The current study also clarifies the roles that non-parent adults play in sex education and monitoring and provides suggestions for how to include non-parent adults in intervention design.

The design of this study is strengthened by the use of focus group methodology. The use of African American moderators within the focus group sessions encouraged candid and honest responses from the participants. The fact that the discussion around how non-parent adults are involved in adolescents' lives primarily arose organically in the discussions demonstrates that parents feel they play an important role in the lives of other adolescents and that other adults play an important role in their own children's lives. The results from this study support the increasing awareness of the need to include non-parent adults in adolescent sexual health intervention

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design in order to understand both how non-parent adults influence sexual health and how their

involvement can be utilized to decrease risky sexual behavior.

6.0   LIMITATIONS

The main limitations are the issue of generalizability, self-selection bias, and social desirability bias. Since this sample was only from African Americans in Allegheny County the findings may not reflect perspectives of African Americans in other communities. However, finding similarities between the results of this study and other studies in the literature strengthens the generalizability of these results.

Self-selection bias comes from the fact that certain types of people would be more interested in participating in a focus group about this topic. It is possible that the parents who contacted the study staff are more likely to discuss sex and relationships openly with their adolescents. This type of study may be more attractive to parents who already think that sexual health is a topic that is important to discuss with adolescents. As reflected in the participant characteristics our participants were more educated and more likely to be married than the majority of African Americans in Allegheny County. Although participants were recruited using a variety of techniques, the goal of which was to capture a representative sample of African Americans in Allegheny County, as is the case in many research studies, those who decided to participate were more likely to have a higher SES and more resources than the majority of the population. Recruiting populations with few resources is always a challenge. A valuable next step for the research would be to find a way to engage African Americans from lower income neighborhoods in the research process.

Social desirability bias is inherent in all focus group discussions. This means that some themes may be endorsed by the group and participants who disagree with those themes may be hesitant to go against the group. Participants who may have different opinions may say what they feel the rest of the group or the research staff wants them to say. They also may not feel comfortable voicing an opinion that is opposite than the majority of the group. This is an effect common in the social sciences specifically around sensitive topics like sexual behavior. We did experience this because each focus group seemed to have its own theme. This may have been because dominant people in each group were setting the tone of the group and others did not want to disagree with them. Social desirability bias was controlled for by looking for themes that were consistent across focus groups, gender, and family member type. Issues that consistently arose in all groups would be less likely to be a result of a dominant participant. Again, our results are strengthened through consistency with results from other studies.

7.0   CONCLUSION

Adults in African American adolescents' social networks serve as sex educators and monitors of their social and dating activities. These non-parent adults include extended family members, unrelated adults, and community members. These adults are less likely to discuss formal sex education topics that are traditionally covered by parents and in school, like development and anatomy, and are more likely to discuss informal sex education topics, like partner selection and appropriate behavior and dress. They can also serve as educators by being both positive and negative examples of appropriate sexual and relationship behavior.

Parents feel that the community was much more involved in youth's lives when they were growing up than they are now. Involvement from unrelated adults was not only accepted it was expected from people in the community. Although they may not have appreciated this involvement at the time, as adults they wish they had more help from other adults.

Parents work together using a "parent network" to monitor their children's' dating and social behavior. By being involved in the lives and families of their children's friends and boyfriends or girlfriends, parents are better able to monitor what their child is doing and with whom. Parents recognize the role they play in the lives of their children's friends and the role their children's friends' parents play in their own children's lives. Parents often struggle when they do not feel they have equal support or involvement from other parents within this network. Some parents, who understand that other parents may have standards for behavior that are

different from their own, do not permit their children to go to other adolescent's homes in order to deter behavior they deem inappropriate.

One of the ways that the literature has shown social networks have been used to transfer information is through the use of lay health advisors. LHAs interact with the people within their natural social networks to engage people in discussion about health topics. LHAs can be used to promote healthy sexual health decisions and to encourage frequent and open communication about sex between parents and adolescents. An LHA intervention could be used with this population to disseminate information that promotes safe sex practices.

In order to reach adolescents and reduce risky sexual behavior, which lead to negative health outcomes like teen pregnancy and sexually transmitted infections, interventions should include all of the people who influence adolescent sexual behavior. Parents are not the only adults who influence adolescents, as demonstrated by the parents' comments and experiences in the TYCW focus groups. Extended family members and unrelated adults interact with youth within their social networks and have the potential to positively influence their decisions about sexual health. Adults within an adolescent's social network participate in monitoring that adolescent and informally discuss appropriate sexual behavior. African American sexual health interventions should consider involving non-parent adults within a youth's social network into study design.

