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The purpose of this study was to explore how social relationships and environmental settings impact physical activity attitudes and behaviors for adolescent girls. Guided by a social ecological framework and following a phenomenological interpretive tradition, focus group interviews were conducted with 32 adolescent girls (17 African American, 15 Caucasian) between the ages of 11 and 13 who attended public middle schools.

Adolescent girls indicated that parents and peers play a significant role in shaping their physical activity behaviors as does the physical and social environments in which they live. Themes that emerged from the analyses of data include (a) differing conceptualizations of physical activity, (b) parents and peers as facilitators of activity, (c) lack of girls' active space in school and neighborhood environments, and (d) policy restrictions on girls' access to physical activity time.

African American girls reported conceiving of physical activity as unstructured play, often outside, where as White girls indicated they considered physical activity to be closely related to adult-directed, organized sport. Girls described a desire to engage in more physical activities with the mothers and other female relatives. A lack of playground space at school and unsafe community environments hindered the amount of activity in which girls engaged. Educational policies that prevent middle school girls from participating in school sport programs, as well as restricting recess and lunch periods to inside spaces impeded access to desired physical activity outlets by middle

school girls in this study. Findings support previous research and extend understanding

of girls' perceptions of physical activity by allowing girls to voice their opinions and

concerns.

ADOLESCENT GIRLS' PERCEPTIONS OF THEIR

PHYSICAL ACTIVITY BEHAVIORS AND

SOCIAL ENVIRONMENT

by

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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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TABLE OF CONTENTS

CHAPTER I

INTRODUCTION

Regular, daily physical activity plays an integral role in achieving and maintaining physical and psychological health. In 1996 the Surgeon General reported that physical activity was instrumental in reducing the risk of premature mortality and cardiovascular disease, preventing and treating high blood pressure, hyperlipidemia, and diabetes, as well as preventing osteoporosis and some types of cancer (Grunbaum, Kann, Kinchen, 2004; United States Department of Health and Human Services [USDHHS], 2003). Regular physical activity is associated with positive psychological health outcomes such as reduced levels of anxiety disorders and depression as well as improved cognitive function (Dunn, Trivedi, Kampert, Clark, & Chambliss, 2005; Etnier, Salazar, Landers, Petruzzello, Han, & Nowell, 1997; Goodwin, 2003). Empirical evidence also suggests that physical activity is positively associated with holistic evaluations of health and well being, including health related quality of life (HRQL) (Brown et al., 2003; Centers for Disease Control and Prevention [CDC], 2001; Penedo & Dahn, 2005). To this end, Healthy People 2010 (USDHHS, 2000) has established increasing population levels of physical activity and fitness as a focus area to help attain their overarching goals of increased life expectancy and improved quality of life.

Despite findings confirming the benefits of an active lifestyle, the CDC report that only 22% of adults get the recommended 30 minutes of moderate intensity physical

activity on most, if not all, days of the week. Approximately 60% of Americans report some activity but fall short of this recommendation (CDC, 2003). Disturbingly, one-quarter of American adults report being completely inactive (Kruger, Ham, & Kohl, 2005).

Although typically more active than adults, many adolescents and children do not meet recommended levels of daily physical activity, with the problem being more pronounced among girls than boys (Ogden, Flegal, Carroll, & Johnson, 2002; Pate, Dowda, O'Neill, & Ward, 2007; Sanchez, Norman, Sallis, Calfas, Cella, & Patrick, 2007). Data from the Youth Risk Behavior Survey (YBRSS) indicate that only 27% of adolescent girls met age appropriate physical activity recommendations and 11% of girls reported no physical activity at all (YBRSS, 2005). While younger girls are more active than older girls, the percentage of girls participating in vigorous physical activity declines during high school years as much as 50% (Gordon-Larsen, Nelson, & Popkin, 2004; Pate et al., 2007; Zick, Smith, Brown, Fan, & Kowaleski-Jones, 2007). Although white girls tend to be more active than African-American girls, both groups become increasingly sedentary with age, beginning as early as age 10 regardless of social class (Crespo, Smith, Andersen, Carter-Pokras, & Ainsworth, 2000). Recent research indicates that 56% of African-American girls report no regular physical activity (Kimm, Glynn, Kriska, & Barton, 2002).

Overall, three general conclusions can be reached from the survey research that has been conducted regarding adolescent physical activity patterns. First, a substantial proportion of children and adolescents are inactive and do not comply with public health

physical activity recommendations (Pate et al., 2007). Second, physical activity declines with age during adolescence, decreasing dramatically during the middle school years (Gordon-Larsen et al., 2004; Zick et al., 2007). Finally, considerably fewer adolescent girls than boys are sufficiently active (Ogden et al., 2002; Sanchez et al., 2007).

Because of such disturbingly low rates of activity and the pursuant potential for ill health, many research efforts have focused on identifying the correlates of physical activity for adolescent girls. While telling information has been revealed regarding demographic and biological correlates of physical activity such as age and gender, attention has more recently focused on modifiable variables such as behavioral, environmental, and social factors (Biddle, Whitehead, O'Donovan, & Nevill, 2005). Social Cognitive Theory (SCT) asserts that behavior, environment, and individual factors interact to determine future behaviors and has therefore been used frequently in physical activity research. Additionally, a growing body of physical activity research is informed by a social-ecological approach that suggests behavior reflects the complex integration of intrapersonal, socio-cultural, and environmental factors (Elder, Lytle, Sallis., Young, Steckler, Simons-Morton, et al., 2007; Sallis & Owen, 1997; Sallis & Owen, 1999; Spence & Lee, 2003; Ward, Saunders, Felton., Williams, Epping, & Pate, 2006). Both the physical and social environments are recognized as playing an integral role in determining behaviors such as physical activity, including the properties of the social environment that arise out of relationships with significant others. Accordingly, health related research has embraced the context in which people live and extended its focus

beyond the individual to include the social environment and its inherent opportunities for social influence and support.

Social support generally refers to any behavior that assists an individual in achieving desired goals or outcomes (Taylor, Baranowski, & Sallis, 1994) and includes psychological and material resources intended to benefit an individual (Cohen, 2004). Support is typically considered to be instrumental, informational, or emotional. Instrumental support involves provision of material help such as transportation or financial aid whereas informational support includes advice or guidance. Emotional support refers to expression of empathy, caring, reassurance, and trust (Cohen, 2004). As such, social support is considered one of the important functions of social relationships. Research efforts considering social support sources for adolescent girls' physical activity have focused on the most obvious potential providers of social support for young people; parents and peers.

In recent reviews parental and peer support were found to have positive associations with physical activity for adolescent girls (Biddle et al., 2005; Sallis, Prochaska, & Taylor, 2000). Studies considering parental support found that support and direct help from parents had positive associations with physical activity participation (Bungum, Pate, Dowda & Vincent, 1999; Duncan, Duncan & Strycker, 2005; McGuire, Hannan, Neumark-Sztainer, Cossrow, & Story, 2002; McGuire, Neumark-Sztainer & Story, 2002; Sallis, Taylor, Dowda, Feedson, & Pate, 2002). In these studies parental social support included forms of informational, instrumental, and emotional support. A significant body of research also exists that examines parental influence on adolescent

activity that has concentrated on how parents model activity behaviors (Davison, Cutting, & Birch, 2003; Gustafson & Rhodes, 2006). Evidence suggests that parental influence is strongest for younger children, waning as children age when peer influences become more significant (Gustafson & Rhodes, 2006). Studies exploring the impact of peer support on adolescent physical activity have produced equivocal results. While some evidence points to the positive implications of peer support for adolescent physical activity, other research has been inconclusive (Beets, Vogel, Forlaw, Pitetti, & Cardinal, 2006; Vorhees, Murray, Welk, Birnbaum, Ribisl, Johnson, Pfeiffer, Saksvig, & Jobe, 2005). No quantitative studies could be found that explore the possibility that male and female peers have different impacts on adolescent girls' physical activity behavior.

There is a somewhat different picture when qualitative studies are considered. Interview data indicate that parental and peer influence may also inhibit participation in girls' active pursuits (Coakley & White, 1992; Mulvihill, Rivers, & Aggleton, 2000; Vu, Murrie, Gonzalez, & Jobe, 2006). These findings indicate that girls may be dissuaded from participation in physical activity by parents who are concerned for their safety, want their daughters to succeed in school, or prefer their daughters to have a part-time job. Similarly, these studies found that peers, particularly opposite sex peers, could deter physical activity. It is suggested that peers may provide a detrimental influence on activity for girls during middle school years as this is a time when appearance concerns escalate. This conflicting evidence about the role of parental and peer social support for girls is curious and suggests that our understanding of the dynamic between parents and

adolescent girls warrants further investigation to better understand the role significant others and the environment play in shaping girls' physical activity behaviors.

Recent attention has also been focused on the impact the environment and physical circumstances have on girls' physical activity behavior. Places where people spend a large part of their life influence the type and amount of physical activity in which these individuals engage. While the workplace may be an important context for adults, school and home settings are likely to have a significant impact on physical activity behaviors for children and adolescents (Cohen, Scott, Wang, Mckenzie, and Porter, 2008). Social-ecological frameworks that include the examination of multiple levels of environmental contexts for impact on behavior are increasingly being integrated into physical activity studies. Such research explores the relationship between environmental settings and physical activity behavior (Elder, Lytle, Sallis, Young, Steckler, Simons-Morton et al., 2007; Wechsler, Devereaux, Davis, & Collins, 2000). Closer examinations of the socio-cultural environments of school and home contexts may reveal a more complete picture of the factors that shape adolescent girls' physical activity behaviors.

Rationale for Study

The central aim for this study is to explore how social relationships and influences from significant others impact physical activity attitudes and behaviors for adolescent girls within two common behavioral settings: home and school. As previously stated, there is a significant drop off in physical activity participation rates for girls during the middle school years (Gordon-Larsen et al., 2004; Kimm et al., 2002; Zick et al., 2007). A focus on the particular social influences that impact activity for this age range within

their usual environments seems particularly salient. Insights from such data may provide direction for future interventions and efforts that target this age group with the goal of preventing the expected decline in physical activity.

While parents and peers appear to be powerful influences in the lives of children and adolescents, the nature of these relationships with regard to influence on physical activity behaviors is unclear. To date, studies examining this connection have overwhelmingly relied on cross sectional, survey designs where social support was measured using 5 to 9 items rating frequency of support behaviors on Likert-type scales (Beet, et al., 2006; Davison et al., 2003; Duncan et al., 2005; Prochaska, Rodgers, & Sallis, 2002). Findings from such research are helpful in uncovering the contributions of social support to activity rates but limited by the small list of scale items used to assess support as well as the limited ranges for response. Further, the focus of such work has been on how activity rates are positively influenced by social support. Little attention has been paid to the potential negative implications and outcomes of social influences. Therefore, such efforts are unable to provide us with a full understanding of how it is parents and peers influence young girls' behavior.

If research is to inform and support effective health promotion and physical activity interventions for adolescent girls it is important to understand what shapes the "if", "why", and "when" of girls' physical activity participation. However, it is equally important to discover and understand the factors that discourage and inhibit girls' physical activity participation. This type of exploratory investigation is best fitted to qualitative methodologies that aren't restricted to set survey questions or limited

responses but rather allow for meanings, views, and contexts to emerge (Coleman, Cox, & Roker, 2008). Qualitative research supports the development of rich, detailed insights of the meanings, perceptions, and beliefs pertaining to physical activity. Further, there is growing support for the inclusion of children and adolescents in qualitative research to privilege their voice and gain access to their thoughts and perceptions rather than rely on 'proxy information' garnered when adults are asked questions on a child's behalf. As more comprehensive understandings of the role of environmental social influences on physical activity for adolescent girls evolve through qualitative methodologies, improved recommendations for effective physical activity interventions with such a population may be possible.

While some qualitative research has provided opportunity for adolescent girls to discuss how they perceive parental and peer influences on their behaviors (Coakley & White, 1992; Mulvihill et al., 2000; Vu et al., 2006), these studies were undertaken with a broader goal of describing girls' attitudes towards physical activity or sport. These studies did not hone in on social or environmental influences in order to develop a more complete picture of social contexts and their potential impact on behavior. Rather, the intent was to generate a general picture of physical activity for girls by examining perceptions of, motivations for, attitudes towards, and barriers to involvement in physical activity. Therefore, there is a lack of research that has as its goal to probe more deeply and articulate the complex social relations and environments that shape girls active behaviors. As physical activity research embraces social cognitive and ecological theories as a means to move beyond individual considerations of behaviors and include

the larger social context, it is important to undertake research that strives to describe and give insights into these social and physical environments.

Participants in this study were adolescent girls of middle school age. An interpretive approach was adopted in an attempt to gain insights as to which people, places, and social relationships influence girls' physical activity attitudes and behaviors. The findings address the shortcomings in the literature by extending the inquiry beyond a short list of survey items and instead provide an in-depth examination of girls' lived experiences and factors that impact perceptions of physical activity and rates of participation. By providing girls the opportunity to voice their own perceptions of their social context, and by posing questions that probe specifically about their environment, inductive and interpretive analyses reveal a more complete picture of girls' lived physical activity experiences.

Reflexivity and Background

The path leading to a given inquiry reveals how a researcher is situated within the work. My previous interests in girls and women's sport experiences have been replaced with an urgency to understand the ways in which girls integrate physical activity into their lives. Often ignored or overlooked in early research, more recent attention is being focused on physical activity behaviors of adolescent girls. Efforts to curb sedentary behaviors among young people and indeed prevent the decrease in activity often found during adolescence are increasingly evident. My motivation for extending the existing body of research grows from the enjoyment I have experienced working with similar age

groups in the past as well as a desire to empower and enable young women to find a path to healthy experiences.

An integral step in the research process is to identify ontological beliefs and epistemological stance. As Mason (2002) suggested, this is not an easy process but a necessary one. To define my epistemological stance I will address the question "How can social phenomena be known?" The answer is found in lived experience. By asking questions of girls and examining their first-hand replies my intent was to gain new knowledge regarding the ways the social and physical environments impact girls and subsequently the decisions they make regarding physical activity. As social phenomena are ever-changing, so too are girls' experiences in physical activity; therefore, the perceptions girls have about physical activity and their environments as well as their interpretations and actions are all included in my ontological perspective. That is, they represent the essence of what it is I want to know. This gives priority to the thoughts, beliefs, and behaviors of girls.

My academic preparation has impacted the direction of this study. The great majority of the research in which I have been involved has used qualitative methodologies and interpretive analyses. While I have had the opportunity to be involved in research that has relied on quantitative data collection for outcome assessment, the satisfaction and value in the work has never come from statistical findings but rather from the insights and perceptions communicated directly from study participants. Influenced by Gard and Wright's (2001) assertions that we must be accountable for and to the knowledge we produce I have chosen to continue down the

qualitative and interpretive path. The questions that interest and motivate me are best answered using these methodologies.

I am also influenced by my relationships as a mother and a daughter. My mother is a physical educator who has always espoused and promoted sport and physical activity for girls and women. Encouraged by her steadfast support I have embraced lifelong physical pursuits. Growing up I surrounded myself with other girls who shared my enthusiasm for sport and movement. Now as the mother of two young daughters I celebrate in their every jump, gallop, and somersault. I am also disturbed as I watch my son play basketball and soccer on the playground with other boys while the girls choose not to play. As it is important to ensure that the research is not merely a reflection of my beliefs, recounting experiences that brought me to this research serves to expose potential biases.

Statement of Purpose

This research was undertaken to enable adolescent girls to express the meanings that physical activity has for them and allow them to share how it is they make sense of such understandings of activity in their everyday physical and social worlds. Specifically, participants were encouraged to articulate their perspectives on physical activity, its barriers and enablers, and the places and spaces in their environments where activity is located. Such insights are lacking from the current body of physical activity literature. Particular emphasis was placed on the social and physical environments in which early adolescent girls interact and how it is that significant others impacted their feelings, intentions, and actions. In particular, an attempt was made to identify and

explore girls' attitudes, perceptions and meanings attached to physical activity. Integral to the study was a search for commonalties in girls' experiences in an attempt to bring meaning to them (Creswell, 1998). Further, girls were asked to share how it is they feel significant others in their lives, especially parents and peers, shaped their physical activity decisions. This study enhances research on girls' physical activity by including the voices of the girls themselves so that future efforts to increase participation rates may integrate issues and perceptions that are salient to early adolescent girls.

Research Questions

Therefore, this study sought to address the following research question:

- How do adolescent girls perceive and describe the social and environmental influences on their physical activity behavior?

To fully investigate the complexities of the issue and to provide meaning to the participants' experiences the following questions were also included:

- How do girls believe parents influence their activity participation and behaviors?
  - o How is this influence supportive and/or inhibitive?
  - o Are there differences in the influences of mother and father?
  - o What types of social support (instrumental, informational, emotional) do girls perceive they get from each parent regarding physical activity?
- How do girls believe peers influence their activity participation?
  - o How is this influence supportive and/or inhibitive?

- o What types of social support (instrumental, informational, emotional) do girls perceive they get from peers?

- o Do same sex peers impact physical activity participation differently from opposite sex peers?

- Are there others who influence the physical activity participation of adolescent girls?

  - o Do they provide a supportive or inhibitive role?

  - o What types of social support do girls perceive they get from these significant others?

- How do girls perceive their environments and behavioral settings, particularly home and school, as being conducive or inhibitive of physical activity?

These research questions were addressed using a qualitative methodology and interpretive analyses. Data were collected through focus group interviews with girls between the ages of 11-13.

Significance of Study

Both qualitative and quantitative studies reveal that a child's experiences with physical activity significantly shape attitudes and behaviors into adulthood (Sacker & Cable, 2006; Thompson, Humbert, & Mirwald, 2003). Some interpretive efforts supplement quantitative research and extend insights into the physical activity experiences of adolescent girls; however, a need remains for more interpretive analyses that privilege the voices of adolescent girls. Further, physical activity research with adolescent girls has often overlooked diversity in study populations. This research effort

includes the recognition that all girls cannot be represented with one voice. The current study includes a sample of participants that is racially/ethnically diverse in a manner that reflects the reality of the larger community. This study contributes to the body of physical activity research by exploring lived experiences of a representative group of adolescent girls to gain insights into the social context in which they live and make choices pertaining to physical activity behaviors.

Summary

The chapter has provided a general description of the study, including the rationale, background, purpose, and significance for the study. As well, the main research question, how do adolescent girls perceive and describe the social and environmental influences on their physical activity behavior, and sub-questions were presented. The introduction sets the stage for the more detailed descriptions of the problem, methodology, findings and conclusions outlined in ensuing chapters.

CHAPTER II

REVIEW OF LITERATURE

This review presents the relevant research pertaining to adolescent girls' physical activity as well as the role of Social Cognitive Theory and Social Ecological models in physical activity research. The influence of parents and peers in girls' activity participation is summarized and an overview is presented of the qualitative inquiries exploring girls' physical activity participation. This literature is organized as follows: a) correlates of adolescent girls' physical activity, b) contributions from social cognitive theory and social-ecological frameworks that help to frame design and analyses, c) social support for girls' physical activity, d) school environment and girls' physical activity, and e) qualitative findings pertaining to adolescent girl's attitudes and beliefs regarding physical activity.

Correlates of Adolescent Girls' Physical Activity

Several efforts have been made to identify the determinants or correlates of adolescent physical activity (Barr-Andersen, Young, Sallis, Neumark-Sztainer, Gittelsohn, Webber, et al., 2007; CDC, 1999; Heitzer, Martin, Duke, & Huhman, 2006; Trost, Pate, Saunders, Ward, Dowda, & Felton, 1997). Variables and potential correlates identified in these and other studies are frequently grouped into broad categories for the

purpose of analyses: a) fixed biological variables including age, gender, and ethnicity, b) cognitive variables such as intention, goal orientation, and self-efficacy, c) behavioral variables such as previous sport involvement and time spent watching television, d) social variables such as parent and peer modeling or support, and finally e) environmental variables including access to parks and gym facilities. Demographic and biological findings indicate that girls are less active than boys, activity declines with age throughout adolescence, non-Hispanic whites are more active than other ethnic groups, increased BMI is associated with decreased activity, and higher socioeconomic status and parental educational attainment show a trend towards increased activity in adolescent girls (Biddle et al., 2005; Heitzer et al., 2006; Sallis et al., 2000).

Several studies have attempted to uncover relationships between psychological factors and level of physical activity. Intentions to be physically active, perceived competence, high achievement motivation, self-efficacy, enjoyment of physical activity, appearance concerns, perceived body attractiveness, and physical self worth have all been found to be associated with adolescent activity levels (Biddle et al., 2005; Sallis et al., 2000). Adolescent perceptions of and attitudes towards physical activities indicate clear differences between genders. While boys may partake in physical activities to reap personal attention and engage in competition, girls who chose to be active are more likely to do so as a means of weight control or to heighten perceived body attractiveness (Godin & Shepard, 1986; Tappe, Duda, & Ehnrwald, 1989; Trost & Ward, 2005; van Daalen, 2005). Girls view themselves as less athletic and report lower levels of self-esteem than

do boys (Garcia, Broda, Frenn, Coviak, Pender, & Ronis, 1995; Koca & Demirhan, 2004; van Daalen, 2005).

Behavioral factors that have been demonstrated to positively impact adolescent activity are previous experience with physical activity and organized sport as well as involvement in community sport programs (Biddle et al., 2005; Sallis et al., 2000), where as smoking and time spent watching television have been negatively associated with activity (Eisenmann, Bartee, & Wang, 2002; Kimm et al., 2002; Raudsepp & Viira, 2000; Saxena, Borzekowski & Rickert, 2002). A review of social variables found to be relevant for adolescent girls follows later in this review but includes parent modeling of activity, provision of transportation, emotional support as well as encouragement from friends. Finally, few studies have addressed the impact of environment variables on girls' physical activity. In their review, Biddle et al., (2005) did not find support for a relationship between environmental factors and physical activity in an adolescent female population. However in school settings, indications are that larger play spaces and playgrounds result in increased levels of physical activity for school children (Dollman & Lewis, 2009; Harten, Olds, & Dollman, 2008). While there is evidence that higher levels of physical activity are associated with access to community centers, this conclusion was drawn using large scale epidemiological data that included both boys and girls (Gordon-Larsen et al., 2000).

