Exploring Intersectionality in Physical Activity Spaces among Somali Adolescent Girls: Implications for Programming

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Dedication

This dissertation is dedicated to my son, Nolan. I hope that one day when you read this I will have made you proud, and shown you that with passion, hard work, perseverance, and support from mentors and loved ones you CAN achieve your goals!

Abstract

Thul and LaVoi (2011) conducted a study in 2008, titled "Reducing Physical Inactivity and Promoting Active Living: From the Voices of East African Immigrant Adolescent Girls," to learn about barriers facing this underserved population. The purpose of the study was to explore East African (n= 12 Somali, and n= 7 Ethiopian) adolescent females' experiences with and beliefs about physical activity, and their suggestions for promoting active living. Based on the data, the girls faced barriers on multiple levels which impeded their physical activity participation. To overcome barriers the girls suggested a culturally relevant, female-only physical activity program be developed.

Based on the girls' wishes, in 2008 the Girls Initiative in Recreation and Leisurely Sports (G.I.R.L.S.) program was created for primarily East African adolescent and young adult females, and implemented in a gym at the Brian Coyle Center in the Cedar-Riverside neighborhood of Minneapolis, Minnesota. Thul—a participant-volunteer-consultant to the program—noticed the gym and other physical activity spaces in the neighborhood appeared to be contested spaces wherein "real and symbolic boundaries have been drawn to limit access" (Cooky, 2009, p. 260) for the participants. Specifically, Thul observed several physical activity spaces and the female participants who used them were affected by the intersection of gender, race, ethnicity, class, religion, and cultural markers of identity. Thul, in conjunction with G.I.R.L.S. program leaders, decided conducting a spatial needs assessment and extending Thul and LaVoi's (2011) study by listening to girls' voices was imperative for understanding their experiences with, and perceptions of, the identity markers and physical activity space, as well as the impact such experiences have on future physical activity programming.

Thus, the purpose of this dissertation study was two-fold: 1) to employ Henri Lefebvre's (1991) Conceptual Model of Social Space and aspects of a feminist participatory action research (FPAR) approach to explore Somali adolescent girls' experiences with, and perceptions of, the

intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood, and 2) to understand the implications of the Lefebvre's model for locating and implementing future physical activity programming. Data collection included mixed methods—a quantitative participatory mapping activity (n = 30) to assess perceived space, and focus groups (n= 27) to explore the intersection of the identity constructs within conceived and lived spaces.

Numerical trending of the participatory maps, and deductive and inductive content analysis of the focus groups, revealed many complex findings. The overarching finding was that physical activity spaces for Somali females are contested terrain. Perceived space mapping trends indicated males had more access to physical activity spaces than females, indoor physical activity spaces were perceived as more relevant than outdoor ones, and females have low accessibility to physical spaces. Participants' perceived space definitions and behaviors of physical activity revealed a wide ranging definition and performances of physical activity. Conceived space themes suggested an intersection of identity markers influenced a variety of gender ideologies and expectations of females, social constructions of femininity, cultural and religious beliefs and tensions, and ethnic Somali cultural norms. Together the perceived space, conceived space, and identity markers impacted an array of lived space perceptions and experiences regarding a lack of freedom, gender spatial inequality, surveillance tensions, familiarity tensions, inclusivity tensions, accessibility, and strategies for change. These findings indicate future physical activity programming should maintain its inclusivity of all females regardless of race, ethnicity, religion, and culture, as well as take place in accessible, high-quality, private community locations. The findings also support the need to incorporate a wide variety of physical activities and occasionally new venues, ensure trusted, adult-female surveillance, and maintain accessibility. Above all, however, the findings suggest multi-systemic efforts must be undertaken to achieve spatial equality for physical activity among Somali adolescent girls.

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COVER LETTER

In 2008, Dr. LaVoi and I conducted a study, "Reducing Physical Inactivity and Promoting Active Living: From the Voices of East African Immigrant Adolescent Girls." The purpose of the study was to explore East African (n= 12 Somali, and n= 7 Ethiopian) adolescent females' experiences with and beliefs about physical activity, and their suggestions for promoting active living. This was a groundbreaking study in that it was the first time this population was included in physical activity research.

The findings of the study revealed that East African girls desired to be physically active and perceived a wide range of physical activities to be culturally relevant and desirable. However, they faced an array of personal, social, environmental, and cultural barriers to active living. One of their primary suggestions for improvement was the creation of a culturally relevant, female-only physical activity program in their community. All of these findings laid the foundation of this dissertation project, as you will hear about in greater detail in the pages to come.

In 2011, the study was published in the *Qualitative Research in Sport, Exercise and Health* journal. On the next page, I included a copy of the publication title page with a complete reference to the article. This publication is the first piece of a body of work pertaining to the physical activity of an underserved population of females undertaken and completed during my graduate training at the University of Minnesota. For space and copyright purposes, the full article is not included herein.

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Reducing physical inactivity and promoting active living: from the voices of East African immigrant adolescent girls

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DISSERTATION STUDY:
EXPLORING INTERSECTIONALITY IN PHYSICAL ACTIVITY SPACES AMONG SOMALI ADOLESCENT GIRLS: IMPLICATIONS FOR PROGRAMMING

CHAPTER 1:

INTRODUCTION

Women's sports advocates and scholars across kinesiology, sociology, psychology, and public health domains champion the participation of adolescent girls and young women in sport and physical activity, citing the plethora of evidence linking positive physical and psycho-social outcomes to their participation. These individuals also acknowledge that many females—particularly underserved females—often do not fully reap such benefits, because of an array of ecological factors that limit opportunity for physical activity. Somali adolescent girls and young women are one population of females for whom potential benefits and barriers exist.

Thul and LaVoi (2011) conducted a study in 2008, titled "Reducing Physical Inactivity and Promoting Active Living: From the Voices of East African Immigrant Adolescent Girls," to learn about barriers facing this underserved population. The purpose of the study was to explore East African (n= 12 Somali, and n= 7 Ethiopian) adolescent females' experiences with and beliefs about physical activity, and their suggestions for promoting active living. The results indicated that the adolescents faced several ecological—personal (e.g., lack of time and low feelings of physical competence), social (e.g., lack of peer and parental support and culturally competent, caring coaches), environmental (e.g., lack of physically and psychologically accessible, safe, and high-quality spaces and resources), and cultural (e.g., lack of female-only spaces where they could be active, while maintaining their cultural beliefs of privacy and modesty) —barriers that impeded their physical activity participation.

To overcome these barriers the girls suggested a culturally relevant, female-only physical activity program be developed. According to the girls' wishes, in 2008 the

Girls Initiative in Recreation and Leisurely Sports (G.I.R.L.S.) program was created for primarily East African adolescent and young adult females, and was implemented in the gym at the Brian Coyle Center in the Cedar-Riverside neighborhood of Minneapolis, Minnesota. Thul—a participant-volunteer-consultant to the program—noticed the gym and other physical activity spaces in the neighborhood appeared to be contested spaces wherein "real and symbolic boundaries have been drawn to limit access" (Cooky, 2009, p. 260) for girls. Specifically, Thul observed several physical activity spaces were influenced by the intersection of gender, race, ethnicity, class, religion, and cultural markers of identity. Conducting a spatial needs assessment and extending Thul and LaVoi's (2011) study by listening to Somali adolescent girls' voices was imperative for understanding their experiences with, and perceptions of, the identity markers and physical activity space, as well as the impact such experiences have on future physical activity programming was imperative. One of the most prominent social spatial theories in general and specific to the sport context is Henri Lefebvre's (1991) Conceptual Model of Social Space.

Within his theorization of space, Lefebvre (1991) identified a conceptual triad of the production and use of social space: spatial practice (perceived space), representations of space (conceived space), and spaces of representations (lived space). Perceived space is the construction and use of physical space. Conceived space is the most dominant form of space, and represents the socials spaces we socially construct and engage in through our beliefs, thoughts, and memories (van Ingen, 2003). Lived space is "the social space through which life is directly [through both the real and imagined] lived" (van Ingen, p. 204). Throughout his theory, Lefebvre specifies that the knowledge and productions of, and actions within, space are intertwined with power relations. Therefore, any spatial study must assess agency and structural forces, and power and privilege within space. Lefebvre also recognizes that power relations have worked to erase historically disempowered others—such as ethnic minority females—from

spatial discourse, production, and use. Feminist geographers (McDowell, 1999; Muller Myrdahl, 2008) argue women must assert their claims to space, and their voices must be heard, for space to ever be justly transformed. Hence, providing a platform for hearing and listening to women's voices is necessary. One methodological approach that provides such a platform is feminist participatory action research (FPAR).

The purpose for the present study was two-fold: 1) to employ Henri Lefebvre's (1991) Conceptual Model of Social Space and aspects of a FPAR research approach to explore Somali adolescent girls' experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood, and 2) to understand the implications of the model for locating and implementing future physical activity programming.

To this end, in this dissertation I interrogated the relationship between agency and structural forces, and power and privilege, within perceived, conceived, and lived physical activity spaces; the way the forces socially construct gender, race, ethnicity, class, religious, and cultural norms and ideologies implicit in physical activity spaces; how the social constructions impact the production and use of, and actions within, the spaces, through the ways in which the social constructions are reinforced and/or resisted by the girls; and the implications of the girls' experiences with physical activity spaces and the identity markers for locating and implementing future physical activity programming.

Next, I review the literature regarding needs assessments, the extension of Thul and LaVoi's (2011) study, the significance of studying physical and social space in general and physical activity space specifically, the link between markers of identity and space, and Lefebvre's conceptual model. I end by presenting a point of departure from the literature, including reiterating the purpose and specifying the research questions for this study.

CHAPTER 2:

LITERATURE REVIEW

A Critical Needs Assessment: Understanding Somali Adolescent Girls' Spatial Needs for Physical Activity

According to Altschuld and Kumar (2010), a needs assessment for a health promotion program is the "process of determining, analyzing, and prioritizing needs, and in turn, identifying and implementing solution strategies to resolve high-priority needs" (p. 154). Gilmore (2012) defines a need as "the difference between the present situation and a more desirable one" (p. 8). In this sense, a need may be a variety of things—from the more general (e.g., a need for better health or a need for physical activity programming) to the more specific (e.g., a need to overcome specific barriers to physical activity or a need for certain uncontested female-only physical activity spaces). Thul's observations as a participant-volunteer-consultant and G.I.R.L.S. program leaders suggested a needs assessment regarding Somali adolescent girls' spatial needs for physical activity and future programming was necessary. Understanding how the girls' gendered, raced, ethnic, classed, religious, and cultural needs intersected with their perceptions, conceptions and lived spatial experiences was essential for knowing where and why to locate, and how to implement, future programming. Herein lays this dissertation's first contribution: to the author's knowledge this was the first needs assessment to explore the intersection of such identity markers on Somali adolescent girls' experiences with, and resulting programmatic needs within, physical activity spaces.

A Deeper Understanding of Socio-Cultural Spatial Barriers: Extending Thul and LaVoi (2011)

This dissertation served not only as a needs assessment, but also an extension of Thul and LaVoi's (2011) study where there were several socio-cultural-environmental barriers

related to space, and where identity markers appeared to intersect and impact Somali girls' physical activity participation. For instance, in the study, East African adolescent girls discussed peer gender stereotypes related to gender, religion, and culture, such as boys thinking the girls were physically incompetent and weak and the boys taking up all of the physical activity space in their community because of such stereotypes, as primary barriers to their physical activity participation. Furthermore, concern over a lack of physically safe spaces was a personal and parental barrier to physical activity. For parents, this concern appeared to be related to the fact that the participants were female and needed protection based on gender, religion, and cultural beliefs. Thus, a lack of parent-supported physical activity spaces was a key issue. Lastly, a lack of culturally and religiously appropriate (e.g., spaces that were female-only and upheld privacy and modesty) and comfortable physical activity spaces (e.g., friendly, supportive, etc.) were noted by the participants. Given these barriers all have to do with space and appear to have identity marker intersections, they signified a need for an extension of Thul and LaVoi's study, and served as key areas of inquiry regarding the relationship between gender, race, ethnicity, class, religion, and culture and perceived, conceived, and lived physical activity spaces in this dissertation.

The Significance of Studying Space

Several of the most prominent theorizations of space stem from Foucault (1986, 1995), Lefebvre (1991), Soja (1989, 1996), and Massey (1994). The theorists revolutionized spatial theory by moving it beyond simplistic understandings of space as a fixed, physically formed environment that was external to the social world (Soja, 2010) to viewing space as a social and "multidimensional concept that is far more multifaceted than [just] the visible, built environment" (van Ingen, 2004, p. 254). For this reason, they are all a significant part of a recent spatial turn, which rebalances historical, social and physical spatial perspectives such that none of the three ways is privileged over the others (Soja, 2010). In particular, Lefebvre—a

philosopher, geographer, and social theorist—is recognized as one of the most influential figures in the spatial turn (Soja, 2010) and social spatial theory (Light & Smith, 1998). Lefebvre (1991) wrote *The Production of Space*, where he discussed a conceptual model for understanding physical and social space—"the spatial forms of all social relations" (van Ingen, 2003, p. 202).

Lefebvre (1991) focused on the social production, reproduction, and performance of physical and social spaces by humans, as he believed space is dynamic and complex because it is both the medium and outcome of social relations and activities within a society. In this sense, space is a place-, time-, and culture-specific social construct (Bale, 1994; Lefebvre, 1991; Massey, 1994) and is, therefore, inseparable from societal, cultural, and social norms (Soja 1996). The norms influence who can be in what spaces, as well as what actions are considered normal and are ultimately performed in those spaces at a given historical moment. Each society comprised of its unique history, culture, norms, and specific places constructs, reproduces and, at times, may resist its own space. Hence, in this dissertation I aimed to understand how space may be uniquely produced in the Somali community, and what bearing such production has on girls' experiences with, and perceptions of, physical activity spaces and their needs for locating and implementing programming.

The knowledge and productions of, and actions within, space are not neutral. They are political and intertwined with power relations (Lefebvre, 1991; Rose, 1993; Vertinsky, 2001), thus, "just as none of us is beyond geography, none of us is completely free from the struggle over geography" (Said, 1993, p. 7). Relations of power serve as a bidirectional force both socially producing and being productive of space (Friedman & van Ingen, 2011). For instance, Vertinsky (2001) notes:

> Different sporting places are distinguished from each other through the operation of relations of power that construct boundaries around them, creating spaces with certain

> meanings in which some relationships are facilitated, and other are discouraged. Places are made then, through power relations that construct the rules and define the boundaries. These boundaries are both social and spatial. They mark belonging and exclusion—who belongs to a place and who may be excluded—as well as the location or site of the particular sporting experience. Thus, the spatial organization of sporting places is integral to the production of social relations [and identities] and not merely its result. (p. 12)

Lefebvre (1996) defines power as a person's ability to create the conditions of his or her life without being oppressed by others. Those with power form the dominant groups, and space becomes the medium through which these groups, their norms, and their ideologies—ideas, representations, values—constitute (Lefebvre, 1991). Spatial analyses must explore relations of power to account for such norms and ideologies (Muller Myrdahl, 2008).

Space is also a medium through which power relations have worked "to erase certain Others from geography" (Morin & Berg, 1999, p. 312). The Others include individuals who have been disempowered and subordinated by the social structures and relations enacted by dominant individuals and groups (most often, hegemonic individuals—White, upper class, males) (Lefebvre, 1988). Women, particularly ethnic minority women, are a historically disempowered group. According to Lefebvre, disempowered individuals are often unable to exert free will and determine the course of their own life, especially as it pertains to space, due to oppression of dominant actors and structures. Oppression can take many forms. A few of the key forms related to space include limited access to space and limited ability to appropriate space and culture (Lefebvre, 2003). Lefebvre's strategy for those affected by unjust space to gain power is to take greater control over the production of space, and occupy and reclaim their rights to space (Lefebvre, 1996, 2003; Purcell, 2002). Feminist geographers (McDowell, 1999; Muller Myrdahl, 2008) argue women must assert their claims to space, and their voices must be heard, for space to ever by justly transformed. Providing a platform for hearing and listening to

women's voices also holds spatial theoretical importance given geographic studies have been traditionally been masculine in their approach (Rose, 1993). Furthermore, Soja (2010) recently called for scholars to focus on seeking spatial just and changing the unjust geographies in which we live. Specifically, he urged scholars to achieve "innovative theoretical and empirical discovery as well as successful practical application" (p. 2) of spatial justice. By listening to girls' voices in this study I hoped to achieve such "empirical discovery" for one marginalized group of Somali adolescent girls.

Lefebvre's conceptualization of power is similar to that in Antonio Gramsci's (1971) hegemony theory, which acknowledges both "the human agency of the subordinated class and the historically specific over determining structures, which bolster the power of the dominant group" (McDonald & Birrell, 1999, p. 287). However, Lefebvre's perspective on power is different than Gramsci's in that Gramsci did not believe power is imbued through class domination; rather he believed power involves a struggle for cultural leadership where "leadership is secured only to the extent that particular ruling ideas or ideologies are made to appear natural, that is, as commonsense" (McDonald & Birrell, p. 288). According to Gramsci then, power relations are never just simply imposed from the dominant group, but also involve the active consent and lack of resistance of the subordinated groups. This is an aspect of power I added to Lefebvre's conceptualization in the present study.

To date, Somali adolescent girls are particular Others that have been erased—whose voices have been silenced and whose power has been usurped—in physical activity spaces, according to Lefebvre's (1996, 2003) definition. They have also actively consented to the power relations mediating in physical activity spaces, according to Gramsci's (1971) definition. Other contributions of the dissertation then are 1) to reverse this problematic trend by providing a platform for Somali adolescent girls' experiences with gender, race, ethnicity, class, religion, and culture and perceived, conceived, and lived physical activity spaces to be heard in the hopes

they will feel empowered to take action and reclaim their rights to space, and 2) to explore how social constructions of, and agency and structural power relations within, physical activity space impact the production and use of such spaces.

The Significance of Studying Physical Activity Space

Space in general (Lefebvre, 1991), and physical activity space specifically, has been significantly under-studied and under-theorized (van Ingen, 2003; Muller Myrdahl, 2008). The lack of information on physical activity, especially sport, space is problematic given the significance of such spaces. Bale (1994) and Eichberg (1993) believe sport, with its boundaries, make it a significant site for spatial analysis. In particular, Bale argued that "sport landscapes do matter" (p. 2), because they are important cultural forms that are imbued power relations. Muller (2007) also suggests the production of, and actions within, sport space are culturally significant because of sport's impact as one of the most prominent institutions in the United States. Messner (1988) supported this point, noting "sport (and culture in general) is a dynamic social space where dominant (class, ethnic, etc.) ideologies are perpetuated as well as challenged and contested" (p. 198).

Lefebvre (2009) further claimed space cannot be separated from the body. The body holds particular significance because it is the body that has the ability to challenge, resist, and transform spaces that are imbued with power (Friedman & van Ingen, 2011). Given the inherent connection between the body and space, Friedman and van Ingen called for increased studies on physical activity, especially sporting, spaces.

In addition to the aforementioned geographers' claims about the importance of physical activity spaces, several public health and psychology scholars have similar perspectives. From the early 2000's onward, the physical or built environment has come to the forefront of public health research (Davison & Lawson, 2006). According to Handy, Boarnet, Ewing, and Killingsworth (2002), the built environment includes a city's physical characteristics, location

and amount of activities, and physical infrastructure of the transportation system, as well as encompasses patterns of human behavior within the city's spaces. For instance, several researchers indicated youth's (Davison & Lawson; Sallis & Ganz, 2006) and adults' (Humpel, Owen, & Leslie, 2002; Duncan, Spence, & Mummery, 2005) participation in physical activity is positively associated with a high-quality built environment. Specifically, Sabo and Veliz (2008) showed the proximity of facilities is related to levels of physical activity. For instance, in their study they found that diverse populations of girls in grades 3-12 who live near a park or gym are more likely to exercise, play a team sport, or be heavily involved in team sports, than girls who lived further away from physical activity facilities. Richter, Wilcox, Greaney, Henderson, and Ainsworth (2002) also found that a close proximity of exercise facilities to one's home enabled African American women's physical activity participation. Sallis and Ganz suggest it is not only the location of facilities in space, but their quality (e.g., well-kept versus run down public open spaces and greater resource variety) that also impacts physical activity. Safe spaces for physical activity are also connected to girls' participation levels, as a barrier to their activity is when spaces are perceived unsafe (Ries et al., 2008). Additionally, Ferris (2012) specified a higher quality built environment was linked to greater physical activity levels in Minnesota's adults. Indeed, a multitude of recent studies on the physical, built environment highlighted the significance of accessible, high-quality, safe physical spaces for females' physical activity participation.

A gap in several of the studies, however, was that the implications of the social in shaping and affecting the physical were often overlooked. Studying space from a social and environmental perspective is important for the variety of reasons discussed by sociologists and geographers in the previous section. Public health scholars Giles-Corti and Donovan (2002) also noted while physical environmental factors are important for supporting adults' physical activity participation, they are secondary to the impact intrapersonal factors and social

determinants have on promoting healthy living. In this dissertation I aim to build off Giles-Corti and Donovan's finding and fill in other built environment researchers' gaps by including analysis of Somali adolescent girls' experiences with both the physical and social nature of spaces. A final argument for the importance of studying such space is the link between physical activity space and identity.

The Significance of Studying Physical Activity Space and Identity

According to Muller Myrdahl (2008), "as a social construct that is imbued with power relations, space is implicated in identity and performance" (p. 22). Sport spaces are social sites (Metcalfe, 1993) where individuals acquire a social identity (Camy, Adamkiewics, & Chantelat, 1993; Puig, Martinez del Castillo, Pellegrino, & Lambert, 1993) and social relations occur (Vertinsky, 2001). The social norms and spatial practices in physical activity spaces are informed by the identity positions and social relations embodied and/or performed by the actors in the space. In particular, scholars have explored the relationship between physical activity space and gender, racial, class, and sexual identity. Most often these scholars only assessed the intersection of several of these categories, which is important because the constructs are inter-dependent and an isolated focus on one construct apart from the others yields an incomplete analysis of identity in sport (McDonald & Birrell, 1999). Thus, critical sport studies scholars, such as McDonald and Birrell continue to call for more sophisticated studies in general, and specific to space (Muller Myrdahl, 2009; Friedman & van Ingen, 2011), that examine the intersectionality of multiple identity constructs. Intersectionality was termed by critical race theorists, "who rejected the notion of race, gender, ethnicity, class, and so forth as separate and essentialist categories" (Valentine, 2007, p. 12), as a way to describe the interdependence of race with other social identity categories (Crenshaw, 1995). Feminist geographers, such as Valentine, also call for increased theorization and research on intersectionality in space. Another contribution of the dissertation is to advance research by assessing the relationship

between the interacting constructs of physical activity spaces and gender, race, ethnicity, class, religion, and culture among Somali adolescent girls.

Identity constructs. While social identity categories include an array of constructs, including religion and culture (Tajfel & Turner, 1985), scholars most often note gender, race, ethnicity, class, and sexuality as essential to critical sport analyses involving an intersectional assessment. To my knowledge there is no empirical research on why religion and culture have been left out of intersectionality analyses of physical activity spaces. It appears, however, that religion and culture may not have been relevant in the limited research that does exist; for instance, in Muller Myrdahl's (2008) dissertation examining how gender, race, and sexuality identities intersected among Black lesbian fans and influence the production of WNBA space, religion and culture were not necessary for understanding that specific population. In this dissertation, however, religion and culture are crucial to explore given the population of interest are Somali adolescent girls who are all practicing Muslims.

In the sections that follow, space is theorized as it relates to each identity category to allow for a clearer discussion of each. In many ways this is a dangerous undertaking, because it may minimize the interconnectedness of the constructs, as well as the dynamic nature of their interplay. Identity is a fluid process, constantly in motion and never fully complete because it is "always relational" (Keith & Pile, 1993, p. 27). Clearly, context matters, and aspects of identity, such as the oppressive forces of sexism, racism, classism, religion, and culture, manifest distinctly in different spaces and contexts (Muller Myrdahl, 2008). In this sense, not all Somali adolescent girls experience the burden of the oppressive forces in a given context at a given time or at the same magnitude. While the identity categories that follow are each presented as a specific, static category for simplicity in writing, in reality they are complex, interconnected and dynamic in nature. Though power is not discussed in the upcoming sections, it is important to remember the distribution of power affects all social relations regarding the identity constructs

(Vertinsky, 2001). I begin with gender, followed by race, ethnicity, and class, then religion, and finally culture.