All intervention designs that aim to change adolescent behavior by increasing the frequency and quality of parent-adolescent communication about sex should include skills and suggestions that are consistent with the different styles and techniques that mothers and fathers use. For example, because mothers described acting as confidantes for their children's friends, listening and personal ethics skills might be covered in an intervention with female community members. In order to address the disagreement between mothers over whether or not they should

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tell another child's mother what he or she shared with them in confidence future research could investigate the possible repercussions of adults disclosing information that a youth shared in confidence with that youth's parents. Since fathers role model and advise youth in informal settings, teachable moments might be covered in interventions with male community members. By showing fathers how they can use everyday situations to discuss sexual topics they may feel more comfortable bringing it up with their children and their children's friends.

Although the quotes from this study were made within the context of sexual health, many of them can be applied to different types of interventions for risk behavior. Interventions addressing additional adolescent risky behavior like alcohol use, drug use, or gang activity could involve non-parent adults and apply the lessons learned in this study. As illustrated by this quote from one of the fathers, adults within an adolescent's social network can positively influence adolescent development: "First of all there is an African proverb- It takes a village to raise a child- and I sincerely feel you must have other people involved, not just talking about sex but in life in general with your kids."

SOCIAL NETWORKS AND SEX EDUCATION

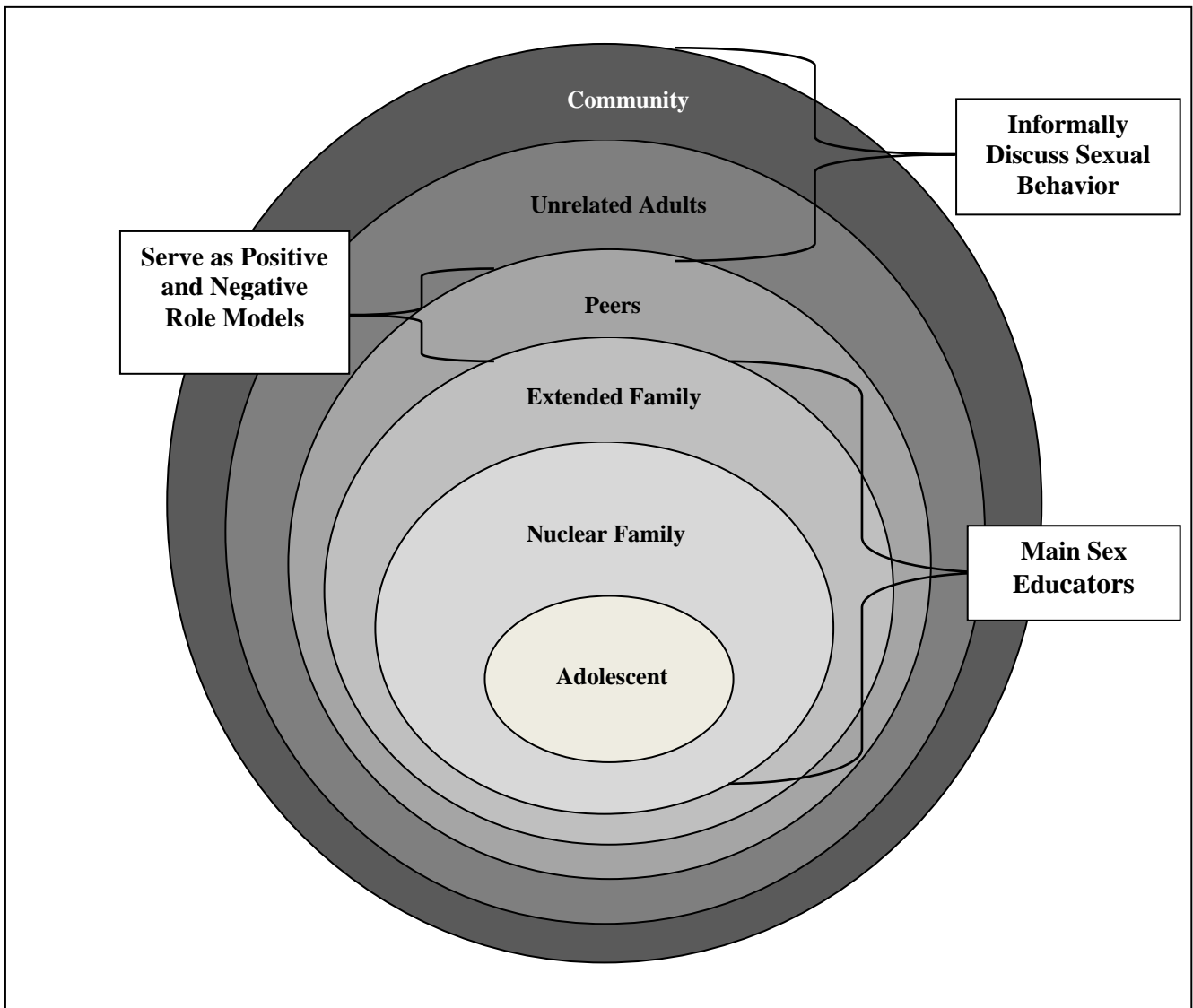**Figure 2: Role of Adolescent Social Networks on Sex Education**