Given that youth behavior patterns are predictive of adult actions, interventions with children and adolescents that aim to improve health behaviors such as physical activity, appear promising as most diseases affected by physical inactivity are the

culmination of life-long habits (Pate, Trost, Dowda, Ott, Ward, Saunders, & Felton, 1999; Sacker & Cable, 2006; Terrell, 2002). A sedentary lifestyle as an adult is associated with being inactive early in life, and the risk of conditions such as cardiovascular disease or obesity in childhood significantly increases the risk of similar problems as an adult (Freedman, Khan, & Dietz, 2000). Early intervention during the critical period of childhood may provide the best strategy to combat the problem with emphasis placed on those variables found to be correlates to physical activity behavior (Thompson et al., 2003) . Because physical activity is a modifiable health behavior, there is great potential to bring about real change. Most adolescent physical activity interventions have been school based efforts that have adopted a multi-component framework where lifestyle behaviors such as diet, smoking, and time spent watching television were targeted in addition to physical activity. Accordingly, outcome measures were also varied and included body composition, energy expenditure, fitness testing results, self report activity monitors, and health knowledge assessments. To bring about the desired changes, studies employed several strategies including changes to physical education and health curriculum, increased parental involvement, changes to school lunch menus, and peer education. While some studies have been able to bring about modest increases in physical activity during physical education classes (Harrell, McMurray, Gansky, Bangdiwala, & Bradley, 1999; Luepker, Perry, McKinlay, Nader, Parcel, Stone, et al., 1996; Webber, Catellier, Lytle, Murray, Pratt, Young, et al., 2008), attempts to impact physical activity outside of school environments have not fared so well, failing to bring about significant increases in reported levels of moderate or vigorous physical

activity (Luepker, et al., 1996; McKenzie, Nader, Strikmiller, Yang, Stone, Perry et al., 1996; McKenzie, Sallis, Kolody, & Faucette, 1997; Sallis, McKenzie, Alcaraz, Kolody, Faucette, & Hovell, 1997).

<div align="center">The Social Environment</div>

As previously discussed Social Cognitive Theory has been the mainstay for physical activity behavior research and has served as the foundation for many activity promotion interventions. In more recent years, there have been an increasing number of investigations that integrate Social Cognitive Theory into a larger social-ecological model for understanding and studying health behaviors, including physical activity behaviors. Using a social ecological approach, and the multi-level framework inherent in such models, allows for the consideration of factors beyond the individual that are an integral part of facilitating behavior change. This includes physical activity settings where there are a growing number of interventions that focus attention on influencing behaviors from multiple levels including the individual, social, environmental, and policy levels (Booth, Sallis, Ritenbaugh, Hill, Birch, Frank et al., 2001; Elder, Lytle, Sallis, Young, Steckler, Simons-Morton et al., 2007). What follows is a brief outline of SCT and social ecological frameworks as well as an expanded discussion of social support definitions.

Social Cognitive Theory (SCT)

The widespread use of SCT in health behavior research, particularly in physical activity, can be attributed to its ability to not only explain how individuals acquire and maintain behavior patterns, but also provide direction and strategies for future

interventions that allow for behavior change. SCT became influential in behavior modification research thanks to the work of Albert Bandura (1986, 1998, 2004). The foundation of SCT is that behavior is dynamic and that reciprocal interactions between the person, the environment, and the behavior itself occur. Described as triadic reciprocality, it is asserted that the person, the behavior, and the environment are inseparable and interrelated (Bandura, 1986). The mutual interaction between these factors results in determinants of behavior. However, triadic reciprocality does not infer equality in strength between factors or temporality of influence on behavior. Rather, the relative influence of each factor depends on the nature of the behavior, the characteristics of the individual, and the specifics of the environment. A change in one element of the relationship has implications for the others.

Further, it is assumed that behavior is founded in cognitive activity and is purposeful so that individuals are capable of self-reflection and self-regulation. It is assumed that self-regulatory processes are facilitated by cognitive mechanisms such as goal setting, self-efficacy, outcome expectations, and outcome values (Dzewaltowski, 1994). Because individuals are capable of conceptualizing the future they can set goals that represent desired objectives. A powerful factor that influences actions is self-efficacy, described as the degree to which an individual believes they can engage in a behavior in a given situation. Shaped by experiences and modeling observations, self-efficacy has been the focal point of many physical activity behavior studies as it has been hypothesized that rates of activity can be improved by enhancing individual levels of activity self-efficacy.

Individual actions may be further influenced by outcome expectations or the perception that a given behavior will lead to a specific outcome. While some outcomes are assumed to be beneficial and therefore desirable, others are unwelcome and to be avoided. Thus some actions have outcome values that reinforce a behavior to bring about a desirable expected outcome while others serve as a deterrent to prevent an undesirable expected outcome. People develop standards of behavior and regulate their actions through social and self sanction by anticipating and evaluating the consequences their actions will bring (Bandura, 2004).

Of particular relevance for this study is the incorporation of environment in the SCT. The *environment* refers to the objective factors that can affect behavior but are physically external to the individual (Bandura, 1986, 1998). This includes a social dimension comprised of relationships with others such as family, friends, and peers. The term *situation* refers to the cognitive or mental representation of the environment that impacts behavior. Bandura (1986) described social situation as "a person's perception of their environment and the evaluation of their interaction with it". Therefore, social situations provide a set of norms that convey the standards by which behavior is judged. The development of a personal standard of behavior involves the interaction between social norms and an individual's self-regulatory system including self-sanctions (Baranowski, Perry, & Parcel, 1997). People behave in a way that gives positive reinforcements and avoid behavior that violates their personal standards.

Evaluation of the social situation is especially important for adolescents, as it appears that immediate social situations are stronger regulatory forces than greater

normative sanctions. Due to the proximity and value of the influence provided by family and friends in immediate physical and social situations, it is important to examine the impact on behavior. Bandura (1998) provides insight in the context of health behaviors when he asserts that "the norms of the larger society are more distal and applied only infrequently to the behavior of any given individual because unfamiliar others are usually not around to react to it. Even when they are, if the norms of one's immediate network are at odds with those of the larger group, the reactions of outsiders carry lesser weight, if not disregarded altogether". So, it seems that the physical activity behaviors of adolescent girls may be significantly shaped by the social situations and significant others most prominent in their everyday lives. This most often refers to family and school contexts as well as parents and friends. Therefore, acquiring better insights and a more developed understanding of those social environments and relationships that girls are most often involved in would contribute to our understanding of behaviors such as physical activity.

Social Ecological Frameworks

Social ecological frameworks for health behavior research consider the connections between people and their social as well as physical environments. The inclusion of the physical setting is a unique contribution of social ecological models. These approaches set out to explain how environments, both social and physical, as well as policy level decisions affect behavior and how the environment and behavior affect one another. It is an underlying assumption that a comprehensive approach to a problem is more effective than efforts which focus on only one level. Addressing and exploring

the multiple levels of variables is an integral part of understanding health behaviors and designing interventions to change behaviors. The multiple levels of influence on behaviors include intrapersonal factors, interpersonal processes and primary groups, institutional factors, community factors, and public policy (Sallis & Owen, 1997). Using such a framework is challenging because the approach must be tailored not only for each health behavior, such as physical activity, but also for each population.

Within an ecological framework, the environment is considered to be all social and physical surroundings outside of the individual. Further, ecological models recognize behavior settings as the social and physical situations in which behaviors take place. By focusing on behavior settings, ecological models expect interactions among the multiple dimensions of influence to occur. Therefore, the focus is on people's interactions with their physical and social surroundings rather than specific variables within a theory (Sallis & Owen, 1997). This presents a challenge when relying on ecological frameworks as the focus is on domains of variables and does not identify any specific variables within the domain as being a priority. Further, environmental and policy contexts are specific to certain behaviors. This is in contrast to social cognitive theory where self-efficacy has a broader influence on a range of behavior and processes of change and can be generalized to a range of behaviors. Therefore, social-ecological models must be tailored to the specific health behavior being studied and to specific populations for each behavior. The physical activity behaviors of adolescent girls in given circumstances and contexts will likely differ from the same behavior of older adults

making it necessary to adapt components of the model to the particular population in question.

Behavior change is hard work and often it will require more than interpersonal change for behavior modification to be successful. However, even if an individual partakes in a program to increase the likelihood of physical activity participation, long term activity is difficult if the setting and environment in which the activity takes place has not changed. Environmental change impacts the fit between an individual and their environment and therefore provides good locations and opportunities for making larger scale difference (Spence & Lee, 2003). Closer scrutiny of the environment is an integral part of gaining insights into the population of interest so that efforts to increase activity can include necessary environmental changes.

Specific ecological models of physical activity have begun to emerge. Welk (1999) proposed the Youth Physical Activity Promotion Model (YPAP) that relies on a social ecological framework and is intended to guide physical activity promotional research. This model was developed by integrating correlates and determinants of activity from published research and focuses on factors that predispose, enable, and reinforce activity behaviors in youth populations. A strength of the YPAP is it's recognition that children's physical activity participation is impacted by intra and extra individual factors. The result was a more of a guide than a theoretical model for physical activity promotion programs that attempted to bridge the gap between theory and practice. While this model provides insights into the potential influences on a young

person's likelihood to participate in physical activity it has yet to be integrated and tested in intervention studies.

Recognizing the need for a model that incorporates both intra and extra individual factors that impact individual physical activity behaviors, Spence and Lee (2003) proposed a social ecological model of physical activity promotion entitled the Ecological Model of Physical Activity [EMPA] (Appendix A). The EMPA posits that physical activity behavior results from the interplay between environmental settings and biological and psychological factors. Incorporated into the EMPA is the recognition of the 'fit' between the individual and their environment. EMPA assumes that when individual attributes match with environmental (extra-individual) factors then positive health behaviors will emerge. Conversely, ill fitting individual and environmental factors will result in a poor match between the individual and their environment resulting in poor health. Spence and Lee (2003) reason that in the case of a mismatch or poor fit in the individual-environment relationship, it is more efficient to change the environment as environmental change has the more widespread potential to positively impact many individuals. Currently physical activity interventions typically aim to make small changes in individual behaviors that too often fade within weeks. It makes sense to examine more closely the individual/environmental fit for adolescent girls with regards to their physical activity behaviors. Doing so may identify multiple locations and opportunities for making larger scale, extra individual or environmental changes that can positively impact large numbers of girls and their physical activity choices.

Central to the EMPA is the range of environmental settings starting from the microsystem, or most immediate setting within which individuals interact, to the most distal dimension or macrosystem which encompasses the community and its inherent social structures and values. Microsystems encompass both social and physical characteristics. Examples of microsystems for adolescent girls are interpersonal relationships with significant others and the immediate setting within which relationships occur. Macrosystems include the larger socio-cultural contexts in which people live including cultural values and social conventions. In between are mesosystems and exosystems. Mesosystems include two or more microsystems that interact to put pressure on physical activity behavior. At this level the linkages and processes that occur between settings are significant. The quality of these relationships is important to consider. Therefore girls' physical activity behaviors are shaped not only by relationships and support at home, but also how these experiences mesh with the physical and social environments they experience at school.

Exosystems refer to the interactions and linkages between two or more microsystems where at least one of these microsystems includes the individual in question. For example, an exosystem could be comprised of the relationship between a parent's workplace family health promotion program and a girl's physical activity at school (Spence and Lee, 2003). Interventions aimed at any one level of this model have the potential to impact each other as well as physical activity behavior. Therefore, Spence and Lee (2003) call for physical activity researchers to examine not only psychological and behavioral factors but also include social and cultural traditions.

Physical environments in which people spend large periods of time are likely to have a significant impact on how physically active they are. The Centers for Disease Control and Prevention have identified three physical settings as targets for the promotion of youth physical activity: school, community, and home environments (CDC, 1997). Because of the large percentage of a child's day spent in school closer scrutiny is necessary. School provides physical, social, and normative environments where students observe and learn health behaviors such as physical activity (Elder et al., 2007). Therefore the physical and social contexts presented by schools are important locations for observation to better understand physical activity participation for children as well as appropriate targets for interventions that aim to change levels of activity. Findings from studies using social-ecological frameworks targeting school environments as locations for change will be further discussed later in this review of literature.

In addition to school settings, children and adolescents spend considerable time in community settings such as childcare, afterschool programs, and sport leagues. It is important to consider these environments as they can provide considerable opportunities for physical activity in both competitive and non-competitive situations where adult behaviors may shape student physical activity beliefs in both positive and negative ways. However, as is expected for adolescent girls, participants in this study did not report spending significant amounts of time in these environments.

Finally, home environments present the final physical and social environment where children and adolescents spend large amounts of time and therefore are likely to impact activity behaviors. Integral to the home environment is the presence of parents

who may play an influential role in shaping the actions of children both by modeling

active behaviors and through the provision of support that permits active behaviors for

children to occur. Because it is generally recognized that home and school environments

represent the most important behavior settings for adolescent girls, investigations

targeting this population would benefit from a rich understanding of the social influences

present in such surroundings.

Social Support

Social support has been defined and measured in a many ways. Broad definitions

include any behavior that assists an individual in achieving desired goals or outcomes

(Taylor et al., 1994). Others describe social support as the formal or informal comfort,

assistance and/or information from individuals or groups and can vary in frequency,

durability, and intensity (Courneya & McAuley 1995). In a theoretical framework

provided by Heaney and Israel (1997) to help understand the role of social networks and

social support in health behaviors and outcomes, social support is considered the aid and

assistance exchanged through social relationships and interpersonal transactions. Further,

social support is intended to be helpful, consciously provided by the sender, and provided

in the context of caring and trust (p. 181). Often social support is categorized into broad

types of supportive acts and behaviors. House (1987) offers the following four

classifications as means of separating varieties of support. Emotional support includes

expressions of empathy, love, trust and caring. Instrumental support provides tangible

help or services when needed. Informational support involves giving advice, suggestions

and information. Finally, appraisal support is considered to be any information useful for self-evaluation such as constructive feedback.

Similarly, Cohen (2004) discusses the role of social relationships and influences on health, asserting that health is affected by social support, social integration, and negative interactions. Cohen defines social support as the provision of psychological and material resources to eliminate or reduce stressful experiences by providing coping strategies. Using this definition, social support is further sub-divided into three sub-categories: instrumental, emotional, and informational support. Instrumental support is the provision of material aid such as transportation or financial aid. Emotional support involves the expression of empathy, care and reassurance. Informational support includes the provision of advice or guidance that is intended to enhance coping abilities. When these types of support are received, the stress encountered in daily life is buffered allowing for improved health (Cohen, 2004). Some physical activity research has included similar categories as a means of distinguishing between types of support (Duncan et al., 2005). Though these categories are easily distinguishable as conceptually distinct, differentiations are much more difficult to make in real situations.   Supportive relationships likely offer more than one type of support posing an issue when attempting to delineate between types of support.

Cohen (2004) argues that health is also affected by the negative interactions we experience as a result of social encounters. While the impact of social environments on behavioral outcomes can be positive, some social influences shape behavior in a negative way or in a manner that may not be intended. For example, an adolescent girl who

observes a sedentary parent and mimics that behavior or notes that a friend is ridiculed

for playing sports and subsequently decides to forgo her own participation has been

influenced by a parent or peer. The actions of the parent and friend were not intended or

helpful but still had an impact on the physical activity behaviors of the adolescent girl.

This type of social influence or negative interaction is inherent in social environments

and behavioral settings embraced in SCT and a social-ecological framework yet is not

considered in the current body of research exploring social support for adolescent girls'

physical activity. While more difficult to operationalize or measure, consideration of the

social setting rather than social support arguably presents a better representation of real

experiences when attempting to gain insights into the lived realities of individuals. As it

is the goal of this study to grasp the larger social contexts that influence girls' physical

activity behaviors, it is appropriate to include not only social supports but also social

influences that sway their choices.

<div align="center">Social Support for Girls' Physical Activity</div>

Even though social support for physical activity in young populations is widely

recognized as important, we do not have a clear understanding of why this is so. Duncan

and colleagues (2005) surveyed 372 young people (aged 10-14) in an attempt to identify

sources and types of social support that are significant for early adolescent physical

activity. Specifically their work aimed to determine the relative importance of support

for physical activity from parents, siblings and friends as well as identify the most

influential types of support. Findings indicate social support is positively related to youth

physical activity, support from peers was most important for early adolescents, and

higher levels of participation were found when adolescents reported having others watch as they were physically active. Older participants reported receiving less support from parents than younger children but more encouragement and conversation about physical activity. The authors suggest the possibility that at different development stages of childhood and adolescence perceptions of support may shift, resulting in changing needs in terms of the support required to encourage activity. Types of support identified as significant included displays of emotional support including encouragement, watching physical activity, and engaging in conversation about physical activity, in addition to instrumental support such as providing transportation events and taking part in physical activity with the participant.

The social support variables examined in this study explained more than a third of the variance in physical activity. This is a significant finding and is indicative of the relevance of research that addresses the role of social support for participation. When Prochaska and colleagues (2002) attempted to separate the contributions of peers and parents as sources of physical activity support, both parental and peer support were found to be correlates of physical activity when activity was assessed with self reports. Although findings from both studies are helpful in understanding the dynamic that exists between adolescents and significant others regarding physical activity, it is disappointing that results were not reported by gender as it is likely that boys and girls perceive sources and types of support differently.

In a similar work, Beets and colleagues (2006) sought to determine if gender differences would be found in perceived amount and type of support from parents and

peers. They found that boys and girls reported no differences in the type of support received from their mother or father, but boys did report greater overall physical activity support, particularly emotional support through praise and having parents watch activity as well as instrumental support provided by transportation to activity as well as actively participating with a parent. The only social support found to be related to increased levels of reported physical activity was that provided by peers. A significant limitation of all three of these studies is the omission of the possibility that parents and/or peers could influence young people in a negative way that might inhibit activity. To obtain a complete picture of how parents and peers influence physical activity, this full range of possibilities needs to be addressed. Further, support was assessed with a small Likert scale measures (5 item for parental support and 4 items for peer support). It is difficult to come to conclusions regarding the importance or scope of social support for physical activity when relying on such limited assessments of that support. Finally, the overwhelming majority of participants were white and middle class further limiting the impact of the results in the larger social context.

Other efforts have been undertaken to extend our understanding of how families, particularly parents, influence children's beliefs and actions. One such study attempted to measure children's beliefs pertaining to fitness activities as well as how these same children perceived their parents' beliefs concerning the children's activities (Kimiecik, Horn, & Shurin, 1996). Included in the assessment of children's beliefs were measures of the value of fitness activities, perceived fitness competence, and goal orientation. Perceptions of parental beliefs included parental perceived fitness competence of their

children and a measure aimed at gauging goal orientation that parents have for their children's activities. Results revealed that children's beliefs about their own level of physical activity did correlate to self reported activity and that children's perception of their parents' beliefs were related to their own beliefs. A related later study extended this research and found that when parents' beliefs were directly assessed significant relationships were found to exist between these beliefs and the amount of children's moderate to vigorous physical activity (Kimiecik & Horn, 1998). As well, mothers and fathers differed in their beliefs pertaining to their children with mothers placing more emphasis and importance on physical and mental health benefits of activity as well as weight control and fun. The indication here is that parent modeling of activity may not be as impactful as other socialization forces such as parental beliefs about the importance of physical activity.

These studies were not designed to identify or measure parental social support for physical activity. Rather the focus was on establishing the influence of families and the impact of parents' beliefs and attitudes on children's activity behaviors. Parental influence on activity was found to exist in these studies. As well, mothers and fathers were found to value children's activity for different reasons. However, once again the measures of children's beliefs and their perceptions of parents' beliefs were short (four to thirteen items) likert type scales. While these data are valuable, they seem to be only scratching the surface and do not allow for in depth understanding or significant insights into the subtleties of the relationship that exists between parents and children regarding physical activity behaviors. Further, the measure to assess perceptions of parents' beliefs

consisted of four items all related to performance on fitness tests. This narrow focus limits the relevance of these data when considering general physical activity and lifestyle behaviors. The overwhelming majority of those that participated were white, middle class families, limiting our conclusions and insights. Finally, gender differences in children's activity were not reported so it is not known if girls and boys had similar perceptions of their parent's beliefs or if parents held the same beliefs for activity for both daughters and sons. Taken together these studies support further investigations addressing how parents not only support activity but also impact their children's activity in more subtle, less direct ways. An expanded examination of how mothers and fathers shape and impact children's physical activity participation is warranted that includes separate analyses for girls and boys.

This challenge was in part taken up when Davison and colleagues (2003) surveyed 180 nine year old girls and their parents to determine if the fathers and mothers employed similar activity related parenting strategies and gauge reaction to these strategies by their daughters. Two types of support were identified: a) logistic support which included enrolling and transporting a daughter to an activity or b) explicit support such as participation in an activity with a daughter or modeling of physical activity behaviors as important. The study concluded that mothers and fathers employ different strategies when they attempt to support their daughters' physical activity behaviors. Mothers were more likely to demonstrate logistic support while fathers used their own behavior to model what they felt was important. Despite the differences in support strategies, girls who received either type were significantly more likely to be active than

those who did not receive support. Only 30% of girls were highly active when neither

parent provided high levels of support. This number jumped to 56% when one parent

provided a high level of support and 70% when both parents provided high levels of

support. In families where only one parent provided support, neither parent nor the type

of support made a difference in the reported activity levels for the daughter. Because this

was a cross-sectional study the directionality of this relationship isn't clear, and it may be

that highly active girls elicit higher levels of support from one or both of their parents.

Similarly, it can't be determined if increases in parental support of either type or from

either parent would result in an increase in daughters' physical activity.