Gender and space. According to sport sociologist Michael Messner (2002), gender is a social construct that is inextricably linked to social worlds as culture, interaction, and structure. Social constructions are the dynamic forms and meanings groups of human beings give social phenomena (e.g., sport and physical activity) as they live their lives together (Coakley, 2009). Culture is defined as a "group's characteristic way of perceiving the man-made part of its environment. Frequent interaction between individuals usually leads to similar norms, attitudes, and roles, hence to similar subjective cultures" (Triandis, 1972, p. 4). These shared understandings and meanings that groups socially construct encompass social institutions, traditions, and customs as well as attitudes, expectations, and beliefs (Hughes, Seidman, & Williams, 1993). The gendered component of culture then represents the meaning people within a cultural group give to characteristics of humans (especially the sexed body) to denote them as masculine or feminine (Coakley). For instance, in Somali culture the hijab, which comes "from the Arabic root hajaba [and] means to conceal" (Kahan, 2003, p. 49), is the traditional and customary dress many Somali females wear to maintain privacy and uphold Islamic values. This clothing is worn to cover all parts of the female's body except for her face and hands to conceal the female body shape (Kahan). Indeed, the hijab is an example of a gendered object in Somali culture with meaning based on what it means culturally to be feminine.

The gendered meaning of social phenomena and objects often reflects the values and beliefs of the dominant, ruling class—typically males in general and in sport. Thus, gendered meaning is steeped in the gender ideology of the cultural group—the dominant "web of ideas and beliefs about masculinity, femininity, and male-female relationships in the organization of social worlds" (Coakley, 2009, p. 19)—and serves as rules or codes that can govern individuals' attitudes and behaviors. Femininity has long been viewed as "ideologically contested terrain"

(Messner, 1988, p. 203), where cultural conceptions of femininity have both aesthetic meaning and legitimize unequal power relations between men and women. For instance, females have generally been viewed as an Other in sport spaces who are different than males, which often means less physically competent and sets up an unequal balance of power.

In addition to gender as a cultural element, Messner (2002) also notes that gender is an interaction. Gender as an interaction represents how gender norms are performed—the unnatural ways in which people do their gender in social relations—and constrained (Butler, 1990, 1993). Geographers linking Butler's research on performance to socio-spatial relations indicate gender is performed in space through reiteration of social constructions of gender and gendered norms; the body is then produced through the iterations (Muller Myrdahl, 2008). Groups of people socially construct what it looks like to "act like a man" or to "act like a women" and then evaluate others in regard to how well they believe the others' are performing or doing the "correct" gender (Butler, 1990, 1993). According to one of the Somali girls in Thul and LaVoi's (2011) study, Somali social constructions of gender suggest adolescent girls are supposed to be home to take care of the family, and not be out engaging in physical activity where there is risk of being seeing by males. Girls who engage in such activity may not be perceived to be "acting like a woman." Though this is the case, the girls in Thul and LaVoi's study noted that if they participated in physical activity in private, safe, female-only spaces they would be upholding social constructions of gender and traditional gender, religious, and cultural norms and, therefore, would be "acting like a lady." After all, Islam, the religion practiced by Thul and LaVoi's participants and the girls and women in this dissertation, supports the physical and psychological health and well-being of its followers as long as privacy and modesty are upheld (De Knop, Theebom, Wittock, & De Martelaer, 1996; Jawad, Al-Sinani, & Benn, 2011; Leinberger-Jabari et al., 2005).

The third element of gender, according to Messner (2002), is structure. Gender as structure encompasses the "patterns of relationships in which positions, roles, and responsibilities are identified with gender" (Coakley, 2009, p. 41). Gender as structure impacts physical activity participation through the cultural roles and responsibilities males and females are expected to uphold. For instance, American culture (Coakley) and many Muslim cultures (De Knop et al., 1996)—including the East African culture surrounding the girls in Thul & LaVoi's (2011) study—expect males to play sports, be leaders and decision-makers, and someday maintain prominent positions in the community. In contrast, females' roles often include being domestic (e.g., cooking, babysitting) and maintaining femininity, which can prevent or limit females from participating in sport (Hasbrook, 2005).

Parents and peers also create and reinforce the development of such gender roles through their gender-stereotyped behaviors, beliefs, values, and attitudes. For instance, parents' fear for their daughters' safety when it comes to physical activity participation more than their sons' safety, which can negatively impact girls' physical activity participation (Gordon-Larsen, Nelson, & Popkin, 2004). The East African girls in Thul and LaVoi's (2011) study particularly mentioned that their parents fear that physical activity participation would lead to girls' involvement with male peers. Parents also provide more support and encouragement to their sons than their daughters to participation in sport (Fredricks & Eccles, 2005; Thul & LaVoi) in part because of the social constructions about the roles males and females are expected to uphold. Much like parents, peers, especially males, gender-stereotype their behavior towards females by upholding ideologies of females as incompetent athletes (Garrett, 2004; Gorely, Holroyd, & Kirk, 2003; Thul & LaVoi). In sum, gender is a social construct that encompasses culture, interaction, and structure elements; elements where overt and covert sexism plays out and the oppression of females in physical activity through differential power relations can occur.

In 1988, Rose and Ogborn—feminist historical geographers—argued that analyses examining the forms patriarchy has taken in space, place, and landscape also need to account for gender. Many feminist geographers (Massey, 1994; McDowell, 1992, 1999; Pratt & Hanson, 1988; Rose, 1993) answered this call and expanded geographic research with "a broad focus on femininities, masculinities, sexualities and embodiment through various class and race formations" (Friedman & van Ingen, 2011, p. 92) in their work. Due to the increasing cultural emphasis in geography, a plethora of research now exists that assesses the ways gender is inscribed, and dynamically lived, in and through space (Johnson, 2008). Researchers have captured the lived aspect of gender both in terms of experiences of (Day, 2001; Pain, 1997) and performances of (Halbertstam, 1998; McDowell, 1999) gender norms in space. The studies showed how dominant notions of gender (e.g., women as a less competent, more irrational and passive Other to men) and other identity categories "become normalized and/or disrupted in and through space" (Muller Myrdahl, 2008, p. 25).

Despite the array of research on the spatiality of gender in general, only a small amount is based on sport and physical activity. This lack of research is problematic given sport landscapes are highly gendered (Vertinsky, 2004). Cathy van Ingen (2002, as cited in van Ingen, 2003) utilized Lefebvre's conceptual triad to explore the social spaces of sexual minorities participating in a running club in Toronto. Specifically, she explored the ways gender, race, and sexuality were produced and contested and the relation between power and resistance in the social spaces of the running club, as well as the impact these all had on leisure activity. According to van Ingen, she examined perceived space in her study by examining the space the runners produced and used within the streets of Toronto. She assessed the conceived space by examining the ways the runners conceptualized the running club and membership in the club, and she explored the lived space via the participants' "feelings of inclusion and exclusion and bodily experiences within the running class" (van Ingen, 2003, p. 211). In addition to van Ingen,

Lynda Johnston (1998) researched the relationship between female body builders and gym space, focusing specifically on how gym spaces become contested social spaces for dominant culture and hegemonic power.

More recently scholars have focused on gender, sporting embodiment and geography (Muller, 2007; Muller Myrdahl, 2009, 2011; Thorpe, 2009; Waitt, 2008). For example, in several of her studies Muller (2007) and Muller Myrdahl (2009) explored how WNBA game spaces are contested spaces because they create a naturalized heteronormativity that lesbian fans, especially Black lesbian fans, both co-produce and resist. Thorpe examined embodiment and gender in snowboarding culture, and suggested Bourdieu's social theory offers great possibilities for theorizing the body, embodiment, and gender in sport and physical activity. Waitt assessed the relationship between surfing bodies, gender, and space to demonstrate the ways in which gender and surf space are mutually constituted through the performance of masculinity, Whiteness, and heteronormativity. While all of this research highlights the reciprocal relationship between gender and space in sport, there are gaps. For instance, none of the research focused on Somali females, all of the research focused on adults, and most of the research focused on more competitive sport spaces rather than more recreational, physical activity program spaces. Herein lays another contribution of this study: it is the first study to explore Somali adolescent girls' experiences with gender (among the other identity categories) and physical activity (broadly—not just sport) space.

Race, ethnicity, class and space. Race, ethnicity, and class are inextricably linked (Goldberg, 1993), particularly as they pertain to space (Nash, 2003); thus, they will presented together in this section. Race, ethnicity, and class are important constructs in this study, as 64.8% of people in the Cedar-Riverside neighborhood are people of color (with the majority being Somali) (Helmstetter, Brower, & Egbert, 2010). Also, 41.6% of the people in the

neighborhood live in poverty with a median income of $14, 360. The majority of the individuals living in poverty are also people of color.

Race is a socially constructed concept "which signifies and symbolizes social conflicts and interests by referring to different types of human bodies" (Omi & Winant, 1994, p. 55). Skin color differentiates the types of human bodies and serves as the marker for placing people in racial categories, such as White or Caucasian, Black or African American, Asian American, or Hispanic. Racial categories are historically situated, and are created, lived, and transformed by those with power and influence (in other words, historically White individuals) at a given time. They are internalized, accepted, and occasionally challenged by the marginalized and disempowered Others. Within the racial categories certain attributions and assumptions are made with racialized practices in space, and result in racial ideologies that serve to maintain a hierarchy among the powerful over the powerless (Hylton, 2009). Goldberg (1993) defines racialized as "referring to those social groups or fractions of social groups that are, or traditionally have been, deeply excluded from social powers, rights, goods, or services in racial terms or on racial grounds" (p. 265)

A prominent racialized assumption is the "commonsense" notion that Black people are naturally more talented and physically gifted at sport and less naturally intellectually able (Coakley, 2009). Such racial stereotypes reinforce human differences, which privilege some over others and can result in racist and oppressive behaviors and practices (Hylton, 2009). Any person from any social background can reproduce and reiterate race ideologies, racial stereotypes, and racism, because the "pressures and limits of a given domination or subordination are experienced and internalized by individuals and groups" (Hylton, p. 4).

Traditionally, sports feminist scholars have studied the stereotypes toward White, middle class women (Hylton, 2009). Hence, a problematic racialized practice is the lack of research on Black women's experiences (Collins, 1998). Black women are virtually invisible in

the writing of sports and physical activity literature. Patricia Hill Collins' (2009) *Black Feminist Thought* served as a way to bring the experiences of African-American females to fruition. Her theory simultaneously explores and exposes dominant ideologies and practice which limit Black women's liberty (Humm, 1995), as well as "embraces the discovery, location, and actualizing of African agency within the context of history and culture that is fundamental to Afrocentrism" (Armstrong, 2007, p. 5). Afrocentricity is defined as thought and behavior based on the centrality of African interests, beliefs, and ideas (Asante, 2003).

According to Collins (1998), Black women "and many other groups labeled as Others have long had 'no say' in determining the knowledge included in the American national 'library' and, in turn, in holding the power that the 'library's' knowledge defends" (p. 45). This is not to say Black women do not resist and challenge their oppression; rather they are active agents in the search for justice. Their freedom and empowerment as a group stems from two related goals: 1) self-definition, which is "the power to name one's own reality" (Collins, p. 45), and 2) self-determination, which is "aiming for the power to decide one's own destiny" (Collins, p. 45). It is in striving to attain these goals that Black women as a collective form oppositional knowledge and challenge the status quo. It is in the commonality of experiencing characteristic core themes as Black women that the collective consciousness may form.

In addition to the two goals of self-definition and self-determination, there are three broad dimensions of Black Feminist Thought that are based on Afrocentric values and are especially pertinent to Black women's experiences in sport. They include an ethic of care, a situation of struggle, and strategies of internal empowerment (Armstrong, 2007). Ethic of care refers to the nurturing and supporting of others, especially when they are in need (Henderson, Bialeschki, & Sessoms, 1990). This is a unique quality women have to offer sport and physical activity settings (Gilligan, 1982). Situation of struggle pertains to the tradition of struggle and challenge of racist and sexist ideologies, stereotypes, and practices among Black women

(Armstrong). Thus, overcoming the oppressive "interrelationship of race (e.g., White supremacy) and gender (e.g., male superiority) [that has] historically characterized the Black women's reality" (Parker, 2005, as cited in Armstrong, p. 5) is the essence of the situation of struggle. Strategies of internal empowerment include self-definition and safe spaces of internal fortitude (Armstrong; Collins, 2009). Self-definition comprises Black women's ability to resist the oppressive and controlling structural forces of racism and sexism to find a self-defined voice, and requires an individual to differentiate their true self from definitions that promote marginalization (Collins). Safe spaces of internal fortitude refers to the internal safe spaces Black women create to feel secure. Such spaces often service as sites of resistance, and are often fostered by external forces. One of the most prominent external safe spaces that positively impacts Black women's internal safe spaces is their relationships with other Black women.

While these are core characteristics of Black Feminist Thought, it is not to infer all Black women experience them to the same degree (Dewar, 1993). Black women's unique experiences, psychology, sociodemographics, beliefs, and worldviews may cause them to respond differently to the themes. Ethnicity and class are two particular sociodemographic factors that influence individuals experience and are bound together with race and gender in Black Feminist Thought theory (Collins, 2000), and other sociological and geographical theories (Coakley, 2009; Hylton, 2009). An ethnic identity is a fluid and dynamic social identity that emphasizes "the common cultural bonds of a shared diasporic 'home', language, religion, behavior, diet, dress, and tradition" (Law, 1996, as cited in Hylton, p. 12). Ethnicity is complicated by the fact that individuals may maintain multiple one ethnic identities and move fluidly between such identities. For instance, Somali adolescent girls may maintain both a Somali and American ethnic identity, as they live in America, yet maintain Somali cultural values. Ethnic boundaries are never clear given this complexity and that they are socially constructed and situationally defined within a given historical moment. In this sense, "there is

much evidence in sport today that ethnic identities are fluid, strategic, and under constant revision" (Hylton, p. 13).

However, ethnicity is often lumped together with race in sport studies, which is problematic given they are two different, albeit interrelated, constructs. Race refers to the physical markers and biological categories given to distinguish populations, while ethnicity pertains to cultural differences (Hylton, 2009). For instance, little physical activity participation information exists specific to Somali adolescent girls in the United States (Thul & LaVoi, 2011). Thus, researchers and programmers are left to draw from the literature that does exist for adolescent girls in general and ethnic minority girls in particular—namely African American girls of which Somali girls are one sub-population. While such generalizations are problematic, they are not unusual. According to Basford, Hick, and Bigelow (2007), while a "Somali immigrant may wish to be identified as 'Somali' or 'Somali American' they are more likely to be identified as 'Black' or 'African American by others…Therefore, the ethnicity of Somali immigrants becomes a socially imposed racial-ethnic identity" (p. 5). To avoid perpetuating a "socially imposed racial-ethnic identity," race and ethnicity will both be assessed in this study.

Class is another important interrelated sociodemographic factor and identity construct in intersectionality and Black Feminist Thought analyses. Social class is a social construction wherein people are categorized as socially distinct "who share an economic position in society based on a combination of their income, wealth (savings and assets), education, occupation, and social connections" (Coakley, 2009, p. 316). A set of interrelated ideas emphasizing that economic success serves as proof of individual ability, worth, and character serves as the dominant class ideology in the United States.

Several geographic theorists have examined the relationship among class, ethnicity, race, and space (Goldberg, 1993; Razack, 1998, 2002). However, there is a lack of scholarship on the constructs and their relationship to physical activity spaces, which is problematic given

we know sports landscapes are highly classed (Eichberg, 1993) and raced (Bale, 1994). The limited studies that exist often focus on solely race or race and class in space, and not the intersection of all three—race, class, and ethnicity. For instance, Carrington (1998) explored the social space of cricket among Black and White men in the north of England. He discussed how racism and othering practices were produced and perpetuated, as well as how Black resistance to these oppressive forces occurred. Bale (1994) also noted how sports landscapes can be sites for practices of racism. Gruneau and Whitson (1993) demonstrated how Canadian ice hockey's ideal of rugged masculinity is linked to constructions of White nationhood and imperialism. Vertinsky's (1999, as cited in Vertinsky, 2004) study of the University of British Columbia's War Memorial Gym demonstrated how the architecture of the gym made explicit the link between space, male athletic bodies, and race based one which Canadian soldiers were memorialized in the space and whose bodies were to be trained in the gym. Van Ingen (2003) assessed the relation between power and resistance in a Canadian running club along with the impact that gender, race, and sexuality had on leisure activity. Fusco (1995) examined the significant role Whiteness plays in the built environment of sport. She specifically showed how locker room space in a Toronto university's athletic and rec**r**eation center enforced "hidden signs of racial (spatial) superiority and cultural hegemony" (p. 283). Finally, Adams' (2004) studied the development of figure skating and noted how ice rinks, particularly the enclosure of previously public, outdoor rinks, served as exclusionary sites for the production and reinforcement of classed, raced, and gendered social relations.

In addition to the research by geographic theorists, there is a plethora of public health research that suggests a strong link between racial and socioeconomic inequalities in the built environment and key health disparities in physical activity. For instance, in a study assessing the relationship between the built environment and physical activity, Gordon-Larsen, Nelson, Page, and Popkin (2006) found low-SES and high-racial minority block groups were less likely to

have access to physical activity facilities. Physical activity is positively associated with access to community facilities (Brownson, Baker, Houseman, Brennan, & Bacak, 2001; Giles-Corti & Donovan, 2002; Gordon-Larsen, McMurray, & Popkin, 2000), so Gordon-Larsen et al.'s (2006) finding is concerning.

Several gaps exist with the aforementioned research assessing race, ethnicity, and class in space. First, there is little research exploring Black women's experience in sport and physical activity in general, and spaces specifically. This is problematic given Collin's (2009) exertion in her Black Feminist Thought theory that Black women may have unique racial, ethnic, class, and cultural experiences to other racial groups, and must be provided the opportunity to write their own realities. Second, there is little research assessing ethnicity as a separate, though interrelated, construct than race. Specifically, there is no research exploring how the ethnicity of Somali adolescent girls intersects with gender, race, class, religion, culture and physical activity space. Fourth, there is little geographic research on sport spaces assessing how class intersects with race, ethnicity, gender, and other social identity constructs. Fifth, there is limited research assessing race, ethnicity, and space in the United States. In this research I attempt to fill the myriad of gaps by providing a platform for a particular group of Somali adolescent girls' voices to be heard regarding physical activity spaces, exploring both race and ethnicity in space, and examining the intersection of physical activity spaces in the Cedar Riverside Neighborhood within the United States and class, race, ethnicity, and other social identity constructs.

Religion, culture and space. Religion and culture are closely intertwined among Somali immigrants in America; so much so that Amara (2007) called for future studies to assess the distinction between "Islam as a [religious] belief system and Islam as a cultural form, interpreted, conceived and manipulated by nation states, political movements, and different interest groups to legitimate their political agenda, social conduct and (sometimes pre-Islamic)

practices" (p. 534). I present the belief system aspect of Islam, followed by the cultural form component in this section.

Most of the Somali immigrants in the Cedar-Riverside neighborhood, and all of the participants in this study, are practicing Muslim Shi'a (n.a., personal communications, July 27, 2011). Islam is a monotheistic religion. The word Islam means to surrender oneself, or in "religious terms it means submission (*Taslim*); hence, a Muslim is someone who submits to God, or to God's will, to Allah (the Arabic word for God) as the creator, sustainer, and the ultimate controller of the universe" (Jawad et al., 2011, p. 27). Islam also means peace (*Salaam*), so a Muslim is a person "living in accordance to the will of God in order to achieve peace in this world and success in the hereafter" (Jawad et al., p. 27). According to Islam, religion is the whole of life; thus, no other activity in daily life, such as physical activity, should trump religious obligations.

Islamic religion is interrelated to immigrant status and race among Somalis. According to Ajrouch and Kusow (2007), Somali immigrants maintained an identity based on religion affiliation in their homelands. Religious indicators of identity positioned Muslim Shi'a Somalis as members of the majority culture. However, "upon immigration the nature of identity markers shifts in that race becomes a key dimension by which identity placements occur" (Ajrouch & Kusow, p. 76). Somali immigrants no longer remained the dominant group as they were in Somali; rather their cultural characteristics were placed "in the realm of the 'visible minority' category, which implicitly includes race as a key element in that designation" (Ajrouch & Kusow, p. 76). In this sense, Somalis became Others in the United States—a country that promotes Christianity and often discriminates against those who practice other religions. With the events of September 11, 2001, Islamophobia has become a very real issue in the United States. For instance, Somali adolescents in Minnesota frequently reported feeling tensions at school because of being Muslim and maintaining identity markers that signify Islam (Bigelow,

2008). Islamophobia refers to the portraying of Muslims as intrinsically dangerous and barbaric (Bigelow; Haque, 2004), and is a way to marginalize and retain power over an already oppressed group.

Islamic texts promote women's rights on a spiritual and social level. At the spiritual level, the "holy texts proclaimed man and woman as equals in all essential rights and duties; to be equally rewarded or punished for their good or bad deeds" (Jawad et al., 2011, p. 29). Specifically the Quran states, "A normal and healthy society is one in which both men and women are given the possibilities to develop fully their natures (and potentials)" (Nasr, 1981, p. 213, as cited in Jawad et al.). Given Islamic texts indicate women should be offered equal opportunity to socially, intellectually, and spiritually participate in society (Jawad, 2009), women were granted broad social, economic, and political rights (Jawad, 1998). Islam was never free of patriarchal practices, however, because men have maintained the power of interpreting holy texts (El-Fadl, 2001). Overall though, Islam as a religion promotes equality among the sexes.

It is Islam as a cultural form where disparities among genders came to be. Over time, women's rights decreased due to increasing patriarchal domination and acculturation (Jawad et al., 2011). Many women were subjected to heavy veiling and prevented from obtaining an education sharing equal status with men (Jawad, 1998); "hence, religions principles became confused and intertwined with cultural overlays" (Jawad et al., p. 29). Many women have voiced their concerns over the cultural-religious divide, and Islamic feminist scholars are taking this issue up in research.

Research on Islam, women, and physical activity is one area where scholars have explored the divide. Islam itself promotes healthy spiritual, intellectual, and physical well-being for men and women (De Knop et al., 1996; Jawad et al., 2011). Thus, physical activity is often encouraged as long as it does not take precedence over faith (Daiman, 1994). Barriers to

physical activity for Muslim adolescent girls (Thul & LaVoi, 2011) and young women's (Jiwani & Rail, 2010) physical activity, however, include increased social responsibility, the practice of modesty through wearing a hijab, and sex segregation.

While the Quran encourages equal social responsibilities for men and women, family expectations prohibit many Muslim females from being active. According to Cuypers (1993, as cited in De Knop et al., 1996), in many Muslim cultures, women's primary role is domestic (e.g., remaining in the home, watching over the children, cooking, cleaning) whereas Muslim males' role is outside the home (e.g., working and taking part in leisure activities). Muslim girls from immigrant families (such as East African immigrant girls) in non-Islamic cultures such as the United States, often behave in ways consistent with homeland religious and cultural norms in negotiating the intersection of familial and cultural expectations with new Western norms (Cuypers, as cited in De Knop et al.). Muslim parents also report fearing their daughters (more than their sons) will be negatively influenced by Western ways of life, which will endanger their honor. Thus, Muslim girls are expected to follow the traditional rules of Islamic culture; Muslim boys have more freedom in general and in acculturating to non-Islamic society, explaining why many Muslim parents do not allow their girls to take part in physical activity, especially organized sport (De Knop, 1993, as cited in De Knop et al., 1996). At the time of their literature review in 1996, De Knop et al. indicated that the view of females accepting traditional roles may be changing in non-Islamic countries.

Islam also emphasizes maintaining family honor and purity through maintaining sexual purity in dress and gender relations for both men and women (De Knop et al., 1996; Jawad et al., 2011). According to the Quran requirements of modesty are the same for both men and women; nowhere in the Quran does it say women must wear a hijab, which is the practice of head covering and covering of the arms and legs. Wearing a hijab is a cultural practice, which

for some is based on Sharia law and others on the cultural, social, and political values of their cultural group (Jawad et al.). Thus, Muslim women vary to the extent they practice covering. As with the hijab, the Quran "does not explicitly stress that a strict segregation between the two sexes is required" **(**Jawad et al., 2011, p. 35). Thus, based on their culture some women (ranging from fully covered to no dress code) choose to participate in mixed-sex physical activity environments, while others do not feel comfortable in such environments. For those who do not feel comfortable, which included the majority of girls in Thul and LaVoi's (2011) study, sex segregated spaces for physical activity are a real concern; so much so that many Muslim women restrict their physical activity in general or restrict it to female-only spaces exclusive to their cultural and religious groups (De Knop et al., 1996; Nakamura, 2002; Taylor & Toohey, 1995, 2010; Zaman, 1997). To my knowledge, this limited scholarship is the only time scholars have assessed physical activity practices and space among Muslim women. Hence, a contribution of this study is to explicitly explore one group of Somali, Muslim adolescent girls' experience with physical activity spaces as they pertain to gender, race, ethnicity, class, religion, and culture.

Theoretical Framework: Lefebvre's Conceptual Model of Social Space

Lefebvre's (1991) Conceptual Model of Social Space has been applied to sport sociology (van Ingen, 2003) and cultural studies (Friedman & van Ingen, 2011) research assessing the intersection of the identity constructs of gender, race, ethnicity, class and sexuality in and on sport spaces. There is also research to suggest adding the identity constructs of religion and culture to understanding social space, particularly among Somali, Muslim adolescent girls is necessary. Lefebvre's model serves as the theoretical framework for this dissertation (Figure 1). Within his theorization of space, Lefebvre identified a conceptual triad of the production and use of social space: spatial practice (perceived space), representations of space (conceived space), and spaces of representations (lived space).