APPENDIX B

SOCIAL NETWORKS AND MONITORING

Community

Assist Parents
with Monitoring

Unrelated Adults

Peers

Extended Family

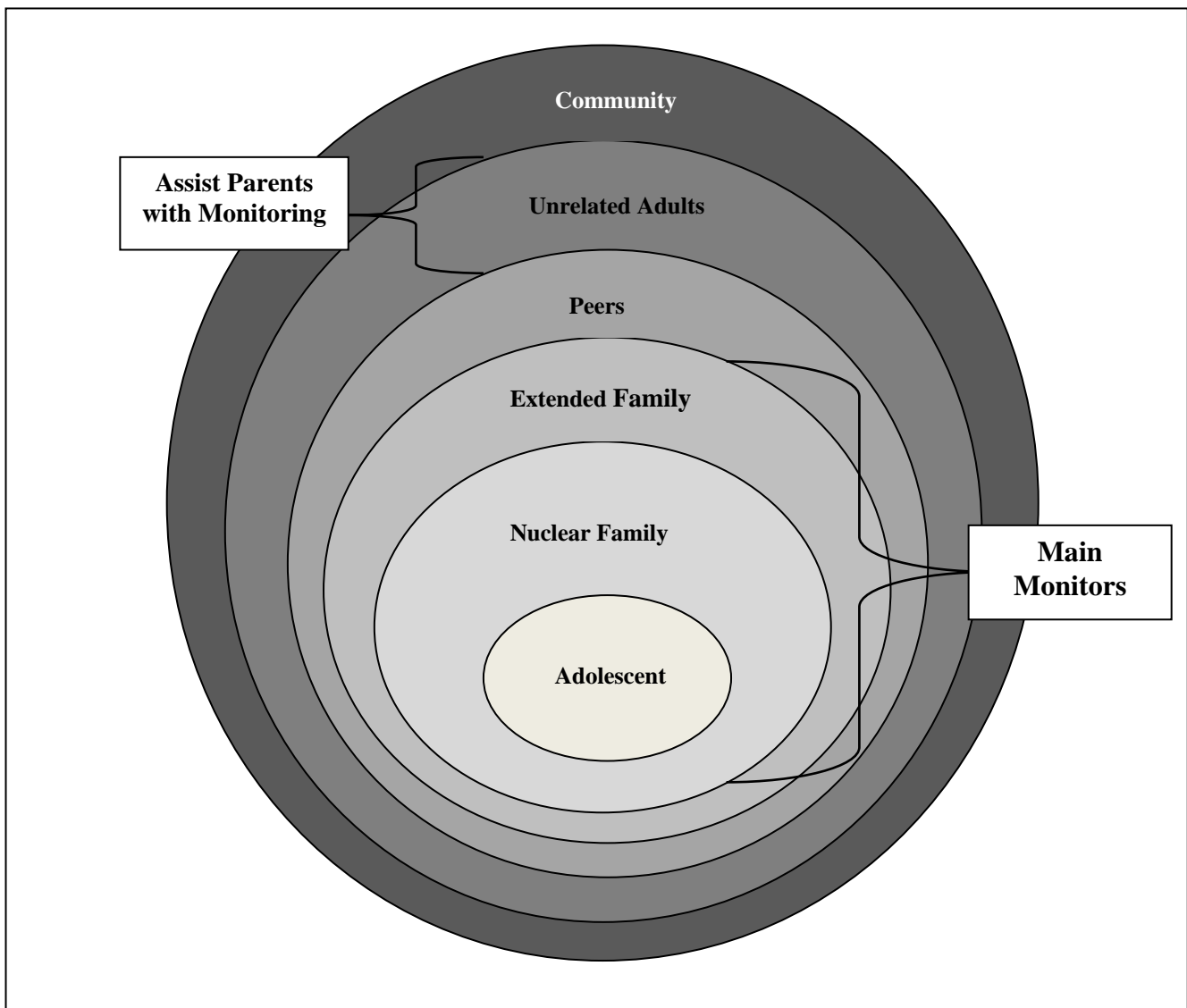Nuclear Family

Main
Monitors

Adolescent

Figure 3: Role of Adolescent Social Networks on Monitoring

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