This study was conducted with relatively young girls (9 years) and included two-

parent, middle income, non-Hispanic white families. As it is expected that children have

different needs during different development phases it would be useful to gather more

information about the dynamic between parent and daughter as girls get older and are

likely to become increasingly sedentary. Once again, inclusion of a diversity of family

situations and ethnicities would be helpful and contribute to the body of knowledge in

this area.

A racially/ethnically diverse sample was used in a study that explored parental

correlates of physical activity for adolescents, particularly the impact of parental

encouragement on reported rates of physical activity (McGuire et al., 2002). As part of a

large cross-sectional study, parent (n=900; females = 808, males = 92) telephone

interviews were conducted to assess parental physical activity participation, parental

physical activity attitudes, and demographic information. Forty-three percent of

participating parents were White, 22 % identified as African American, 18% Asian, and 10% Hispanic. The adolescent children (n= 900, girls =447, boys = 423) completed questionnaires to assess physical activity participation as well as the degree to which parents exercised and encouraged the adolescents to be physically active. Analyses assessed relationships between parental and adolescent activity behaviors as well as explored the impact of parental encouragement for adolescent physical activity. Evaluation of relationships included assessment of whether relationships were moderated by race/ethnicity. It was revealed that parents' encouragement of physical activity, as reported by the adolescent, was positively related to physical activity in White (r= 0.39, p<.001) and African American boys (r=0.26, p=.007). A small positive correlation between parental encouragement of physical activity and adolescent physical activity was found for all groups of girls combined (r=.15, p<.001) but no racial/ethnic interactions were found. Results suggest that parental influence may be important even into adolescence but that for girls especially, there does not appear to be racial/ethnic differences.

In a study designed to explore declining participation rates in physical activity among children and adolescents between the ages of 5 and 15 in Great Britain, children and parents participated in paired and focus group interviews (Mulvihill et al., 2000). Findings indicate that for younger children (ages 5-11) parents play a significant role in determining the amount of physical activity. Parents supported children mainly by facilitating transportation to activities such as dancing or swimming and deterred children by implementing limits on behavior such as restricting how far from home children could

go on a bicycle or determining whether or not a child would walk to school. In addition, data indicated that a parents' lack of time curtailed activities when children depended on parents to transport them to activities. Children spoke favorably about activities undertaken with peers such as walking to school and outside play. It was noted that much of the activity outside of the school setting was conducted with peers.

For this younger group, parents espoused the social, psychological, and physical benefits of physical activity which contributed to a greater sense of general well-being as well as prevented boredom that might lead to unfavorable behavior. Parents did note that an increased level of participation by their children meant more work for them and competed for their time, but generally accepted this as their role of parent. As well, parents expressed that their own experiences during childhood influenced how they guided their children's physical activity, particularly with regard to physical education. Specifically, a number of mothers expressed negative recollections of physical education experiences, but added that these experiences had shaped their approach to parenting by encouraging children to participate and enjoy physical education opportunities so that they would have more positive feelings. Further, parents confided that safety concerns and expense of activity were factors that influenced participation decisions. Finally, parents noted that physical activity was now more structured and organized than it had been during their own childhood and felt that this may contribute to lower levels of activity in today's children.

In the older group of children (ages 11-15) there was an awareness of the health benefits of physical activity, but for girls there was an admitted decline in participation.

Specifically, girls indicated they were more likely to engage in sedentary activities with other girls such as sitting and talking with friends at lunch and recess and pursuing activity in fewer structured programs in and out of school settings. Other peer influences seemed to deter girls from activity such as increased body image and peer acceptance concerns. Girls indicated that changing priorities and pressures from parents led them to concentrate more on homework demands and pursuing part-time employment. Further, parental fears regarding lack of safe transportation options to and from activity locations contributed to girls becoming increasingly sedentary. However, girls were interested in social activities with a physical activity component such as dancing or utilizing physical activity as a means of controlling weight.

Parents believed that their children became more sedentary as they aged, particularly so for daughters. Perceptions were that activities once deemed appropriate for early adolescents were now considered inappropriate by peers and avoided. While safety concerns were apparent, parents did not acknowledge restricting participation because of those concerns. As well, parents felt that adolescents, especially girls, need encouragement and support to become more active as they grow older.

In another qualitative study that was conducted to evaluate a physical activity promotion program, Coakley and White (1992) reached similar conclusions. Interview data from 60 young people indicated that decisions to participate in activity often stemmed from encouragement provided by parents and peers. As might be expected, younger participants stressed the importance of support from parents most often in the form of transportation, money for registration fees and verbal persuasion. Older girls

pointed towards same sex friends as a reason to get involved and stay involved in active

pursuits. Specifically, several girls stated that they would not have initially engaged in

sport programs had they not been doing so with friends. Other girls indicated they

remained involved in activity programs because of the social aspect of participating with

same sex friends. Male respondents did not express the same need for peer support for

new or continued activities.

The data also provided instances were parents and opposite sex peers negatively

influenced girls participation in activity programs. This was especially true for older

adolescent girls who indicated feeling that some physical activities they had previously

been involved in didn't seem appropriate anymore or were 'babyish'. Some girls

indicated that as they approached adulthood, physical activities were no longer a priority.

These feelings were reinforced by parents who felt that girls needed to drop out of long

standing activity programs because of safety concerns associated with travel to and from

the activity site. As well, girls indicated that parents were less likely to provide the

financial resources necessary to continue with activities and had increased expectations

for daughters to be responsible for a growing number of household chores. Boys did not

articulate any of these concerns or constraints on their activities.

Girls' activities were further hampered by relationships with opposite sex peers.

When girls had a boyfriend they stated that their physical activities were curtailed, often

to accommodate the wishes of their boyfriend. As well, girls expressed heightened

concerns about how they might be perceived by others while engaging in activities.

The body of research that has addressed social support for physical activity for adolescents girls does has centered on various types of support provided by parents and peers. While no clear conclusions can be drawn, it does appear that when support is provided by both parents and peers it is related to an increase in reported levels of activity. However, most of the physical activity research aimed at identifying correlates of girls physical activity do not include the potential negative implications of social influences and have a narrow definition of what constitutes social support. Qualitative studies have revealed that girls may be dissuaded from new or continued activity participation by both parents and peers. It is only through the qualitative works do we get more detail about the perceptions of girls regarding parental and peer influences. Further efforts that seek to augment the existing knowledge to gain a more complete understanding of the social implications of girls lived experiences, including physical activities, are needed.

Adolescent Girls' Attitudes and Beliefs Regarding Physical Activity

As this study has used a qualitative methodology, it is helpful to have an overview of previous qualitative efforts that have focused on adolescent girls and physical activity. Several large scale research projects have used focus groups as part of the preliminary efforts to gather information, prepare, and design physical activity interventions. This type of work accounts for much of the published research that uses qualitative methods and focuses on physical activity behaviors and attitudes of adolescent girls. The following review provides an indication of the types of studies that have previously been undertaken and the important findings that have been gleaned through such endeavors.

Taylor and colleagues (1999) provide an example of focus group data being used to inform intervention design when attempted to identify physical activity beliefs, expectations and experiences of African American and Latino girls. Thirty-four 11-15 year old African American and Latino girls from the southern United States participated in focus group interviews. Six consistent themes emerged, with three related to facilitators or motivators of activity and three pertaining to barriers. Activities that included friends, were described as "fun", and were perceived as enhancing body image or health effects facilitated girls' participation. Alternately, negative attitudes and experiences regarding physical education, negative perceptions about the impact of activity on physical attractiveness or appearance, and limited accessibility because of cost and transportation issues served as barriers to physical activity. Surprisingly, culturally specific determinants, motivators, or barriers were not raised by participants.

In preparation for the Trial of Activity for Adolescent Girls (TAAG) study, formative research was conducted as part of the intervention design. Focus groups with boys (n=77) and girls (n=100) and semi-structured interviews with girls (n=80) aged 11-15 were conducted. Experienced facilitators collected data at seven study sites across the United States representing geographic, ethnic, and racial diversity (Young, Johnson, Steckler, Gittelsohn, Saunders, & Saksvig, B., 2006). The overall aim of the research was to better understand boys' and girls' perceptions of physical activity behaviors.

In one analysis of both the boys and girls focus groups (Vu et al., 2006), three topics emerged for discussion: (a) perceptions of physically active girls, (b) perceptions of barriers for girls to be physically active, and (c) perceptions of motivators for girls to

be physically active (p. 86). Boys and girls had divergent opinions of physically active girls. While girls described their active counterparts in positive terms including cool, good, healthy, fit, and in shape, boys had negative reactions to active girls describing them as too aggressive or tomboys. Boys added that they felt uncomfortable and inferior with active girls. Overwhelmingly girls said that boys were a barrier for girls' participation in physical activity and boys confirmed this perception in their group discussions. Boys asserted that girls themselves provided the biggest obstacle for girls' participation in physical activity, citing image issues and disinterest as being primary reasons for sedentary behavior. Comments from the girls concurred and provided further insights by adding low motivation or interest, low self-esteem, or a preference for watching television or socializing with family and friends to the list of reasons they were inactive.

The most consistent support girls reported for physical activity was encouragement from family members, especially parents and siblings. For girls this familial support came in the form of verbal encouragement, role modeling, and active participation with girls. Boys also said they felt that parents were instrumental in girls' participation in physical activity; however they suggested that parental input should be in the form of punishment as a means of motivating girls to move. Some girls stated that boys were a motivator for activity as a means of getting desired attention while others wanted to counter teasing from boys by showing them that they could out perform boys. Both boys and girls felt that incentives or rewards were appropriate motivators for girls to increase activities. Finally, both boys and girls consistently reported that more

opportunities designed to meet their particular interests as well as girls-only activities would enhance girls' physical activity.

While there are some discrepancies between boys' and girls' perceptions of activity behaviors for adolescent girls, there is also a high degree of consensus. An important focus is not only the identification of barriers, but also facilitators of physical activity participation. By identifying facilitators of activity, researchers may be better informed to make decisions regarding emphasis for intervention or how to best allocate resources. The data gathered here helps to provide contextual information about the lives of adolescent girls that is often missing from quantitative work.

A second formative study in the development of the TAAG intervention used semi-structured individual interview data to identify the physical activity attitudes, preferences and practices in African American, Hispanic, and White girls (Grieser et al., 2006). Again, the ultimate goal for this study was to gather the pertinent information to develop an intervention that would be meaningful and relevant to adolescent girls of different ethnic backgrounds. The expectation had been that girls belonging to different ethno-racial groups would respond best to intervention strategies tailored to their specific beliefs, attitudes, and practices. However, this investigation did not support this supposition. Staying healthy or getting fit was reported most frequently by all groups as the most important benefit of physical activity, regardless of ethnic identity. As well, the social connections and interactions provided by sport settings were appealing to all ethnic groups. Therefore, programs that offer fun, fitness related activities in social settings are likely to appeal to girls of all ethnicities. Similarly, girls of different ethnicities seemed

to perceive detractors of physical activity in much the same way and included fear of injury, lack of skills, and embarrassment as negative consequences of activity. The authors note that many of the positive and negative perceptions associated with physical activity are related to the physical activity process (appearance during and after activity, discomfort and embarrassment). It is appropriate then that messages encourage initiation and compliance with activity behaviors should pertain to this process in addition to longer term, larger scale outcomes.

The leisure literature has also provided several examples of qualitative inquiries pertaining to adolescent girls' physical activity. A study that sought to identify the prevalent influences on attitudes and behaviors of school students towards physically active leisure pursuits was conducted in rural settings in Canada (Thompson, Rehman, & Humbert, 2005). Within a phenomenological framework twenty-two individual, in-depth interviews were conducted with seven elementary students, seven junior high students and eight high school students.

For elementary school participants it appears that the strongest influences on active leisure choices are parents and opportunities for play. Parents were reported to have both positive and negative impacts on active leisure. In some instances parents encouraged and enabled children to participate, but in other cases a lack of support or financial resources within the family prohibited activities. All students described active play outside as being an integral part of their day. These opportunities were part of their structured school day during lunch and recess as well as before and after school. Junior high school participants reported that friends as well as organized activity opportunities

had the most impact on their physical activity choices. At this age organized after school activities comprised most of the students' leisure choices. However, organized sport outside of school was not popular. Importantly, girls reported low participation rates in organized sport because "girls only" teams and leagues were not available in their area. Non structured play opportunities continued to be an integral part of the day in junior high school with participants reporting play at recess and lunch. Friends appeared to be the most important social influence, with participants indicating that they chose activities largely because of the opportunity to spend time with friends and peers. A significant barrier to activity reported by this age group was time spent television. Students who reported the least amount of sedentary time in front of the television also indicated that parents were instrumental in limiting this time and instead encouraging active choices.

At the high school level academic responsibilities posed a significant obstacle to active leisure, specifically course workload and homework. Again, participants reported that organized sport activities were instrumental in the active leisure by providing desirable opportunities as well as being a social outlet to spend time with friends. For the first time in this study comments appeared that indicated body image issues related to fitness, thinness/fatness were reported as a reason to engage in active pursuits. There appeared to be a decrease in the amount of time spent in non-structured play endeavors. As well, there was an increase in the number of students who said that cost, inadequate facilities, and a lack of volunteers were barriers.

Common throughout all age groups was the role of parents in activity choice and the availability of interesting active leisure opportunities. Although this study included

both boys and girls, its findings are important in recognizing the social and environmental factors that impact on children's activity choices. As well, we are afforded insights into how it is that children experience and perceive their lives. This is an important contribution as physical activity and health promoting programs are developed and tailored to various youth groups.

Another Canadian study investigated factors that hampered physical activity in adolescent girls (Dwyer, Allison, Goldenberg, Fein, Yoshida, & Boutilier, 2006). Seventy-three 15-year old girls in a large ethno-racially and socio-economically diverse city participated in focus groups. Structured interview guides focused on identifying difficulties and obstacles that curtail moderate to vigorous activity. Analyses revealed that the most prominent barriers for physical activity for adolescent girls include: technology related activities, influence of peers, parents and teachers, as well as body-centered issues. While some participants spoke of parents as being positive role models and supporting physical activity efforts, others described situations where parents deter participation. Some parents preferred that girls be home doing homework or working at part time jobs. One girl noted that her father wanted her to "settle down" now that she was older (p. 81). Other parents felt that physical activity environments such as parks or community centers were not safe places for girls to spend time or expressed concern about the risks for girls traveling to and from such locations alone. The authors suggest that barriers primarily seem to be interpersonal and environmental, and argue that community and school interventions or programs can play an instrumental role in changing the lived realities of girls so that they may be enabled to increase physical

activity choices. As in previously reported work, differences between girls of different

ethno-racial backgrounds did not present themselves.

An important study in Australia used focus groups, as well as mapping and

photographic methods to delve into children's theories of physical activity, play and sport

(MacDougall, Schiller, & Darbyshire, 2004). To accomplish this 204 children aged 12

and under partook in focus group discussions. The transcripts of these group discussions

revealed that children have contrasting meanings for "sport" and "play". For the children

in this study, sport was clearly defined as adult organized, team sports that required

particular equipment or facilities and had a defined set of rules. More specifically, sport

was equated with organized team sport even when asked by the facilitator if sport could

also be considered as exercise and a way of achieving greater levels of fitness. It was

revealed that the adults required for "sport" included teachers or coaches who directed

sport in school and community settings as well as parents who provided money, time, and

transportation that enabled child participation.   "Play" was immediately recognized by

all focus groups as different from sport in that it is child-centered and was distinguished

as being "fun, spontaneous" and included interactions with friends that weren't "too

competitive, or too aggressive" (p.380).

This distinction between sport and play is further highlighted as children

expressed the ways decisions are made in each setting. In sport environments there are

set facilities and equipment as well as established rules to follow. Activities begin and

end according to directions from the adult in charge. Play situations are distinguished

from this in the way choices and decisions are made. Play is the business of children and

they decide what and how to play depending on the number and interests of the people involved. The dichotomy between sport and play was demonstrated by one group of respondents who indicated that adults decide the rules for sport but children decide the rules for play.

When pressed about their views regarding physical activity, fitness, and exercise for health benefits, it is clear that children considered these to be organized activities for an adult world that did not concern them. Health messages concerning the benefits of physical activity were lost on the respondents. Children were unable to discuss what desired health outcomes might accompany an increase in physical activity. Efforts to increase physical activity in children should therefore focus attention in other areas rather than emphasize potential health benefits.

<div align="center">School Environment and Girls' Physical Activity</div>

Places where people spend a large part of their day have the potential to shape physical activity choices. For adolescent girls, the design of schools, neighborhoods, and play spaces are then likely environments that impact the type and amount of physical activity in which girls engage. Although a relatively new area for research there is a growing body of knowledge that scrutinizes the impact of such environments on girls' total activity. Particular attention has been paid to school environments as they are important setting where large numbers of adolescent girls regularly convene. An early review article identified the various aspects of school environments that might influence physical activity and nutrition behaviors for school aged children (Wechsler, Devereaux, Davis, & Collins, 2000). While these researchers suggested examining recess duration,

availability of intramural sport and physical activity programs, and availability of facilities as three potential factors that may impact physical activity in school settings, no research findings could be found in these identified areas. The review indicated that a critical issue for all of these environmental factors was safety. The recommendation was for researchers to devise interventions that increased intramural programs and facilities at schools to promote activity but advised that such efforts needed to occur in a safe environment. Here safety refers not only the adherence to safety guidelines for equipment and physical spaces but also the provision of an environment where students would perceive themselves to be not in danger. This was particularly important in high crime areas where children may not feel safe playing on school playgrounds (Wechsler et al., 2000, p. S125).

Sallis and colleagues (2001) undertook one of the first studies to investigate the environmental correlates of student physical activity as a means of identifying variables that could be targeted for large scale multidimensional interventions. Using 24 Californian middle schools that had a mean enrollment of 1081(SD=352) where students were racially and economically diverse the study assessed the association between school environmental characteristics and student physical activity while at school. This was accomplished by multiple observation days at each school and measuring three variables: (1) the types of areas available for physical activity, including indoor spaces, outdoor marked court spaces and open field spaces (2) the size of available physical activity areas in square meters, and (3) permanent improvements to activity areas such as basketball hoops, tennis courts or soccer goals. As with other types of research this study found that

girls at this age are far less likely to be physically active than boys and that girls are more active when an adult is present to supervise the activity. Findings indicated that girls were more likely to be active in supervised settings that included improvements to the environment, although compared to boys, girls were not likely to engage in activity on marked outdoor courts. Very low percentages of both boys (6%) and girls (2%) were likely to choose to be physically active during unstructured time. This study provided some of the first insights to activity patterns of middle schools girls depending on environmental factors in school settings.

A more recent study focused on school design and available facilities as potentially having an impact on girls' physical activity (Cohen, Scott, Wang, McKenzie, & Porter, 2008). Examination of data collected as part of the Trial of Activity for Adolescent Girls (TAAG) study indicated that school footprint size did account for 16% of all moderate to vigorous physical activity during school hours and outdoor sites for activity accounted for 29% of moderate to vigorous physical activity. However, the relationships between school size and facility availability and rates of physical activity may not be that simple. The authors suggest that the types of programs offered in schools such as intramurals and club sports, as well as the site chosen for the school may have larger impacts on activity levels. In another TAAG study it was found that schools closer to population centers, rather than on land rich sites on the outskirts of town, had higher levels of physical activity because girls engage in active transport when their school is close to their home (Cohen, Ashwood, Scott, Overton, Evenson, Voorhees et al., 2006). This study aimed to identify the correlation between specific physical features of school

environment and activity. Its intention was not to determine how a change in any element of the school environment could impact girls' lives or uncover the quality of the active experiences. More research is needed to more fully develop our understanding of the role environments play in girls' active lives.

A recent Canadian study sought to determine how the specific type of environment found at school sites impacted both the amount of activity in which girls engage as well as the quality of the activity (Dyment & Bell, 2008). These authors specifically target the impact that parks and open, green spaces have on active experiences. Fifty-nine schools across the country were identified as having completed "greening" projects whereby the school grounds were changed to include more natural elements such as trees, shrubs, gardens and ponds. Teachers, administrators and parents (n=105) from these schools completed questionnaires regarding the perceived impact the environmental change had on levels of physical activity on the "greened" sites and how activity on these new sites compared with activity on the old locations. Respondents indicated that the new greener spaces enabled more vigorous physical activity (49%) and more moderate activity (71%). The responses from this survey are not objective measures of duration, intensity or quality of physical activity, but are instead observations of adults familiar with the situation. It is likely that these adults were supporters and promoters of the "greening" project and their viewpoints might be swayed by their preconceptions regarding a need for quality, outside play. Future studies should look at incorporating objective measure of activity as well as inclusion of the children for their perspective of the new activity settings.

Further, observations in this study indicated that new types of low to moderate intensity activity were introduced as a result of more green spaces merits further investigation. Survey results indicated that gardening activities such as raking, mulching and digging, as well as chasing butterflies and climbing rocks were new to school environments and potentially big contributors to daily activity totals as well as lifelong physical activity habits. Interestingly, safety concerns were noted as important issues in space design. Respondents indicated concerns about sight lines, water safety and climbing activities because of greening projects. Also of concern were issues pertaining to neighborhood crime and safety for children. The contention of some respondents was that by including the school green spaces as part of a neighborhood contributed to a greater sense of community cohesion and decreased levels of crime thereby increasing student safety. As previously stated these are observation data and not objectively measured however they do provide insight and direction for future work.

An Australian study that examined the influence of motor skills and play area on free play physical activity for 8-11 year old children found that increased play space was related to more physical activity, to a higher degree for boys but also for girls (Hartens, Olds, & Dollman, 2008). Girls were found to be more cooperative than boys and engaged in small group games using less space than boys who tended to play in large group competitive games that used larger play areas. Clear gender differences were found for energy expenditure depending on the type of play space considered. Boys were most active on grassy field areas where as girls were significantly more active on the smaller courts and playground areas. Physical activity was determined by energy

expenditure objectively measured with accelerometers. Adding to the quality of this data was triangulating data recorded as research assistants recorded observations while watching children interact on school play spaces. These observations provide some insights which might suggest why boys' energy expenditures was higher than for girls. Specifically, boys gravitated to games like soccer which require bigger areas and played in aggressive and competitive ways that resulted in more activity. Girls chose cooperative games where everyone took turns to play in smaller spaces requiring less demonstrative physical skills. These findings help develop our understanding of the complex influences on girls physical play.