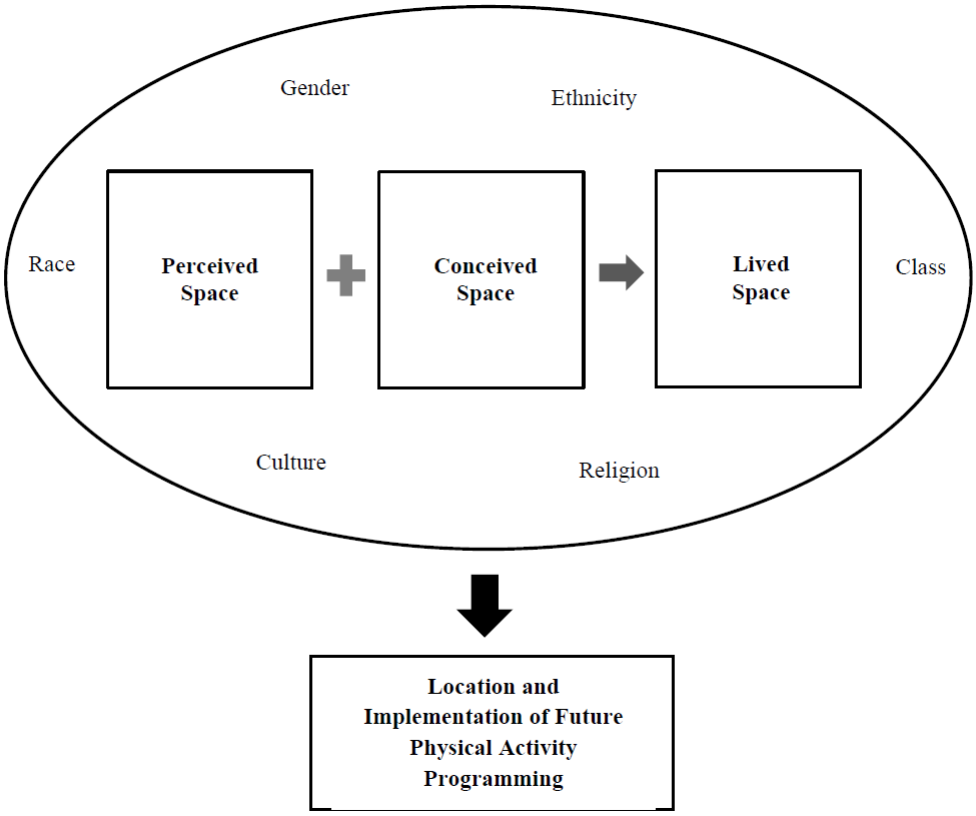

Figure 1. Lefebvre's (1991) Conceptual Model of Social Space with the added identity constructs and future physical activity programming component for this dissertation.

Perceived space. Spatial practice is the construction and use of both private and public physical space (Lefebvre, 1991). This concept comprises the locations characteristic of social formation within a society; thus, Lefebvre also termed this concept perceived space, which is the term I will use through the remainder of this dissertation. According to Lefebvre (1991), "everyone knows what is meant when we speak of a 'room' in an apartment, the 'corner' of the street, a 'marketplace', a shopping or cultural 'centre', a public 'place' and so on" (p. 16). These terms generally describe a social space and serve as a concrete materiality of spatial forms. Perceived space can be empirically mapped and includes specific buildings or locations, such as a gymnasium, park, softball field, and so on. Based on this definition, a gymnasium or a room in which girls are physically active (e.g., cooking, cleaning, etc. based on the broad, continuum

definition of physical activity in the current study) in their home would be components of the girls' perceived space in this study.

In addition to physical objects and places, perceived space includes the everyday activities that "literally 'take place' with relative continuity and that 'secrete' their own social space" (McMann, 1999, p. 172). Everyday activities involve the unreflective ways bodies interact with space. Physical activity is, thus, a form of perceived space (van Ingen, 2003). For instance, the act of doing a specific physical activity (e.g., basketball) is a component of the perceived space, as is the physical space (the gym) where the activity is carried out. Likewise, a girl who is doing housework and chores within her home is an aspect of the perceived space. Indeed, the physical aspects of possible physical activity places in the Cedar-Riverside neighborhood and the everyday activities conducted in those spaces will be explored as perceived space constructs in the present study.

Conceived space. The second component of Lefebvre's (1991) conceptual triad—representations of space or conceived space from here onward—is the most dominant form of space. Conceptions of spaces are abstract and represent the socials spaces we participate in through our memories, beliefs, thoughts, and ideas (van Ingen, 2003). Conceived space includes knowledge, signs or symbols, and codes that maintain social significance and are formulated into verbal representations. Through the social construction of cultural groups' and individual's conceptions of spaces, representations of power are communicated. For instance, van Ingen noted the game of hockey in Canada is an example of a conception of space. She described how:

> The symbolic importance of the game reveals the ways in which the conceived space of hockey functions and how representations of power can be read through the 'routine subject formations' (masculine, White, nationalistic, heterosexual) that typify the social space of hockey. (p. 203)

Similar to understanding the symbolic importance of hockey in Canada as social space, understanding the symbols and knowledge in social spaces that maintain social significance will be imperative when talking with the Somali adolescent girls in the present study. Thus, understanding the symbolic importance of certain types of activities and spaces hold for the girls, based on gender, race, ethnicity, class, religion, and cultural interactions, was important in this dissertation.

Lived space. The third aspect of Lefebvre's (1991) conceptual triad is spaces of representations or lived space (for the rest of this study). Lived space is "the social space through which life is directly [through both the real and imagined] *lived*" (van Ingen, 2003, p. 204). It simultaneously encompasses all social spaces, and creates the geographical ways of knowing among specific cultural groups with specific social spatial practices. Thus, it is in the lived space that physical space and everyday activities along with the conceptions of knowledge, symbols, and ideas about social space interact and play out. The lived space is also considered contested space, as this spatial form is the "terrain of social struggle, counter-discourses and resistance" (van Ingen, p. 204). The lived space is where marginalizing, discriminatory (e.g., racism, sexism, etc.), and othering practices are produced, implemented, and reproduced. Marginalized individuals and groups may resist these oppressive practices by creating "dynamic, counterhegemonic social spaces that enable alternative geographies" (van Ingen, p. 204). Exploring Somali adolescent girls' lived experiences with the production, maintenance, and reproduction of oppressive forms of social spaces and resistant counterspaces for physical activity participation is a key component to understanding the physical activity space, gender, race, ethnicity, class, religion, and culture intersection, and the location and implementation of future physical activity programming. Thus, I specifically asked the girls in this dissertation about any contested physical activity spaces within their communities, as a means to understanding their lived experience with space.

The use of Lefebvre's (1991) conceptual triad of social space to explore Somali, Muslim, adolescent girls' experiences with physical activity space is a significant contribution to scholarship and practice in a variety of ways. First, this study extends the breadth of the theory to a population (in terms of age—adolescent girls, ethnicity—Somali, and religion—Muslim) that has yet to be researched in regard to the conceptual triad of social space. Thus, the study provides insight into whether or not the triad is useful for understanding social space among the population of interest. Another contribution is that physical activity spaces within the triad have yet to be assessed in terms of the intersection of gender, race, ethnicity, class, religion, and culture, and this study attempts to reverse this trend. A final contribution is understanding the implications the model has for impacting future physical activity programming. In and through this dissertation project, I aim to enhance the theoretical literature that currently exists, and play an important role in praxis.

Point of Departure

Understanding Somali adolescent girls' experiences with the intersection of gender, race, ethnicity, class, religion, and culture (and the social constructions, norms, ideologies, and power relations inherently imbedded within each) in and on perceived, conceived, and lived spaces in the Cedar-Riverside neighborhood is imperative for filling in theoretical gaps and locating and implementing future physical activity programming. Such research and programming is imperative given underserved girls—of which the Somali participants in this study are one sub-group—are significantly less active than their White counterparts, and as a result face an array of health disparities and negative physical and psychosocial health outcomes (Mullan Harris, Gordon-Larsen, Chantala, & Udry, 2006). In this needs assessment and Thul and LaVoi (2011) extension dissertation study, I listened to Somali adolescent girls' voices, as they were powerful in providing important information about physical and social environments that will be helpful in reversing the troubling trend for the target group of Somali girls. It is the

first study of its kind in the geography and physical activity literatures in terms of assessing space among the target population (both in terms of their age—adolescent girls, ethnicity—Somali, and religion—Islam), and adding the identity markers of ethnicity, religion, and culture when exploring intersectionality with gender, race, and class. It is also the first study of its kind to employ Lefebvre's (1991) Conceptual Model of Social Space to understand physical activity spaces among Somali, Muslim adolescent girls.

Given that one of the goals was to document and hear the participants' voices which have typically been silenced (Collins, 1998), this study will encompass aspects of a feminist participatory action research (FPAR) epistemology. FPAR blends the participatory action research (PAR) and critical feminist theory perspectives. PAR involves the collaboration of the individuals or groups affected by the issue(s) being studied with the goal of educating or empowering them to take action or create social change (Green et al., 1995, as cited in Minkler, 2000). Critical feminist theory addresses the ways females have been historically and systematically marginalized and oppressed, as well as the need for gender equity (Coakley, 2009). FPAR then, according to Reid, Tom, and Frisby (2006):

> Blends participatory action research and critical feminist theory by advocating that women must be involved in all stages of the research process including identifying the problems to be explored, carrying out the research, and interpreting and acting upon the results. (p. 316)

Collaborating with the Somali adolescent girls in this study is crucial, as "involving members of a minority population when conducting a needs assessment…has shown promising results, particularly among African-American populations" (Lee, 2005, p. 449). Additionally, several researchers (Lykes, 2000; McIntyre, 2000, 2003; Reason & Bradbury, 2001) deem that FPAR allows for a contextual approach to understanding the relationship between gender and geographical space, which is one major component of this study.

Overall, the purpose of the present study was two-fold: (1) to employ Henri Lefebvre's (1991) Conceptual Model of Social Space and aspects of a FPAR research approach to explore Somali adolescent girls' experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood, and 2) to understand the implications of the model for locating and implementing future physical activity programming.

Research Questions

Given the exploratory nature of this dissertation, a series of research questions guided the focus and scope of the investigation. The research questions for the study were as follows: (1) What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and perceived physical activity spaces in the Cedar-Riverside neighborhood?, (2) What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and conceived physical activity space in the Cedar-Riverside neighborhood?, (3) What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and lived physical activity space in the Cedar-Riverside neighborhood?, and (4) How do the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and physical activity spaces in the Cedar-Riverside neighborhood impact the location and implementation of future physical activity programming?

CHAPTER 3:

METHODOLOGY

As discussed in the previous chapter, the purpose of this dissertation was two-fold: 1) to employ Lefebvre's (1991) Conceptual Model of Social Space and aspects of a FPAR research approach to explore Somali adolescent girls' experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces, and 2) to understand the implications of the model for locating and implementing future physical activity programming. In this chapter, I first reflect on my role as a researcher and the implications such a role has in this study. Second, I discuss the complementarity and expansion mixed method design that is informed by FPAR, involves sequential timing of quantitative followed by qualitative data collection, and includes a priority paradigm emphasis on the qualitative approach. Here, I also provide an in-depth explanation of the various quantitative and qualitative methods employed to understand the study phenomena. Third, I explain the purposive sampling criteria used to select the study participants. Lastly, I describe the participants in depth, as well as the measures, pilot study, data collection, and data analysis.

Researcher's Role

Creswell (2003) and Johnson and Christensen (2004) indicate that one way to reduce researcher bias and increase trustworthiness of qualitative research is to acknowledge the researcher's role. Specifically, Sparkes and Smith (2009) suggest it is important to acknowledge the authors' "starting point" (p. 495) or positionality for any study, since it shapes all aspects of research. Here I attempt to clarify my positionality in order to make my decisions regarding methodology transparent.

I am a prevention scientist that is concerned with eliminating health disparities and promoting active living among adolescents. My primary training as a prevention scientist has been in the sport psychology, sport sociology, and public health fields. Thus, I research the continuum of individual-level to systems-level factors related to promoting physical activity. I am also a feminist scholar, and believe that the way to achieve feminist aims, including those in this study, is through understanding the oppressive institutional structures that impede adolescent girls' physical activity participation by asking girls themselves about such structures and listening to what they have to say. I am an advocate of culturally relevant physical activity promotion programming, as I believe that all girls should have the opportunity to be active in physical activity spaces that are based on their wants and needs, rather than what researchers and programmers think they want. I am a firm believer that culturally relevant programming should uphold participants' personal, social, religious and cultural values, beliefs, and traditions. I am a social justice advocate who is concerned with "what could be," not just "what is" (Fine, 1994; Kincheloe & McLaren, 2005). Thus, my perspective in this study involves prevention/promotion programming, psychological, sociological, public health, feminist, and social justice lenses.

According to Sparkes and Smith (2009), researchers' perspectives shape the research questions they ask and the method that they select. For instance, in this study, my experience working with the G.I.R.L.S. program and my interdisciplinary physical activity and social science backgrounds influenced my decision to ask questions aimed at understanding girls' perceptions and experiences with the intersectionality of gender, race, ethnicity, class, religion, and culture in physical activity spaces. My multiple lenses also impacted the decision to use a mixed method approach, including quantitative and qualitative participatory mapping and qualitative phenomenological semi-structured interviews. For instance, I concur with Felton et al. (2005) and Collins (1998, 2009) respectively, that in order for Black adolescent girls and

young women to participate in physical activity their lived experiences need to be understood from their own voices. Thus, a phenomenology and semi-structured interviews was selected as the primary paradigm emphasis to understand the participants' lived, and at times contested, experiences with the phenomena of gender, race, ethnicity, class, religion, and culture and perceived, conceived, and lived physical activity space. Semi-structured interviews were used to guide the questions, yet allow participants' unique perspectives to emerge.

I also take responsibility that, despite methods to increase objectivity, my work is ultimately subjective and does not represent the simple truths of the participants' experiences (Randall & Phoenix, 2009). After all, according to Fine (1994) and Sparkes and Smith (2009), true objectivity is impossible given that researchers frame and interpret studies based on perspectives they value. While I worked to break the silence with the group of Somali adolescent girls in this study by providing a platform for their voices to be heard, I take full responsibility that the ways the voices are presented are ultimately based on my perspectives. Despite this, I conducted the research always remembering that I was a student among the females I talked with and the Somali community I was in, rather than the expert. While I am trained in physical activity program promotion, I cannot know the participants' experiences and perceptions as well as they can. Given this, I attempted to manage my biases regarding my interpretations through the methods of member checking, reflexivity journaling and peer debriefing (discussed in the "Trustworthiness" section at the end of this chapter). I also worked to represent the girls' multiple and complex identities and discourses around their experiences and perceptions of the intersection of gender, race, ethnicity, class, religion, and culture in, and on, perceived, conceived, and lived physical activity spaces.

Another important component of my positionality was my status as both an outsider and insider among the participants in this study. I was an outsider in that I am a White, Catholic, middle-class researcher, and I am not Somali or Muslim. I was interested in understanding

physical activity spaces among Somali, Muslim females, because research indicates that ethnic minority adolescent girls and young women—particularly African American females (of which Somali girls and women are one ethnic sub-group)—are the least active of all other ethnic groups of females (Centers for Disease Control and Prevention [CDC], 2008; LaVoi & Wiese-Bjornstal, 2007; Womenshealth.gov, 2009), and one major barrier to their inactivity is a lack of culturally relevant spaces in which to be active (Thul & LaVoi, 2011). Thus, this population is at risk of many physical and psycho-social developmental health deficits. Working with the G.I.R.L.S. program I have also seen first-hand that there are many gendered, racialized, ethnic, classed, religious, and cultural spatial barriers impeding Somali adolescent girls' physical activity. These reasons are why I was interested in conducting this study among Somali, Muslim, adolescent girls.

Given that I am not a direct member of the participants' Somali community, I was also an outsider. My outsider status as a White, Catholic, and middle-class researcher may have distanced me from the adolescent girls and young women in some ways. For instance, it may have caused the participants to feel less homogeneity with me, which could have made establishing trust and rapport difficult. Overall, this did not appear to be much of an issue, as the girls seemed to talk freely and openly about their perceptions and experiences in the majority of focus groups. My outsider status also created a power imbalance. Given that I am an individual who has White privilege (from a race, religious, and academic standpoint), I had unintended power. I also maintained unintended power due to age; I was older than all of the participants, which positioned me as an elder. In the Somali community elders are "assigned highest respect by religious tradition" (Heitritter, 1999, p. 4). I was aware, however, of the power and privilege I possessed, and consciously strove to uphold a power balance by explaining the complexities of the girls in the study and representing their voices as directly as possible. Despite that I maintained a greater amount of power in some ways, I also acknowledge that power is fluid and

recognize that the participants had more power than I did in other ways. For instance, participants possessed power given that I was in their community and setting throughout the research process. I also presented as the racial and ethnic minority. This fluid and complex balance of power was important to negotiate in the study. Overall, to build trust and rapport and uphold a power balance I engaged in regular conversations with the Somali, female G.I.R.L.S. leaders (e.g., the cultural insiders discussed later in this chapter) to manage my biases and assumptions about each of the identity constructs, power, and privilege.

In addition to being an outsider, I was also an insider in some ways within this study. Since its inception I have been a participant-volunteer, and more recently a participant-volunteer-consultant, at G.I.R.L.S. In this way, I was recognized as a trusted member of the program. Additionally, I am a female and was an adolescent not that long ago, so I was able to relate to some of the gender- and age-related experiences the participants expressed. Along these lines, myself and many of the participants—particularly those who attend G.I.R.L.S. regularly— formed a meaningful, trusting relationship prior to this study. Such a relationship is important in qualitative research for receiving honest, rich data (Patton, 2002). Ultimately, I believe my outsider-insider positionality was important for the trustworthiness of the study; I was an outsider enough that the majority of participants felt like their voices and data would be confidential, yet an insider enough that the majority of participants trusted they could be open with me. In sum, my roles as a sport psychologist and sociologist, public health scholar, prevention scientist, feminist, social justice advocate, and an outsider-insider to participants in this study underlie the perspectives I maintained and the methods I employed.

Research Design

Given that I believe in girls defining their own spatial realities, a FPAR-informed, mixed method design with a priority emphasis on the qualitative approach was employed in the study (see Figure 2 for an overview of the design).

The following paragraphs include an explanation of what a FPAR-informed and mixed method approaches each entail and their relevance for this study. I also detail the participatory mapping and focus group methods utilized for data collection throughout this section.

FPAR-informed approach. The design of this study was informed by FPAR, which blends critical feminist theory and participatory action research (PAR) by "advocating that women must be involved in all stages of the research process including identifying the problems

FPAR-Informed Approach

Research Questions	Mixed Method	Measure
1. What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and perceived physical activity space in the Cedar-Riverside neighborhood?	Participatory Mapping (Locations) and Focus Groups (Physical Activities)	Participatory Mapping Activity Guide and Semi-Structured Interview Guide (Warm-Up Question)
2. What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and conceived physical activity space in the Cedar-Riverside neighborhood?	Focus Groups	Semi-Structured Interview Guide
3. What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and lived physical activity space in the Cedar-Riverside neighborhood?	Focus Groups	Semi-Structured Interview Guide
4. How do the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and physical activity spaces in the Cedar-Riverside neighborhood impact the location and implementation of future G.I.R.L.S. programming?	Focus Groups	Semi-Structured Interview Guide

Figure 2. Overview of the research design.

to be explored, carrying out the research, and interpreting and acting upon the results" (Reid, Tom, & Frisby, 2006, p. 316). Several researchers (Lykes, 2000; McIntyre, 2000, 2003; Reason & Bradbury, 2001) deem that FPAR allows for a contextual approach to understanding the relationship between gender, other identity markers, and geographical space, which was, in large part, what the author aimed to explore in this study.

FPAR informed this dissertation research for several reasons. First, the premise of the study—exploring and understanding physical activity spaces and the implications for locating and implementing future physical activity programming—grew out of conversations with the Somali women who lead G.I.R.L.S (and were also the community liaisons for this study). In this sense, they helped formulate the research problem, which is a key component to FPAR. However, I, with the women's approval, added Lefebvre's (1991) theoretical component to understand space on a more scientifically-rigorous level. Thus, I created the research questions, and participatory mapping and focus group questions (see below for a thorough discussion of these methods) based on the theoretical framework and previous research. With that said, the women played a substantial role in the creation of the participatory map used in the study.

In addition to the engagement of the Somali leaders, I actively involved the Somali adolescent girl participants in the research process by listening to their voices about their experiences with, and perceptions of, gender, race, ethnicity, class, religion culture, and perceived, conceived, and lived physical activity spaces, which is an important aspect of FPAR. Second, the participants were asked to interpret what their experiences meant for future physical activity programming both during the study and afterword at a "G.I.R.L.S. Take Action" strategies meeting—both of which are important action components.

Given the G.I.R.L.S. leaders and participants were involved in most of the steps of the research process—not all—this study was, indeed, informed by FPAR. Involving the participants to the extent I did in research development, data collection, interpretation, and

action was crucial, as "involving members of a minority population when conducting needs assessment and subsequent physical activity interventions has shown promising results, particularly among African-American populations [of which East Africans are a subpopulation]" (Lee, 2005, p. 449).

Mixed method design. According to Creswell (2003), a mixed method approach employs both quantitative and qualitative methodology to collect data. Quantitative methodology relies on the collection of numerical data using predetermined methods, such as questionnaires, experiments, and surveys, to describe variables or identify the relationship between them (Creswell; Johnson & Christensen, 2004). A descriptive quantitative approach and participatory mapping methodology (Phase I) were employed in this study to answer the first research question: *What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and perceived physical activity space in the Cedar-Riverside neighborhood?*

In contrast, qualitative methodology relies on words or pictures rather than numerical data, and allows for the exploration of phenomena using more dynamic, multiple-perspective, and inductive methods, such as interviews and observations (Creswell, 2003; Johnson & Christensen, 2004). A phenomenological qualitative approach, including focus group methodology, was utilized in this study (Phase II) to answer the three remaining research questions: *What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and conceived physical activity spaces in the Cedar-Riverside neighborhood?*, *What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and lived physical activity spaces in the Cedar-Riverside neighborhood?*, and *How do the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and physical activity spaces*

in the Cedar-Riverside neighborhood impact the location and implementation of future physical activity programming?

The use of mixed—particularly both visual quantitative and non-visual qualitative methods—allows for exploration of phenomena using more dynamic, multiple-perspective, and exploratory methods (Creswell, 2003; Johnson & Christensen, 2004), which is important given that this is the first study of its kind in terms of the population of study regarding these constructs and the combination of methods employed. A mixed method approach has several purposes, including triangulation, complementarity, development, initiation, and expansion (Greene, Caracelli, & Graham, 1989; Johnson & Christensen). Two of the most established purposes of program evaluation with a needs assessment component are complementarity and expansion (Worthen, Sanders, & Fitzpatrick, 1997), which may be used together to deepen the scope of program evaluation (Greene et al.). Mixed method complementarity studies seek to elaborate, enhance, and clarify the results from one method with the results of another method. Thus, this study was complementary because the qualitative focus groups were conducted to elaborate, enhance, and clarify the results from the descriptive quantitative results of the perceived space participatory mapping method. Mixed method designs are used for the purpose of expansion when the goal is to extend the breadth of inquiry, measure different phenomena, and understand a program as a whole (Greene et al.). The design was also expansionist because one of the goals was to extend the breadth of inquiry from the perceived spaces to, and measure the different phenomena of, conceived and lived space in the focus groups.

In addition to determining the purpose(s) of a mixed method study, deciding the timing and paradigm emphasis are crucial to a strong research design (Creswell, 2003; Johnson & Christensen, 2004). Mixed method research designs for program research may maintain sequential or concurrent timing (Gay, 1980; Greene et al., 1989). Expansionist designs that include the measurement of different phenomena—as is the case in this study—are best carried

out sequentially (Greene et al.). Complementarity designs where the goal of the researcher is to use the results of one method to enhance the results of another method without using them to inform the construction of subsequent methods throughout the study are also often best carried out with sequential timing (Greene et al.). Thus, the Phase I: quantitative participatory mapping and Phase II: qualitative focus group methods were conducted sequentially. Paradigm emphasis is another important aspect of a mixed method research design (Creswell). Research may include a priority dimension (where one research approach is given greater weight than the other) or an equal dimension of quantitative and qualitative data. The dimension chosen should be appropriate for the goals of the research. There was a paradigm emphasis on the qualitative phenomenological focus groups, given the purpose of the study was to provide a platform for Somali adolescent girls to share their voices regarding their experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood , and to understand the implications of their perceptions and experiences for locating and implementing future physical activity programming. Indeed, this dissertation study was a complementarity and expansion mixed method design that involved sequential timing of quantitative followed by qualitative data collection, and included a priority paradigm emphasis on the qualitative approach. Next, I detail the specific quantitative and qualitative methods utilized in the study.