<div align="center">Summary</div>

Taken together these bodies of research demonstrate how physical activity behaviors for adolescent girls are the result of complex interactions among several factors. Although some of these factors are fixed, such as demographic and biological determinants, others like the social environment are modifiable. At a time when rates of physical activity are declining steadily to the detriment of the general health and well being of a generation of young women, it is important to consider all influences that shape girls' physical activity. A comprehensive understanding of the influences that shape adolescent girls' behaviors may be accomplished by extending our questions beyond a finite list of possible influences and giving a voice to those who best know the experience, adolescent girls.

CHAPTER III

METHOD

The purpose of this research was to explore how the social context in which adolescent girls live influences their perceptions of physical activity and impacts their choices and behaviors. Particular emphasis was placed on the influence of significant others, particularly parents and peers, on physical activity preferences and rates of participation. Further, participant contributions regarding their understandings of what constitutes physical activity and how physical environments shape those understandings were examined. A first step was the administration of a social support survey designed to uncover girls' perceived support for physical activity received from parents and friends. These findings provide context for the rest of the study where girls were given the opportunity to voice their perceptions and feelings, as well as provide meaning to these perceptions through a series of focus group interviews. Finally, the influence of physical and community surroundings on physical activity behaviors were considered. The remainder of this chapter includes a description of the tradition of inquiry, participants, procedures, and analyses.

Tradition of Inquiry

Negotiating the terrain of physical activity behavior research that has been steeped in the positivist traditions of sport and exercise psychology and locating a space for qualitative methodologies poses a significant challenge. There are few precedents

where inductive work has been embraced as informing and extending bodies of knowledge. However, when conducting exploratory investigations that privilege the participant as expert and give priority to that participant rather than the method, it is appropriate to employ a more flexible approach. This study is therefore grounded in an interpretive paradigm where the researcher seeks an understanding of the lived experiences of participants without assuming an authoritative role (Denzin & Lincoln, 2003). The use of qualitative methodologies permits the researcher to "discover rather than verify, to identify more than a cause-effect, but instead an explanation with understanding that gives us insight into individuals' behavior and experiences" (Giorgi, 1985, p. 14). This is especially important for a group such as adolescent girls. Escalation in attention and research focused on the physical activity habits of children and adolescents has not resulted in an increase in the number of studies that include children or adolescents as active agents of their well-being. Predominant approaches are grounded in research on adolescents rather than research with or for adolescents. This results in 'the missing child' in research findings. Scholarship rarely permits the reader to hear directly from adolescents as key informants in matters pertaining to their health and well-being (Darbyshire, 2000; Darbyshire, MacDougall, & Schiller, 2005). This study addresses this gap in the literature.

In an attempt to hear the voices of adolescent girls as they describe their feelings and perceptions of physical activity in their daily interactions and settings, this research relied on phenomenology as the tradition or strategy of inquiry. Phenomenology asks the question "What is the meaning, structure, and essence of the lived experience of a

phenomenon for a person or group of people?" (Patton, 2002, p. 104). Creswell (1998) adds that phenomenology serves as the rationale behind efforts to understand individuals by entering into their field of perception in order to see life as the individuals see it (p. 275). Further, a phenomenological approach allows the researcher to portray a lived experience in context and describe complex interpersonal interactions that would not be possible within a positivist paradigm. This study has tried to elucidate and describe the shared experiences of adolescent girls with regard to the social and environmental influences on their physical activity choices and behaviors. The data collected provide concrete details that give life to the experiences of participants and allow for a depth of understanding that extends our current thinking, instead of merely reflecting back on a priori assumptions and judgments. Insights gleaned during this developmental stage may illuminate our understanding as to why decreases in physical activity participation occur for girls and what changes in girls' lives bring about the decline. While the goal in a phenomenological study such as this one is to emphasize the shared experience, the focus here was not a particular activity or level of activity. Instead, the intent was to uncover how the social influences and environments inherent in the context that young girls encounter daily sway choices and perceptions regarding physical activity. Therefore it is the influence of others, the physical spaces, and social contexts encountered on a daily basis that is the shared experience.

Early adolescent girls were invited to share experiences and become key informants on the social and environmental influences for physical activity behaviors. As only girls can inform us about these experiences their participation was essential.

However, it is imperative that the researcher be reflexive and self-aware of biases and preconceived ideas that she might bring to the research. Such judgments and assumptions were acknowledged and recognized and then bracketed throughout all stages of the research endeavor so as to avoid infringing upon the integrity of the work (Creswell, 1998; Patton, 2002).

<div style="text-align:center">Participants</div>

Participants were 32 early adolescent girls between the ages of 11-13. This age range was chosen as it coincides with middle school years and it is during this time that differences between activity levels for boys and girls appear. A marked decline in girls' physical activity occurs and a trend for girls to become increasingly sedentary is documented (Crespo et al., 2000). As well, having participants who all attended middle school made comparisons between groups more meaningful in that similar school environments could be expected.

Girls participated in one of seven focus group interviews made up of 3 to 7 girls per group as is consistent with this type of research (Creswell, 1998). Group size was an important consideration for this age group to avoid discussions becoming more like parallel interviews (Hennessy & Heary, 2005). As expected the dynamic of each group was unique; however, the one focus group that consisted of only 3 participants was the most challenging. Four of the seven focus groups consisted of 4 participants which proved to be a workable number that allowed participants to speak freely on a giving subject and yet provided comfort in the group environment for the girls involved. There were also one focus group with six participants and one with seven.

Table 1.

Demographic Information of Study Participants

	n	*%*
Race/Ethnicity		
African American	17	53.13
Caucasian/White	15	46.88
Age		
11	11	34.38
12	11	34.38
13	10	31.25
Grade Level		
6	15	46.88
7	7	21.88
8	10	31.25
Number of Adults Residing at Home		
2	19	59.38
1	13	40.63
Number of Parents Employed		
2	23	71.88
1	9	28.13
0	1	3.13

A racially diverse sample was recruited, so that 47% of participants self-identified as Caucasian and 53% self-identified as African-American. Focus groups were homogenous in terms of ethnicity or racial identification. As is recommended for this age group, participants in each group were well acquainted with each other and therefore at ease in group discussion (Hennessy & Heary, 2005). Only girls who attend public schools were included as participants as the social environments encountered in private schools or experienced by home-schooled children was thought to be different than that experienced by girls who attend public school and beyond the scope of this investigation.

Criteria for participation included the ability to read and speak English, as well as the

provision of parent consent and child assent. Table 1 provides an overview of

demographic information.

Instruments

In order to recruit and group participants in a purposive way, demographic

surveys were first administered. The intention was simply to gather demographic

information for participants, which included age, grade, school status, ethnic and racial

identification category, and family structure (Appendix B). As the focus of this study

was perceived social influence and support from significant others, participants were also

asked to complete a self-report survey that assesses perceived support for physical

activity from parents, peers, and significant others called the Perceived Social Support for

Physical Activity Survey (Appendix C). This is a modified version of an instrument used

previously (Duncan et al., 2005; Sallis et al., 2002). Participants were asked the extent to

which selected people provide different types of support for each activity. For each

reference person (Mother, Father, caregiver, friends) 5 types of support are assessed by

asking participants to respond on a 5-point scale ranging from 1 (never) to 5 (very often).

Specifically, questions asked how often during a typical week does each of the reference

people do the following: "Encourage you to do physical activities," "Do a physical

activity with you," "Watch you take part in physical activities," "Talk with you about

your physical activity," and "Provide transportation so you can go to a place where you

can do physical activities". This scale has been used and validated in previous studies

(Duncan et al., 2005; Sallis et al., 2002). In the current study, this scale was modified so

that participants were asked to differentiate between male friends and female friends when answering each of the five questions. Although this distinction has not been made in previous research, findings from a qualitative study (Vu et al., 2006) indicate that girls may indeed have different perceptions of the influence of male and female friends on activity choices.

The interview guide (Appendix D) developed for the focus group interviews was informed by a review of relevant literature, research questions, and information gathered via two pilot interviews. Interview guides and outlines used in previous qualitative studies were used to form the skeleton of the guide (Dwyer et al., 2006; Mulvihill et al., 2000; Vu et al., 2006). Questions were modified and refined based on the findings of quantitative studies in order to extend and expand upon the data presented in that body of research. The suggestions of Fontana and Frey (2000) were used in the ordering of questions beginning with some general, exploratory questions about perceptions of physical activity and moving to more specific questions regarding the perceptions of social influence from parents and peers and environmental circumstances.

When preliminary questions were formed, individual interviews were conducted with two adolescent girls (ages 11 and 14) in an attempt to evaluate the clarity of questions for an appropriately aged audience. Based on information collected in these interviews additions and changes were made to the interview guide. First, a preamble was added that briefly explained the purpose of the research as well as giving a simple explanation of what is meant by physical activity. This was necessary as both girls had narrow definitions of physical activity. The younger of the two initially thought that I

was asking about physical education classes where as the older girl was equating physical activity with participation on a sports team, although not specifically a school based team.

Further, the wording of some questions was changed to improve comprehension, questions were eliminated, and probes were developed so that more in-depth investigation of the topic could be accomplished. For example, in the first of the pilot interviews the researcher followed the interview guide provided by Mulvihill and colleagues (2000) that included questions probing general attitudes and beliefs about physical activity as well as those attempting identify barriers and facilitators of activity. This made the interview too long (almost two hours) and there was only one participant. These areas were omitted from the current interview guide. As well, possible probes were added to most questions. All of these probes were not needed all the time, but helped improve the clarity of the question or encourage a more detailed and descriptive answer when necessary.

Finally, the pilot interviews did not include general introductory questions and instead asked questions about specific significant others such as parents or peers. General exploratory questions were added to provide the opportunity for girls to identify those individuals who are influential to their behaviors. An example of such an added question is, "Is there anyone in your life who encourages or helps you to be physically active?" This addition was made to encourage conversational dialogue that wasn't a series of short answer questions directed by the investigator. As well, these introductory questions served to build rapport with other participants and the investigator.

Procedure

The Tarheel Triad Council, the local branch the Girls Scouts of the USA that oversees, facilitates, and provides programming for girls, helped and supported participant recruitment. The local coordinator first contacted several group leaders to make them aware of the study and the Triad Council's support of it. Interested Girl Scout leaders were given the researcher's phone and email contact information to make initial contact. In some instances several phone conversations were necessary if the troop leader had questions or wanted to make arrangements for the researcher to meet with parents to explain the project and obtain consent. Copies of parent consent (Appendix E) and child assent forms (Appendix F) were sent to groups that agreed to provide the opportunity for participation to its members. For each troop, arrangements were made for the researcher to attend a regularly scheduled troop meeting so that questions from parents or guardians could be answered and parental consent forms signed. After a parent or guardian gave consent, girls were asked if they would like to participate. Child assent forms were then signed and collected. In all cases daughters were with a parent when the study was explained and assent forms were signed.

After parent consent and child assent was obtained, participants were given the demographic survey as well as the Perceived Social Support for Physical Activity Survey. Girls were given as much time to complete these instruments as necessary. After completion of the surveys, the researcher and notetaker (if present) did some general introductions and ice breaker activities to warm up the groups. At this time the girls selected the pseudonym that would be used for them during transcription and data

analysis. A table listing the demographic information for each participant with the pseudonyms can be found in Appendix G. Girls were asked if there were any questions before focus group discussions began and it was reiterated that they could cease participation at any time.

Focus group interviews were conducted using the interview guide previously described. Four of the seven focus group interviews included a graduate student as a note taker. A focus group interview format was chosen because of the interactive nature of such an approach (Johnson, 1996) and because it provided the best fit for the age of the participants. When working with young people focus groups are arguably more suitable than individual interviews as they create a safe peer environment and mimic the small groups often found in school settings (Mauthner, 1997). The presence of peers helps to counter any power imbalance between an adult researcher and a child participant that might exist in individual interviews (Hennessy & Heary, 2005). Using focus group discussions privileges and acknowledges the participants as expert so that the child doesn't feel pressured by questions posed by an adult but rather is sharing opinions with a group of peers. Establishing the researcher in a facilitative role encouraging discussion rather than leading it was particularly important. Young participants may be more likely to contribute to group discussions when they hear others do so.

Each interview began with the researcher using an information preamble to outline the intent and scope of the study, sharing the researcher's background and interests in girls' physical activity. Interviews were conducted at the time and location of the regularly scheduled meeting for the girls' group activities (Girl Scout meetings) and

consisted of 3-7 participants. For most groups familiarity put the participants at ease and facilitated free discussion. There was, however, one notable exception. In the group of 3 participants one participant came from a different school and was 2 years older than the other girls in the group. As mentioned previously, this group was awkward and difficult to warm up. A rhythm and comfort level among participants was never established with this group resulting in serial interviews rather than a group discussion. Responses to questions were short and lacking in detail as it was difficult to draw richer responses from participants. The researcher made the decision mid-interview that the participants were not relaxed and that the best course of action would be end the interview quickly as to not make participants more uncomfortable. This interview was transcribed and the data considered during analyses, however, the responses did not contribute significantly to the findings. Appendix H includes a brief description of the make up of each focus group to provide the reader with insights as to the dynamic of each group.

　　　　All interviews were recorded by audio-tape. The researcher first listened to the recording within 2 hours of the interview and then recorded reflections at that time. This was done to ensure that the researcher's observations were noted while still fresh.   Each interview was transcribed verbatim by the researcher.   To ensure the anonymity of the participants, participants were identified with pseudonyms of their own choosing on transcripts so that names did not appear.

　　　　With each group a second visit was made to a troop meeting so that the researcher could conduct an information session with the larger group of girls as agreed upon with Girl Scout leaders. This was a request from the Tarheel Triad Council and the Girl Scout

group leaders to fulfill patch work requirement for all members of the group and not just those that had participated in the study. For some, this information session was aimed at informing girls what a sport psychologist does and included a brief presentation, a relaxation exercise for the group and time for questions and answers. In the other troops the session was geared towards expanding physical activity participation and included sessions where instruction was provided for volleyball activities.

Analyses and Data Reduction

Data analyses of the interviews and transcripts started immediately after focus group discussions and continued throughout data collection, analyses and write-up. This strategy provided the opportunity to refine questions throughout the research process to best capture the experiences of adolescent girls and address the research question. As described by Meloy (1994), better understanding of the issues involved in the research are developed while doing the research, therefore it is appropriate to review transcripts and revise questions throughout the data collection process. During data analyses and argument synthesis, the researcher was immersed in the data, in this case the interview transcript, and returned to it repeatedly. Because the essence of the lived experiences of adolescent girls can only be known through their words, it was essential to frequently return to the transcripts to see what the data revealed. Creswell (1998) also supports this process in a discussion of phenomenological data analysis. He asserts that interviewing, analyzing and writing are not distinct phases throughout the course of research, but rather are "intermingled processes" (Creswell, 1998, p. 20).

An inductive analytic strategy was used whereby the objective was to discover patterns, themes, and categories in the data. Attempts were made for themes and categories to surface from within the data and develop throughout the analytic process. (Patton, 2002). Interpretive analyses rely on inductive approaches, searching for codes and categories within the data set. Such strategies are often referred to as open coding (Strauss & Corbin, 1998) and are contrary to deductive analyses where existing frameworks and categories are imposed on the data.

Throughout the research process efforts were made to identify the "big themes" that emerged from the participant responses (Vaughn, Schumm & Sinagub, 1996). At the completion of each interview, the researcher recorded personal reflections, initial thoughts on the dominant themes and ideas articulated from the discussions. This served as the first step in providing some type of organization to the data, as later analysis focused on smaller units of the transcriptions and interviews.

Several authors suggest the use of coded categories when analyzing interview transcriptions (Creswell, 1998; Meloy, 1994; Silverman, 2000; Vaughn et al., 1996). Simply, this is breaking down the big themes into subcategories of the collected data that share similar meanings or address similar topic areas as well as noting blaring differences in responses. This process began with the major issues addressed with the interview questions and the data collected in the pilot interviews. Over the course of the data collection period new categories of classification were uncovered and included, as others were excluded. This was a flexible process with many additions and changes occurring as the work progressed.

As identified by Creswell (1998), when analyzing interview data using a phenomenological approach, horizontalization takes place early in the process whereby each piece of data is treated as having equal value or importance (Patton, 2002). To do this, Vaughn, Schumm and Sinagub (1996) suggest "unitizing" the data by breaking down the transcript into smaller pieces where the smallest unit of information is informative on its own. Accordingly, meaningful statements and units of data were identified and organized into tables where pieces of data addressing similar topics were grouped or clustered together. Headings were given to these clusters of meaning (Creswell, 1998) that fit the data. Classifying statements together in such a manner is an integral part of the analysis of data using a phenomenological approach.

When the interviews were finished and categorization of the transcripts complete, the information was synthesized into meaningful observations. General or textural descriptions that encapsulate the shared experiences of adolescent girls and how they perceive the social influences in their lives that impact their physical activity behaviors were generated. The goal was to assemble a complete picture of lived experiences of the girls and provide a detailed portrayal, with the help of supporting quotes from the participants, of their physical activity choices. Analyses then proceeded to locate girls' experiences within the larger social context by returning to the relevant bodies of literature and to make insights relevant to the current bodies of knowledge. This included references to quotes rich in description from the interview transcripts to be certain that the voices of the participants are heard in the conclusions.

Verification of Data

Verification is a vital step to ensure the integrity of qualitative research. Thorough verification that ensures trustworthiness and authenticity of the data leads to credible research (Lincoln & Guba, 1985). Routes to verification include triangulation, persistent observation, peer review, reflexive analysis, member checks, and external audits (Creswell, 1998; Lincoln & Guba, 1985). To ensure the trustworthiness of the data, Krefting's (1999) suggestions to employ strategies of triangulation and verification were used. This included revisiting the researcher reflexivity statement before analyses began to ensure that feelings and attitudes pertaining to adolescent girls' physical activity were appropriately bracketed and did not bias analyses. It was helpful to return to the reflexive piece repeated throughout the process to ensure that the researcher was positioned to consider the data without prejudice. The survey data collected were used to triangulate the focus group data and provide general insights. Extensive engagement with the data throughout data collection and analyses lends support to the findings.

Two external readers experienced in qualitative and interpretive methodologies were included in the reading of transcripts, identification of categories, clusters, and units of meanings. The insights elicited from these readers were extremely valuable not only because of their extensive backgrounds in interpretive research but also because of the breadth of experiences they could bring. Although neither of these colleagues considers physical activity research as their primary area of focus, both have much experience in gender related issues in research and are involved in health related studies. One of the readers has a doctorate and currently holds a faculty position. The other reader has

Masters degree in Education and is employed in an applied health setting where she facilitates health research. The findings of these outside readers were compared to those of the primary researcher to verify the content of analyses. Several conversations took place whereby the researcher asked for clarification of the external readers interpretations of transcripts.

Finally, presentation of the data and syntheses of findings relied on rich, thick description. This included direct quotes taken from the interview transcripts to support themes and categories, allow the voices of the participants to be heard, and clearly establish girls' perceptions of their social environment and physical activity behaviors as the focal point of the research. In doing so, the researcher kept returning to the Ecological Model of Physical Activity (Spence & Lee, 2003) as a guiding framework. Using this framework provided organization to the data so that findings could be presented in a meaningful way.

CHAPTER IV

FINDINGS

This chapter provides an overview of participants' responses on the Perceived

Social Support for Physical Activity survey measure and presents the major findings from

focus group data. Responses on the social support scale reflect previous research findings

and provide a context for the interview findings that follow. The major findings from the

focus group data are detailed through four themes that emerged through data reduction

and analyses: a) conceptualizations of activity, b) support for activity, c) (in)active

spaces, and d) active time. Each theme is discussed using supporting categories and units

of meaning taken from interview transcripts that provide a glimpse of girls' perceptions

of active experiences and how their reality is shaped by significant others and the

environment. Analyses have relied upon a social ecological framework, in particular the

Ecological Model of Physical Activity (EMPA) as a guide (Spence & Lee, 2003). The

findings related to the first two themes, conceptualizations of activity and support for

activity, demonstrate how conversations with study participants reflect findings in

previous research with a focus on micro level or individual analyses. Within these

themes, instances are discussed where new insights were uncovered. Findings in the

third and fourth themes, (in)active space and active time, describe how adolescent girls

interact and negotiate within their lived environments. Glimpses of how adolescent girls

perceive and interpret their physical circumstances are presented. Quotations from focus

group interviews reveal how the daily lives of adolescent girls in this study, and in particular their physical activity choices, are influenced by macro level policies and societal values.

<div align="center">Perceived Social Support for Physical Activity Survey</div>

The Perceived Social Support for Physical Activity Survey asks participants to indicate the extent to which the actions of selected significant others in their lives support their physical activity behavior. This scale was administered to participants to gain a general picture of how girls perceive parents and peers as supporting their physical activity behaviors. Participant scores on this measure were also used during analysis of the focus group transcripts as a means of triangulating the findings from the focus group interviews.

As each participant answered 20 survey questions on a 5-point Likert scale, with a 5 indicating greater perceived support, the maximum score possible is 100. Scores from participants ranged from 29 to 81 with a mean score of 58.625 (SD=16.76). Adolescent girls in this study indicated the highest perceived support for the survey questions pertaining to mothers "doing a physical activity with you" (M=3.59, SD=1.13), "watch you take part in physical activities" (M=3.72, SD=1.30), and "provide transportation so you can go to a place where you can do physical activities" (M=3.78, SD=1.52), as well as for female friends "encourage you to do physical activities" (M=3.75, SD=1.44).

Comparisons made for mean scores between grade level, age, number of adults in the home, and number of employed parents did not reveal any apparent differences in mean scores. However, larger differences were noted for comparisons by race. An

independent samples t –test was performed to compare total perceived social support for physical activity scores between African American and White girls. There was a significant effect for race, $t(30)=5.38$, $p<.0001$ between scores for African American girls (M=47.06, SD=14.30) and scores for White girls (M=70.19, SD=9.54). Figure 1 provides a representation of how total perceived social support scores break down by significant other.

Figure 1. Sources of Social Support for Physical Activity
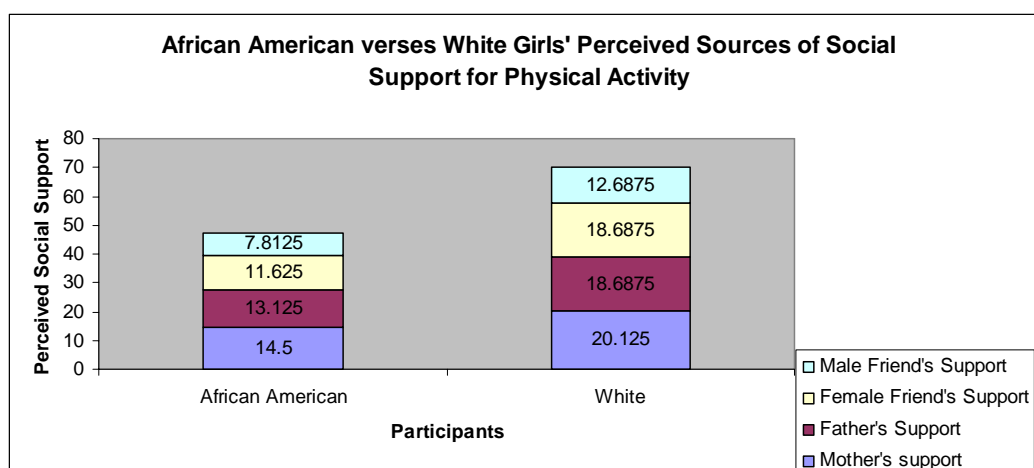
Previous studies using this measure have not specifically looked at girls separate from boys nor have ethnic or racial groups been independently examined. Because sample size is small, it is not possible to generalize these findings beyond the participants in this study but these differences are important to keep in mind during the analyses of the interview transcripts that follow. There are potentially other explanations for differences in responses including geographic location (urban verses rural) or socioeconomic status. However, the findings do indicate that the possibility of differences existing between

girls of different ethnic or racial groups is one that should be explored. In the ensuing

interpretative analyses of the focus group interview data, potential differences between

racial groups are noted.

<center>Conceptualizations of Activity</center>

In an effort to focus conversations, each group discussion began with the

researcher giving a preamble that addressed the meaning of "activity". Specifically,

participants were told

> physical activity is something you do which makes you feel out of breath,
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> makes you feel tired or slightly warm and sweaty. Physical activity does
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> not only mean doing physical education (PE) or sport or exercise at fitness
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> center, but can also include activities like walking, playing, outside,
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> biking, or dancing.

In every group, questions and brief discussion followed to ensure that participants

seemed to have an understanding of physical activity. However, as interviews progressed

it was clear that girls often had narrow definitions of what constituted physical activity.

For some, physical activity was equated with organized sport whereas others interpreted

physical activity as more playground-based, free play activities. Sport was differentiated

from other terms, such as activity, in the way that activity choices were made.

Specifically, as noted by other researchers, when adults were involved in choosing

physical activities they were almost exclusively team-based organized sport

(MacDougall, Schiller, & Darbyshire; 2004, p. 379). The preconceived notions about the

meaning of physical activity seemed to be well engrained in the minds of participants, shaping their perceptions of activity and therefore the discussions that followed.

When asked about regular activities in which they participated many girls replied in a way that equated activity with sport and excluded other types of activity. For example Lizzie described her physical activities in the following way:

> I play some sports. I do soccer at the Y in the Fall and sometimes Spring. In the summer I am on swim team. Not much else I guess. All my friends are on sports teams with me and we like to do the same things together.

When asked about other types of activities that she might do with friends that weren't necessarily sports or team related Lizzie continued:

> Well, that other stuff doesn't really count. I mean, that is kid stuff – elementary kids stuff. Not into that stuff. Me and my friends we don't go outside to do stuff. Well, I guess soccer and swimming are outside (laughing) but it's different. That is stuff that you do because it is on your schedule. You have to go because that is when practice is or a game is or whatever.

Another 12-year old girl, Bart, seemed to share the same idea of sport as activity and talked about how that limited her activity:

> Me and my friends we have swim practice every Monday, Wednesday, and Friday. We are on a swim team in our club. We do that because we aren't good enough to make any other teams. I tried soccer but wasn't any good. So in April we switch to summer league at an outdoor pool. There isn't much else if you are uncoordinated. That is what my Dad says about me.

Equating physical activity with sport occurred in many of the focus groups for some participants but was particularly noticeable in the focus groups with White girls. In these groups it was often extremely difficult to shift the conversation to a discussion about other types of activity. In particular, the structured, adult-directed dimension of sport prevailed. When asked about the types of activities in which girls engage that fall outside organized sport but still increase heart rate, breathing or temperature, Addison had the following response:

> No, we don't do much of that. I don't think anyone at my school does stuff like that, unless you are on a school team or something. Most of us don't do that. You mean like running around outside? No. That doesn't happen. That would be funny.

Even when considering other notions of activity Addison still uses organized sport as a reference point in her notion of what activity means. Interestingly, it is not just sport that girls have equated with physical activity, but more specifically organized sport. Volleyball babe indicated she was active in volleyball, basketball and soccer in school and with club programs. When asked about activities that weren't associated with an organized sport team or club Volleyball babe indicated that she "didn't do much". However, later in the conversation she said:

> My friends and I hang out in my yard, especially when the weather is nice. We will pass the volleyball around or shoot hoops. Trampoline too. That is just stuff we do when we are bored. We do all play on the same teams and play lots on weekends with teams so this is just in between when there isn't much else.

Despite the fact that this participant and her friends regularly undertake unstructured sport activities it doesn't register with her that this is physical activity. In a similar example, Rudolph said:

> I play on all the teams I can. Volleyball, basketball, soccer, softball. I love to play. When the season is over for any of the sports, it sucks. Then there is nothing to do. No games or practices to go to. I don't do anything really then, just go to the Y.

When pressed about what she did when she went to the Y, she replied

> There is usually a pick up game to find. There aren't refs or anything but you can play. Open gym. There are people I don't know there so sometimes I'm not sure about it, but most times I end up playing.

When asked, "Don't you think this is activity?" Rudolph replied "No. Like I said, there aren't refs or uniforms. We are just playing scrap games". This is a clear indication that Rudolph does not consider what she is doing as physical activity unless there is a formal, planned and competitive aspect to it. Because she equates physical activity with sport in this way, her interpretation of activity is also adult governed as all of her activities are planned and overseen by adults in one capacity or another.

Throughout the four focus groups conducted with the White girls the prevailing meanings of physical activity were associated with organized sport and it was difficult to get a broader discussion of physical activity on the agenda. MacDougall and colleagues (2004) reported similar findings in an Australian study conducted with similar aged participants. It seems that many of the White girls perceive activity as being only events

that occur under the umbrella of organized sport and exclude pick-up games of sporting

activities or examples of active free play. When asked if they spent time outside on the

playground engaged in non-competitive and non-sport activities there was overwhelming

consensus among these White girls that outside leisure or recreational activities didn't

occur for them or their peer group. Penelope said:

> No, we don't do much of that (physical activity). We have a recreation center that
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> I could go to but I don't. Sometimes I go there with my friends and do swimming
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> but mostly we don't, we just sit around the house. Never go outside.
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> Differences were obvious, however, when focus group transcripts with the

African American girls were considered. When these girls were asked about their

favored physical activities they spoke overwhelmingly of outdoor games and pursuits.

Eleven-year old Kat said:

> We like to play hopscotch, jump rope, four corners. Just play tag and stuff. We
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> also do stuff here (Girl Scout troop) like go ice skating and roller skating. It was
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> awesome. Sometimes I ride bikes with my friends around my Dad's place when I
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> am there.

In all of the focus group discussions with African American girls, similar assertions of

playing non-competitive games with others were mentioned or engaging in activities like

riding bikes or scooters. Eleven-year old Cheeks said, "I am a cheerleader. And I like to

play with Brit Brit and Alice. We do ropes (skipping ropes) and ride bikes. I got a new

scooter and I ride it alot. Mostly with my sister but sometimes with Alice".   Similarly,

Razer added:

Well, we do lots outside. Like my sister rides her bike and I ride my skateboard or my scooter. Four corners is fun, we play that a lot. Just other stuff like tag too, running around. That stuff with my friends, not my sister. I have one friend whose Dad has a trampoline and that I like! I only went there one time .. but it was fine.

Beth added her favorite outdoor games that are non-sport related activities:

Around the world is my favorite. Although we don't always have a ball to play it so we have to do something else. Four corners maybe, I like hopscotch too. We used to play red ass a lot too but the teachers don't like us talking like that, they say we have to stop. We didn't stop really but we don't do it so much now.

This focus on activities that are fun, spontaneous and center around friends in non-competitive settings mirror MacDougall and colleagues findings (2004) where "play" was considered to be distinct from other terms such as physical activity and sport. Interestingly for the African American girls in this study, discussions of play as spontaneous, non-structured activities arose when the groups were asked the same general questions about their physical activities that elicited responses centered on sport from Caucasian girls. In the contributions from the African American girls it is important to note that their conceptions of sport did not include direction or extensive resources from adults. Far fewer references to playing on organized sports teams were made. Some African American girls discussed their participation in organized activities such as cheerleading, swimming lessons, and dance classes, however the role of adults in this participation was not often mentioned. Christal told us:

I do cheerleading. Rosie and Ladyjane do it with me. Sometimes we do our own routines but Miss Dawn [cheerleading instructor] says we can't do those for the show because they are 'too much'. But we laugh making them up [the routines].

When Christal was asked if she participated in school cheerleading she laughed and said, "No, it is just for fun". Others indicated that they did activities that they enjoyed, and were non-competitive, but were often short-lived. The structure of some of their organized programs and their connection to the programs seemed to be loosely structured. Alice told us, "I would love, love, love to finish more swimming. I used to go to swimming and was doing some stuff at the Y but our coach left. She got married and she left and she never came back." Similarly, Diamond described a situation where an instructor was no longer available:

I used to do kick boxing and I would like it some more. My teacher, his family went on vacation to Florida to Disney World and they moved there so he didn't teach anymore. I also used to do dance, tap and ballet lessons. But my teacher, she moved to a different place and there was no where else to go.

The distinction between the understanding of the meaning of physical activities in the all White groups and the all African American groups was pronounced. To what the differences can be attributed is uncertain. As previously stated, a clear picture of the socio-economic status for each participant was not available. All of the African American participants were associated with girl scouts based in one church. It is possible that the activities in this church influence the girls' thinking. As well, the focus groups with the White participants were based in more rural areas. It is possible that their more

structured conceptualizations of activities stems from a need for families to enroll their daughters in structured and organized activities that serve as child care for working or busy parents. If the available activities are sport based programs then girls' understandings of physical activities may be a reflection of this. These are only possible explanations as definitive reasons are unavailable. It is also important to reiterate that the focus groups were single race groups and discussions may have proceeded differently in more diverse groups. What is real however, are the distinctions between how girls in the study understood the meaning of physical activity and that these interpretations and perceptions shaped the group discussions.

Facilitators and Barriers for Physical Activity

Social support is recognized as an important factor that shapes and influences the physical activity behavior of children and adolescents. As discussed in the literature review, parents and peers have been found to both positively and negatively impact physical activity participation for adolescent girls. Evidence supporting these findings was found in the focus group interviews among participants of this study.

Parent Participation

Intuitively it may seem that an obvious way for parents to support adolescent daughters in physical activities is to participate in such an activity with them. However, as previous research findings reveal, this is often not the case (Beets et al., 2006; Davison et al., 2003). Few of the girls participated in any physical activities with either of their parents; however several indicated that they would like that. Addison said:

> Well, my mom is a water aerobics instructor so every time there is a school break I go down there and take her class. I like doing the water aerobics with my mom as the instructor, she tells everyone who I am and it is fun. I would like to do more classes with her.

Roseyposey added similar sentiments about enjoying an activity with her mother and wishing that it could happen more often:

> Me and my mom used to walk down the road like every night but that doesn't happen anymore now that school is started because she is a teacher. She doesn't have time now and I miss that. I wish we could still do that. It was real nice to get to just, you know, walk and talk with her.

Alice described enjoying working out with her mom:

> Me and my mom and my cousin started doing "The Rush" (fitness facility). It's a new fitness gym. It is really cool. Really big too. Yeah, and when we go to school and stuff and my mom works it is hard to see her so I like it when I get to do things with her. When we all go together it is good.

These examples provided by participants indicate that there are some limited occasions when girls do participate in activity with a parent. In these cases the adolescent girls expressed that they liked the activity, but it was not a regular occurrence. Further, the girls indicated that they would like to have more shared active experiences with the parent, in these instances their mother. It seems that the enjoyment expressed by the girls may be more related to the social interaction and time with the parent than with the physical activity itself. The provision of this type of social support for activity merits

further exploration.. The following contributions provide specific instances where girls

have enjoyed physical activity with a parent or other family member. Piano player

stated:

> Every summer we go up to Abington – it is in Virginia. And we do a 17-mile
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> bike ride down the mountain. The whole family, me and my mom and my dad
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> and my sister. And then sometimes me and my mom and my sister, we ride bikes
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> here. It's a lot of fun to spend time with them.

Brit Brit explained a program where she had a good time with her family and how now

one of her friends joins them:

> And we have a basketball team at church and we don't keep score and we just
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> play, just the girls. And my mom plays and sometimes my aunt. It is fun and you
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> don't have to be good, you can just play. Some of my friends like Cheeks and her
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> mom come now too. That is the kind of stuff I like.

Again, the enjoyment described from the activity doesn't appear to lie in the

activity itself but rather in the companionship with the active parent, usually the mother,

and family members. Girls describe enjoying the social aspect of the activity,

specifically the connection of the shared experience. This type of physical activity

participation with girls doesn't fit into the categories of social support most often

discussed which usually emphasize the provision of emotional encouragement or

logistical assistance (Cohen, 2004; House, 1987; Taylor et al., 1994). Davison and

colleagues (2003) refer to participation with girls as explicit support for activity. They

reported that fathers are more likely to provide explicit support by engaging in activities

with their daughters while mothers more often provide instrumental support by facilitating activity for their daughters. However, girls in this study clearly state a desire for more shared activity with their mothers. The activities the girls described as desirable all occur in non-competitive environments which might further enhance girls' enjoyment of the activity. Although the literature reviewed does indicate parental support is important to physical activity participation by adolescent girls, the role of parental participation through shared activity and the nature of the social relationship inherent in joint activities was not fully explored (Beets et al., 2006; Davison, 2003; Duncan, 2005).

Family Participation

During discussions with the African American girls there were many instances of participation in activity with other similarly aged family members such as sisters or cousins mentioned. Several of the situations described seemed to indicate situations where physical activities were included in child caring relationships where the girls were either providing child care to younger family members while being physically active or were being cared for by an older relative. When asked about obstacles to participating in activities Jewel said "Yeah, I have to babysit. Sometimes I just bring my sister and my cousin outside with me. Then I can try and play and watch them too. Like, they ride tricycles and we do skateboarding". This prompted a question to the whole focus group as to how many of the girls had to stay inside and watch younger children after school or on weekends. Five of the seven girls in this focus group indicated that they had childcare obligations. Similar responses were garnered when the question was posed to other

groups. Subsequently during this discussion and throughout other discussions many girls described caring for younger family members. Christal said:

> I did gymnastics with my cousin and she was just young and I went to help and demonstrate and stuff and my mom was proud of me. Then I went to Tumblebees and did gymastics there and then I could teach my cousin more stuff when I was watching her.

Razer described the role that she plays in her family helping to take care of her sister:

> I do lots of stuff with my sister. We do lots of stuff outside. Like she rides her Dora bike and I ride my skateboard or my scooter. She is 2 ½. My mom is usually around or outside so I am helping her so she can get other stuff done. Sometimes my friends still come over even if I am minding my sister and we all ride together.

Situations were also described where girls were in the care of older siblings or an older female relative, usually a cousin. Rosie acknowledged:

> I do stuff with my cousin almost every day. We do ballet but we are in different groups and I don't like that so much. She is 16 and is in a different group and I don't see her there that much except for the recitals. But [she] goes with me there and walks me home too. Sometimes we ride bikes there.

Treasure also receives afterschool care from her cousin. This is how she described it:

> Me and my cousin, we do cheerleading together. Used to be only on Saturdays that she would come and get me and we would go to cheer. She was in the older group but we would go and sometimes my group got to do stuff with hers. This

year we go on Thursdays too. So I ride with her and my class does half with her and half just us. I go with her other days after school too and she shows me stuff they are doing in cheerleading, dance stuff. She helps me and my friends make up routines. She knows lots of moves and I like that she works on it with us. Her mom and my mom worked it so she keeps me three days.

These types of relationships as explained by participants were not related in a negative light. These were childcare arrangements where family members were involved in the provision of necessary care. Because the above discussion revolved around dance, the researcher described a program at a local YMCA where a special room was set aside that included Dance, Dance Revolution (DDR), a video game that requires the participants to dance as part of the game, and asked if any of the girls went to these types of activities or would like to. Queenie quickly responded "You'd be in babysitting". Sue echoed her response.

Yeah, that is not stuff that I want to do. That is stuff that they try to have you do so you don't think you are in babysitting. But it is still babysitting. That is for younger kids and it isn't interesting. We don't need any of that.

Treasure, who originally described the situation where she was cared for by an older cousin afterschool and on the weekend added ,"My mom, she gets my cousin to keep me out of trouble. I don't need babysitting. We do stuff we like to do, cheering and dancing". There is an apparent distinction in the girls' minds about spending time with a sister or cousin doing a particular activity and engaging in similar activities in an organized setting that is specifically designed for the provision of afterschool care. These

findings are similar to those presented by Coakley and White (1992) where adolescent girls were noted to have feelings that some physical activities were "babyish" and not appropriate as the girls grew older. However, these findings were not specific to childcare relationships.

As with the parent and child shared participation, there is little in the published literature that refers to participation in physical activities by adolescent girls through shared participation with a relative as part of a child care relationship. These caring interactions occur in or around home environments or in community settings. In many of the situations described the participant referred to the limits this kind of relationship puts on the pursuit of desired activities; however, it does not seem to preclude participation all together. Rather it seems that often the type of activity is shaped by the nature of the caring relationship. For instance, when Razer or Jewel describe taking care of a younger sister they relate how they go outside and integrate an activity the younger child might like, riding a bicycle, into something they are interested in doing, riding scooters or skateboard. It is interesting to see the childcare obligation here has not restricted activity but rather shaped the nature and perhaps location of the activity. It is possible that the childcare relationship is the stimulus for physical activity as it occupies both the caregiver and care recipient. It remains unknown if these girls would do other things if they were free from their responsibilities or if they might choose to engage in other active pursuits or instead select sedentary behaviors with friends.

This presents interesting possibilities for future research and efforts to augment activity levels for this age group. Provision of activities that can include participation by

very young children, such as was the case for Razer and her younger sister as described above or by Cristal and her younger cousin, may provide opportunity for more girls to participate. Similarly, joint activities for early adolescent girls as well as older girls may allow for more interest in physical activity in situations such as described by Rosie with her cousin providing care and oversight to her during the transit to and from an activity, if not during the activity itself. Right now it appears that the activities described by the girls are ones of convenience whereby parents arrange situations and activities that both entertain the girls and ensure that there is adequate supervision to those who require it. Programming that includes simultaneous activities for a broad age range of girls may be way to involve families in active pursuits that is worthy of consideration and exploration.

In both the instance of parent-child activities and the close female relative situations described above the family connection seems to be an important one. The nature of these relationships and their impact on physical activity participation has not been explored in physical activity literature. Ransdell and colleagues (Ornes, 2005:Ransdell et al., 2004, 2003) have conducted interventions where participants were groups of related female family members, (daughters, mothers and grandmothers) and engaged in community or home-based physical activity programs. The outcomes explored for these studies were physiological and health-related measures related to participation in physical activity and they did not focus attention on the impact of the relationships among grouped participants. Therefore, no insights were shared regarding the dynamic of the relationship and the impact it had on the frequency of active participation or the quality of the experience of participating with a close female relative.

For the girls in this study these types of situations appear to occur regularly. Further exploration of the nature and quality of the experiences and their impact on active participation may provide direction for future research and reveal a potential location for change in current physical activity programming and opportunities.

Instrumental Parental Support

Throughout the interview discussions, the role of instrumental parental support for activity was discussed in each session. Girls were specifically asked about transportation issues and their impact on participation in physical activities. Responses were split as to whether transportation issues had an impact on their participation in structured activities. Many participants indicated that they relied on a parent, most often their mom, to drive them to any planned activities. Rudolph said "After school I can ride on the activity bus to the Y and stuff. Or my mom will take me". Roseyposey echoed, "My parents drive me wherever I want to go. My mom mostly". However, other girls indicated that they could not partake in activities because of a lack of transportation. Rosie said:

> See, my sister is older and she plays basketball and everyone thinks we should all go and watch her play all the time. But I don't want to go, I want to do karate. But there is no one to bring me there. No one to take me.

Brit Brit relayed her situation where transportation and activity fees were an impediment to participation:

> Me and Alice did some rock climbing. My aunt, she plays basketball and we would go to her games so that we could go early before it started and she would

take us to the rock climbing wall. Now we don't go anymore because she doesn't

play anymore. So there is no one who will take us now. No one to bring us and

no one to pay.

Brit Brit's reference to cost as an inhibiting factor was not the only instance where girls

indicated that parents were unwilling to pay the associated registration fees for structured

activities. Tash told of her experience when she approached her mom and asked if she

could start a new activity:

I wanted someone to register me for golf but my mom laughed and said I

wouldn't be good at golf. She said it was a lot of money for me to go and that she

couldn't bring me to play anyway. And my Dad, I won't even ask him. He won't

take me.