Phase I: Participatory mapping method. Participatory mapping is a descriptive quantitative method. According to Johnson and Christensen (2004), descriptive research is a form of non-experimental research. Its purpose "is to provide an accurate description or picture of the status or characteristics of a situation or phenomenon" (p. 347), not to determine cause-and-effect-relationships. Thus, the focus is on describing the variables for a given situation. The quantitative approach employed in this dissertation was descriptive because the purpose of the

participatory mapping method was to describe perceived space location trends using numerical descriptions.

Participatory mapping is a form of geographic information science (Tulloch, 2007) and involves the use of maps to understand social and physical environments in PAR research (Cornwall & Jewkes, 1995). Participatory mapping has been utilized in "environmental justice and equity analyses of the spatial distribution of environmental impacts" (McCall & Minang, 2005, p. 344), particularly regarding gendered space and socio-cultural spatial relationships (Mehta, 1996). Participatory mapping has also proved empowering in studies assessing children's and adolescents' perceptions of their environments (Darbyshire, MacDougall, & Schiller, 2005; Morrow, 2001, 2003) and has been used widely in the health research, particularly with women (Cornwall& Jewkes, 1995). Furthermore, the use of visual methods—such maps —have been emphasized as ways to advance traditional research in the health domain, as well as provide richer and different types of information than focus groups alone (Harper, 2002). Participatory mapping has grown steadily in recent years due to increased interest among researchers in health and physical activity environments and geographic information systems (GIS) methods for understanding such environments (Tulloch, 2007). Thus, a GIS mapping software system known as ArcMap 9.3 (2008) was used to create the maps and numerically trend the mapping data, and will be described in more detail later in this chapter.

Phase II: Focus groups method. Qualitative phenomenological focus groups were conducted to elaborate on the participatory mapping perceived space trends, as well as explore the intersection of identity markers on conceived and live spaces. A phenomenological qualitative approach is grounded in the exploration of multiple individuals' lived experience (e.g., subjective experiences) with particular phenomena (Creswell, 2003). This approach involves talking with individuals about their lived experiences to uncover a deep, subjective

understanding of the phenomena (Creswell). I expected multidimensional perspectives among and between individuals to be uncovered in this study, and a phenomenological qualitative research orientation allowed for more specific information to be revealed for each perspective (Miles & Huberman, 1994). The phenomenological approach was suitable for this study (Creswell; Patton, 2002) because I was uncovering Somali adolescents' individual and group lived experience with gender, race, ethnicity, class, religion, culture and perceived, conceived, and lived physical activity spaces—the phenomena of interest.

While a qualitative approach allows for data to emerge, it also assumes limited generalizability given that small sample sizes and narrow samples used (Creswell, 2003; Patton, 2002). Such generalizability is not problematic for this study, because I do not expect to generalize beyond the participants due to the high amount of cultural tailoring in the study. Such specificity and cultural tailoring is important given that this study will inform future physical activity programming in the neighborhood.

The specific phenomenological method used in this study was focus groups. These groups were determined based on age. Participants ages 14-18 and 19+ were placed into focus groups, because of their similar cognitive and education levels. Krueger and Casey (2000) explain that homogenous focus groups foster consistency of analysis and help ensure participant comfort. They also indicate focus groups are useful when a study's purpose is to uncover factors that influence opinions and experiences, which were phenomena explored in this study. The focus groups provided a deeper understanding of the perceived spaces the participants mapped. Specifically, I was able to talk to the participants about their lived experience with gender, race, ethnicity, class, religion, culture, and physical activity in the spaces, as well as understand how conceived and lived spaces played out. The focus groups also provided a platform for the adolescent girls to discuss how they perceive the data informs the development of future culturally relevant physical activity programming. Indeed, focus groups in addition to

participatory mapping allowed for a deep understanding of the adolescent girls' lived experience with physical activity, the identity constructs, and perceived, conceived, and lived space.

Measures

A participatory mapping activity and an interview guide were used to collect the quantitative and qualitative data. The development of each of these measures is discussed in detail below. As part of the discussion, I note how a pilot was conducted prior to the study as a means of shaping and confirming the relevancy and adequacy of each measure for answering my research questions in the study.

Phase I: Participatory mapping activity guide and maps. There were two parts to the participatory mapping activity: 1) the mapping activity guide (Appendix A for pilot version and Appendix B for study version), including the questions and directions, and 2) the participatory map (Appendix C for pilot version and Appendix D for study version). Because this study is an extension of Thul and LaVoi's (2011) study and a spatial needs assessment, the questions for the activity were developed based on the socio-cultural spatial barriers the adolescents noted in that study. Such barriers included female versus male physical activity spaces, physically safe (e.g., not violent, not afraid for your safety) physical activity spaces, culturally and religiously appropriate (e.g., spaces that maintain privacy and modesty, female-only places, etc.) physical activity spaces, comfortable (e.g., friendly, supportive, etc. places) physical activity spaces, and parent-supported physical activity spaces. There were also two questions about future program development, including a question asking where the participants would like to be active in the future and a question asking where they would like physical activity programming located. All of these questions account for how gender, religion, and culture appeared to interact with physical activity spaces in Thul and LaVoi's study and my participant-volunteer-consultant observations. Thus, asking about the barriers is essential for understanding how gender,

religion, and culture actually relate to physical activity space and future programming. Race, class, and ethnicity were not analyzed in Thul and LaVoi's study—hence, why no specific questions assessing these constructs were asked. Given my participant-observations with how race, ethnicity, and class appear to intersect with the aforementioned barriers, however, they were assessed with gender, religion, and culture during the focus groups.

The mapping directions noted each of the questions corresponded to a different color. Participants were asked to use the colored marker corresponding to a particular question and circle all the places on the participatory map that answered the question (called potential physical activity spaces [PAS] for the rest of this paper). Multiple spaces could be circled for each question, and spaces could be circled for more than one color. All of the PAS asked about in the participatory mapping activity represented perceived space (e.g., physical space and everyday activities [e.g., physical activity]) according to Lefebvre's (1991) spatial triad. This is because only physical spaces can be mapped. With that said, I probed participants about their experience with conceived and lived spaces regarding physical activity and the identity markers in the focus groups.

Based on previous research presented in the literature review, Thul and LaVoi's study (2011), I was able to formulate several hypotheses regarding the perceived trends across the participatory mapping questions I expected to unfold. My hypotheses were as follows: 1) the Brian Coyle Center would be the top circled PAS overall and for each participatory mapping question, 2) participants would perceive more PAS to be relevant for males than females, 3) participants would perceive indoor versus outdoor PAS as the most relevant for all questions, but the male physical activity question, and 4) participants would perceived low accessibility to PAS overall in the Cedar-Riverside neighborhood.

The participatory map used in this study was created in ArcMap 9.3 (2008). The initial map (Appendix E) included an aerial photography view of the Cedar-Riverside neighborhood,

given that it was deemed the area of interest in the study. The boundaries of the participatory map were defined according to the Cedar-Riverside neighborhood boundaries cited by the City of Minneapolis. According to the City of Minneapolis website (City of Minneapolis, 2010a), the Cedar-Riverside neighborhood is "triangular shaped with three definitive boundaries: the Mississippi River on the east side, Interstate 94 on the south side, and Interstate 35W on the west side" (para. 1). Furthermore, on their website, the City of Minneapolis (City of Minneapolis, 2010b) displays a base map of the Cedar-Riverside neighborhood that more exactly provides these boundaries (Appendix F). The cartographer—a researcher trained in mapping technologies—for this study, digitized—drawing in a mapping program—the Cedar-Riverside neighborhood boundary based on the Cedar-Riverside base map in ArcMap 9.3. She also added U.S. Census Bureau (2010) TIGER road lines. Their corresponding road names for Hennepin County, Minnesota were included, as well as 2010 Land Management Information Center (LMIC) aerial photography (see Appendix G for Cedar-Riverside neighborhood Boundary and Roads Map).

Because PAS were based on specific locations in the neighborhood and were not previously mapped, I met with the two G.I.R.L.S. leaders to help identify those spaces. A 22"x34" colored Cedar-Riverside neighborhood Boundary and Roads Map was printed for labeling the spaces. Given the high density of spaces within the Cedar-Riverside neighborhood, all spaces (e.g., such as individual houses, etc.) that were identifiable were labeled. All labeled spaces were deemed PAS for this study.

Using ArcMap 9.3 (2008), the cartographer digitized all PAS the community liaisons suggested onto the map (Appendix H). The digitized file, called a shapefile, defines a spatial location (e.g., it has coordinates) and contains several attributes, which are used to describe each spatial location. Attributes can be text or numbers, and typically describe things like name, address, area, and population. For all practical purposes, attributes are essentially a spreadsheet

of information that is linked to a spatial location. The attributes describing each PAS included the PAS name and the sum of responses to each mapping activity question (e.g., Q1Y [Question 1 = Yes], Q1N [Question 1 = No], Q2Y, Q2N…Q9Y, Q9N). Table 1 is an example of the PAS shapefile attributes spreadsheet (since this is an example, note that not all PAS or questions are listed and there are no coordinates in this table; each attribute is "linked" to a spatial location by the Feature Identifier [FID], which is the unique descriptor of the PAS location).

The G.I.R.L.S. leaders and I then went through a round of quality control where they verified the spelling and location of each PAS on the pilot map. A few minor spelling corrections were indicated, and a few buildings needed to be relocated. The liaisons also suggested we add the title of the study and logos to make the map more professional. All of these edits were incorporated into a post-quality control map and shapefile attributes spreadsheet. The post-quality control map was proofed a final time by the two community liaison and me, and no edits were made. It then became the pilot study map and was printed for the pilot study (Appendix C).

Table 1

Example of the Microsoft Excel PAS Shapefile Attribute Spreadsheet

		Participatory Mapping Questions							
Id	*PAS Label*	*1_Y*	*1_N*	*2_Y*	*2_N*	*3_Y*	*3_N*	*4_Y*	*4_N*
1	Brian Coyle Center								
2	Mixed Blood Theater								
3	Darul-Quba Cultural Center								
4	E Building								
5	Resource Center								
6	F Building								
7	McKnight Building								

Based on the participant responses during the pilot study, I coded and entered the data for each participant as follows: 1 = circled and therefore an active space, or 0= not circled and therefore not an active space for each PAS attribute in the PAS database. I then “trended” each mapping activity question data by totaling the circled/active and not circled/not active responses for each PAS. Because there were five pilot study participants, the active and not active totals for each PAS equaled five. Based on these totals, trend maps were created for each of the nine questions on the mapping activity handout by showing a pie chart symbol reflecting participant responses for active versus inactive at each PAS.

Upon completion of their maps, participants were asked their perspective about the comprehension and length of the participatory mapping activity questions, as well as the clarity of the map. Feedback from the pilot study participants was used to finalize the participatory mapping activity guide and maps for this study. Pilot study participants confirmed that the activity directions and questions were a sufficient length and were, for the most part, clear. They had three suggestions for improvement with the participatory maps. First, they recommended changing Twin Cities Map guide in the directions to Cedar-Riverside Map guide, so that it reflected the actual area on the participatory map. Second, they suggested adding examples from Thul and LaVoi’s (2011) study about what was meant by physical activity that is physically safe, maintains cultural and religious values, and comfortable to clarify these for the participants. Third, they recommended making physical activity stand out via writing it in caps for each question, so that participants were clear they were supposed to answer each question specific to physical activity spaces and not community spaces in general. All of these suggestions were made in the study version of the participatory mapping guide (Appendix B).

The cartographer and I also met to incorporate the edits to the participatory map based on pilot participants’ feedback (Appendix I). For instance, participants suggested we remove the label of any PAS outside the neighborhood boundary, since they were only allowed to circle

spaces within the neighborhood boundary. Participants also noted that the Riverside Park spaces where confusing; they thought the big Riverside Park header apart from the individual space headers (e.g., volleyball courts, basketball court, soccer fields, and swimming pool) was unclear. For example, if they wanted to only circle the volleyball courts, they were not sure if they should circle just the volleyball courts or also the Riverside Park label given the volleyball courts are in the Riverside Park. Thus, they suggested removing the overarching Riverside Park label, and adding Riverside Park to each of the individual park spaces, so they read Riverside Park Volleyball Court, Riverside Park Basketball Court, Riverside Park Swimming Pool, and Riverside Park Soccer Fields. The cartographer updated these and all other suggestions in the PAS database. After revising the PAS database, the cartographer sent the file to me for quality control. There were no more edits to be made, so the aforementioned database changes were reflected on the study participatory map (Appendix D). Study participants also had some participatory mapping additions. For instance, a few study participants circled PAS (e.g., West Bank Grocery) that were not labeled on the study participatory map. These additional spaces were added to the Shapefile attribute spreadsheet and are represented in Appendix J. They were also trended with the rest of the data.

Phase II: Focus group interview guide. A semi-structured interview guide (Appendix K) was used in the focus groups to explore participants' conceived and lived experience with the perceived physical activity spaces on the participatory trend maps. The use of a semi-structured interview guide allows for flexibility in the interview protocol to explore specific topics and questions (Johnson & Christensen, 2004). The semi-structured interview format includes pre-determined, open-ended questions that will be asked of every participant, followed by clarification and elaboration probes where needed (Johnson & Christensen; Patton, 2002). The interview guide for this study consisted of three sections of questions: 1) a warm-up

question, 2) conceived and lived space questions based on trend maps, and 3) wrap-up questions.

The warm-up question was meant to build rapport with the participants and help them feel comfortable with the focus group. I asked the questions, *Since we'll be talking about physical activity today, I would love to know how do you define physical activity?*, and *What activities do you do that you consider "physical activities"?* The trend map questions were based on the questions asked during the participatory mapping activity. The questions provided a platform for the participants to elaborate (e.g., discuss conceptions—beliefs, codes, etc.—and lived—issues, discrimination, etc.—experiences they've had) on the spaces they colored in their maps and trends among participants regarding the spaces. For instance, I asked the participants the following questions about their maps: 1) *The spaces here [point to blue spaces on map] with a lot of blue are where many of you said you currently do physical activity. Can you tell me about the reasons why you are active in these places?* (probe: *Why aren't you active in these other spaces [point to red spaces on map]?*), 2) *The spaces here [point to blue spaces on map] with a lot of blue are where you said females in your community are physically active. What are the reasons females are active here?* (probes: *Describe to me who the typical female is in these spaces. How old? What race or ethnicity? What religion?*, and *Why aren't females active in these other spaces [point to red spaces on map]?*), 3) *These spaces here [point to blue spaces on map] with a lot of blue are where you said males in your community are physically active. What are the reasons females are active here?* (probe: *Describe to me who the typical male is in these spaces. How old? What race or ethnicity? What religion?*, and *Why aren't males active in these other spaces [point to red spaces on map]?*), 4) *I noticed that there are more spaces [point to blue spaces on both maps] you said males are active than females are active in your community. Tell me about why that is the case?*, 5) *In these spaces here with a lot of blue you said you feel physically safe for physical activity. What about these spaces are physically safe*

for physical activity? (probe: *Why aren't these other spaces [point to red spaces on map] physically safe for physical activity?*), 6) *These spaces here with a lot of blue are those you said would allow you to be physically active and maintain your cultural and religious values. Describe what it is about the space that allows you to uphold those values?* (probes: *What does the space look like? Who is in the space?*, and *Why don't these other spaces [point to red spaces on map] allow you to be physically active and maintain your cultural and religious values?*), 7) *In these spaces here with a lot of blue you said you feel comfortable to participate in physical activity. Tell me about the reasons why these spaces make you feel comfortable for physical activity?* (probe: *Why don't these other spaces [point to red spaces on map] make you feel comfortable for physical activity?*), 8) *These spaces here with a lot of blue are where you said your parents are supportive of you to be physically active. What is it about these spaces that you think your parents are supportive of?* (probe: *What is it about these other spaces [point to red spaces on map] that your parents aren't supportive of?*), 9) *These spaces here with a lot of blue are where you said you'd like to do physical activity in the future. Tell me about your reasons for wanting to do physical activity in these places?* (probe: *What is it about these other spaces [point to red spaces on map] that you didn't say you'd like to do physical activity in the future?*), 10) *These spaces here with a lot of blue are where you said you'd like to have more physical activity programming for adolescent girls in the future. Tell me about where in this space you'd want the program to be?* (probes: *Describe why you'd like the program here. What is it about this space that would be conducive to a program?, How do you think the program would look in this space? Tell me about who you think would be there? What would they be doing?, What is about these other spaces that you didn't say you'd like physical activity programming in the future?*). In addition to the probes noted, I also probed when participants mentioned gender, race, ethnicity, class, religion, and culture—especially as they connected to Lefebvre's (1991) perceived, conceived, and lived space. After asking these conceived and

lived experience, perceived space trend, and future programming questions, I asked participants the following two wrap-up question: 1) *Out of all the spaces on the map, are there any issues around physical activity that have occurred in your community we haven't discussed?* (probes: *If yes, what are those issues that come to mind?*, and *Have you personally experienced this issue? If yes, tell me about how you experienced it?*), and 2) *Is there anything else you would like to add?* These questions were meant to provide participants an opportunity to add any other information they deemed important, so they felt closure upon focus group completion. When asked about the comprehension and length of the focus group questions, pilot participants had no suggestions for improvement. Thus, the same semi-structured interview guide was used in both the pilot and study focus groups.

Study Participants and Recruitment

Purposive sampling is an established sampling method for qualitative research (Miles & Huberman, 1994; Patton, 2002), which is the paradigm emphasized in this study. The purposive sampling technique is used to select individuals who meet specified characteristics of the population of interest and can provide detailed information about the phenomena of interest (Creswell, 2003; Miles & Huberman). The population of interest encompassed Somali, first generation and second generation immigrant, Muslim, adolescent girls ages 14-22 years old of more and less active physical activity levels—all of whom participated in the G.I.R.L.S. program at least once.

Somali, first or second generation immigrant, Muslim, G.I.R.L.S. participants were selected for two reasons: 1) to offer a direct perspective of the spatial physical activity experiences of the majority of adolescent girls and young women within the Cedar-Riverside neighborhood, given all participants come to the neighborhood at least once a week to attend the program, and 2) to provide a voice for adolescent girls whom limited physical activity research in general, and specific to space, exists.

Adolescent girls ranging in age from 14-22 (high school and transition ages) were selected for several reasons. First, they were selected due to the likelihood that most of them would have undergone puberty, because in Islamic culture often females are not expected to maintain most gender-oriented cultural norms until they undergo puberty and become women (Kahan, 2003; Thul & LaVoi, 2011). For instance, though young Muslim adolescent girls are still expected to help out with domestic chores (De Knop et al., 1996), some parents do not require them to be covered or act as modestly when the go outside (Thul & LaVoi).

Second, the age range of 14-22 was selected to fill a gap in the literature and to understand the study constructs during a time of declining activity. There is limited physical activity intervention literature that is based on older adolescent girls (14-17), particularly during transitions years of adolescence to adulthood (18-22 years of age). This transition period is "characterized by major life event changes associated with the move from the parental home to full residential independence" (Gordon-Larsen et al., 2004, p. 277; Hogan, 1978; Rindfuss, 1991), and is one of the major transition periods for a wide range of behaviors, including physical activity. There are also no studies specific to culturally relevant physical activity programming for these age groups; the proposed study would fill this gap.

Furthermore, physical activity significantly declines as youth move from childhood to adolescence (CDC, 2008; Kimm et al., 2002; LaVoi & Wiese-Bjornstal, 2007) such that only 25.6% of our nation's adolescents (9-12th grade) are meeting the CDC's (USDHHS, 2008) physical activity guidelines. Minnesota mirrors the national trends of physical inactivity among adolescents, with 67% of high school adolescents reporting they do not meet the CDC's physical activity guidelines (Minnesota Department of Health, 2008). The move from adolescence to young adulthood coincides with high obesity incidence and maintenance (Gordon-Larsen, Adair, Nelson, & Popkin, 2004),due in part to further declining physical activity levels. Somali adolescent girls' lived experience regarding gender, race, ethnicity, class,

religion, culture, and perceived, conceived, and lived physical activity space is important to understand in order to help reverse these negative trends.

Third, the age range of 14-22 was selected to ensure the participants were cognitively capable of comprehending the questionnaires and interview questions. Adolescent girls among these ages were all cognitively within Piaget's (1950, 1970) formal operational period, which occurs from age 12- adulthood. Thus, they should all have been able to think about and interpret the abstract concepts of gender, race, ethnicity, class, religion, culture, and space and their influence on the adolescents' lived experience with, and perceptions of, physical activity. The participants also were cognitively capable of critically exploring the implications of such constructs on future physical activity programming.

In addition to including females ages 14-22, the proposed study encompassed only participants who are fluent in English and had a range of more to less active self-reported physical activity levels. To ensure the phenomena within the study were understood and thoroughly discussed, the adolescents were all fluent English speakers. Furthermore, the adolescents were involved with physical activity to varying degrees in order to achieve triangulation through a diversity of perspectives (Patton, 2002).

Participants. Given there were two groups of participants in this study—a pilot group and study group—the demographics for both are provided in this section.

Pilot participants. The pilot study participants included five self-identifying adolescent girls and young women (*n*= 5 for participatory mapping activity and *n*= 3 for focus groups). Table 2 lists their demographics. Two of these participants were Cedar-Riverside residents. The three participants living outside the neighborhood boundaries all cited they came to the neighborhood about 3 days/week to play basketball and visit family and friends who live there. Thus, the two participant Cedar-Riverside residents were considered more familiar with the

neighborhood, and the three non-resident participants were considered less familiar (e.g., they indicated involvement in Cedar-Riverside 0-3 days/week).

The pilot participants ranged in age from 14-22 (*M*= 16.4 years old). The range of the participants last completed education level was no school in the United States to grade 11 (*M*= 9th grade). All participants identified their race as Black/African American, their ethnicity as Somali, and their religion as Islamic/Muslim. All participants also identified as first generation immigrants, citing Kenya (*n*= 3), Somalia (*n*= 1), and Egypt (*n*= 1), as their foreign-born birthplace. All participants indicated both their mother and father were foreign-born in Somalia.

Table 2

Pilot Participant Demographics

Participant	*Cedar-Riverside Resident*	*Non-Resident Days Spent in Cedar-Riverside*	*Age*	*Education Level (Last Completed Grade)*	*Race*	*Ethnicity*	*Religion*	*Immigrant Status*
1	No	3	17	11	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
2	Yes	--	14	8	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
3	Yes	--	15	9	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
4	No	3	22	0 (No School in U.S.)	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
5	No	3	14	7	Black/ African American	Somalian	Islamic/ Muslim	1st Generation

All participants reported similar physical activity levels (Table 3). For strenuous exercise, one participant reported engaging in less than .5 hours/week, one reported .5-2 hours/week, and three reported 2.5-4 hours/week. For moderate exercise, all five participants indicated participating in less than .5 hours/week. For mild exercise, four participants reported engaging in less than .5 hours/week and one reported .5-2 hours/week. Based on the cut points noted in the demographic section, three participants were deemed more active (e.g., selected 2 ½-4, 4 ½-6, or 6+ hours/week of strenuous exercise) and two were deemed less active (e.g., selected none, less than .5, or .5-2 hours/week of strenuous exercise).

Table 3

Pilot Participant Physical Activity Levels

Participant	*Strenuous (hrs./wk.)*	*Moderate (hrs./wk.)*	*Mild (hrs./wk.)*	*Overall Level*
1	.5-2	<.5	.5-2	Less Active
2	2.5-4	<.5	<.5	More Active
3	<.5	<.5	<.5	Less Active
4	2.5-4	<.5	<.5	More Active
5	2.5-4	<.5	<.5	More Active

Study participants. The study participants included 30 adolescent girls (*n*= 30 for participatory mapping activity and *n*= 27 of the same girls for focus groups) (Table 4), which was in accord with the guidelines set forth by Creswell (2003) and others (Miles & Huberman, 1994; Patton, 2002) who state that a phenomenological study should include at least 20 participants. Of the 30 participants in this study, 11 girls lived in the Cedar-Riverside neighborhood and 19 lived outside of the neighborhood. Those who lived outside of Cedar-Riverside cited a range of one to seven days/week (*M*= 4.63) they came to the neighborhood, and most often indicated that engagement in the Brian Coyle Center, visiting family and/or friends who lived in Cedar-Riverside, and playing basketball was what brought them to the community. More specifically, 13 of the non-resident participants were more familiar with the

neighborhood (e.g., indicated involvement in the Cedar-Riverside 4-7 days/week) and six participants were less familiar with the neighborhood (e.g., indicated involvement in the Cedar-Riverside 0-3 days/week), resulting in a total of 24 (11 residents plus 13 more familiar non-residents) of the 30 participants who were more familiar with the neighborhood.

The participants ranged in age from 14-22 (*M*= 16.97 years old). The range of the participants last completed education level was 7th grade to 3rd year of college (*M*= 10.5th grade). The majority of participants (*n*= 23) self-identified their race as Black/African American, while the remaining participants (*n*= 7) self-identified as Other and wrote in Somali. Despite the race discrepancy, all 30 participants self-identified their ethnicity as Somali and their religion as Islamic/Muslim.