Several girls also expressed limitations that parents put on their ability to participate in

after school activities, including physical activity, because of concerns to keep up with

homework and academic obligations. Piano player stated:

Someone came to our school and tried to start up intramural field hockey but not

enough people wanted to play. I wanted to play but I couldn't do it because I had

to do homework and my parents said that it was more important to do well in my

classes than to play games.

Addison added her experience with curtailed physical activities because her parents felt

that her time would more wisely be spent on academic work:

I would like to try out for the school soccer team this Spring but it depends on

whether Battle of the Books is over. I have to keep my grades up or my parents

won't let me play sports. They say that I need to do well in school so that I can

go to college and they think I need to start that now. So, I do Battle of the Books

to earn extra credit for my grades.

There were other examples provided that indicated the logistical role played by parents as

increased the amount of physical activity in which these girls participate. As described

below, many of the girls indicated that their time outside school was highly structured

and determined by a parent, often their mom. Volleyball babe said:

Like when you are older (than when in elementary school) you have more stuff

planned for you now and you aren't allowed to just go and play any more. My

mom says I need stuff to fill up my time. So, there isn't much time to do

whatever I want. I have to keep to the schedule. I only do things that fit in my

schedule and mostly my mom chooses what I can do. She says she wants me to

do as much as possible so she tries to find me lots of sports and classes that will

help me find out what I am interested in. Now I am doing stuff all the time.

Such an example supports the findings of Davison and colleagues (2003) where girls

were more active when a parent provided support for activity. That research indicated

that the type of support most often offered by mothers was logistic support through

activity planning and facilitation.

Peer Interactions

As was indicated in the literature review, the data from this study indicate that the

influence peers have on physical activity choices and participation of adolescent girls is

complex. Conversations pertaining to friends started with a general lead-in question

asking about activities that participants did with their friends. Without exception the assumption was made that this meant female friends. Girls described choosing friends who enjoy similar levels and types of physical activity. As the following quotes demonstrate, this seems to be true for girls that are very active as well as those who choose more sedentary pursuits. Volleyball babe said:

> These girls have been my friends since second or third grade. We like to do the same things together. I had some friends that didn't like to play sports or do dance and they aren't really my friends anymore. We just didn't do much together so I guess they really found other people to hang out with.

On the flip side, Piano player described how she and her friends are not interested in sport and are largely inactive:

> Most of my friends aren't really athletic and like, I am not good at sports either. I used to try but I wasn't good. I remember one summer I played baseball with one friend. I guess most of them (friends) don't usually do much. One of them does tai kwan do. The others don't do a whole lot. Me neither.

When asked if their friends who are girls supported their activity choices the participants were again split. Emylee said "Yeah, my friends encourage me, we do stuff together". However, CJ countered:

> There are lots of girls that laugh at you and make fun when you mess up too. Let's say you trip up or something, they will all start laughing and I don't like that. I just don't like PE and I don't like being active".

Emylee agreed with CJ that some girls would make fun of others for their efforts, but she added "They wouldn't really be your friend now would they?" While there was disagreement among the participants as to whether female peers positively or negatively impact decisions to be physically active, it does appear that the findings from this study agree with earlier research that indicated that adolescent girls spend time with other girls that share similar levels of activity (Taylor et al., 1999).

Girls also did not agree on their feelings towards co-ed physical activity settings and the impact that playing with the boys had on their participation. Some girls indicated that they enjoyed playing with the guys. Rudolph indicated:

> They [boys] are fun to play with. I like for there to be some guys because they make it a better game. I think it is better because it gives you a challenge because they are sometimes a lot bigger than us or better than us and we have to work hard to play with them. Playing only with the girls is boring. Sometimes some girls don't want to play or they don't want to play a sport. When you play with they guys they always want to play. The girls want to do other stuff that I am not interested in.

Volleyball babe added to this by saying she felt that participating in activities with boys helped her when she returned to all girls sport:

> I think we need to play with the guys so that we can get better. It helps me when I try out for teams and play on the school team if I have practiced with guys. They are bigger and better and they make me better so when I play against other girls I am ready.

Both of these girls and the other girls who indicated that they liked mixed physical activity settings appear to be young women who were engaged in sport activities such as school or club teams. At other times during the focus group interviews they expressed extensive participation in higher profile sports and may therefore be comfortable in those arenas. However, the large majority of girls indicated that they did not like to participate with boys. A series of exchanges between the researcher and one particular participant, Roseyposey, regarding her experiences and perceptions of physical activity with boys illustrated how she felt:

> *Roseyposey*: It's okay to do stuff with guys too, but mostly the boys will get all competitive. Then it isn't fun anymore. I don't want to play then. I just usually stop playing or leave when that happens. I know that I won't win the games so when we start keeping score I just don't feel like playing. They usually get mad at us then, so we don't get to play. Sometimes we start our own game. Bust most of the time we just leave and do something else. It isn't really all that much fun to be there.

> *Researcher* Does this happen often when you play with boys?

> *Roseyposey* Oh yeah, all the time. They just want to be little show-offs. They are boys, you know.

> *Researcher* Do you think that has an impact on how much activity you do?

Roseyposey	Yeah, for sure. I used to do a lot more stuff, but now the guys are always thinking about who is winning and I just don't care. Now I do other stuff."
Researcher	How do you feel about that?
Roseyposey	Well, two summers ago when it started to be like that I was really mad. I wanted to play and stuff, but now I am so used to it. I am just like, whatever. So now I don't do active stuff.

Later in the discussion, another participant in her group who is very active in sport teams at her school spoke of how she liked to play in mixed groups, Roseyposey had more to say.

Roseyposey	Yeah, I just don't want to play like that all the time. I mean, it is ok sometimes, but sometimes I just want to have some fun and it isn't always fun. But if you say that then they always talk smack, so I don't know, sometimes it is easier to just keep playing in their game but not really do anything and just kind of stand there.
Interviewer	So it changes how you play?
Roseyposey	Yeah. I don't really do anything. I just stay out there so some guy doesn't start in on me. There is a lot of showing off.

Piano player agreed and said, "I don't think guys get competitive with me anymore. When they used to do that it really bothered me, but now they just don't say anything. It is like I am not even there. So, I just usually sit on the side". These exchanges point to the powerful impact boys can have on girls' physical activity behaviors. Specifically,

these examples indicate the competitive aspect of the situations is particularly objectionable for some girls. Their discomfort has led these girls to discontinue play, or choose to have minimal participation, and they haven't chosen a new environment to participate. The boys' actions have shaped the girls patterns of behavior in a way that eliminates activity as a choice in their everyday life. This is consistent with findings reported in previous research and is an important issue to address with this age group if efforts to encourage active lifestyles for adolescent girls are to be successful (Dwyer et al., 2006; Vu et al., 2006).

Many girls expressed disdain for physical activity with boys in co-ed physical education classes. Rosie said:

They [boys] are too aggressive. Like when we play spiderball, it is really kind of like dodgeball, the boys be throwing too hard and then get mad and they blame it on the girls when they don't want to play. Then they start fights and stuff. Who wants to do that?

Other girls shared Roseyposey's earlier sentiments that girls often choose not to fully participate because of the presence and influence of boys. Their solution to what they deem a distasteful situation is to be present for the activity but not really engage or participate. Bart added that in her physical education class "The boys just laugh at the girls in PE and so I just usually stand there and do nothing. I don't do much. I just think I don't want to do PE". These insights are important to consider in discussions around physical education classes. The assumption is often that time spent in physical education classes is a good thing that increases the level of activity for participants. However, if

girls are choosing to essentially disengage from the activity by "just standing there" a false sense of how active adolescent girls are might emerge. As well, this opting out is an important consideration on the agenda of physical educators.

While there were only a few girls who had single sex physical education classes, they did articulate how much they enjoyed the time. BB girl, who attends a magnet school and has girls-only physical education had this to say:

Oh yeah, it's way better. I am glad that it is just girls. Then we can do stuff without the boys being rough or talking smack about winning. And we don't have to keep score. And you have to do stuff, you can't just stand there and do nothing. Some girls did that at the beginning of the year, but now, now they know they have to do stuff and they do it. It is better. I like it.

It is worth noting here that BB girl specifically recognizes that girls often "just stand there and do nothing" in mixed settings. She does go on to say that this changes over time in the all-girls environment and at least in her estimation is a better situation. Diamond, who attended the same magnet school and therefore also had girls only physical education classes agreed. She indicated that she "liked gym class" and was happy to play basketball without the boys. These assertions from girls who attend all girls classes are encouraging in that they do indicate behavior can be changed and girls are willing to once again embrace activities that they may have abandoned when they felt uncomfortable. This is an indication that introducing different programming for girls may be effective if it meets the needs of the intended participants.

Interestingly there was little mention of heightened body awareness issues and its impact on physical activity that has been cited in previous research (Greiser et al., 2006; Mulvihill et al., 2000; Vu et al., 2006). CJ said, "Some girls like to show off in front of the guys. Because they want the guys to look at them and show off their body and stuff. I guess then the guys are more important than the game they are playing". Here CJ is giving an example of girls choosing to participate in activity when motivated by the interaction between boys and girls. There was no mention during any of the focus groups of girls choosing not to participate because they were uncomfortable with their body. However, girls did acknowledge attention from boys in a sexualized manner regarding cheerleading. Ken said, "Boys just want to watch the cheerleaders. They don't want to do anything else. Basketball players just watch cheerleaders." Sue agreed with this and added," Oh, they say 'You don't need to play, just keep cheering. Keep cheering'". When asked if boys encourage other types of physical activity BB girl said,

> They [boys] don't want you playing, they just want you to go over in a corner somewhere. They don't really say that. No, they don't have to. They don't ever let us do anything and when we try to do our stuff they tell us we have to move and find somewhere else to do our stuff".

It seems that the girls in this focus group were unanimous in thinking that boys only want to see the girls active when performing as cheerleaders but were not interested in sharing activity with the girls in other ways.

Influence of Teachers and Mentors

Girls were asked about other people besides parents and peers who influenced their decisions regarding physical activity participation. In one group several girls said their physical education teacher encouraged them to be active, however Penelope then added, "Well only sort of. He only encourages people in gym class and I am not really good at sports and stuff, so he mostly ignores me. He doesn't really pay attention to me. I'm not good at gym stuff anyway".

In another group girls were ambivalent about their physical education teacher, however Kat did talk about her classroom teacher. Kat said, "Our teacher she doesn't' think the girls should waste their time playing with the boys. She says they are too macho and stuff and she says that we should just do stuff ourselves and that is what we do". Both of these examples demonstrate how powerful a teacher can be. In the first instance Penelope perceives she is not a skilled mover and this serves as the reason she doesn't get the attention of the physical educator in her school. In the second example Kat expresses how she and the other girls choose to engage in activities without the boys at least in some part because of the advice of a teacher who feels that the girls would be better served in doing so. Awareness of this influence is important for teachers as they often set the direction for patterns of behavior that become established as part of young girls' lifestyles.

As the participant recruitment for this study was enabled and facilitated by the Triad Tarheel Council of the Girl Scouts of America it is important to note the role of Girl Scout leaders on physical activity behaviors for the girls in this study. There was a

sharp contrast in the girls' perceptions of the efforts of Girl Scout leaders to promote

physical activity and incorporate opportunities into programming. When one focus group

was asked about activities planned for their group Penelope offered, "No, our girl scouts

don't do anything active like that. Mostly we just sit here". Others in this discussion

agreed. Another group that shared the same leader also indicated that theirs was a fairly

inactive group, however Roseyposey did say, "We do camp in the summer and there is

hiking for that. But we do a lot of stuff there at camp. The hiking is good. We also have

a sports day at camp which is a lot of fun. Games and stuff. I guess that is activity

right?" The objectives of the groups led by this leader did not include physical activity

opportunities

In contrast to this other groups with a different leader were very enthusiastic with

their response that they engaged in a lot of activity. Cheeks said, "We are really active".

Kat added, "We go ice skating! And roller skating." Jewel agreed that their groups were

"really active". There was great excitement among when the girls from these groups

described their activities. It was very clear that the physical activities were important and

enjoyable for the girls. The researcher asked these groups if they had thoughts as to why

their leader planned those types of activities. Jewel responded, "She [leader] says that it

is expensive for us to do it so we use our cookie money so that everyone can go to all of

the things. She says we need to grow up and have strong bones". Rosie then added, "Not

just bones. She says we need to do these things so we can be strong girls and take care of

ourselves". Ladyjane continued, "We are going to be active and strong always. She sets

up obstacle courses for us and we do sports all the time. She says you are going to come

and show us to play volleyball". Tash agreed and indicated, "We do something to get us moving at the beginning of every meeting. She [leader] says that it gets our minds in the right place". It is obvious that the impressions on the girls left by this second leader regarding physical activity are extremely positive. Girls could readily indicate some benefits of physical activity and perceived these to be important messages for the future. The presence of such a mentor in the lives of the girls seems to have an empowering influence.

(In)Active Space

To embrace and integrate a social ecological perspective, the interview guide for focus group discussions included questions regarding girls' perspectives on their physical settings and the linkages between their microsystem environments. These questions led to engaging conversations about the availability of active spaces for girls and how these spaces facilitate or prohibit physical activity behavior. The issues regarding space elicited the most animated and emotional responses and comments from participants. Girls were articulate in relaying their feelings and perceptions. Their insights allow for an increased understanding of the intersections between the inter-individual details provided earlier and girls' experiences within the larger, exo and macro level dimensions within which they live. Concrete examples of how policy level decisions made by education administrators directly impact and shape the behavior of adolescent girls are presented.

Access to Space in the School Environment

The most prevalent comments surrounding access to active space by the girls in this study pertained to a lack of playground space for unorganized outdoor play at school. Alice began the conversation in one discussion group by stating, "You know what, at our school we don't have our playground no more so we can't play any stuff". Cheeks then quickly added:

> Well, our new principal, he took our playground and he made it a parking lot. We had a big playground, and it was really big. He took it down and all the stuff on it and all the equipment that we used to play on so that the teachers could park closer to the school.

Alice then emphatically added:

> We are mad. Our old principal, she said the playground was important but he [the new principal] came and took it away and it was where the girls played. So now the girls don't have any place to play. Because the boys, they still play on the field but we don't play there with them. We used to play on our playground with swings and climbing stuff and all, and hopscotch on the ground, jump ropes and now it is gone. And we got nothing else.

This was an emotionally charged discussion for this group as several girls attended the school being described. There was lots of over talk and a desire by participants to express their displeasure with the decision to eliminate their playground. The playground was articulated to have been unofficially deemed a girls place to play and be active. It was a place where the girls felt comfortable interacting with each other in a physically

active way while enjoying a safe environment. Girls described using the various pieces

of playground equipment as the space accommodated many groups of girls engaging in

different types of physical activities. Later in the conversation when the discussion had

moved on to a different topic, Alice surprisingly came back to the topic by saying:

> I want to get back to having more space. Now that the playground is gone all we
>
> have at our school is woods. And I am not trying to clog up air and ruin wildlife,
>
> but we need to cut some of them down because we need some space. This is not
>
> right but no one is listening to us. And now us girls don't have no space.

The urgency expressed by this group seems to stem from the fact that the girls had

previously enjoyed a space of their own and now their activities had been curtailed as this

space was taken away from them. A decision by education administrators to change the

school environment has dramatically changed the physical activity behaviors of a group

of girls, and in doing so enraged the affected girls. This is a clear example of how an

environmental change impacted a large number of girls. Unfortunately in this instance

the change was negative, hindering the ability of girls to be active.

In another group the lack of available space for girls was raised. When asked if

the girls in the group had a place to play outside their school Queenie replied, "We have a

soccer field, but if you don't play soccer you aren't allowed to be on that. We are in 6th

grade so we can't be on the team so we can't ever go on the field". Ken then added the

following:

> There is a really big football field, not like one where games are played, it is just
>
> like a practice field. But you can't go out there a lot because when it rains it is

like all mud. Mud everywhere. We have a soccer field that you aren't allowed to

go on. And another field but girls can't go there. There are always boys on it and

they don't want girls on it playing. When girls try to go on it they just chase us

off or make it so we can't play.

Treasure, who attended a different school, described the lack of a space at her school in

this way:

We had one [a playground space] but it was really old and rusty and small but it

was where we played. Now they took it away and we can't even go on the track

because that say that is dangerous too and we might hurt ourselves. We have

nowhere to go.

There was obvious frustration from the girls as they expressed their feelings about the

inadequate space issue, particularly playground space. The dissatisfaction communicated

by participants seemed to stem from the relative newness of the lack of active space.

Most of the girls agreed that when they attended elementary school there was ample play

space for everyone. However, now that they were in middle school things were different

and there was no available space. In other instances the lack of space was attributable to

removal of equipment or reallocation of space for other purposes such as was the case in

Alice's example where the playground was turned into a parking lot. Regardless of the

reason for the change in the environment, the result is a shift in the

individual/environment fit. This change at the macro dimension level trickles down and

has an impact on a large number of girls.

In contrast, other instances of restricted facility use did not draw similar levels of outrage. These examples likely did not raise the ire of girls in this study because these were long standing arrangements. There hadn't been a change in the individual/environment fit so the restrictions were tolerated as normal. Penelope said, "We have a track and a baseball field. But only the teams are allowed to use them. Other people are not allowed to use them." This was stated as a matter of fact and seemingly accepted by the girls. This was not a change for them but simply something that had always been. In another instance Rudolph described dance studios at their school that were not available for use by middle school students as they were allocated for elementary students only. Although Rudolph admitted that she would like to be able to use this space with her friends, she did not appear to be upset by the restricted access. This was traditionally how this space was used and Rudolph did not indicate she was upset by that.

Each group was asked what they would like to see changed with their physical surroundings at school so that they could be more active. BB girl said "I would like to be able to go on the soccer field and play games like soccer and stuff with my friends". Sue said "I would play stuff too, like around the world and maybe basketball and stuff if we had a place to go. Now that we don't have a playground we can't do that". Treasure thought she would like to "walk around the track like we used to do in elementary school'. Brit Brit said "Put the playground back". The shift in environmental availability of the space clearly had a big impact on these girls and was not far removed from their

minds. However, Beth, who had not contributed much to the discussion to that point, had an interesting idea. She said:

> We need to get football goals. Football goals so that the boys can go and play football and leave the girls alone. That would take them away from us and we can do our thing. Now we are all together and we can't do anything we would like to do, play tag and stuff. So, if we had football goals the boys would be gone and leave us alone. Then we would have our space back.

Her train of thought here is not to go back to a previous way of doing things but instead to make a change to bring about the desired result. She is suggesting making a change to the environment that would shift the individual/environment fit in a way that girls would benefit by gaining access to a space of their own. This change would impact many girls in a positive way as it is at the macro level where the change would occur but impact many individuals. Christal also suggests a desire for change that would bring about new opportunities for middle school girls:

> I think our school should have a different place for us to play away from the younger kids in elementary. And different from the fields and stuff the high school kids use. We don't have that now and it is not good. The little kids mess up our hopscotch space and stuff. We aren't allowed on the equipment on the playground. We go on the track, that is high school stuff. Why can't they just give us somewhere to go?

Without explicitly stating it, Christal is indicating that the middle school students, and girls in particular, are forced to operate on the fringes. They are located literally and

figuratively in the middles spaces. They are in between the childhood phase of elementary school but not yet entitled to the opportunities afforded to high school students. Unfortunately, this inaccessibility to facilities coincides with a time in their lives that lifelong patterns of behavior are established. The inactivity they experience now is likely to have lasting ramifications for these girls.

Neighborhood Safety

Neighborhood safety was a frequently discussed topic and one that the girls felt had a significant impact on their behaviors. Previous research has indicated that access to safe spaces for activity was important to children and their parents (Grieser et al, 2006; Mulvihill et al, 2000). Many of the participants spoke of general concerns about safety in their neighborhoods. Piano player said:

> I like to go for long walks and hikes behind where I live. My mom came with me
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> once but said I couldn't do it again. She said someone had to go with me or I
>
> couldn't go anymore because it was too dangerous. It is kind of in the woods and
>
> they [parents] didn't think it was a good idea for me to do it anymore. My mom
>
> thought I might get lost and not be able to find my way out or in the summer I
>
> might get dehydrated. And of course my dad says that girls shouldn't be
>
> wandering around in the woods by themselves.

Bart's commented that her parents also had safety concerns regarding her activity within her neighborhood. She said, "Yeah, I can't walk around my neighborhood by myself because there's a lot of cars going by and a lot of traffic. And if it is dark they [parents] don't want me to be outside". Other girls relayed similar restrictions on their activity

enforced by parents. Lulu indicated that the safety concerns expressed by her parents when she asked to go rock climbing were because of a fear of injury in that environment. She told the group, "My parents think that it isn't a good idea because they say I will get hurt".

Tash described a situation where her mother was concerned for her safety in their neighborhood. The perceived threat was great enough that the family moved so that Tash would have the opportunity to engage in activities in a more secure environment. Tash told us:

> I used to live in this really bad neighborhood and my mom would come and get me from the bus and walk me home and not let me go out at all. Even the bus was bad so she used to try and find a way to get me from school so I didn't even have to take the bus. I sometimes would beg her to let me go out with my friends and ride bikes or play hopscotch and stuff and she would say no. We just moved out of there because of that. Now she sometimes lets me out but she comes outside with me. She also signed me up to do activities at church so that I won't have to be around there.

This example again demonstrates how the environment can shape the actions of the individual. Specifically, we can see how the linkages between Tash's mother's beliefs and perceptions combined with the physical reality of the neighborhood in which the family lives exert pressures on Tash and shape her behavior. Individual actions and interpersonal relationships are shaped by the exo or macro dimension realities that are beyond the control of Tash or her mother.

In another particularly jarring illustration of the impact of the environment on individual behaviors, BB girl told the group about her situation. She said:

> My mom won't let me do stuff outside because my brother, he died. He was killed in our neighborhood. And now my mom is scared to let me go outside. And my friends they have brothers and sisters who drive them places and my mom is scared to let me ride with them. And we used to be outside a lot doing stuff, riding scooter, playing basketball. But now I stay in all the time because my mom is scared. Now I just watch TV.

This is the social context in which BB girl and her family live. Although an extreme and unfortunate circumstance, BB girl's comments illustrate how the socio-cultural context in which a person lives shapes individual behavior. BB girl's mom makes decisions that are aimed at changing BB girl's individual behaviors because she is unable to enact larger dimension shifts in the social environment. Of course her objectives are to keep her family safe, however the impact of the changes spills over into other aspects of her daughter's life, including her physical activity behavior.

Other girls pointed to specific fears related to the circumstances in the areas in which they live. Several of the girls expressed fears about dogs in their community. Kat said:

> Where I live there are no back yards to play in, just a deck and have to play out front and there are lots of big dogs. My mom is worried that those crazy dogs will come and bite me.

Jewel added the following comment:

Yes there are big, big dogs around my house too that no one really owns. They

are just running around and jumping on cars and knocking people over. They are

just scary. I don't want to be outside when they are around.

This issue of dogs posing a danger to girls playing outside brought up in a second focus

group when Treasure said:

I live in a place where we don't have a bad neighborhood. It isn't great but it isn't

bad. We don't have a back yard so you have to play out front. And the people

who live across from me, they have like a bunch of dogs. They are crazy dogs,

biting people. So my mom won't let me out when they are out. She doesn't have

to say it again because I am afraid of them. They have 2 rotweilers and a pit bull.

They are mean and they bit one lady but she didn't do anything about it because

the owner he says he will hurt her if she did.

Sue agreed with Treasure and added:

That happens to me too. We have three houses that have dogs around all the time

by my house and they aren't tied on and no one watches them. They are big and

crazy and I am afraid of them. We don't have a backyard either so we have to

play in the front but lots of times me and my friends are doing stuff, riding bikes

or shooting hoops and we have to go in because the dogs are coming.

While this concern with the dogs may be specific to a few neighboring communities, it is

very real in the life of the girls and children it affects. These children are afraid of the

dogs and this fear curtails the amount of time they spend outside, negatively impacting

their physical activity behaviors and active time. Individual girls and families are

powerless to change this social context. An environmental shift to provide a safe neighborhood would require a social will that is apparently not there.

Also of note in these previous examples is the repeated mention of a lack of a back yard in which to play. This absence of a private space or environment that is accessible for girls means that they are forced to use a public space for their play. This public space is beyond their control or that of their families. The neighborhood context and its social values impacts individual girls and influences their behavior.

The above examples taken from focus group transcripts illustrate how the physical and social environment impact adolescent girls' physical activity behaviors. The nature of the school environment has an impact on child physical activity behaviors (Wechsler et al., 2000). In this study, girls indicated that restrictions in availability of school playgrounds and open space were problematic as these are the desired active space for girls. Previous studies have reported that girls prefer playground and small court spaces for outdoor, active play and are indeed more active in such spaces (Hartens et al., 2008). Further, parent and teacher observations are that availability of green spaces enhances moderate and vigorous physical activity for school aged children. Comments from this study's participants reflect these findings and add to understanding of what changes to the environment mean to adolescent girls. The issues of safety raised by participants illustrate how community and neighborhood factors impact individual actions. The concerns addressed by girls in their neighborhoods provide concrete examples of how exosystem and macrosystem dimensions impact physical activity individual behaviors.

Active Time

The environments in which adolescent girls live and interact are not limited to physical surroundings. Overarching social contexts may determine physical activity to a greater degree than the physical environment. For example, school and education policy decisions leave a real footprint on the lives of adolescent girls. The focus group discussions undertaken here present many instances where girls did not have access to desired pursuits because of policies implemented by school administrators and school board decision makers. The discussions pertaining to these issues seemed to be especially stifling for participants as they could not put faces to the obstacles. They were unable to pinpoint any one person or group that established the parameters despite the impact on their lives.

An issue that raised the ire of many girls was the fact that they no longer had a recess break where they could go outside. In response to a question about their level of activity compared to elementary school Razer said:

> [We are] less active now because in elementary school we had recess everyday and that was for 30 minutes and we would always go out for that. We would be on the playground and doing our games. Now we don't get recess at all. We don't have time to do much at all.

Ken added:

> Yeah, you know, I am in the seventh grade but I would still like recess time. We need that break sometimes because it is sometimes depressing with how much we have to rush at school and people telling us how much we don't know. And then

our school is so old and falling down and the lockers are gray and the walls are

gray and our desks are gray. Some days I feel gray. I would just like to go

outside and walk around with my friends and run or do whatever.

Here Ken seems not only to reflect on the impact the absence of recess time has on her

physical activity but she also makes the connection between the potential for physical

activity to enhance her mood and how she feels about herself. Other girls indicated that

they had forgotten about recess but reflected on it fondly. Penelope, who was in the

seventh grade was referring to recess in elementary school when she commented:

It seems like a long time ago, I don't remember what we used to play. I guess we

did play games and on the playground and stuff. Doing that was like, good times.

I forgot about it. Yeah, I guess I miss it.

Other girls talked about the fact that they get recess only on days when they don't have

physical education. This often did not sit well. Christal explained:

We have PE on Wednesdays and every second Thursday. And we have Health

once a week too. So on days we have PE or Health we don't get recess. That

doesn't make sense. We are sitting around in Health the same as we are in other

classes but they say it is a reason we don't go out on those days. And on PE days

we don't go out but we don't do much in PE. We just learn games and stuff. We

aren't running around doing the stuff like you talked about, getting warm and

sweating and stuff.

Others agreed with this assessment that it didn't seem to fit with messages of physical education and health classes to be kept away from active time on days when this message should have been a priority in class. Sue said:

> We have PE every second day but just for two quarters and then in the other two quarters we don't have it at all. And when we have PE we don't have recess. And last year in the quarters that we don't have PE and we are supposed to go out for recess, they took recess away. They said we had too much work to do and they gave us other classes instead. So our time to do our stuff isn't important to them.

Also of concern to participants was the situation with their lunch period. Many of the girls had short lunch breaks that didn't allow for time to be active and go outside. Others were restricted from leaving not only the school building for lunch, but sometimes prevented from leaving the room in which they ate. In one focus group this issue garnered much attention. Rudolph said, " We aren't allowed to go outside at lunch time". Roseyposey then continued:

> No we have to stay in. The high schoolers get to go out and the elementary kids go out. For us, there are two different lunch rooms and whichever one you are assigned to, then you have to stay there. The 12th graders are allowed to go out and go off campus to eat lunch at different restaurants and stuff. The 9th, 10th, and 11th graders can go outside to eat if they want. But not middle school. There are tables everywhere and we aren't allowed to leave.

The interviewer then asked, "So, the younger children get to go out and the older kids get to go out but you don't?" To this Piano player replied, "No, we can't. And it sucks. We are stuck in the middle." Volleyball babe then added:

> At our school we have one big cafeteria. We have different lunch times so we
> aren't all in there at the same time. There are probably 4 classes eating lunch at a
> time and then we just sit around when we are done because we aren't allowed to
> go anywhere.

At this point the interviewer asked the group, "How long is your lunch period?" Piano player said, "Thirty minutes." Roseyposey and Volleyball babe agreed with this. Rudolph indicated that at her school they had a 20 minute break for lunch. This type of disgruntlement was evident within other discussion groups as well. Addison indicated, "We aren't allowed outside at lunch time. And we only have 30 minutes. So we just sit in our lunch room". Bart added, "We can't go out either. We aren't allowed to leave the cafeteria. We have to stay there until the bell goes. Can you believe that"? Of all the girls that participated in this study, none were allowed to go out at recess time to be active and no one had a lunch break longer than 30 minutes.

Another issue that brought about strong emotional responses in some participants was the matter of participation on school teams. All of the participants indicated that 6th grade students were not eligible to try out for or play on school teams as this is dedicated as an adjustment year. Razer volunteered:

> My mom's friend is working us out now, trying to help me get in shape. Since
> sixth graders aren't allowed to do sports I am bored. So next year I want to ply on

the soccer team and go out for the track team. It is supposed to be your transition

year and they want you to adjust to school and stuff. But now I am doing nothing.

I did way more stuff at my school last year when I was in elementary. So now I

do nothing and just wait till next year. It sucks. I want to play stuff and I am not

allowed. My mom tried to talk to the principal, but no way.

Ken added, "You can do PE and stuff but you aren't allowed to go out for a team. You

can do club stuff. That sucks. You can't do any of the teams even if you are better than

the others".

This restriction on 6th graders playing sports seemed to be common to most if not

all schools represented. BB girl mourned:

I just want to be able to play sports and stuff. I don't get to play in sports away

from school. My mom can't take me and I have to watch my cousins a lot on

weekends and I can't play at school because I am sixth grade. I haven't played

since last year so when I go out for any teams next year I probably won't be on

the team. I won't be good enough anymore.

Beth indicated that this restriction of 6th graders applied to not only school teams but to

cheerleading activites, "I would like to be able to cheer. Sixth graders can't do that

either". Sue had what seemed to be a reasonable suggestion when she added:

I think they could let us [sixth graders] do one sport. If they think we need time

then maybe we couldn't do more than one, be we could do one. They talk to us

about managing our time, well I want to manage my basketball time! But who are

you going to talk to?

The policy of inhibiting 6th graders from school athletics was not received well by those to whom it applied. Girls were unhappy about these circumstances. It seems unfortunate that among a group for whom there are concerns about physical activity levels there are individuals looking for opportunities to participate in activities they enjoy but policies are in place to impede their participation.

For some other girls the issue of team sports was more widespread than just the restriction on 6th grade participation. Treasure said:

> Well, at our school it doesn't matter what grade you are we don't have any teams. We are out there [magnet school situated in a more remote area] and we don't have any teams. I told my mom I want to go to a different school but she says no way. I want to run track and maybe basketball if I could make it but we don't have it.

Queenie then added:

> Nope, no teams. It is a magnet school and people come from all over but it isn't big and we have to get on the bus and it takes more than an hour to get home. People come from High Point and stuff so we can't have teams.

This situation was frustrating for the girls. Their school environment did not offer times for school related athletics and because of the large amount of time they spent in transit on a bus getting to and from school, their options for non-school related activities was limited.

After girls brought up the restrictions in school teams each group was asked about availability of and interest in intramurals. There was consensus that intramurals were not

offered or were available only in a way that did not appeal to participants. Volleyball babe said simply, "We don't have intramurals". Rudolph added, "I would play, but we don't have that. If you don't make it [school team] you usually have to play chess or something". Roseyposey then described the scenario at her school:

> "At our school if you don't make the team there are no intramurals. You can be the manager of a team and keep score and stuff but you can't play. It is kind of for people who are really bummed because they didn't make the team. But it is just one person. There isn't stuff for the rest of us to do. They say that because we are a county school we are too far away from people's houses to have intramurals afterschool".

As with the magnet school, physical distance and subsequent travel time seems to impact programming for physical activities. Queenie confirmed this when she said:

> We had them [intramurals] but they eliminated them. It is a magnet school and we are from all over so there is nothing afterschool because it is so far to get there and you have to be on the bus forever.

One focus group was asked about the activity bus and if this was an option for those who participated in afterschool activities to get a ride home later than the usual bus. Rudolph replied, "Well, we ride it to a game if we have one at another school but only the teams use it. It isn't for people to be brought home after school". Volleyball babe said they had an activity bus but indicated that it was not there to enable students to stay at school to participate in school sponsored activities but rather take people to afterschool care facilities.

Piano player expressed regret at not having the opportunity for intramurals:

> I think it would be fun. You wouldn't have to go through the tryout process or the
> getting cut process. Even though I always know I will get cut. Then you could
> skip all that and just play. Sometimes I go to tryouts even when I know I will get
> cut just so that I will have a chance to play for a couple of weeks.

In this quote from Piano player you can get a feel for her desire to be active even though
her perceptions and past experiences lead her to believe that she is not proficient enough
in the sports she enjoys to make school teams. That she has no opportunity for
participation is unfortunate.

Bart and Razer were eloquent in articulating the time constraints in the lives of
adolescent girls as they perceive them. Bart stated:

> I think we need time. There is never any time. There is always a rush in the
> morning to get out of the house and my Dad is in a rush to get to school. He yells
> a lot during the ride about other people and being late. And then we get to school
> and there is no time except to go to class. We used to have recess in elementary
> school but not anymore. So now we only have 3 minutes between classes and if I
> don't run then sometimes I am late and teachers are mad. And then during lunch
> we barely have enough time to eat and then more classes and then hurry not to
> miss your bus. There is no time to do anything. If they want us to be more active
> we need time to do it.

It was easy to hear the frustration in her voice and to get an understanding of her
perceptions of the demands and constraints on her life that impede any physical activity.

Bart feels powerless to change her circumstances. They are not physical settings that can be reconfigured. These are social values that reflect larger socio-cultural trends that Bart is powerless to change. These macro dimension realities may have more of an impact than physical components of the environment as they reflect social forces that are not easily accessible for change, especially for adolescent girls. Razer also indicated that she felt it was difficult to find time to pursue activities that she might like:

> And there is no time for us to do it [activity]. We have stuff to do when we get there [school] until it is dark and we are home. There is no time to do stuff. In health our teacher says we should do stuff we like to do, hobbies or activities and stuff, but we don't have time for that. It is always get to class, get to the other building, hurry up and eat lunch, get to another class, don't miss the bus. No time for our stuff at all. No time.

Volleyball babe said:

> We have a playground but we aren't allowed on it. The elementary school kids get to go on it so we aren't allowed. I don't like that. I like to play on the playground. Swinging is one of my favorite things and the school playground has really long swings so you can go really high. It would be great to get on those, but we aren't allowed. In the summer I go there and get on them. And I guess it doesn't matter anymore because we don't get recess now. And we never go outside at lunch time because the teachers don't want to come outside so we don't ever go out.

Summary

This chapter has provided evidence and quotes from the focus group discussions to support four themes that have emerged from analyses. These themes reflect the major findings that dominated conversations among participants. Girls had many things to say about their physical activity experiences. The evidence suggests that many factors impact girls' physical activity perceptions and behaviors including interpersonal relationships and environmental situations. These factors contribute to the individual-environment fit within which participants live and shape how girls experience physical activities. Findings from these themes will be put in context and conclusions drawn in the following chapter.

CHAPTER V

DISCUSSION

Life long health behaviors, such as an active lifestyle, are developed and established during adolescence. Examining physical activity patterns and behavior during these critical years is important. Physical activity declines with age and the decline is especially sharp for girls during the adolescent years (Kimm et al., 2002; Pate et al., 2007; Sanchez et al., 2007; Zick et al., 2007). The waning participation rates for girls' physical activity have led researchers to examine intra and interpersonal variables that shape girls participation in active pursuits (Biddle et al., 2005; Duncan et al., 2005, Dwyer et al., 2006). A growing body of research is extending the examination of factors that impact girls' physical activity behaviors to include influences from social and physical environments (Casey et al., 2009; Cohen et al., 2008; Hartens et al., 2008; Sallis et al., 2001). Previous studies have identified facilitators and barriers to girls' physical activity participation (Beet et al., 2006; Duncan et al., 2005; Prochaska et al., 2002), however, few have done so using qualitative methodologies that privilege girls' voices. Focus group interviews conducted for this study explored the impact of socio-cultural and environmental forces on girls' perceptions of physical activity.

This summary chapter discusses the findings related in the previous chapter in an effort to draw conclusions specifically related to the original research questions. An overview of the findings is presented as well as a discussion of the scope and limitations

of the investigation and potential future directions for research. Specifically, the summary of findings includes: 1) multiplicity of voices, 2) conceptualizations of physical activity, 3) family relationships, peer influences and physical activity, 4) school and home environment influences on girls' physical activity.

Summary of Findings

Multiplicity of Voices

Darbyshire and colleagues (2005) argued that the current body of literature regarding adolescent physical activity behavior is predominantly research *on* adolescents and not research *for* or *with* adolescents. The result is scholarship where the voices of the key informants, adolescents, are not heard, or as Darbyshire asserts, there is a "missing child" in the research findings. The focus group discussions in this study provided a means to hear from adolescent girls and develop a deeper, richer understanding of how it is girls experience physical activity in their physical and social worlds. It became abundantly clear through analyses of the data that there is not one voice to be heard but rather multiple voices that describe diverse experiences. Study findings present instances where vastly different responses were provided by participants for the same question. .

Determining the cause of the differences among groups of girls is not possible. The small number of participants in this study does not permit such conclusions to be drawn and differences may be attributable to the intersection of several complex factors (Birrell & McDonald, 2003). Discrepancies among girls in the focus group findings may be attributable to a number of factors such as race, socioeconomic status, urban or rural home location, family status, or a combination of a number of these factors. Although

the cause of differences among adolescent girls' perceptions of physical activity cannot be ascertained, recognition that differences do exist is essential in acknowledging the multiplicity of girls' viewpoints.

Study findings also demonstrate that adolescent girls are acutely aware of their social environment and its impact on their lives. Insights relayed by participants indicate that girls do not passively accept the implications of socio-cultural forces and environmental contexts that conflict with their best interests. Examples from group discussions whereby school policy changes resulted in restricted access to girls' active spaces demonstrate the ability of girls in this study to reflect upon their own situation, formulate independent thoughts and arguments pertaining to their circumstances, and in some instances act as agents of change. Girls provided articulate descriptions of policy decisions and the implications for students, and were able to put forth possible solutions and suggestions to improve the situation. While it was clear that macro-level, environmental contexts impact large numbers of girls, it was also evident that participants formulated and offered opinions and viewpoints that are worthy of consideration.

Conceptualizations of Physical Activity

MacDougall and colleagues (2004) described differences in perceptions held by early adolescents regarding sport and play. Their findings indicate that adolescents perceive sport as structured, adult-driven activities, requiring specific equipment and facilities, and are governed by formal sets of rules. Perceptions of play were child-centered, fun, and spontaneous activities that lack competitive or aggressive elements. At the outset of this study consideration was not given to how participants would understand

the concept of physical activity. Early in the focus group discussions, however, it became clear that some girls equated physical activity with ideas of organized sport, while others conceived physical activity more akin to MacDougall and colleagues' (2004) discussion of play. Differences in conceptualizations for physical activity appeared to occur along racial lines however, the demographic make up of the focus groups was such that participants also shared neighborhood location and socioeconomic status. As noted in the earlier section, multiple factors likely contribute to the differences and further investigations are required before conclusions may be drawn. However, polarized and internalized conceptualizations of physical activity were apparent and impacted the direction of the discussion within each focus group.

Family Relationships, Peer Influences and Physical Activity

Findings from both the Social Support for Physical Activity survey and the focus group discussions support previous research that indicate instrumental social support provided by mothers increases girls' perceived support for physical activity (Beets et al., 2006; Davison et al, 2003; Duncan et al., 2005; Prochaska et al. 2002). As well, emotional support and encouragement from female friends contributed to enhanced perceptions of social support for physical activity. However, comments from girls in this study suggest that girls are interested in spending more time in all female physical activity contexts. Specifically, girls want to be active with their mothers and female relatives, and girls indicated that they would prefer physical education classes in single sex settings.

Girls reported they had infrequent opportunity to participate in physical activities with their mother but expressed a desire for more shared physical activity. This type of shared participation is different from the types of instrumental support for activities noted in previous research (Duncan et al., 2004; Taylor et al., 1994) Davison and colleagues referred to involvement in physical activities by a parent with a child as explicit support. Their research indicated that it is most often fathers who partake in shared activities with girls. However the girls in this study clearly articulated a wish to have a relationship with their mother in physically active environments. Similar findings have not been previously described in the literature.

Another relationship revealed to be significant by girls was one with other female relatives. Specifically, African American girls cited several examples of engaging in physical activity with sisters or female cousins as part of child care arrangements and emphasized the enjoyment of sharing time through activity with the related family members. Girls were reluctant to label these situations as afterschool care or babysitting although it was apparent that this was likely the case. The quality of the relationship with a close female relative appeared to be the valued part of the interaction rather than the physical activity experience. Further investigations that explore how these caring relationships impact activity and the quality of these experiences may provide insights and understanding valuable for programming aimed at female populations.

In the focus group interviews, girls indicated that female friendship groups often were formed based on girls having similar activity levels and perceived physical competence. Regardless of their level of activity or apparent perceived physical

competence, the majority of girls in this study said they did not like physical education

with boys. The most often expressed reason for this was a dislike of the competitive and

aggressive nature of activity when boys are present. Girls described how the presence of

boys in co-ed physical education classes changed girls' behaviors and provided examples

where girls were present in a physical education class but not engaged in the physical

activity. Roseyposey said, "I just usually stand there and do nothing". Girls indicated

that they want to be physically active in non-competitive, cooperative environments.

Girls who currently participate in single sex physical education classes said that they

enjoyed those opportunities and described being engaged in them. Interestingly, unlike

previous research (Grieser et al., 2006; Vu et al., 2006) girls did not feel that body image

concerns impacted their level or participation, nor did girls recognize health concerns as a

reason for engaging in physical activity.

School and Home Environment Influences on Girls' Physical Activity

This study also set out to consider girls' physical activity behaviors from a social

ecological perspective and capture girls' perceptions of how physical and social

environments shape their physical activity behaviors. Spence and Lee's Ecological

Model of Physical Activity [EMPA] (2003) was used as a lens through which to interpret

focus group data to enrich our understanding of adolescent girls' points of view. To more

closely examine the individual-environmental fit between participants and their

environment as described by Spence and Lee (2003), participants were asked to discuss

the physical settings commonly encountered in their everyday lives. Physical

environments and social policies in school and neighborhood settings clearly had an impact on girls' physical activity behaviors.