All participants also identified as first generation (*n*= 17) or second generation (*n*= 13) immigrants. Those who indicated they were born outside of the United States cited Somalia (*n*= 9), Kenya (*n*= 6), Egypt (*n*= 1), and Ethiopia (*n*= 1) as their birth places. All participants indicated both their mother (29 were born in Somali, and 1 in Ethiopia) and father (29 were born in Somali, and 1 in Yemen) were foreign-born.

Table 4

Study Participant Demographics

Participant	*Cedar-Riverside Resident*	*Non-Resident Days Spent in Cedar-Riverside*	*Age*	*Education Level (Last Completed Grade)*	*Race*	*Ethnicity*	*Religion*	*Immigrant Status*
1	No	2	22	12	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
2	No	4	22	15	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
3	No	4	22	12	Black/ African	Somalian	Islamic/ Muslim	1st Generation

					American			
4	No	5	22	15	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
5	No	3	20	13	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
6	No	7	15	8	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
7	No	5	21	13	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
8	No	7	15	9	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
9	No	7	15	9	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
10	No	5	18	12	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
11	Yes	-	16	10	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
12	No	7	16	11	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
13	Yes	-	15	8	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
14	Yes	-	16	10	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
15	No	7	14	7	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
16	Yes	-	14	9	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
17	Yes	-	15	9	Black/ African	Somalian	Islamic/ Muslim	2nd Generation

					American			
18	No	3	20	12	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
19	No	5	16	10	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
20	Yes	-	15	9	Other: Somali	Somalian	Islamic/ Muslim	2nd Generation
21	No	2	21	13	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
22	Yes	-	14	7	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
23	No	6	18	12	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
24	No	6	16	10	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
25	Yes	-	14	9	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
26	No	1	19	13	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
27	Yes	-	14	9	Other: Somali	Somalian	Islamic/ Muslim	1st Generation
28	Yes	-	14	9	Black/ African American	Somalian	Islamic/ Muslim	1st Generation
29	Yes	-	16	10	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation
30	No	2	14	10	Black/ African American	Somalian	Islamic/ Muslim	2nd Generation

All participants reported being physically active, comprising a wide range of physical activity levels (Table 5). For strenuous exercise, seven participants reported engaging in less than .5 hours/week, six reported .5-2 hours/week, five reported 2.5-4 hours/week, three reported, 4.5-6 hours/week, and nine reported 6+ hours/week. For moderate exercise, seven participants indicated participating in less than .5 hours/week, seven indicated .5-2 hours/week, six indicated 2.5-4 hours/week, two indicated 4.5-6 hours/week, and eight indicated 6+ hours/week. For mild exercise, six participants reported engaging in less than .5 hours/week, seven .5-2 hours/week, three 2.5-4 hours/week, six 4.5-6 hours/week, and eight 6+ hours/week. Based on the cut points noted in the previous section, 17 participants were considered more active (e.g., selected the 2 ½-4, 4 ½-6, or 6+ hours/week category of strenuous exercise) and 13 were considered less active (e.g., selected the none, less than .5, or .5-2 hours/week category of strenuous exercise).

Table 5

Study Participant Physical Activity Levels

Participant	*Strenuous (hrs./wk.)*	*Moderate (hrs./wk.)*	*Mild (hrs./wk.)*	*Overall Level*
1	2.5-4	< .5	.5-2	More Active
2	2.5-4	< .5	6+	More Active
3	< .5	4.5-6	4.5-6	Less Active
4	< .5	.5-2	< .5	Less Active
5	.5-2	2.5-4	4.5-6	Less Active
6	.5-2	.5-2	.5-2	Less Active
7	4.5-6	4.5-6	.5-3	More Active
8	.5-2	.5-2	.5-4	Less Active
9	6+	6+	6+	More Active
10	.5-2	< .5	4.5-6	Less Active
11	< .5	< .5	6+	Less Active
12	2.5-4	2.5-4	6+	More Active
13	2.5-4	2.5-4	2.5-4	More Active
14	4.5-6	.5-2	6+	More Active

15	6+	6+	4.5-6	More Active
16	6+	6+	6+	More Active
17	6+	6+	6+	More Active
18	< .5	2.5-4	< .5	Less Active
19	6+	2.5-4	.5-2	More Active
20	6+	.5-2	< .5	More Active
21	< .5	.5-2	.5-2	Less Active
22	.5-2	< .5	< .5	Less Active
23	< .5	.5-2	2.5-4	Less Active
24	6+	6+	4.5-6	More Active
25	6+	6+	< .5	More Active
26	4.5-6	< .5	.5-2	More Active
27	< .5	< .5	< .5	Less Active
28	6+	6+	6+	More Active
29	2.5-4	6+	4.5-6	More Active
30	.5-2	2.5-4	2.5-4	Less Active

Demographic questionnaire. A demographic questionnaire (Appendix L) was used to recruit the aforementioned pilot and study participants fitting the purposive sampling criteria. The questionnaire included questions about the participants' familiarity with the Cedar-Riverside neighborhood, phone number, gender, age, education level, race and ethnicity, religion, immigrant status, and physical activity level. The rationale for each question is discussed in the paragraphs to come.

Familiarity with the Cedar-Riverside neighborhood. To determine how familiar each participant was with the Cedar-Riverside neighborhood, an address question was asked. Participants indicating their address was located in the Neighborhood were considered more familiar with the neighborhood. Participants noting their address was outside the neighborhood, were also asked the question, “In an average week, how many days do you spend time in the Cedar-Riverside neighborhood? (Mark one),” and had the option of checking each of “0-7 days”

or “Other (please explain).” They were also asked to open-endedly “Describe what brings you to the Cedar-Riverside neighborhood.” Participants not living in Cedar-Riverside and indicating 0-3 days/week of neighborhood involvement were considered less familiar with the neighborhood, whereas participants indicating 4-7 days/week of neighborhood involvement were considered more familiar with the neighborhood.

Phone number, gender, age, and education level. Participants were asked their phone number for contact purposes. For instance, in the event the participants did not attend the G.I.R.L.S. program during the time focus groups needed to be set up (which was the case for several participants), the number allowed me to get ahold of them. The participants’ gender was asked to be certain they each self-identified as a female. Each participant was also asked to select their age from a list ranging from “14-22 years old” or “Other (please explain).” Participants were also asked their education level via the following question: “What is your last completed level of education? (Mark one)” and range of options from “Grade 1-Grade 12” and “Other (please explain).” Only participants who self-identified as female, and were 14-22 years old were included in the pilot and study.

Race and ethnicity. The two-part race/ethnicity question used in Project EAT (Neumark-Sztainer et al., 2002) was used to ensure the participants in the study were all Somali. The first question asked about race: “Do you think of yourself as: White, Black or African American, Hispanic or Latino, Asian American, American Indian or Native American, or Other.” Participants were allowed to select more than one response. The second part of the question asked each participant about her ethnicity by inquiring, “Is your background any of the following: Hmong, Cambodian, Vietnamese, Laotian, Somalian, Ethiopian, Other (please explain), or None of the Above?” Only participants checking the Somalian box were included in the pilot and study.

Religion. The religion question was a shortened version of the validated "Religious Preference Questionnaire" presented in the Fetzer Institute, National Institute on Aging Working Group's (2003) *Multidimensional Measurement of Religiousness/Spirituality for Use in Health Research* report. It asks the participants, "At this time, what is your religious preference?" and then provides the following categories to choose from: "No Religion, Roman Catholic, Jewish, Lutheran, Presbyterian, Buddhist, Islamic/Muslim, Orthodox, Episcopal/Anglican, Methodist, Baptist, Hindu, Other (please explain)." Only participants selecting Islamic/Muslim met the religious criteria and were included in the pilot and study.

Immigrant status. To assess immigrant status the questionnaire included the question: "Which of the following statements best describes you and your family (check all that apply): I was born in the U.S., I was not born in the U.S., My mother was born in the U.S., My mother was not born in the U.S., My father was born in the U.S., and My father was not born in the U.S." Participants selecting the "I was not born in the U.S., My mother was not born in the U.S., and/or My father was not born in the U.S." categories, were also asked to answer the open-ended question, "Which country were you/your mother/your father born in?" These questions ensured that the participants were first or second generation immigrants. For instance, according to Popkin and Udry (1998), a first-generation immigrant is defined as an individual born outside of the United States and not born to United States citizens abroad. Thus, participants selecting "I was not born in the U.S." and indicating neither their mother nor father were born in the U.S. were considered first-generation immigrants. According to Popkin and Udry (1998), a second-generation immigrant is defined as an individual born in the United States to at least one foreign-born parent. Thus, participants selecting "I was born in the U.S.," as well as either "My mother was not born in the U.S." or "My father was not born in the U.S." were considered second generation immigrants.

Physical activity level. The physical activity level of participants was assessed using a modified version of the original Godin and Shepard (1985) question that has been used often on different surveys for adolescent and young adult populations (D. Barr-Anderson, personal communication, April 8, 2010). The question included three parts, and all parts begin with the prompt, "In a usual week, how many hours do you spend doing the following activities…" The first part asked about "Strenuous exercise (heart beats rapidly); Examples: Biking fast, aerobic dancing, running, jogging, swimming laps, rollerblading, skating, lacrosse, tennis, cross-country skiing, soccer, basketball, football." The second part asked about "Moderate exercise (not exhausting); Examples: Walking quickly, baseball, gymnastics, easy bicycling, volleyball, skiing, dancing, skateboarding, snowboarding." The third part asked about "Mild exercise (little effort); Examples: Walking slowly (to school, to friend's house, etc.), bowling, golf, fishing, snowmobiling, yoga." All three parts asked the participant to select one of these six categories to answer the question: "None, less than ½ hour a week, ½-2 hours a week, 2 ½-4 hours a week, 4 ½-6 hours a week, or 6+ hours a week."

The more and less active physical activity groups were determined based on the portion of the CDC's (USDHHS, 2008) physical activity guidelines for adolescents. The recommended guideline is 60+ minutes of physical activity daily (most of which should be moderate- or vigorous- physical activity), and should include vigorous-intensity physical activity at least 3 days a week. Given the categories of the Godin-Shepard inventory, it was impossible to know whether or not the participants in the study were meeting the 60+ minutes of daily moderate- or vigorous- physical activity. Thus, I used the latter guideline of participation in vigorous-intensity physical activity at least 3 days a week as the cut point for the more to less active adolescents. Thus, girls who selected the 2 ½-4, 4 ½-6, or 6+ hours a week of the strenuous category were considered the more active group and adolescents selecting any other criteria were considered the less active group.

Data Collection and Techniques

Study protocol. Upon receiving approval for the dissertation from the University of Minnesota's Institutional Review Board (IRB) (Appendix M), I began the study. To recruit participants the G. I.R.L.S. leaders and I introduced and explained the study at two G.I.R.L.S. sessions. In particular, we stressed participation was completely voluntary, and that non-participation would in no way affect our relationship with the program participants. We encouraged questions, and provided all interested girls with a consent form (Appendix N). Then we told them to read through and sign the form (if 18+) or have their parent/guardian read through and sign the form (if under 18) and then bring back to us as soon as possible if they wanted to participate. Participants under 18 years old also signed an assent form (Appendix O). Once a participant's consent and/or assent forms were turned in, they were given a demographic questionnaire to fill out. Adolescent girls fitting the study criteria based on their demographics were purposively selected as participants. After participant selection, the Phase I: Participatory mapping and Phase II: focus groups occurred.

Phase I: Participatory mapping. Participatory mapping data collection sessions included a range of one to five participants (*M*= 3). Participatory Mapping was conducted in a private room in the Brian Coyle Center. Each participant was given a participatory mapping activity handout, a 22"x34" participatory map, and a set of fine point markers. I read the directions on the participatory mapping handout to all participants, and demonstrated how to circle spaces they felt answered a given question (e.g., circle as close to the space as possible, circle the entire name of, and dot on, the space, be sure to use the correct color, circle as many spaces that answer the question, etc.) using a dry erase marker on a 22"x34" laminated map. Participants were encouraged to ask questions throughout the demonstration. Once all questions were answered, participants completed their individual maps. Individuals were seated as far apart as possible to reduce the risk of social desirability. They were also encouraged to ask any

questions as they completed the map. Upon completion participants were thanked for their time and given a $15 Target gift card as compensation.

Over the next few weeks, two trained undergraduate research assistants and I entered each participant's data into the PAS database for data analysis and trending. Once all the data was entered, we sent the Shapefile to the cartographer, and she created the trend maps for use during the focus groups (see Appendices P-X).

Phase II: Focus groups. A few weeks after participants completed the participatory mapping activity, I called them to set up a time for their focus group. In all, seven focus groups ranging from two to seven participants (*M*= 4) each were created. All focus groups were held in a private room at the Brian Coyle Center, and lasted approximately two hours. Prior to the start of each one, participants chose the name they preferred to be called throughout. This allowed for participants to have control over whether or not they wanted a pseudonym. The focus group was audiotaped, and the semi-structured interview guide and 11"x17" colored trend maps were used during the focus group (e.g., the questions on the interview guide were asked about the trend maps). Upon completion of each focus group, participants were then thanked for their time and given a $25 Target gift card as compensation.

Within one month of the focus groups, the audio tapes for each session were transcribed by professional transcriptionists at Datalyst LLC (2012)—a company that provides an array of data-related services, including medical, legal, and research-based professional transcription services (Datalyst LLC). Prior to sending Datalyst the transcripts through their secure server, the project lead signed a confidentiality agreement (Appendix Y). The transcriptionists transcribed the focus groups verbatim to the best of their ability, time-stamping and highlighting any words or phrases they were unsure about. I listened back to each audio recording, while reading through the transcripts to ensure quality control and fill in any of the missing data. All transcriptions were stored in a password-protected file on my computer.

Data Analysis

Following the data collection protocol, the data analysis also included two phases: 1) participatory mapping analysis, and 2) focus group analysis. In this section, I begin by discussing the participatory mapping analysis for the study. Then I explain the focus group analysis for the study. I conclude with a discussion of the many steps taken to increase trustworthiness of the data.

Phase I: Participatory mapping data analysis. I, along with two undergraduate research assistants trained in data entry, individually entered the data for each participant in our own Shapefile attribute spreadsheet as follows: 1 = circled and therefore an active space, or 0= not circled and therefore not an active space for each PAS attribute in the PAS spreadsheet. For consistency, we clarified what counted as a circled PAS: both the name and dot for a specific PAS must be circled to code it as a 1. As we each entered the data, we came across a few PAS on the original map that were not entered into the Shapefile database (e.g., University of Minnesota Medical Center). We entered these spaces as PAS into the Shapefile database for each participant, and then entered the respective attribute data.

Once our individual data entry was complete, the three of us met to triangulate the data. To do so, for each participant I read the codes I had in my Shapefile attribute spreadsheet for each PAS across each question and active/inactive attribute while the two other coders followed along in their respective Shapefile attribute spreadsheets. I continued reading the codes until we reached a point where one or more of the codes did not align. To resolve this issue we looked at the map for the particular participant and the PAS where the disagreement occurred to talk through it and reach a point of coding consensus. We then entered the agreed upon code into its respective cell in my Shapefile attribute spreadsheet, which served as the Master spreadsheet. Our interrater reliability rate for the mapping data was 99.8%. This rate was calculated the following way: for each of the 30 participants there were 990 PAS attributes (55 PAS x 18 [9

questions each with an Inactive/Active option] = 990), which equals 29,700 PAS attributes we entered codes for. We had 53 PAS attributes that were in disagreement, which means we had a total of 29,647 in agreement. This leaves a rate of 99.8% (29, 647/29, 700= .998 or 99.8%).

Once triangulation was complete, I then "trended" the data by totaling the circled/active and not circled/not active responses for each PAS across participants. Because there were 30 study mapping participants, the active and not active totals for each PAS equaled 30. Based on these totals, trend maps (Appendices Q-Y) were created for each of the nine questions on the mapping activity handout by showing a pie chart symbol reflecting participant responses for active versus inactive at each PAS.

Phase II: Focus group analysis. Focus groups resulted in 362 pages of single-spaced transcripts. According to Patton (2002) and Ayres, Kavanaugh, and Knafl (2003) inductive and deductive processes of decontextualization and recontextualization are used to analyze phenomenological data. Thus, deductive and inductive content analyses according to Patton's (2002) guidelines were used. The analysis was deductive in that all focus group raw data quotes were grouped into perceived, conceived, and lived space higher order themes based on the theoretical frameworks and operational definitions noted in the literature review. Any future programming recommendations were considered conceived or lived space concepts, because they are suggestions regarding the imagined social spaces in which the participants' physical activity experiences were constructed and/or directly lived. Thus, they were coded with the conceived and lived space data, and called out in the practical implications of the findings section of the discussion. Inductive content analysis occurred when categorizing the participants' similar raw quotes within each higher order theme into lower order categories. The identity constructs of gender, race, ethnicity, class, religion, and culture were not specific coding categories given they are not categorical concepts, but rather fluid, complex constructs.

Thus, the ways in which the identity constructs intersect within each lower order theme were represented by the raw data quotes and are discussed thoroughly in the discussion section.

To begin the analysis, two trained qualitative researchers and I immersed ourselves independently in one transcript. We each extracted raw data quotes that represented Lefebvre's (1991) aforementioned spatial categories of perceived, conceived, and lived space (deductive portion), and then independently, inductively coded them into lower order themes. We then met to assess and discuss consistency in coding. Upon assessment of our individual codes, it was clear we had similar codes.

At that point, we decided that only one other coder and I would finish data analysis on the remaining transcripts. As with the initial transcript, we independently read each remaining transcript, extracted raw data quotes that represented each of Lefebvre's (1991) spatial triad categories, and inductively coded the quotes by combining them into groups with similar meanings within each category. These groups of common raw data quotes formed the labels for the lower order themes. We met after every two transcripts to cross-check the predetermined spatial high order categories and inductive labels for the lower order themes for each raw data quote. Any quote or themes we disagreed on were discussed and we reached consensus about whether or not they should be included in the data analysis. At each meeting we revised our Themes List to reflect the dynamic and additional lower order themes emerging from the transcripts. This portion of the data was considered complete when we agreed that no further meaningful level of abstraction for each higher order theme could be deductively formed and each raw data quote inductively formed into lower order themes (Patton, 2002).

All of the transcripts were then imported into NVivo9 (2011)—a qualitative data management and analysis software package. I entered each raw data quotation as a descriptive code in NVivo9, and labeled it as its respective higher order spatial category and lower order theme. Once the raw quotes from all of the transcripts were entered, the trained, qualitative

coder and I met one more time to cross-check the list of lower order themes entered in NVivo9 and condense any that were similar. This process resulted in the final higher and lower order themes for the study. Data analysis was considered complete when we agreed that no further meaningful level of condensing or abstraction of the lower order themes could be reached (Patton, 2002).

Trustworthiness. In addition to being transparent about, and acknowledging the complexities and inherent subjectivities of, my role as a researcher, several other steps were taken to enhance trustworthiness of the data. First, both the participatory mapping and focus group methods were vetted and tested in a pilot prior to the study. This ensured the study protocol and measures (e.g., Participatory Mapping Activity and Semi-Structured Focus Group Guide) worked to answer my research questions. Second, I provided the opportunity for all of the participants to engage in member checking, which is 'the opportunity to consider whether or not the researcher's interpretation of their actions and words were accurate, balanced, fair and respectful' (Sparkes & Smith, 2009, p. 495). I conducted member checks with each participant at two time points: (1) at the end of the participants' focus group or interview by articulating a summary of what I thought I heard and providing the opportunity for the participants to say if it was accurate or not, and (2) prior to data analysis by providing the participants an opportunity to read through their focus group transcript and omit or edit anything they felt was misinterpreted or misrepresented them. No participants indicated changes or stated that they felt misinterpreted based on my summary. While this could mean I was highly accurate in my interpretations, alternatively participants may have felt too uncomfortable to tell me as a researcher who is considered an elder and G.I.R.L.S. program partner, if they disagreed with anything. No participants opted to read their focus group transcript. I also hoped to show participants the completed data analysis to ask if it was overall a fair representation of their

experiences, but unfortunately I was unable to do so. This is a limitation to the trustworthiness of the data.

Data triangulation also enhanced the trustworthiness. Both the participatory mapping and focus group data was independently analyzed and interpreted by several trained researchers in addition to myself. We reached agreement of the mapping codes, and emergent and deductive themes, which allowed for triangulation of the data and reduced research bias (Johnson & Christensen, 2004). Finally, peer debriefing also increased trustworthiness of the data. I practiced peer debriefing by meeting with my advisor and the community liaisons throughout the research process to engage in reflexive discussion and monitor my subjectivities. For instance, one of my biases was that I believe Somali, adolescent girls and women may face oppressive, patriarchal structures outside and within their culture as females that can impede their physical activity participation. It was important for me to acknowledge and be reflective about this bias when listening to the girls. I constantly asked myself, as well as engaged in discussion with my advisor and community liaisons, about whether the girls were saying they face oppressive structures or whether I was thinking that was what they were saying because of my subjectivities. My peer debriefing discussions helped me tease this subjectivity, as well as any others I held, apart. In sum, though complete trustworthiness can never be achieved in qualitative research (Sparkes & Smith, 2009), I worked to achieve maximum trustworthiness by being transparent about my role as the researcher (e.g., my perspectives, research choices, and relationships built to establish trust) (see earlier Researcher's Role section for a thorough discussion), as well as by providing the opportunity for member checking, engaging in data triangulation, and practicing peer debriefing.

CHAPTER 4:

RESULTS

This chapter comprises the results of the research questions (see Figure 3). I begin by presenting the potential activity space (PAS) location results of the perceived space participatory mapping trends for each mapping question. This section also includes the trends across questions and a reflection on whether or not the hypotheses for the participatory mapping trend data were met.

In addition to the location of PAS, the activities done within them also comprise perceived space. The next perceived space section, then, includes the participants' varied definition of physical activity that emerged from the warm-up question. The definition also represents the physical activities participants linked to the PAS they located for each mapping question during participatory mapping.

The reasons why PAS were circled and the trends existed for, and across, each mapping question were discussed as conceived and lived space themes in the focus groups. Thus, the chapter concludes with the conceived and lived space results from participants' discussions, which answers the conceived and lived space research questions, respectively. These sections include the conceived and lived space lower order themes and raw data quotes related to the intersection of gender, race, ethnicity, class, religion, and/or culture and in Cedar-Riverside PAS.

It is important to note, there is not a specific section dedicated to the final research question: *How do the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and physical activity spaces in the Cedar-Riverside neighborhood impact the location and implementation of future physical activity programming?* Rather the perceived, conceived, and lived space results are all a part of answering this question, and their

implications on future programming are discussed in the practical implications of the findings section of the discussion (though you can also see them listed in Figure 3 below). Thus, the results regarding locating and implementing future programming are embedded throughout these sections.

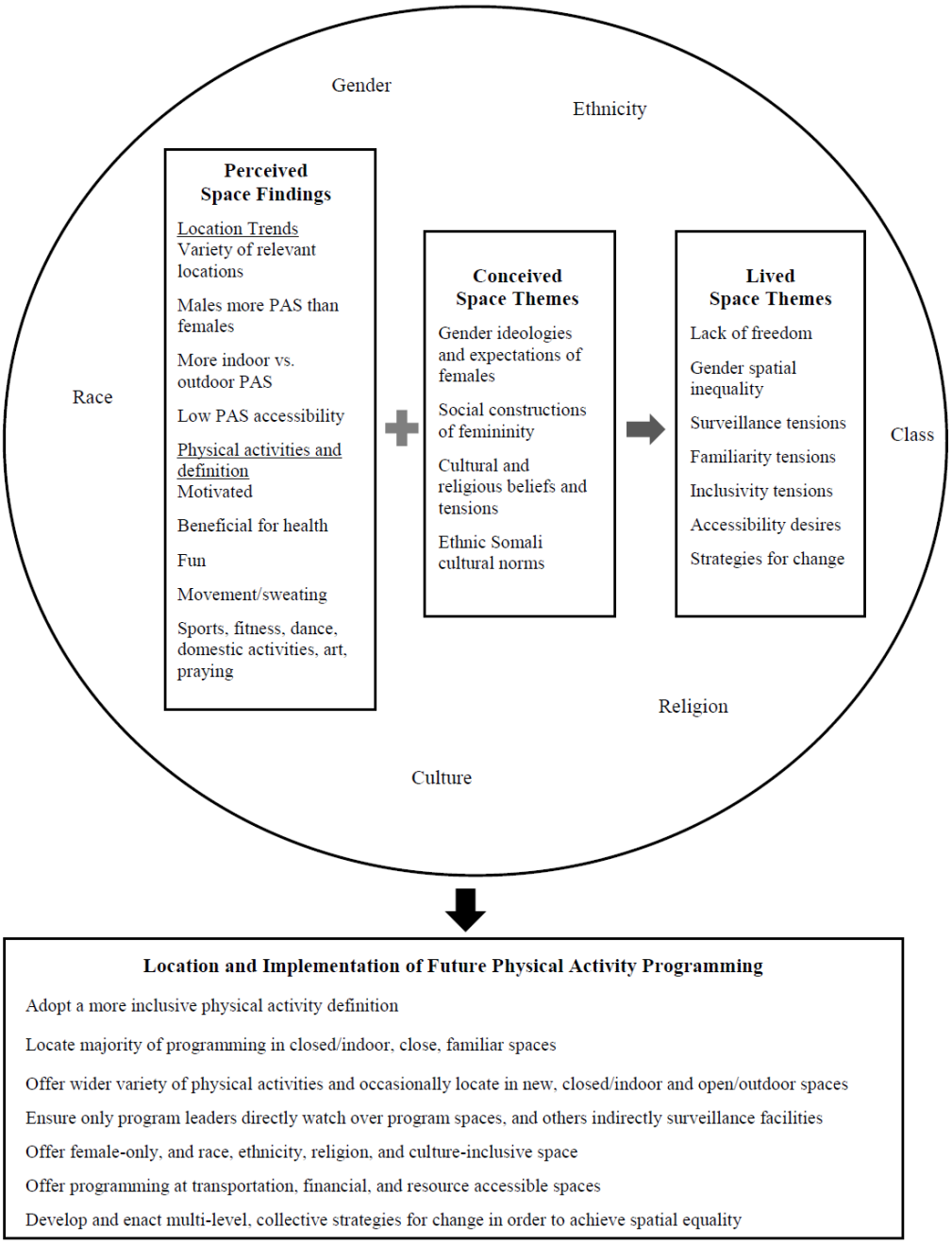

Figure 3. Study results: Lefebvre's (1991) Conceptual Model of Social Space with the added identity constructs and future physical activity programming component for this dissertation. Note: The results include perceived space location trends, physical activities and definitions, first-level lower order conceived and lived space themes, and practical implications for locating and implementing future physical activity programming. All second- and third-level lower order themes are included in the individual section tables.