. Participants were animated in their descriptions of the impact changes to the outdoor school environment had on girls' access to a desired space for physical play. Decisions to shift or eliminate playground spaces in middle school settings altered the individual-environment fit in a negative way for the girls involved. Changes to school playground physical environments reduced available girls' play spaces and greatly altered physical activity experiences for a large number of girls. Girls also described being particularly discouraged by restrictions placed upon them within their school context regarding access to physical activity opportunities. These restrictions were different from physical impediments such as a lack of playground space, but were equally as debilitating with regards to activity. Policies that forbid girls in their first year of middle school from participating on school teams raised the ire of several participants. Other school policies prohibited outdoor play at recess and lunch for all middle school girls in this study. Girls were extremely frustrated and exasperated with the restrictions but felt powerless to change them. One participant, Piano player said, "We are stuck in the middle".

Neighborhood safety was also recognized as having a significant impact on girls' physical activity choices. As in previous research (Greiser et al., 2006; Mulvihill et al., 2000) participants described restrictions enforced by parents on time spent outside in their neighborhoods because of safety concerns. Girls were often forbidden from straying far from their homes without supervision because of fears for their well-being.

More specific fears perceived by the girls themselves, such as intimidating neighborhood dogs, also negatively impacted physical activity behaviors in community settings. The perceived threat of harm was extensive and vivid, touching the lives of all participants in the affected neighborhoods. That unsafe neighborhood environments impact girls' freedom of movement within their community and hampers physical activity outdoors is not new. However, this study afforded girls the opportunity to express specific fears and highlight the inability of families to impact the individual-environment fit at the macro level (i.e. neighborhood safety). These findings regarding school and neighborhood environments underline the impact of macro level factors on individual physical activity behaviors and perceptions.

Unlike most research in this area that indicate rates of physical activity for girls are declining with age because girls choose to become inactive, girls in this study described wanting to engage in physical activity. However, girls were unable to do so because of educational policy decisions that restricted access to physical activity space or opportunity. Decisions made by school administrators regarding playground space, school teams, or free time at recess and lunch indicate either a lack of concern for girls' activity preferences or a failure to recognize the problem for girls. Further, neighborhood realities that make girls' play spaces uninviting or unsafe deter active pursuits for girls. Individual girls and their families are unable to change these community environments.

Early adolescence has been identified as a critical period where physical activity participation declines dramatically for girls. The implications of this decline are particularly worrisome as it is during this critical period that adolescents establish

lifelong patterns of physical activity behavior that remain into adulthood. Simply, inactive adolescents become inactive adults. Girls in this study reported that they are not choosing to become inactive, but rather environments and policies limiting their access to physical activity space and opportunities are curtailing their ability to engage in desired physical activities. These findings indicate a need to shift from a focus on individual girls' patterns of physical activity behavior and instead examine larger social policies to identify how environments restrict girls' physical activity.

Scope and Limitations

This study was designed to let adolescent girls describe their perceptions of physical activity and permit an in-depth analysis of the complex factors that intersect and overlap to shape girls' physical activity behaviors. Other researchers have conducted similar research (Dwyer et al., 2006; Greiser et al., 2006; Mulvihill et al., 2000; Taylor et al., 1999; Thompson et al., 2005; Vu et al., 2006). The emphasis in all of these works was on individual level influences on physical activities. Findings from this study reinforce the significant impact that interpersonal factors have on adolescent girls' perceptions of physical activity and suggest that girls desire more physical activity with their mothers, girls value caring relationships with female relatives in physical activity settings, and girls have wide ranging understandings of physical activity. Further, this study extends the body of knowledge concerning the impact of macro-level factors on access to physical activity opportunities and environments. By exploring the role environmental settings play in girls' physical activity behaviors, this work helps to fill a gap in the literature as few other studies have done. More specifically, this study adds to

the current understanding of girls' physical activity behaviors by integrating a social ecological framework, the EMPA, as guide for analyses. From these analyses we see specific aspects of the school and home environments that determine and limit how girls move in these settings. To accomplish this, girls were asked to share their perceptions of their physical activity behaviors. By privileging girls' voices as the source of data, different perspectives and insights were revealed and relevant information about the realities of girls' physical activity experiences was uncovered.

An obvious limitation of this study is the small number of participants. Further, participant recruitment was restricted to members of area Girl Scout troops. The Girls Scouts of America include in their mandate the promotion of physical activities for girls. Participants' experiences with Girl Scouts may set them apart from other populations of girls. While the focus group discussions led to meaningful insights pertaining to girls' physical activity, the narrow recruiting limits the generalizability of findings to larger populations of girls. As previously discussed, adolescent girls are not a homogenous group and as evidenced from this small study, multiple view points emerge when conversations are directed towards physical activity. A small number of White and African American girls described their feelings in this work. However, many groups of adolescent girls were not heard from including girls of other racial or ethnic backgrounds, different geographic locations, home-schooled girls, or girls who are physically challenged. It is certain that their voices would add to the complexity of the discussion.

Further, the data rely on the recall of adolescent girls to remember events that have previously taken place and present their perceptions of these events. It is possible

that responses from participants may have been influenced by others within the same focus group. In these ways the research may have some biases; however, the feelings of the researcher were bracketed to ensure that findings reflect the voices of the participants and not the researcher's expectations.

It should also be acknowledged that the Girl Scout leaders for the participating groups likely had an influence on participant responses. Although all of the participants were girl scouts within the same Council, the programming for the groups was not uniform. All of the African American girls had the same leader while there were three leaders for the White groups.   The Girl Scout leader for the African American groups was very focused on encouraging and enabling physical activities as part of regular group meetings. Every meeting included group physical activities. Girls also spoke of several field trip events such as ice skating or swimming where group funds were used to allow all girls to participate. These activities were in contrast with the events described by the White girls for their meeting times. No mention was made of physical activities during meetings and no mention of special events for physical activities was made. While it is not possible to measure the effect these women had on the girls in their troop regarding physical activity participation or perceptions, the differences were apparent in group conversations.

<center>Future Directions and Implications</center>

This research has revealed many insights regarding adolescent girls' experiences in physical activity settings, particularly the impact of environmental influences. Sharing a summary of these findings with appropriate groups such as Girl Scout organizations,

community recreation groups, area school districts, and participating churches is a priority and will serve to disseminate the information to the community. Informing these groups may encourage program and policy review so that updates to current courses of action may occur to enhance girls' experiences.

Research efforts are necessary to confirm study findings and further explore girls' physical activity experiences. Girls spoke of enjoying family-based activities and wished for more shared activities with their mothers and female relatives. At a time when it is assumed that peer influences are of increasing importance, such suggestions merit further exploration. Studies designed to include mother and daughter physical activities and intergenerational female family activities may help to better understand what it is about these relationships that attract girls. Investigations should consider how, if at all, the physical activity enhances the family relationship. The possible implications of creating quality physical activity experiences for girls and women could be far reaching for increasing physical activity participation and should be considered in programming decisions for community centers.

The institutional and environmental factors that girls identified as having lasting impact on their physical activity perceptions should also be revisited in future research. As adolescents spend a large portion of their day in school environments, the potential influence of school policies is large. Establishing partnerships with school districts for future research efforts is a potential way to extend our understanding of girls' physical activity experiences in that setting but also may serve to help school administrators identify issues important to girls. Working closely with school staff and physical

educators may encourage discussions about policies that currently impact girls, such as playground space and co-ed physical education classes. Such joint efforts that extend scholarly understanding and help educational institutions is a way to make research relevant for the larger community.

The inclusion of a social ecological framework for analyses in this study had a significant impact on the research findings. Further use of such social ecological frameworks to examine the impact of policies and physical environments on physical activity behaviors in other macro-level setting is important. For studies that are concerned particularly with adolescent girls, extending the scope of the investigation to include afterschool programs and recreation centers may be helpful. This line of research will not only to expand scholarship but also to better inform recreation programs that strive to prevent a decline in girls' physical activity participation through adolescence.

That some girls conceived sport as play while others considered it structured sport was an unanticipated finding. These differences clearly shaped girls feelings and perceptions regarding physical activity. As has been previously discussed, early adolescence is a critical time for establishing adult patterns of physical activity. Girls understanding of physical activity during adolescence shapes the types of activities in which girls engage so it makes sense that these notions of physical activity could have far reaching affects on adult physical activity patterns. Revisiting this simple question is necessary to better understand the implications not only for adolescent girls but also for future adult physical activity participation. Efforts should be made to include girls of different racial or ethnic backgrounds, geographic locations, and girls with disabilities,

as this will allow a more complete picture of adolescent girls' understanding of physical activity to emerge.

Summary

Adolescent girls in this study had a lot to say about physical activity. Their contributions demonstrate a diversity of physical activity experiences as well as understandings of what physical activity encompasses. Comments from participants indicated that girls do enjoy physical activity, particularly when shared with family and similarly skilled peers. Some girls indicated that they would like to have more opportunities to participate in some physical activities, especially those where time is spent with close female relatives. There was clear consensus among girls that their access to desired spaces for physical activity at school and in their neighborhoods was a problem. Girls were also emphatic that regulations at school restricting access to physical education opportunities hindered the amount of time they could be active. School and neighborhood environments were powerful influences that shaped how girls experienced physical activities. Evidence from this study indicated that girls are affected by influences ranging from interpersonal relationships to broad social dimensions. Physical activity behaviors are complex and likely shaped by the intersection of many factors. Insights gleaned from this work add to the awareness of girls' physical activity experiences and point towards potential areas for future exploration.

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APPENDIX A

ECOLOGICAL MODEL OF PHYSICAL ACTIVITY

Physical Ecology
(eg. climate)

Pressure for Macrosystem Change
(eg. urbanization, modernization)

Macrosystems Dimensions

Eg. Societal Values about physical activity
(PA), safe neighborhoods

Exosystems Dimensions

Eg. Workplace support for PA (parents),
mass media

Mesosystems Dimensions

Eg. Parental support for PA at home, child's
involvement in PA at school

Microsystems Dimensions

Eg. Interpersonal influences, verbal
encouragement from teachers and friends

Biological and Genetic
Factors (eg. Heritability,
activity-stat)

Psychological Factors
(eg. attitudes, efficacy,
perceived norms)

Physical Activity

APPENDIX B

DEMOGRAPHIC SURVEY

Please print in the spaces indicated below, and check the circle with the correct response for each descriptor as it applies to you.

Last Name _____   First Name _____

Date of birth _____ _____ _____   How old are you? _____
               Month Day Year

What school do you go to? _____

RACE/ETHNICITY (Please check one):
O Asian/Pacific Islander   O Latino/Hispanic
O Black/African American   O White
O Native American Indian   O Other (please specify)_____

What is the **job status** of your father/guardian and your mother/guardian? (**Mark the one that best describes each of them.**)

Father/ Guardian   Mother/ Guardian
O 1   O 1   Not working
O 2   O 2   Retired
O 3   O 3   Homemaker, raising children, care of others
O 4   O 4   Employed (full-time or part-time)
O 5   O 5   Disabled, unable to work
O 6   O 6   Other (Specify): _____

Name of parent or guardian:
Last Name _____   First Name _____

Your current home address:
Street address _____ Apart. # _____
City _____ State _____ Zip _____
Telephone Number _____

APPENDIX C

PERCEIVED SOCIAL SUPPORT FOR PHYSICAL ACTIVITY SCALE

How often during a typical week does your *Mother* …	Never	Rarely	Some-times	Often	Very Often
Encourage you to do physical activities?					
Do a physical activity with you?					
Watch you take part in physical activities?					
Talk with you about your physical activity?					
Provide transportation so you can go to a place where you can do physical activities?					

How often during a typical week does your *Father* …	Never	Rarely	Some-times	Often	Very Often
Encourage you to do physical activities?					
Do a physical activity with you?					
Watch you take part in physical activities?					
Talk with you about your physical activity?					
Provide transportation so you can go to a place where you can do physical activities?					

How often during a typical week do your *Friends that are girls* …	Never	Rarely	Some-times	Often	Very Often
Encourage you to do physical activities?					
Do a physical activity with you?					
Watch you take part in physical activities?					
Talk with you about your physical activity?					
Provide transportation so you can go to a place where you can do physical activities?					

	Never	Rarely	Some-times	Often	Very Often
How often during a typical week do your *Friends that are boys* **…**					
Encourage you to do physical activities?					
Do a physical activity with you?					
Watch you take part in physical activities?					
Talk with you about your physical activity?					
Provide transportation so you can go to a place where you can do physical activities?					

APPENDIX D

INTERVIEW GUIDE

1. Background
   Preamble
   My name is Karen and I am a graduate student at UNC Greensboro. The purpose
   of this interview is for me to learn more about physical activity for girls your age.
   I am particularly interested how other people influence how, when, and where you
   participate. Your answers will help researchers look at ways to help girls increase
   their physical activity.

   - Please give us your name and tell us how old are you?

   When I ask about physical activity, what do you think I mean?

   Well, I am really talking about something you do which makes you feel out of
   breath, makes you feel tired or slightly warm and sweaty. Physical activity does
   not only mean doing physical education (PE) or sport or exercise at fitness center,
   but can also include activities like walking, playing, outside, biking, or dancing.
   Are there any questions?

2. Role of parents in physical activity
   - Tell me about any physical activities you do with your parents?
     - Who participates?
     - Where are you physically active?
     - How often do you do this?
     - Do you enjoy this? How does is make you feel?

   - Are there any activities which Mom or Dad encourages or makes you do?
   - Do you like doing this?
   - Are there any activities that your parents won't allow you to do?
     - Why?
   - Do you have a part time job or household chores at home? Do they
     interfere with activities?

3. Role of friends and gender differences in the perceptions and participation in
   physical activity

   - Tell me about the physical activities you do with friends
     - What types of activities?
     - Who do you do these activities with?
     - Where do you do these activities?

- What about boys – do they encourage you or discourage you from being physically active? How?
- How do you feel about being physically active when boys are around?
- What about other girls – are there some girls at your school or elsewhere that encourage or discourage you from being physically active?

4. Physical environment
    - Is it easy for you to be active where you live? Is there space for you to be active?
    - Are there places close to home that you go to for activities?
    - What places or facilities would you like to have at home or nearby that could help you be active?
    - Is it easy for you to be active at school? Is there space for you to be active?
    - Are there places at school where you can be active?
    - What do you like or dislike about these active places?
    - What places or facilities would you like to have at school or nearby that could help you be active?

APPENDIX E

PARENT CONSENT FORM

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Adolescent Girls' Perceptions of their Social Environment and
Physical Activity Behaviors.

Project Director: Karen Murphy

Participant's Name: _____

DESCRIPTION AND EXPLANATION OF PROCEDURES:
The purpose of this study is to explore how girls feel about their social
environment and physical activity behaviors. To accomplish this, small groups of
girls aged 11-13 will be asked to discuss how family and friends impact their
physical activity behaviors. All group interviews will be audio taped and later
transcribed. Participants and their parent/guardian will receive a summary report
of the interviews that outlines findings and conclusions. It is expected that each
interview will be approximately 60-90 minutes in duration. The participants will
remain anonymous to all except the researcher. Participants' names will be
removed from all transcripts and texts of the interviews and replaced with
pseudonyms. The audio tapes and interview transcriptions will be kept and
stored in a locked cabinet in the researcher's office for a minimum of three years.
All audio tapes will be erased and interview transcripts will be shredded and
destroyed after this interval. Informed consent forms will also be kept in a locked
cabinet in the researcher's office for a minimum of three years, at which time they
will be shredded and destroyed.

RISKS AND DISCOMFORTS:
Individuals participating in this study are at no risk for physical or psychological
harm.

POTENTIAL BENEFITS:
Individuals who participate in these interviews and provide information regarding
their physical activity behaviors will benefit from an increased understanding of
physical activity and health related issues. This heightened awareness will draw
participants' attention to programs, facilities, and events related to physical
activity and health in their daily interactions. Data gathered in this study will
provide insights into physical activity behaviors of an ethnically diverse group of

girls in our local community and be used to improve future programs aimed at increasing levels of physical activity for adolescent girls

By signing this consent form, you agree that you understand the procedures and any risks and benefits to your child involved in this research. Your child is free to refuse to participate or you may withdraw consent for your child to participate in this research at any time without penalty or prejudice; your child's participation is entirely voluntary. Your child's privacy will be protected because she will not be identified by name as a participant in this project.

The University of North Carolina at Greensboro Institutional Review Board, which insures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482. Questions regarding the research itself will be answered by Karen Murphy by calling (336) 855-6955. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

By signing this form, you are agreeing that your child may participate in the project described to you by Karen Murphy.

_____   _____
Parent/Guardian's Signature   Date

APPENDIX F

CHILDREN'S ASSENT FORM

We are doing a study to try to learn how girls your age feel about physical activity and your health. We are asking you to help because we don't know much about the attitudes of girls your age towards being active and healthy.

If you agree to be in our study, we are going to ask you some questions about how often you are active and how you feel about your health. We will want to know the types of physical activities you enjoy as well as if you feel better after are active. For example, you will be asked if you like to take part in after school sports.

You can ask questions at any time that you might have about this study. Also, if you decide at any time not to finish, you may stop whenever you want. Remember, these questions are only about what you think. There are no right or wrong answers because this is not a test.

Signing this paper means that you have read this or had it read to you and that you want to be in the study. If you don't want to be in the study, don't sign the paper. Remember, being in the study is up to you, and no one will be mad if you don't sign this paper or even if you change your mind later.

Signature of Participant _____ Date _____

Signature of Investigator _____ Date _____

APPENDIX G

PARTICIPANT INFORMATION

Pseudonym	Age	Grade	Race/ Ethnicity	Adults in home	Parents Employed	Perceived Social Support Total Score
Rosie	11	6	African American	2	2	62
Christal	11	6	African American	2	2	29
Jewel	11	6	African American	1	1	71
Ladyjane	11	6	African American	2	2	34
Kat	11	6	African American	1	1	58
Brit Brit	11	6	African American	1	2	50
Cheeks	11	6	African American	2	2	48
Alice	12	7	African American	1	2	39
Ken	12	7	African American	1	1	43
Razer	13	8	African American	2	2	51
Tash	13	8	African American	2	2	31
Queenie	13	8	African American	1	2	53
Treasure	12	7	African American	1	1	23
BB girl	12	6	African American	1	1	40
Sue	12	6	African American	2	1	49
Beth	12	6	African American	1	2	72
Gordon	12	7	African American	1	2	62
Lulu	13	8	White	2	2	57
Emylee	13	8	White	2	2	79
Penelope	12	7	White	1	0	45
Addison	12	7	White	2	2	76
Bart	12	7	White	2	2	75
Lizzie	13	8	White	2	2	74
Volleyball babe	13	8	White	2	2	70
Roseyposey	13	8	White	2	1	71
Rudolph	13	8	White	2	2	81
Piano player	13	8	White	2	2	62
CJ	11	6	White	2	1	75
Not-me	11	6	White	1	2	74
Schoolgirl	11	6	White	1	2	70
Shizam	12	6	White	2	2	71
Ellie	11	6	White	2	1	81

APPENDIX H

FOCUS GROUP DESCRIPTIONS

Focus Group 1

This was the largest of the discussion groups with seven African American girls participating. All three grades of middle school were represented as there were two sixth grade girls, two seventh grade girls and three eighth grade girls. Four girls lived in homes with one adult and three lived with two adults. Four participants had two employed parents and three reported one parent working. The average total score for this group on the Perceived Social Support Scale was 41.4. All of the members of this group knew each other and regularly interacted with one another at Girl Scout activities as well as through church organized events. Further, all girls lived in two adjacent, predominantly African American, neighborhoods in an urban area. The Girls Scout troop and church are located within one of these neighborhoods.

Focus Group 2

This was also a large group with six African American participants. Four girls were in sixth grade and two were seventh graders. All but one of the girls lived in single adult headed homes but all girls reported having two employed parents. The average total score on the Perceived Social Support Scale was 54.8. This group was also very comfortable with one another as they regularly see each other and interact at Girl Scout and church activities. These girls all resided in two predominantly African American neighborhoods in an urban area.

Focus Group 3

The smallest of the African American focus groups, all participants in this group were sixth grade students. Three of the four girls lived in homes with two adults and reported having both parents working. The average total score for this group on the Perceived Social Support Scale was 49. Although all of these girls lived in the same neighborhood and attended the same Girl Scout troop, discussions revealed that two of the girls attend magnet schools at some distance from their home that required a long bus ride to and from their school.

Focus Group 4

This was a White focus group with four eighth grade participants who were familiar with one another from Girl Scout and school activities. All girls indicated that they lived in two adult homes and three of the four reported both parents were employed. The average total score for the Perceived Social Support Scale was 71 for this group. Girls in this group described their living environment as "in the country" as they lived in a more rural

area. While all girls did not attend the same school, they did need to travel on the bus some distance each day to attend a county school.

Focus Group 5

This White focus group also consisted of four participants. Three girls were in the seventh grade and one was in the eighth grade. These girls had spent the last two years in the same Girl Scout troop and therefore knew one another. Three of the four participants reported living in a two adult home and having two employed parents. The fourth participant lived in a one adult home and reported that neither parent was employed. The average total response on the Perceived Social Support Scale was 67.5. This was also a rural group with participants living at some distance from one another and travelling to and from school on a bus.

Focus Group 6

This was a White focus group with four participants. All girls were in sixth grade. Two of the girls lived in two adult households and three indicated that both parents were employed. The average total of the Perceived Social Support Scale was 72.5. Although this group was not in an urban center the girls did live in a small community setting as opposed to the rural environment described in the two previous White focus groups.

Focus Group 7

This final focus group consisted of only three participants. These were White girls who had known each other for only two months through Girls Scouts. Two of the girls were eighth graders and one was in the sixth grade. The two eighth graders went to different schools. All of the girls lived in two adult households and the eight graders indicated both parents were employed while the sixth grader had only one parent working. The average total on the Perceived Social Support Scale for this group was 72.3. This was the most difficult focus group as participants were not comfortable with each other. As well, there was a difference in the degree to which participants were interested in physical activities so that an easy conversation was not established within the group. During this focus group interview the researcher decided to end the discussion quickly rather than put participants in an uncomfortable situation.