Perceived Space Results

This section includes the results for the perceived space research question: *What were the participants' experiences with, and perceptions of, gender, race, ethnicity, class, religion, and culture and perceived physical activity space in the Cedar-Riverside neighborhood?* According to Lefebvre (1991), perceived space includes the location of physical objects and places, and the everyday activities that take place within such spaces. The PAS locations from the participatory mapping trend results are highlighted first. Next, the ways the participants' definitions of physical activity—which included some of the everyday physical activities they performed in PAS—are presented.

PAS locations from participatory mapping trends. This section includes the results of the participatory mapping trend data for each mapping question and across the questions. The trend data is provided rather than individual participant mapping data, because it was the trend data that laid the groundwork for the focus groups, as well as understanding perceived space as a whole. There were 58 PAS in all; to focus on the most relevant spaces, however, only the top 10 PAS circled (which equals Y for "yes" and not circled equals N for "no") by participants for each mapping question were presented (unless there is a tie for the 10th spot, in which case all of the tied PAS were listed resulting in over 10). Given research suggests private, indoor physical activity spaces are linked to East African adolescent girls (Thul & LaVoi, 2011) and Muslim young women's (Jiwani & Rail, 2010) physical activity participation, and one of the hypotheses for this study was that participants would perceive more indoor than outdoor PAS as relevant for Somali females' physical activity and future programming, the rate of indoor versus outdoor

spaces for each of the top 10 PAS were included for each mapping question. This section concludes with the trends across questions, and a reflection on whether or not my hypotheses for the participatory mapping trend data were met. The trends across questions are based on primarily on the summative results for all 58 PAS, rather than the top 10 PAS alone.

Current PAS. Please see Appendix P for the current PAS participatory mapping trends map. The top 10 PAS where participants were currently physically active included: 1) the Brian Coyle Center (Y= 30, N= 0), 2) Currie Park (Y= 11, N= 19), 3) Riverside Park Basketball Court (Y= 8, N= 22), 4) Riverside Park Sand Volleyball Court (Y= 7, N= 23), 5) Mixed Blood Theater (Y= 6, N= 24), 6-9) Lightrail Station, U of M, Riverside Park Swimming Pool, and CSCM Youth Center (Y= 5, N= 25), and 10) Riverside Park Soccer Field (Y= 4, N= 26). Participants indicated similar activity rates at indoor and outdoor PAS, citing four indoor spaces with 46 circles and six outdoor spaces with 40 circles each. The majority of indoor circles were at Brian Coyle Center, since all 30 participants noted they were currently active there. Participants did not suggest high rates of current physical activity at other PAS locations in the Cedar-Riverside neighborhood. For instance, at Currie Park, which was the second most circled PAS, only 36.7% (11/30) of the participants were active. For the remaining top 10 PAS circled, 26.7% (8/30) or less of the participants were active in those spaces.

Females' PAS. Please see Appendix Q for the females' PAS participatory mapping trends map. The top 10 PAS participants perceived for females' physical activity included: 1) the Brian Coyle Center (Y= 29, N= 1), 2) Currie Park (Y= 10, N= 20), 3) U of M (Y= 6, N= 24), 4-6) Mixed Blood Theater, Darul Hijrah Cultural Center (a Mosque), and Riverside Park Basketball Court (Y= 5, N= 25), 7-8) Riverside Park Sand Volleyball Court and Riverside Park Soccer Field (Y= 4, N= 26), and 9-10) Darul-Quba Cultural Center (a Mosque) and the McKnight Building (Y= 3, N= 27). 96.7% of participants noted females were physically active at the Brian Coyle Center. Despite the high perception of females' physical activity

participation at the Brian Coyle Center, participants perceived low rates of females' activity elsewhere in the Cedar-Riverside neighborhood. The next most active space for females was Currie Park with only 33% (10/30) of participants circling it. Of the other top 10 PAS, 20% (6/30) or less of the participants circled them for places females were physically active. Participants also indicated females were over twice as active at indoor spaces (Y= 51) than outdoor spaces (Y= 23).

Males' PAS. Please see Appendix R for the males' PAS participatory mapping trends map. The top 10 PAS participants perceived for males' physical activity included: 1) the Brian Coyle Center (Y= 27, N= 3), 2) Riverside Park Basketball Court (Y= 16, N= 14), 3) Riverside Park Soccer Field (Y= 14, N= 16), 4) Currie Park (Y= 12, N= 18), 5) Riverside Park Swimming Pool (Y= 10, N= 20), 6) U of M (Y= 8, N= 22), 7-8) Augsburg College Football/Softball Field and Riverside Park Sand Volleyball (Y= 7, N= 23), and 9-10) Mixed Blood Theater and CSCM Youth Center (Y= 5, N= 25). Males were significantly more active at the Brian Coyle Center, as 90% (27/30) of participants noted males were active at the Brian Coyle Center and 53.3% (16/30) or less participants indicated males were active at the other top 10 PAS. Males were more active outdoors (Y= 66) rather than indoors (Y= 45).

Physically safe PAS. Please see Appendix S for the physically safe PAS participatory mapping trends map. The top 10 PAS participants perceived to be physically safe for physical activity included: 1) the Brian Coyle Center (Y= 21, N= 9), 2) Darul Hijrah Cultural Center (Y= 8, N= 22), 3-6) U of M, Augsburg College Football/Softball Field, Riverside Park Basketball Court, and Currie Park (Y= 6, N= 24), 7-8) Riverside Park Sand Volleyball Court and Riverside Park Soccer Field (Y= 5, N= 25), and 9-10) Darul-Quba Cultural Center, African Mall, and Riverside Park Swimming Pool (Y= 4, N= 26). The Brian Coyle Center was considered the safest PAS with 70% (21/30) of participants circling it compared to only 26.7% (8/30) circling the Darul Hijrah Cultural Center (the 2nd top PAS), and 20% (6/30) or less circling the

remaining PAS. Participants also indicated more indoor spaces (Y= 43) than outdoor spaces (Y= 32) were physically safe for physical activity participation.

Culturally and religiously appropriate PAS. Please see Appendix T for the culturally and religiously appropriate PAS participatory mapping trends map. The top 10 PAS participants perceived as upholding cultural and religious values for physical activity included: 1) the Brian Coyle Center (Y= 24, N= 6), 2) Darul Hijrah Cultural Center (Y= 8, N= 22), 3) Darul-Quba Cultural Center (Y= 7, N= 23), 4-5) Riverside Park Basketball Court and Riverside Park Soccer Field (Y= 5, N= 25), and 6-10) CSCM East African Women's Center, African Mall, People's Center (a Cedar-Riverside Community Center, primarily focused on providing health services [Peoples-center.org, 2011]), Riverside Park Sand Volleyball Court, and Currie Park (Y= 4, N= 26). Participants perceived the Brian Coyle Center as much more culturally and religiously appropriate than the other top 10 PAS. For instance, 80% (24/30) of participants circled the Brian Coyle Center for this question compared to 26.7% (8/30) or fewer participants for the other questions. Also, participants strongly preferred indoor (Y= 51) versus outdoor (Y= 18) PAS for upholding their cultural and religious values.

Most comfortable PAS. Please see Appendix U for the most comfortable PAS participatory mapping trends map. The top 10 PAS participants perceived as the most comfortable for physical activity included: 1) the Brian Coyle Center (Y= 22, N= 8), 2) Currie Park (Y= 8, N= 22), 3) People's Center (Y= 7, N= 23), 4) Riverside Park Basketball Court (Y= 5, N= 25), 5-9) Darul Hijrah Cultural Center, U of M, Augsburg College Football/Softball Field, Riverside Park Sand Volleyball Court, and Riverside Park Soccer Field (Y= 4, N= 26), and 10) Darul-Quba Cultural Center, U of M Dance Building, Riverside Park Swimming Pool, and CSCM Youth Center (Y= 3, N= 27). The Brian Coyle Center was circled by 73.3% (22/30) of the participants, which was significantly more than the other top 10 PAS (where only 26.7% [8/30] or less of participants circled them). Additionally, participants felt over twice as

comfortable participating in physical activity at indoor (Y= 48) rather than outdoor (Y= 23) PAS.

Parent-supported PAS. Please see Appendix V for the parent-supported PAS participatory mapping trends map. The top 10 PAS participants perceived as parent-supported for physical activity included: 1) the Brian Coyle Center (Y= 16, N= 14), 2) Darul Hijrah Cultural Center (Y= 7, N= 23), 3) Currie Park (Y= 6, N= 24), 4-6) Augsburg College Football/Softball Field, Riverside Park Basketball Court, and CSCM Youth Center (Y= 5, N= 25), 7-9) U of M, Riverside Park Sand Volleyball Court, and Riverside Park Soccer Field (Y= 4, N= 26), and 10) CSCM East African Women's Center, African Mall, and Augsburg College Ice Arenas (Y= 3, N= 27). Participants perceived a limited number of parent-supported PAS in the Cedar-Riverside neighborhood, as only 53.3% (16/30) of participants circled the Brian Coyle Center and 23.3% (7/30) or less of participants circled the remaining top 10 PAS. They also perceived parents would be more supportive of indoor (Y= 41) versus outdoor (Y= 24) spaces.

Future PAS. Please see Appendix W for the future PAS participatory mapping trends map. The top 10 PAS participants perceived for their future physical activity included: 1) U of M (Y= 10, N= 20), 2) the Brian Coyle Center (Y= 9, N= 21), 3-4) U of M Dance Building and Riverside Park Basketball Court (Y= 7, N= 23), 5-6) Augsburg College Football/Softball Field and Riverside Park Sand Volleyball Court (Y= 6, N= 24), and 7-10) Cedar Cultural Center, Augsburg College Ice Arenas, Riverside Park Swimming Pool, and CSCM Youth Center (Y= 4, N= 26). With only 33% of participants circling the top PAS and a similar rate of participants circling the remaining top 10 PAS, there was no PAS that significantly stood out as the most desired spaces for future physical activity. With that said, participants desired more indoor (Y= 38 yeses) versus outdoor (Y= 23 yeses) PAS for future physical activity.

Physical activity programming PAS. Please see Appendix X for the physical activity programming PAS participatory mapping trends map. The top 10 PAS participants perceived

for locating future programming included: 1-2) Brian Coyle Center and U of M (Y= 14, N= 16), 3) CSCM Youth Center (Y= 9, N= 21), 4-5) CSCM East African Women's Center and U of M Dance Building (Y= 6, N= 24), 6-8) Darul Hijrah Cultural Center, U of M Arts Building, Augsburg College Football/Softball Field (Y= 5, N= 25), and 7-10) Darul-Quba Cultural Center, African Development Center, People's Center, Riverside Park Sand Volleyball Court, and Riverside Park Swimming Pool (Y= 4, N= 26). Participants perceived a limited amount of spaces for future programming, as only 46.7% (14/30) of them circled the Brian Coyle Center and U of M (the top two PAS) and 30% (9/30) or less circled the remaining top 10 PAS. Of these spaces, participants overwhelmingly desired indoor (Y= 71) versus outdoor (Y= 13) spaces for future programming.

Trends across participatory mapping questions and hypotheses reflections. There were several trends that arose across the trend data and mapping questions. To begin, a variety of locations in the Cedar-Riverside neighborhood appeared to be relevant top PAS for participants and future programming. With that said, participants circled a few of the locations significantly more across questions than others. For instance, the Brian Coyle Center was the most circled PAS for all questions but the future physical activity (where the U of M won by one circle) and programming (where the Brian Coyle Center tied for the most circled PAS with the U of M) questions. The U of M would have won the top spot for the Physical Activity Programming question if the amount of participant circles for the U of M Dance Building (Y= 6) and U of M Arts Building (Y= 5) were added to the U of M circles (Y= 14 + 11 = 25). These findings upheld my hypothesis that the Brian Coyle Center would be the top circled PAS overall and for each participatory mapping question expect future PAS.

As I hypothesized, participants also perceived males maintained more PAS than females. For instance, males (Y= 152) had 31.6% more overall PAS than females (Y= 104), and were noted as equally or more active at all top 10 PAS also circled for females, with the

exception of the Brian Coyle Center (Y= 27 for males and Y= 29 for females), Darul Hijrah Cultural center (Y= 2 for males and Y= 5 for females), and McKnight building (Y= 0 for males and Y= 3 for females). Furthermore, across the top 10 PAS for each mapping question participants perceived indoor versus outdoor PAS as the most relevant for all questions, but the male physical activity question. These findings support my indoor-outdoor hypothesis. Lastly, as I hypothesized, participants' perceived low accessibility to PAS overall in the Cedar-Riverside neighborhood. For example, the total potential circles/yeses for all PAS across questions were 15,660 (58 PAS x 9 participatory mapping questions x 30 participants). However, participants indicated 1,020 circles/yeses. Thus, they perceived only 6.5% (1,020/15,660) PAS as relevant across the mapping questions. The conceived and lived reasons for all of the aforementioned trends were explored in the focus groups.

Physical activity definitions and activities from focus groups. Prior to the focus groups, I did not expect to discuss the results of the warm-up focus group question, as it was not directly based on the theoretical framework of the study. With that said, during the focus groups I realized how participants defined physical activity in response to the warm-up questions, *Since we'll be talking about physical activity today, I would love to know how do you define physical activity?* and *What activities do you consider "physical activities"*?, was a form of perceived space; their definitions, in part, referred to the activities they and other Somali adolescent girls engaged in within the concrete spaces they circled on the maps. The definition and activities participants discussed during the warm-up question served as the lower order themes to the perceived space higher order theme (Table 6). The activities noted in this section were not the only activities in which participants' engaged in perceived space; rather they also discussed physical activities they currently participated in, or desired to try in the future, throughout the conceived and lived space sections.

Table 6

Perceived Space Lower Order Themes

First-level lower order theme		
	Second-level lower order theme	
		Third-level lower order theme
Physical activity definitions and activities		
	Being motivated	
	Doing something beneficial for health	
	Having fun	
	Movement/sweating	
	Wide-ranging physical activities	
		Sports
		Fitness activities (e.g., walking, jogging, running, aerobics, weight training)
		Dance
		Domestic activities (e.g., gardening, cooking, cleaning, babysitting)
		Art
		Praying

The warm-up focus group question yielded a wide range of physical activity definitions. For instance, some participants defined physical activity as being “motivated” or “into it”. Others defined it as “doing something that is beneficial for your health”, such as “You exercise every day, you eat what’s healthy for you.” A few participants thought physical activity meant having fun. For example, one participant said, “physical activity is just to have fun in general such as dancing, running, walking, or even talking at times.” Similarly, another participant noted, “It means having fun, and doing stuff that you like to do, and getting active while you’re doing it, like playing sports.”

The majority of participants believed physical activity involved movement and some also thought it needed to include at least some sweating. For example, one participant said, “Physical activity I would define it as something where your legs are physically moving and

that you're moving around and your body is getting worked up and you're sweating somewhere, like you're actually like working." Another participant noted:

> You can like put music, or you know, just dance when you're cleaning, you know, that's what I do. Like, it's moving your body, you know. It makes you sweat by the time you're done with all that, you're exhausted. You know, you're not sitting down and you're sweating.

Likewise, a third participant noted:

> For me physical activity is like being active, just running, walking, jogging, anything that has to do with moving the body, keeping in motion and stuff like that. That's just physical activity for me. If you're actually moving and you see you're actually being fit and you're doing many things for your upper body and lower body.

When asked to give examples of activities they did that involved such movement and sweating, participants noted a continuum of physical activities. Participants listed anything from sports, though one participant was quick to declare "it doesn't, like, always has to be sports, you know", to fitness activities (e.g., walking, jogging, running, aerobics, weight training, etc.) to dance to acting to more domestic activities (e.g., gardening, cooking, cleaning, etc.). One participant noted doing artwork, such as splattering paint, could also be physical activity because it is "with your hands and walking around and throwing the brush at the canvas is more physical." Another participant thought praying was a form of physical activity because, "Praying means physical, like, 'cause you move your body." Indeed, the majority of participants perceived a wide range of traditional American and non-traditional activities, all involving movement, to comprise their definition of physical activity, and what activities they do in perceived space.

Conceived Space Results

In this section and the next lived space section of the results, I provide the conceived and lived space lower order themes and raw data quotes related to the intersection of gender, race, ethnicity, class, religion, and/or culture. The themes are not presented according to

question—as with the participatory mapping data—because they overlapped greatly across questions. While the conceived themes and lived themes are presented separately for clarity's sake, they are not mutually exclusive categories; they, along with the perceived space physical activity definitions, are complex, interrelated constructs. For instance, how a participant perceives, defines, and conceives physical activity relates to their lived experiences of such activity; thus, lived space is the sum of perceived and conceived space. Furthermore, I do my best to represent race, ethnicity, class, gender, religion, and culture as dynamic, intersectional constructs wherever they were noted by participants across the conceived and lived themes. With that said, there are times I speak of them independently in order to enhance clarity; the lack of intersectional language in intersectional studies, such as this one, is a limitation. Please keep in mind, however, that the constructs are inherently interconnected. You will notice, however, race, ethnicity, and class are not discussed much by participants. I believe there were two reasons for this: 1) the focus group questions were more gendered, religious, and cultural in nature, which is a limitation of the study, and 2) the topics of race, ethnicity, and class may have been more uncomfortable for the participants to discuss with me, as a White, privileged, middle class researcher. Lastly, in these sections I include extensive quoting from participants for two reasons. First, extensive quoting represents the complexity of the relationship of the identity markers and physical activity space. Also, extensive quoting serves as platform for participants voices to come through, which is an important aspect of FPAR.

Participants discussed several lower order themes under the conceived space higher order theme. As a reminder, conceptions of spaces are abstract, rather than directly lived (McMann, 1999), and represent the socials spaces "we engage in through our thoughts, ideas, plans, codes, and memories" (van Ingen, 2003, p. 203). This is the most dominant form of social space and includes knowledge, signs, codes, social constructions, norms, and ideologies that maintain social significance and are formulated into verbal representations. Conceptions of

space, inherently influenced participants lived spatial experiences. The first-level lower order themes included: gender ideologies and expectations of females, social constructions of femininity, cultural and religious beliefs and tensions, and ethnic Somali cultural norms. Among each of these lower order themes were second-level lower order themes, which are discussed in detail under their corresponding first-level lower order theme and in Table 7.

Table 7

Conceived Space Lower Order Themes

First-level lower order theme	Second-level lower order theme
Gender ideologies and expectations of females	
	Females need protection and restrictions
	Females uphold “traditional” gender roles and responsibilities
	Females give in to males
	Sport is an outlet for males
Social constructions of femininity	
	Physically lazy
	Physically disinterested
	Creative
	Dramatic
	Modest
	People-pleasers
	Mature
	Less physically competent, more intellectual
Cultural and religious beliefs and tensions	
	Support for physical activity
	Female-only versus inter-sex physical activity
	Covering
Ethnic Somali cultural norms	
	Community cohesion
	Culture of surveillance
	Oral tradition
	Respect for elders
	Desire for health

Gender ideologies and expectations of females. Participants noted several gender ideologies and expectations of females based on intersecting gender, cultural, and, at times, religious conceptions. These conceptions included females need protection and restrictions, females uphold "traditional" gender roles and responsibilities, females give in to males, and sport is an outlet for males.

Females need protection and restrictions. The adolescent girls and young women frequently discussed the cultural belief that girls and women need protection as a key conception affecting physical activity spaces. For instance, one participant described the cultural and parental belief that girls needed protection for safety reasons:

> There's less supervision on the boys than the girls. Because within our culture, the girls, our parents focus on a lot, because they have a lot of fears for the girls. Like, if you're out at a certain time, they fear, you know, you're gonna get hurt, you're gonna raped, you know, you're gonna get picked on just because you're a girl. In our culture, like, when the sun is set, you know, it's not, um, safe for girls to be out, which limits when and where you can be active.

Another participant discussed the parental belief of knowing where their daughters were at and what they're doing at all times in order to protect them. For example, she said:

> It's cultural-based, because like in the Somali community like they tend to hold in their girls more than their boys, like 'cause they are scared something will happen to them. And like you have to be a certain area where your mother knows or your father knows I'm here and there shouldn't be like a lot of guys. Like they just want to always protect you no matter what.

Participants perceived parental fear about females getting physically hurt and the subsequent belief that females need protection in part stemmed from gossiping Somali elders and the media. For example, participants in one focus group stated:

> Speaker 1: They heard a lot of stories about girls getting raped.
> Speaker 2: Not like good stories.

Speaker 3: And some old Somali ladies they be making rumors about this girl got raped over here.

Speaker 2: Yeah, they'll be gossiping over there in the park.

Speaker 3: They'll be spreading rumors.

Speaker 4: Man, them old ladies, man.

Another participant stated:

> They really want you to do something, but they just tend to be clingy sometimes. It's just that they hear a lot from the news. They hear of missing girls or, like, you know what I mean, or they hear from Somali elder ladies, "So-and-so's daughter got pregnant." And a lot of that stuff has a lot of influence on the way they tend to be a lot more tight on you when they hear that next door, you know, their next door neighbor's daughter who is just 15 is like, she's showing, and there's just like, something happened, so they're like, 'Ok, that parent was not careful, so I'm gonna be extra careful on her.'

This quote also highlights the fear of girls getting pregnant as a reason for parents' protection of their daughters. As another participant notes a pregnant daughter brings shame to the family, and family honor is an important part of Somali culture:

> The reason why men are allowed to go out more often and do whatever they want is because they don't bring shame to the family. Let's say I went out and I clubbed, or I went out, and, like, you know, did inappropriate things, that would come back to my family and that would affect who would marry me and things like that. But let's say a boy did it, you know. People won't give him that second look like, you know, this is someone-someone's son. They wouldn't really care, but if it was a girl, it's the fact that, you know, they could get pregnant, come home, and that would bring shame to the house, you know. Other people would see, and that would bring shame into the house, and just things like that. So that's why parents, a lot of parents limit women, like, the girls or women to go out, and just like, you know do things like that. So you would see a lot more women at home, because of such things.

Similarly, another participant said:

> It's shameful for a girl to be out. You know what I mean, by herself. God knows what she's doing. Just be like, within the culture, it's shameful, and so, that's like, shunned away.

Ultimately, these beliefs lead to females' heightened protection by the community and parents. They also lead to the expectation that females themselves will protect their identity and maintain family honor by watching out for their own behavior and restricting their own activity. For example, a participant said:

> In our culture, kind of like it does have some sexism in it. It's like, um, like a guy, you know, can go out, or like, a guy can be anywhere he wants and a girl, and like a woman, has to watch out for her behavior or whatever. So, I think that also plays into the, um, the restrictions of, like physical activity places.

Females uphold "traditional" gender roles and responsibilities. Participants frequently discussed that females' gender role expectations and increased responsibilities limited their Western-defined physical activity in a variety of ways. For instance, one participant described, "We [women] have less freedom and opportunities to be active, and like play sports or do fitness, because like we're supposed to do what society says or what the culture says—that we're supposed to stay home and clean." A participant described that increased household responsibilities can ultimately lead to decreased energy for activity:

> The women have a lot more responsibility. They are active in the household a lot. Where the guys, like, he's sleeping in until 12, he wakes up to a cooked meal, all of this, you know. He eats, and he goes and plays ball. So the woman, the next day, all she wants from there on, is to sit and relax now, because I've been running around this kitchen all day, I've been cleaning this house, cooking all day. The last thing I want to do is go sweat and run.

According to the women in another focus group, adolescent girls also share the burden of traditional "female" tasks, which take away their freedom to be active. For example, they discussed:

> Speaker 1: Adolescent girls, are like, when mom goes to work, it's the girls who watch after the kids. Or sometimes when mom is at home…
>
> Speaker 2: They're expected more basically. Where the parents expect more of us than boys.

Speaker 1: Very true.

Speaker 2: At the age of 10, you might be, you might have to cook, clean, babysit, and do everything, and you, you no longer get to just be an adolescent or a teenager, or a child. You can't just go out and play and be active anymore.

Chelsey: So, why, why is more expected…

Speaker 2: It's your responsibility, 'cause you're a female.

Speaker 4: And I think they're preparing you for, like, when you become a future wife and like future mother, and something like that.

Participants in another focus group echoed that parents often see the place of a female as in the home and not outside of it engaging in physical activity. The participants also spoke to their resistance of such an oppressive ideological belief. For instance, they said:

Speaker 1: Boys have more freedom.

Speaker 2: They do have more freedom.

Chelsey: What do you mean by more freedom?

Speaker 1: Like, um parents they usually think like boys, I don't know how to say it, they can do more stuff. Like girls are supposed to stay home and stuff, and boys are supposed to go outside and be active.

Speaker 2: It is like a cultural thing.

Speaker 3: It's a cultural thing. The man goes outside and the lady stays home. So parents are trying really hard to like keep that intact.

Speaker 1: Keep that culture.

Chelsey: How do you all feel about that when it comes to physical activity?

Speaker 3: Unfair.

Speaker 4: It's unfair. I think that we should all have equal rights.

Similarly, a few other participants stated:

Speaker 1: Parents think like girls are not supposed to be physically active, or they should, but not like running around and stuff

Chelsey: So where does that come from that, like belief?

Speaker 2: It's a cultural thing, I think back in the day when girls were good for food, and cooking, and babies.

Speaker 1: Cleaning.

Chelsey: So do you, personally, believe in that today?

Speaker 1: No.

The ideological belief that females belong in the home also impacts males' perceptions of females as homemakers, not as athletes. For example, one participant noted:

> Last week, me and like some girls were competing with some boys, and one of them was like saying, "Oh, girls should not have the gym at all," you know. So we're like, "Why don't you like girls having the gym?," you know. So they started telling us, "Oh, 'cause they're not supposed to be in the gym playing. They're supposed to be at home."

Females give in to males. Participants discussed how the cultural expectation that females should succumb to males impacts their lived experience in physical activity space. For example, one woman said:

> We're taught, I mean, we've been raised like this, "Ok, but if the boys like it, leave it for them." Like, we're told to be the ones who give in. So we just let the boys have the gym and the other places. And the boys just think it's all theirs.

Another participant supported this statement, but was quick to add that she resists the conventional expectation when she stated, "Yeah. Like the, you know, if boys and girls both want something, you be the better one to say, 'Ok, you know, I'll let it go for them.' But, you know, I really don't do stuff like that."

Sport is an outlet for males. Several participants noted how their community believes sport is a necessary outlet for keeping males "out of the streets" and "away from trouble." For instance, girls in one focus group noted:

Speaker 1: It's always boys' gym, you know, because the community's trying to keep the boys out of the streets.

Speaker 2: Yeah, they're trying to, like, yeah, basically, they're trying to like keep the boys out of the street. Whereas, girls are always in the house, they're not in the streets, you know.

Speaker 1: Yeah, we have a lot more priorities I guess. We are either in school, or like you know, we tend to hang out, like, with our other friends, and

> then go to our friend's house. Like, a boy really doesn't just sit at his friend's house and say, "Oh, what are you doing?" for like, 8 hours. But us girls, we can do that; we can just talk all day, and just do that. So then maybe the reason why the community and people at Brian Coyle are doing that is making it safer for the boys to be in here. If they're not in here, they're gonna go take over somewhere else, and then fights and all that happens. So right now, they use their energy chasing after a ball, rather than chasing after each other. And we girls don't need sport to keep us out of trouble.

Another participant said:

> But if you really look at it, like, a lot of these boys come in here, like because of safety. It's good for them that it's here, because it's better that they're not doing other things. Like if you go out right now, out in the summer, and just like, look in the field, like, a lot of them are just sitting there. They're not really exercising, they're just sitting there, and like, either smoking, or God knows what they're doing to get in trouble…So, it's, things like that, it's like, if they're more outside, they have that opportunity 'cause no one says anything about it out there, you know…but if they're in the building playing basketball that kind of cuts down the time that they're doing it.

Sports as an outlet only for males created some tension among participants who resisted the gender ideology and thought females also needed an outlet. The following focus group discussion highlights the tension:

Speaker 1:	I would say that the girls too, that it should be looked at. That we need sport to keep us out of trouble, too…
Speaker 2:	I know… like we're just…
Speaker 1:	not only the guys.
Speaker 2:	as much able to do bad things to. Some girls smoke, or get pregnant. Being in the gym would help those from happening.

Social constructions of femininity. Participants discussed a variety of social constructions of females in their focus groups. They rarely specified which identity markers underlined the beliefs, as the constructions came up as part of conversations around space and

where not specifically asked to them. In this way, the participants spoke of the gendered constructions as common sense notions of what it means to be a Somali, Muslim, immigrant, adolescent girl like themselves. Many of the social constructions were more deficit- than asset-based, constructing females as physically lazy, physically disinterested, creative, dramatic, modest, people pleasers who mature faster and are less competent at physical activity and more intellectual than males.

Physically lazy. To describe the laziness, one participant said, “Some girls are just lazy when it comes to physical activity. They just stay home and watch TV and the boys who have like more free times.” Another participant echoed this statement noting, “There are more boys than girls that are willing to go and play sports. We [as girls] would just sit down in this place. We’re more lazy.”

Physically disinterested. A few other participants noted that it wasn’t that girls were too lazy to be active, rather that they were just less interested in physical activity than their male peers. For instance, one participant said, “There's a lot of dudes that have a lot in common as in physical games than girls. Because there are more boys actually willing to play with their friends. And then us girls like we don’t want to like play.” Another participant offered a similar perspective, noting “Some girls aren’t really into sports. They aren’t that active. There are some girls that are, but then maybe some girls don’t even like playing sports, some like shopping.” Similarly, participants in another focus group said:

Speaker 1: For the boys physical activity is more of like a hangout. With us, we don't come to hang out to play basketball. We would hang out to either go shopping or go out to eat, or things like that. You know, or go watch a movie, or like…

Speaker 2: Why, why do we do that? Because, you know, it's like, we're not raised to have that tradition of hanging out through working out. You know?

Creative. Another participant also resisted that females are lazy when it comes to being active by indicating they are just more creative when it comes to activities and have a wider variety of things they like to do, which ultimately limits their use of physical activity spaces. For instance, she said:

> Guys really ‘wanna play ball and stuff. The girls are creative, like they don't only chase after a ball. They, some of them want to read, some of them want to, you know what I mean, go shopping, and some of them want to do nails. Where guys don't care about none of that stuff. They only want to run around and play basketball.

Dramatic. Several participants discussed that they prefer a co-ed physical activity program over a girls’ only program because of the dramatic nature of Somali adolescent girls. For instance, she said, “I like playing with boys too and girls, because like girls are just like, ‘Stop!’ Too much drama. And the boys just play.” Another participant described, “It's more better with the dudes than girls. Like, they get how to play. Like some girls are like too screaming, ‘Ah, give me the ball,’ and jump on your back. And the boys are just like calm; they're civilized.”

Modest. While discussing the covering tensions noted in the previous section, another social construction of females as modest emerged. The discussion among participants in one focus group highlighted how modesty affects physical activity participation, indicating:

Speaker 1:	You can’t show your hair, you can’t show your body.
Speaker 2:	You can’t wear pants
Speaker 1:	In daily based you cannot show your hair, you can’t wear anything that is stuck to your body, you must be modest at all times. Playing sports is not being modest.
Speaker 2:	Yeah
Speaker 3:	How so?
Speaker 1:	Because you’re running around, you’re moving your legs, you’re supposed to be modest, you’re supposed to sit up straight. But when you’re playing a sport you’re not sitting up straight, you might be

> hunching your back, or grabbing something, or bending, or something like that. You’re not supposed to do that.

People-pleasers. The participants also noted that females in general, and especially in the Somali culture, want to please others. For instance, one participant noted:

> I think girls are a lot more in touch with their mother's feelings and stuff like that. So girls know exactly what's missing at the house. And we clean house, do homework. We are pleasers. Girls are a lot more pleasers than boys. That's just my personal opinion, you know. So, it's like, if mom's complaining about something we tend to jump into it and help. Like, if mom say, “Stop this being active” you know, “Okay, mom. I'll do whatever that pleases you. Okay, fine.” Whereas the boys, you have to like yell at him, like, “Stop this,” and they're like, “No man,” you know. They kinda take some deaf ears.

Mature. Participants also discussed females are socially constructed as maturing faster than males. For instance, one participant said:

> It’s sexist. The culture expects the girl to kind of mature faster than the guy, and if she plays around, it's like, “Oh, you know, why are you playing around? You should be more mature.” And if the guy, like, plays or runs around, like until an older age, it's like well, “He's a guy,” like he still has time to mature so, that kind of effects it.

Another participant agreed, noting:

> Yep, I agree. Um, you know, as a child, I would love to play until now, you know. And I mean my mom is supportive, but then the culture around is, like, “You're a grown up now, you know. Stop running around like a child.” It's kind of like that. The boys is different, they can do, you know, whatever they want. It's, as she says, you know, some kind of sexism there.

In these quotes, participants equated maturity with the loss of innocence and freedom to be active. Entering puberty was the socially constructed marker for maturity. One participant noted, “A period to community and parents is like you're a woman. That's when the whole you're being watched around the opposite sex starts to happen. That's when they are a lot more,

like, you can't just run around and play." Another participant stated, "When you get your period and you reach a woman, it's just sit down. End of story." Yet another participant discussed:

> Like, for me, it was, um, puberty. I was in 7th grade, and my mom told me, "Oh, like, you're old now to be active." And like my brother was a year younger than me. I was like, "Well, what about him?," and it was like, "Oh, he's a guy," you know. I'm like, so this is where you have to stop going out and playing and running after the ball, or like biking, you know. So it's like things like those kind of makes you lazier, like, scares you from physical activity.

While the majority of participants noted puberty and maturing resulted in less freedom for females to be physically active, a few participants discussed this was not always the case. For example, one participant described that age and family beliefs impact females' level of restriction. According to her:

> I think that [freedom to be active] would also depend on the age of the child, or like, the person. You know, like, um, back then we had more restriction, um, as a child. Right now, there's less provision from my parents, like you know, "You do whatever you want. You're a grown woman right now." So they would also kind of depend on the, um, age, and also depend on the family and how strict they are.

Another participant described how age can actually bring more freedom. For instance, she said:

> As I am getting older I feel that things are changing. I get a little bit more freedom. Like I remember I had used to come back around 6 o'clock when I was like 9, 10 but now I come back home around 9 or 8, probably 10 sometimes and, well my Mom would yell at me, but I do have excuses sometimes. Yeah, they don't really care that much. They will forget afterwards.

Another participant discussed that when they were adults and graduated from college their restrictions where often lessened:

> For me, my freshman year, since I was like new to college, my parents were a little more scared of like, you know, 'Well she can be anywhere, like she can, like it's more dangerous on her because she's just fresh from high school thinking she's a grown person, but she's not.' And then right now, it's like, 'Oh, she's mature. She's, you know, graduated from college, so it's like she is on her own sort of thing.'

Less physically competent, more intellectual. Participants also discussed the social construction that females are less physically competent than males. One participant said, “Many Somalis, um specially like the boys and elders, don’t think we can play sports, you know. They think we’re too weak, or like don’t know how or something. It’s sexist.” Other participants explained this perspective comes from cultural beliefs. For instance, they discussed:

Speaker 1: It comes from culture.

Speaker 2: It's like what I was saying, telephone. Like the actual concept when it was brought down from centuries ago, someone somewhere in that telephone line has twisted the words…

Speaker 1: Saying girls can't do stuff.

Speaker 2: and people believed them…

Speaker 3: Believed in what they're saying…that girls shouldn't be doing anything.

Several other participants discussed how the social construction of females as more intellectual than physical impacts their lived experience in space. For instance one participant said:

> Culture says go become a doctor. Parents, it's like, with girls, they've, like, I don't know, they I guess like push them more intellects-wise, you know what I mean. Parents are so proud when they hear that their daughter is on honor roll, or like, they hear that their daughter is like the valedictorian of the school, or that she got into this nice school. But if they hear their daughter made it into college football, or basketball, or soccer, they're like, “What? I don't care about that,” you know what I mean? My dad always goes, “What if something happens to you and your leg gets wrong? Guess what, you're out. Now you've gotta have this to get to somewhere,” you know. And especially women, they tend to push their daughters just because they want them, their daughters to be dependent.

Participants in another focus group also noted that cultural and parental encouragement of academics over athletics, along with race, impacts girls’ activity level, stating:

Speaker 1: Guys does more activities.

Speaker 2: Guys do definitely more activities. I mean maybe it’s because racial, if you say racial that would probably be different, you know, for some race it might be 50/50 but.

Chelsey: Tell me more about what you mean when you say because racial?

Speaker 2: I mean like, um, like, for like school, um, um, there's like less Somali people who actually do play a sport, you know, but they do actually, there are females who join basketball and badminton, or something, tennis, or volleyball, or softball, you know. And, but like for the boys, I don't know, they just like to get active I guess. I mean, I don't know, some girls, it all depends on their parents, that's what I'm thinking, I don't know.

Chelsey: So how does race play a role?

Speaker 2: For other races I feel like they're like, "Oh you can go ahead and play sports, get your grades up." For Somali I feel like it's, "Get your grades up. Why do you want to play sports? Leave it up to the boys," basically.

Speaker 1: Yeah. Like for one of Somali my friends, like, she can barely, she does come outside, but like not that much, like about 1%. Like I've seen her only twice in the summer outside, but then like she is an A student you know, she like doing her work, work, work, and stuff like that, but then I think her parents are like, you know, telling her, do your work instead of going outside, you know. And like it's not that way for some of my White friends.

While the majority of participants perceived the social construction of females as less physically competent than males as sexist, there were a few participants who accepted the hegemonic construction. For example, one of these participants said:

Speaker 1: That's not true, cause they might think that we might get hurt cause they like could push us over or we could get hurt…'cause what's it called. It's not sexist for a girl to play because they're guys, you're girls. You don't have the skills that guys do.

Cultural and religious beliefs and tensions. Participants' conversations about conceptions of physical activity spaces revealed several tensions over whether or not the gender-related conceptions were shaped by culture and/or religion. One participant summed up the tensions indicating, "There are parts where, like religion is stronger, and then there are parts

where the culture is stronger." Participants noted three lower order themes around such cultural and religious beliefs and tensions of physical activity, including support for physical activity, female-only versus inter-sex physical activity, and covering.

Support for physical activity. Participants were all in agreement that the Islamic faith itself supports physical activity for women, but that Somali cultural can be unsupportive of such activity. For example, one participant said:

> Religion…it says you have to exercise, you have to move around. It's like, if you are not taking care of your body it's a crime you're committing against it. But you know that's where [referencing another participant's comment that females are expected to remain in the home rather than be active outside, so they don't bring shame to the family] the culture overrides the religion.

Another participant indicated:

> There is no place in our religion where it says you know, um, like girls can't exercise, or like, there is this certain age where girls become a woman, you know, and can't be physically active or like to go out there and run. Where like, culture says, "No there's gonna be like a, you know, a limited age, and then after that you have to be prepared to, you know, like, whatever, to learn how to cook, how to clean the house. You have to prepare how to be a woman, and can't be out there playing and being active, whatever. Where the guys they still have time to grow, and can play." Like, no it doesn't. Our religion doesn't have that; it has you both have to exercise, you both are humans, you both have bodies where you have take care of. Like where, that's where culture and religion don't agree.

A third participant also stated:

> Well, like, religion actually motivates physical activity, and um, like the only reason that a lot of us like kind of don't like, you know, playing in public is because of the, um, Islamic uniform our culture says we need to wear. It gets really hot running with, you know, the scarf and everything. So, like, there's nothing in the religion that says, "Oh you can't play in public." It's culture that says that, and you know, it's like, just to be comfortable you would like to wear the appropriate outfit for a workout. That's why many of us would like physical activity it to be isolated.

Female-only versus inter-sex physical activity. While participants noted the Islamic faith supports females' physical activity, several indicated it only does so if the physical activity is done in spaces separate from males. For instance, one woman said, "Religion says it's not wrong for girls to do sports. It's wrong for girls to do sports in the view of men." Similarly, another participant noted:

> I think it's probably part of the religion, because the girl is supposed, she could be active but not active towards like boys, like can't play with a boy the way you play with girls. And then boys play with boys.

A third participant also supported this point, indicating:

> Speaker 1: It goes with our religion. Men are not supposed to, like, see, females and stuff. And um, when you're exercising, you need to be free, like, you need to be open, you need to like be comfortable with yourself and I guess in front of men you can't do that really often.
>
> Speaker 2: I think with the, it goes back to the whole intermingling thing. So, it's like, ok, it's just like, it's a sign of modesty kind of thing—girls can't be active with boys.

Two other participants further described:

> Speaker 1: You can't play in front of the guys which is a big, that's like a big no no because if you do that's like…
>
> Speaker 2: It's a sin.

There was some tension as to whether the conception that females should not be active in front of males is based on Somali cultural codes rather than religious laws. For instance, one of the participants said, "Culturally, we're not supposed to do, like, physical activity associated with men." Another participant commented, "The elderly ladies are going to say you're losing your culture if you're mixed up with the boys and playing sports with them, because our culture says girls and boys should have separate physical activity."

Several other participants' perspectives of the separate sex physical activity rule suggested there was no either/or religion-culture imperative underlying the rule. They believed

the rule was influenced by a complex intersection of religion and multiple cultures. For instance, participants in one focus group described:

> Speaker 1: And parents don't want you playing with the guys your age.
>
> Speaker 2: Depends on what kind of parents you have.
>
> Speaker 3: Yeah, my parents are strict.
>
> Chelsey: Tell me about why your parents don't want you doing that?
>
> Speaker 1: It is more religious wise. It says that boys and girls can't interact in the ways – they think it is like inappropriate. It is also culture-wise. Our parents grew up with boys and girls separate. When they were young it was boys over there and girls over here. So like here is a new country and everybody mingles and it's like too new for them.
>
> Speaker 3: They were born in Somalia, most of the parents were born in Somalia. So they had to say like prayer for 12 hours and couldn't mingle with boys, especially for physical activity, so they were taught more strictly there. In America everything is kind of not strict.
>
> Speaker 2: Americanized.
>
> Speaker 3: Yeah, they were here for many years too. So they got used to American culture and let us loose a little, like letting us be active. But then they kept their culture here, like telling us we can't play with boys.

Another participants' perspective also addressed the complex, inherent connection between the Islamic religion and Somali culture. For instance, she said:

> As a woman in our religion you have to be calm. Well you can't be active as much in the religion as in our culture…Because I explained, we as a culture move around a lot and we're not really allowed, and if religion had nothing to do with our culture, it wouldn't really matter what we did. It wouldn't matter if you were active in front of boys, showed your hair, wore pants, because it's just culture.

Covering. Several participants indicated that, according to the Islamic faith, women (e.g., any female who has undergone puberty) must be covered in the presence of men, particularly when it comes to physical activity. The participants also explained how the

religious rule led to girls and women feeling more comfortable to participate in physical activity in female-only spaces. For instance, one participant said:

> Technically, we cannot exercise in front of men. For example, as college students, we have access to the gym, but like, unless we reserve it, or like, it's only exclusively for females, we can't really go, and you know, run around there, cause you know…We can't uncover in front of men, so what drives women to these centers and spaces is it's probably reserved for just them. It's probably, there's time where they can visit and do workout uncovered.

Similarly, another participant noted:

> Some girls are not comfortable wearing sweat pants, wearing shorts playing with basketball, showing their hair, so they don't want guys watching them because they feel uncomfortable. Because a girl who has undergone puberty in the Islamic religion is supposed to be covered in front of men, so they probably feel more comfortable with other girls.

In contrast to female-only spaces increasing comfort for physical activity, participants perceived inter-sex spaces decrease comfort and physical activity opportunities due to females' clothing covering restrictions. For example, an adolescent girl described:

> Just like a while ago we were just talking about how we are too shy to play around the boys because of religiousness. We have to wear our hijab in front of boys and in public. I mean we can't do a lot of physical activities because we are so covered and everything, so we won't feel comfortable playing around.

Another participant stated:

> In our religion, there are kinda less rules for the men since there are less things that he has to cover, so therefore, he's gonna have more places that he can be comfortable in, you know, and can exercise at.

Similarly, a third participant indicated, "They [males] have more religious freedom; they don't have to cover themselves so they can play anywhere they want."

While the aforementioned participants believed religion influenced covering codes and ultimately females' comfort and freedom for physical activity, several other participants

disagreed; they believed it was culture rather than religion that resulted in such codes. For example, they stated:

> Speaker 1: We usually cover ourselves. So it takes us out of our comfort zone at first to have the gym only to ourselves, and just play basketball, and play freely with nobody caring.
>
> Chelsey: What do you mean by playing freely?
>
> Speaker 1: Like you can just wear sweatpants.
>
> Speaker 2: You don't have to wear hijab.
>
> Speaker 3: You don't have to do this – you don't have to do that. Like when it comes to us, and parents, and our culture, when it comes to girls you are supposed to behave yourself. You are supposed to be covered. You are supposed to mind your own business. When it is all girls and inside you can do whatever. You can wear whatever, move your body, you can dance and have fun. But if it is with guys or where guys can see you, you are looked at as like okay. So eventually having the gym only to ourselves becomes comfortable.

In addition to highlighting that a female-only space allows females the freedom to uncover and wear what they would like, this quote also indicates the importance of an indoor, closed space for such physical activity freedom. Participants in another focus group also discussed this aspect:

> Speaker 1: Our culture says if we're going to play outside we have to be covered, because guys might be able to see you. If we're going to play inside we could play. So, we need spaces that are inside where we could play, and just engage, and stuff like that. But if we're going to play outside, I just have to play in my skirt when we're playing out there.
>
> Speaker 2: Yeah.
>
> Speaker 3: I play in shorts and t-shirts and when I'm playing in the gym if it's only girls, for school I do the same because…
>
> Speaker 2: It's a closed area.
>
> Speaker 1: And women only.

Another participant discussed the significance of indoor, closed spaces for women—only, unlike the previous few participants, she attributed the belief to religion rather than culture. She said:

> I think, honestly, I circled all the parks for males' physical activity, because, like, a guy could go out there, put some shorts and a, like, you know, the muscle shirt on, and just go out and start running, you know, no one's gonna give 'em any 2 seconds. But if I went there, and like, wore shorts and a tank top and start running next to him, everyone would just be giving me a look, like, either checking me out, or just like, "What in the world is she doing?" So it's the fact that he's a guy, and like, religiously he's able to do so, aside from a female who's not really religiously able to do so. So, I think any area on this map would be ok for a guy to get, um, physically active, but as a female, it kind of, it would be more appropriate if it was indoor or any area that's isolated and away from men. Because we can then be free to be active, wear what we want, and not get judged.

Another participant described the religion-covering-closed space intersection and its link to heightened physical activity freedom when she said:

> Speaker 1: You can't really do much physical activity in the day, and like, especially in a public area, such as the parks…'cause we'd have to be covered so men can't see us and people would get, like it kinda would attract attention to us.
>
> Speaker 1: And why is attention problematic?
>
> Speaker 2: 'Cause, honestly, if I go there dressed like this and try to be, um, exercising and things like that, it would be difficult because the movement of my skirt would kind of limit how much I could move. And like, let's say I had a bigger hijab on, and things like that, that would kind of limit how much I could move around, you know. So, I don't know, but being in like a closed area with only women, like, I could wear my pants and I could wear, like, a t-shirt, you know, and just like, do anything I could at that time.

While participants discussed the intersection of covering codes and indoor, closed, female-only physical activity spaces, they also talked about the difficulty of such a relationship in other spaces. For instance, the participants in a focus group noted:

Speaker 1: A lot of people don't play sports outside of the G.I.R.L.S. program, because, like basketball, you have to wear shorts, or like volleyball like they're short, and then you have to play games in front of everyone. And our religion says you need to be covered if you might be in front of men.

Speaker 2: 'Cause there's a lot of girls who like to play volleyball, but they can't because of the shorts, you know. Coaches who don't know our religion won't let them, like, wear sweatpants or something like that.

Speaker 4: The shorts are too short, tight. Also, they [Somali girls and women] don't know their rights, because if it's religion based, then the rules can be broken.

Speaker 5: They can talk to the coach or something.

The aforementioned quotes suggest the participants viewed females' covering rules as dichotomously religious or cultural. In contrast, several other participants articulated a more complex, though at times unclear, cultural-religious intersection as influencing Somali community covering beliefs and females' physical activity participation. For example, participants in one focus group discussed:

Speaker 1: Religion kind of guides what the culture is, so anything that's religious says kind of what the culture would go for. So like, what we eat, how we dress, how we talk to people, everything comes from the religion aspect. It's just the fact that it's a different, um, like language dialect of how we speak. So, let's say if I was a White American, you know, the way I talk to others, the way I eat, how I dress like, when I wake up from morning until night, religiously Islamically guides me, Islam guides it, and then, so culture kind of plays around with Islamics.

Chelsey: Can you give a more specific example to physical activity of how Islam guides it and culture plays with Islamics?

Speaker 1: Um, well, when you're, I mean, physical in Islam, you know, there's a certain ways you can dress, and where you can be dressed like that. And, you know, culture, I mean, usually, it's, you know, you can be indoors when there's like no men around, you know. Religious is, ah, encouraging that, but then culture too, sometimes. It's like, um, when as a women, I would go wear shorts and run outside, they're just gonna say, “What's wrong with you?,” you know. Like, 'cause the religion, I mean, the people, the Somali, especially the older, you know, people would say, “What is she doing?,” you know. And it's more, like, just keeping away from that kinda… yeah.

Speaker 2: Well, you know, covering up, and it's in our culture kind of way before our religion, like, you're gonna, like you're gonna go back to Somali, you're gonna see little girls, just like, throwing fabric on them. It's not necessarily for religious purposes, but it's like, oh, it's part of the culture. Throw some linen on them, it's part of the culture, um, so. And then, the difference between culture and religion is, like, not everything in Somali culture is about religion, and everything in the religion is about the culture. But, when it comes to, kind of, the modesty part, like, the cover up part, they agree, like, that's where they agree together, you know, you have to cover up, and yeah..

Speaker 3: And, like, you can do whatever, but if, that will, you know, go against the uniform you're wearing, you should accommodate or you should do, you should look for, like, other alternatives. Because both religion and culture say you should be covered if you’re outside or where men can see you, especially for physical activity since you’re moving your body a lot. Only your husband is meant to really see your body move.

Another participant supported the cultural-religious intersection, stating:

Speaker 1: Well, culture for us, culture and religion goes hand in hand even though culture and religion are totally separate. Our culture is from the religion.

Chelsey: Tell me more about that.

Speaker 1: So basically, we believe Islam, which tells us you cannot uncover yourself or, um, reveal yourself. Like, if you came, like, regularly, even when I'm walking, I can't wear tight stuff that might be attractive to the opposite sex. So if I can't do that, then I have be preserved for that person that, like, either husband, brother, father, those ones that can marry me and, the only person that could marry me or that I'm married to, you know what I mean?

Chelsey: Yeah.

Speaker 1: So, it's basically, it's from the religion and our culture basically is religion, you know what I mean? So there is no division of the two. And some people might say it's the culture, because they have lack of understanding of the religion or where that is from, but, it… it formulated from the religion. So there's no difference between the two.

Participants in another focus group teased apart the influence of the religion-culture intersection on covering a bit more. For example, they discussed:

Speaker 4: It's just um, it's like, you want to like cover up. That's what you're taught in your religion and that's what it's supposed to be in the religion. And rules in the cultural you're also supposed to do them, but it's not, like, a must, must, I guess.

Speaker 1: Ok. what are some examples of where it might not be a must?

Speaker 4: For, um, culture?

Speaker 1: Yeah.

Speaker 4: In a wedding I guess. People don't cover up in a wedding. It's um, it's a cultural wedding, like, but you don't cover up.

Speaker 1: Oh, ok.

Speaker 4: And um…

Speaker 2: Culture, yeah.

Speaker 1: But what about physical activity, specifically?

Speaker 2: Physical activities, I don’t see it.

Speaker 3: Well, going to the gym with shorts. A person might say that that's my culture. Well technically, they're making an exception for themselves to wear shorts and to work out. That's personal choice. But religion tells

you not to do that, but if you want to do it, then it's up to you. You know what I mean? So you have personal choices to do whatever you want to do, like the gym, but if you're gonna follow the religion specifically and follow what it tells you to do then you're not allowed to wear shorts in front of men or even, if you're gonna wear pants, wear loose pants with long t-shirt that comes up to your knee that won't, you know, be so tight on your body that it feels your curves, basically.

Chelsey: And how does culture play in to that, too. 'Cause you're saying that religion tells you not to do that?

Speaker 3: Well, culturally, it's like…

Speaker 2: It's actually taboo to... culturally taboo...

Speaker 3: Culturally, it's really not allowed.

Speaker 2: Yep.

Speaker 3: You see all these womens, if we wear short, I mean, if we were to stand here with guys, even when he's tutoring, and the boys are, like, pretty tall, you know, a certain age, they get, maybe they make their own assumptions about what we're doing. Even if they don't see, you know, it's like, cultural, like, people do observations, you know what I mean. It's like, culturally we we're not even allowed. If you see girls wearing shorts and stuff, I mean, every little bit, look at 'em, but culturally, we like, "Woah, she left the culture."

Speaker 2: It's like, it's taboo. It's a taboo.

Speaker 3: But there's some people who might say things are culture…just to make their own excuses for what they're doing, for their own actions. Because they don't want to offend the religion.

Whether participants perceived covering rules to stem from their religion, culture, or an intersection of the two, all participants agreed about the reasoning behind the rule. For instance, a participant described:

> Be it religion or culture, at the end of the day, the whole theory came about to prevent the opposite sex from being attracted to you in order that that person might be temptation to you. You know what I mean, if I reveal myself, then, I'm showing my body, and for a man to see things revealed, then you know, they will have, they might

accumulate that pretention of you know, having sex with you. So basically, our job is to make it easier for them, so we don't have to reveal ourselves to them. It's to prevent that sexual intercourse to happen.

While all of the participants agreed that religious and/or cultural rule indicate females must be covered in the possible or direct presence of males and the reasoning behind such a rule, there was quite a bit of tension over the definition of covering. The following discussion from participants in one focus group highlights such tension:

Chelsey:	So if males were not gonna see you, would you be covered or not covered for doing physical activity?
Speaker 1:	Well it depends.
Speaker 2:	Depends.
Speaker 1:	How do you define covered?
Chelsey:	Ok, um, you tell me.
Speaker 3:	If only females, shorts like this [points to basketball shorts that go to her knee] or sweatpants.
Speaker 2:	I think baggy.
Speaker 4:	Long sleeves.
Speaker 2:	I think er, something like this [points to long sleeve t-shirt] with sweatpants.
Speaker 1:	Yeah.
Speaker 2:	And a huge scarf.
Speaker 5:	I don't, I don't think you need a scarf if it's only females. If it's males then yes you need more covering.
Speaker 1:	Something that isn't stuck on you, no matter if it's physical activity or not.
Speaker 4:	Covered is like this [points to sweatpants and long sleeve t-shirt].
Speaker 5:	I don't define it like that. I define it like, when you're covered, like when you're wearing this [points to her hijab] and this skirt that's when you're covered, actually covered. And I would wear this no matter if it's only girls or boys are there, too.

Speaker 2: That’s full covering. That’s only needed if boys might be there. If it’s only girls it’s okay to not wear the skirt and hijab.

Chelsey: So if you were not gonna be covered then, what would that look like?

Speaker 1: For me, it would look like is this, long sweatpants, a t-shirt and my scarf.

Speaker 2: If I wasn't covered I would have this, I want to have this all on [points to shorts, long sleeve t-shirt and scarf]. I'll be wearing shorts and not wearing a skirt.

Speaker 3: Well the basics is, like, you don't have to, you can't wear something really tight on you to show your figure even if guys aren’t going to be in there, because they could always come in, you know. If you wear a baggy t-shirt and baggy sweatpants or anything, and just put your scarf on, you're good.

Chelsey: Is taking off your scarf bad?

Speaker 3: No, I just never do it.

Speaker 4: No, I always take my scarf off. Because it’s only girls it’s okay.

Speaker 4: I think it… I don't know. Ok, I've been wearing this scarf 16 years and people tell me, “When you grow up are you gonna take it off?,” and I was like, “What's the point?” Why would I waste that 16 years of covering up with my scarf and following my religion?

Speaker 2: If I was gonna take that off I’d have to know there for sure would be no boys.

Speaker 4: I wouldn't be me without my scarf. That's what I literally feel. I wouldn't feel the same.

Speaker 2: I’d feel the same without it. It’s just a scarf.

Speaker 4: Me too.

Ethnic Somali cultural norms. Other conceptions of space where centered on Ethnic Somali cultural norms and the intersection of gender, ethnicity, culture, and, at times, religion. These conceptions included the Somali community’s cohesion, culture of surveillance, oral tradition, respect for elders, and the desire for girls and women to be healthy.

Community cohesion. Participants openly discussed that the Somali community is very cohesive. For instance, one participant noted:

> So the thing is Somalis are very united. They move in like wolves. If somebody finds somewhere nice, they'll call their friends. They'll be like, “Come move here”. The friend will call somebody else, whoever's coming from Africa, they'd be like, “Ok, come settle here,” you know. The majority, the reason why Minnesota is big on Somalis, is not that it’s the best place, you know. We could have lived in Arizona, where it’s warm. It’s like, very similar to you know, weather back home, but they come here because people are coming here. People are coming here, like right now, there's, let's just say someone came from Kenya, and they settled in Wisconsin. They'll get a call, they'll be like, “Ok, we got a place for you here. We got businesses for you. Come here, settle with us,” you know, “You'll be a part of us,” and that person will move right here. That's why people, like, Somalis they settled all over the United States, but they all crawled back to Minnesota. To be together.

Similarly, a few other participants said:

> Speaker 1: A lot of people say Cedar is like Little Mogadishu. Have you [looks at other participant] heard that phrase before?
>
> Speaker 2: Yeah.
>
> Speaker 1: And I think it’s funny because it is. I’ve never been there before, but I think, yeah, you know, it is Little Mogadishu ‘cause it’s like a little place where all these Somalian people can live together or hang out as like one. People are like family to each other basically in this community.
>
> Speaker 2: It’s our second home.

Another woman discussed the cohesiveness of the Somali community, adding that watching over one another is an important aspect of such unity:

> We are like wolves, we can live anywhere we want, but like, you will find parents who, like, literally, they would, like, rather live in dump sometimes, you know what I mean, than live somewhere alone. Like, it’s because we are so united. We all watch out for each other, and like have each other’s backs, you know. We like support and, um, understand each other.

Culture of surveillance. The ethnic norm of watching over one another is not only an aspect of community cohesion, but also a larger culture of surveillance in the Somali community. A woman highlighted such culture, stating:

> One thing about the Somali culture is that everybody is your cousin and your family. If right now, if there's somebody's mom and they see a child hurt they would probably take him to her house, clean his, you know, his leg's wound, Band-Aid him up, feed him if she knows he's hungry, and then bring him right back. You know what I mean, so it's like, everyone is your mom, or is your sibling, or that environment. So, if, let's just say a family member lives in, somewhere in Bloomington, and then there's an event going on here and then that mom knows another mom that lives in the building, so she's like, "Ok, hey, is your kids going there? Ok, my daughter's coming, too. I'm gonna drop her off to you," you know what I mean, "Please keep your eye on her too, mine is going there." Everyone has each other's back and watches over for each other.

The culture of surveillance is especially prevalent for girls and women, because of the ideological assumption and cultural belief that they need protection. For instance, one girl discussed:

> Elderlies and parents support places [for physical activity] more for girls if they can watch. Like, it they're with you, they don't have to worry about anything, like you're getting hurt because you're a girl or you're playing with someone you're not supposed to. Like, a lot of things like that.

Oral tradition. Participants also discussed how their culture is "very oral," "gossipy," and "judgmental." Several girls and women equated the way information gets passed around to the telephone game, where information can be lost in translation and communication. For instance, participants in one focus group noted:

Speaker 1: Our culture is very oral. I will say Chelsey's wearing blue, and within a second they'll turn it to Chelsey who's wearing a blue shirt that was cut all in half.

Speaker 2: Yeah.

Speaker 1: It's not in half, okay. But it's like, "How did that happen?" Because we're very oral, and we changing words.

Speaker 3: Yeah. It's like playing the telephone game.

Speaker 4: When parents are talking it's like the conversation's completely changed. So when you try to explain they're defensive about what you're saying because they're like, "Oh, why did you do that?" And you're like, "What? I didn't do that."

Likewise, participants described how gossip, particularly among elderly women, is a part of the oral tradition:

Speaker 1: Old Somali ladies gossip.

Speaker 2: And like they put things into the parent's minds.

Speaker 3: This is one of the things about Somalis they gossip and exaggerate…

Speaker 4: It's part of the culture.

Speaker 3: everything to the point where it's sometimes unbelievable. Like let's say you got hurt and you're by the stairs. They'll say she has been pushed…

Speaker 5: By a boy.

Speaker 3: and she toppled.

Speaker 6: Or if you are friends with the boys they will just exaggerate it. She was standing with the boys and they were giving hugs to each other.

Speaker 5: And then the parents will take that into their heads.

Speaker 4: They'll blow it out of proportion they will say you cannot go out for the next 100 years. And you can't really go to the gym or be active if you can't go out.

Respect for elders. The words the elderly women speak hold particular significance because respect for elders is a deeply embedded cultural rule. For instance, one participant said, "Parents will always listen to the older person." Another participant stated:

> A lot of people don't listen to children, you know. There's a Somali saying that, I mean, there's a saying that, "Children should be seen, but not heard." But as you get older, a lot of people will respect you more, aside from being young. So that right now, like, if I go to my mom, and be like, "Oh, this is what da da da," she kinda wouldn't believe it,

> but if another woman tells her that, it's kind of like, “Oh, ok.” It's just that age and respect, so age has, like, a lot of respect in the Somali culture.

Several other participants noted that respecting their elders also means that parents’ perceptions and rules about physical activity are highly valued and should be obeyed. For example, one woman discussed:

> Parent support for activity is like the best thing. Because the parents will say no unless, you know, it’s religiously good. And in our culture parents are still elders, you know, so like we’re expected to listen to what they say. If they say no, then we’re supposed to listen to that.

Desire for health. Many of the participants indicated that their family members and parents ultimately want them to be active and healthy. For instance, one focus group discussed:

> Speaker 1: I've noticed if I'm just sitting home alone, like, if I'm just sitting down at home and not doing anything, my grandmother's the first one to jump in and be like, “Do something. Get out! Don't stay in this house,” or “Fix this house, go in the kitchen, wash something,” or “Get out, you know. Call a friend, go be active.” Like, parents truly, they want you to get out.
>
> Speaker 2: To do something.
>
> Speaker 3: They really want you to do something.

When I asked the participants why they thought their parents wanted them to be active and healthy, they offered several lines of thought. First, some participants believed parents understand inactivity leads to health risks—whether through education, observation, or first-hand experience—so they want their girls to be active to reduce such risks. For instance, one woman noted:

> Parents now-a-days, they're educated. They'll know, like, the health risks and um, they want their girls to be healthy, like, 'cause they've seen a lot of obese girls, obesity whatever. So, they know if that kid's not healthy, and they're not active, they're gonna end up having probably, health, heart problems and stuff like that in the future, which they wanna, like, reduce that and like help out, 'cause they're already, they're trying to

> learn from themselves too. When they go to the doctor, they'll be like, "Oh you, you are, you know, you are sick because you didn't get enough walk, or you don't do that." So they encourage their daughters to do that too, I guess. Based on themselves.

Other participants thought increased parental education and observations of obesity led to parental support for daughters' physical activity, indicating:

> Speaker 1: I personally think that parents right now, let's say their kids are born here in, let's say, the last decade. The kids who are born here are like 10 or 11. The parents want their kids to get involved in activities, versus like for me I really wanted to play for the basketball school, whatever, and my mom thought that was a taboo. Like, "You're gonna run around with pants, and you know, in front of all those people. Oh no, that's not possible." Where parents are more lenient now-a-days 'cause they, they go through the process of like, through education and they see everything and they want their girls to be active…and the whole taboo of, you know, fat being ugly, parents are adapting to that. So they want their girls not to be, you know what I mean, not fat, so they're not discriminated around school and stuff.
>
> Speaker 2: That does happen in our communities too, even though fat's not usually, like, seen as that. But when the girls are chubby at a certain age their friends will make fun of them, so they will go and cry to the mother, and the mother wants her to be active.

Other participants described how it is the parental desire of always wanting what is best for their children, along with the religious belief of health, which leads parents to support healthy living. For example, one adolescent girl stated:

> I think honestly, at the end of the day, they do, like, parents do have, the best intentions for their kids. 'Cause they want their kids, like, every generation, they want that generation to accomplish even more. You know what I mean, there's just, you know, one thing about parents in general, like, within the community too, they never set the bar too low. They aim it really high, and then want you achieve it—whether it is your health, whether it is your education, whether it is what you eat. Plus, like, the Quran

says you should be health. It's a religious rule, and parents like always want you to follow the religion.

Lived Space Results

Participants discussed several lower order themes under the lived space higher order theme. Lived space represents the social space through which life is directly lived. It is in the lived space that physical space and everyday activities (perceived space) along with the conceptions of knowledge, symbols, and ideas (conceived space) about social space interact. Lived space is considered contested space where the "terrain of social struggle, counter-discourses and resistance" (van Ingen, 2003, p. 204), along with power relations, occur. It is also where marginalizing, discriminatory (e.g., racism, sexism, etc.), and "othering" practices are produced, implemented, reproduced, and resisted. The first-level lower order themes discussed by participants included: lack of freedom, gender spatial inequality, surveillance tensions, familiarity tensions, inclusivity tensions, accessibility desires, and strategies for change. Among some of these lower order themes were second-level lower order themes and some third –level lower order themes. Each of these themes is discussed in detail under their corresponding first-level lower order theme and in Table 8.

Table 8

Lived Space Lower Order Themes

First-level lower order theme Second-level lower order theme Third-level lower order theme
Lack of freedom
Gender spatial inequality
Male-dominated PAS
Sexism
Male backlash, power and privilege
Surveillance tensions
Physical safety

- Psychological safety
  - Feelings of comfort, freedom, and enjoyment
  - Fear of judgment
  - Parental support

Familiarity tensions

- Familiar space
- Unfamiliar space

Inclusivity tensions

- Female-only versus inter-sex tensions
- Age range tensions
- Inclusive ethnicity, race, religions, and cultures

Accessibility desires

- Transportation accessibility
- Financial accessibility
- Resource accessibility

Strategies for change

- Agency strategies
  - Personal resistance
  - Personal advocacy
- Social strategies
  - Parental and community support
  - Male peer support
  - G.I.R.L.S. leader support
- Structural strategies
  - Religious leaders support
  - Academic institutional support
  - Non-academic institutional community support
  - Government support
  - Multiple systems support

Lack of freedom. Because of the gender ideology that females need protection and restrictions and females should uphold “traditional” gender roles and responsibilities, as well as cultural-religious covering beliefs, participants noted they experienced a lack of freedom to be active in neighborhood spaces compared to males. The lack of freedom led to a lack of opportunities for participants’ activity, which, in part, accounted for the large difference between male and female PAS circled on participants’ maps. For instance, participants in one

focus group said:

> Speaker 3: Boys have more free time. Like the moms, my mom, let the boys do whatever, and the girls like me, they don't let them as much as the boys.
>
> Speaker 2: Like, boys have more freedom than girls.
>
> Speaker 1: Why do the boys have more freedom?
>
> Speaker 2: Because, I think like it's 'cause they don't get pregnant and bring shame to the family.
>
> Speaker 3: And, like, my parents think I might get hurt, so they watch over me more and don't let me be free to be active as much. So there aren't as many spaces I can go for activity, you know.

Another participant described:

> You can't really go outside as much as the boys, you know. And that's why I think boys have more, boys do more activities around here than girls on that map, you know. 'Cause like boys, they can just leave whenever, and they can come back at any time and nobody would yell them, but if I leave, "Oh my gosh, you know, you had me worried. You can't do that." It's not fair and what you call that?...Sexist.

A participant in another focus group echoed this sentiment, stating:

> The boys are not on a tight leash as the, you know, as the girls are. They're, like, they're loose. They are. They come home whenever they please. They can go whenever. They don't have the, you know, mom calling 24.., like, if my mom were to call right now, and my brother say this, "Mom, I'm at the gym," she'd be like, "Oh, ok. Ok. Ok. Go ahead," you know what I mean? Whereas if I, as the girl, were to say that, it's like, "What are you doing in the gym? Who's with you?," you know what I mean. "I don't believe you. Get home right now." Sometimes I just don't want to be asked so many questions, so it's easier just not to go to the gym.

Another participant described the lack of freedom due to questioning, indicating:

> Females, like when you are leaving, are asked, "Where you going?" Like, boys can be like, "Oh, Mom I'll be right back. I'm going to play some basketball." They don't have to say a place, you know, but for like me it's like my parents ask, "Where you going?,

> Who you going with?, What are you going to do there, and how you getting there?" and stuff like, so many questions and like, yeah, it's too much sometimes.

A third focus group elaborated about such questioning and a lack of freedom during their discussion below:

> Speaker 1: The boys, they don't tell their parents, "Oh, mom, I am going this place." We say to our mom, "I'm leaving. I'm going this place." She will ask you 20 questions before you leave out the door, like "Who, who is she? What is your friend's background? Where are you going?" And it's like so many dumb questions. Like, really it is not that serious.
>
> Speaker 2: It's like an investigation for the girls, but for a boy they don't.
>
> Speaker 1: Then if a boy says, "Oh I am leaving," the mom doesn't ask him anything. They're like, "Oh, whatever." That's why they are more active.
>
> Speaker 3: They have too many freedom.
>
> Speaker 4: Especially when they get older they get total freedom. Especially when they get older –
>
> Speaker 1: They don't even come home. They don't come home for days.
>
> Speaker 2: But if I go to the gym, my mom calls me like a million times and comes after me.
>
> Speaker 5: Yeah.
>
> Speaker 2: She doesn't want me to go out. She says, "You come back home."

Participants also described how the belief that females should uphold traditional gender roles leads to a lack of freedom for physical activity in PAS. For example, one girl said:

> Boys get more freedom than the girls. Like, I have to do the chores and babysit, and like my brother would be going outside and play basketball and stuff and then after I'm done with all my chores I get to go play outside, if I'm lucky. If my mom will let me.

Another participant described:

> I think that our men are a lot more active when it comes to, like activity, as in running or jogging or playing basketball or something, our men are a lot more active than our women. Our women, they're active in, in the way of, like, they walk, they run after the kids, they're busy in the kitchen, you know what I mean? And in that sense they're

active. They are. But when it comes to like, hardcore sweating, uh, we're often just not gonna play a game, we're not free enough to do it. Like, we want to, but we have too much else expected of us, you know.

Several other participants also discussed that covering restrictions inhibited their freedom for physical activity and led to males being more active in physical activity spaces. One participant described, "In our religion, there are kinda less rules for the men since there are less things that he has to cover. So therefore, he's gonna have more places that he, you know, can be free to exercise at." Another participant echoed this statement stating, "Yeah, and like they [the boys] can, basically, they can play whatever time and wherever they want. They don't have to, like, cover up or they can wear whatever they want, you know. So they, like, have more freedom than we do."

Gender spatial inequality. In addition to a lack of freedom, participants' experienced a lack of access to PAS because of males dominating the spaces. Participants accounted how sexism and male power and privilege underlined the spatial inequality. They also described that any female resistance to the unequal access led to male backlash.

***Male-dominated PAS*.** According to the participants, males dominated space by having more scheduled gym time and taking over PAS allotted for co-ed use. For example, they noted:

Speaker 1: People just want the girls to be happy, satisfied with the gym a few hours two days when the boys have all the rest. I guess they think because we never had like girls only gym, we'd be okay if they gave us two days to start off with.

Speaker 2: But it's been like four years now.

Speaker 3: I don't know. I was really happy at first, you know. I didn't hear of like girls gym before...I usually played more with boys, 'cause they have it a lot more than the girls. And then when I heard they had two days of basketball gym for just girls, I would like start coming to girls' gym now, 'cause you know, like, yeah. Like they're really challenging and

stuff like that. I would love if they increased the days, because we have fun and want to play more too now.

Speaker 2: And one of those days is on a Sunday, is on a weekend, and usually you don't want to come to the gym to play basketball then. So, like, it's even more not fair, you know.

Speaker 1: I think like they thought, 'Oh the girls, they should just be happy to have some days.' And like, we're not, we like basketball, too, you know, and want what the boys have, too.

Speaker 3: Yeah, it's not fair.

Speaker 4: We're not okay with it. All we want is equality, you know.

Speaker 2: Fairness. That's it.

Chelsey: Let's talk about fairness a little more…a minute ago you [says Speaker 3's name] said the boys had the gym a lot more than the girls. Can you describe how much more?

Speaker 3: I don't know like four days or something is just for them.

Speaker 2: Um, I think it's more actually.

Speaker 4: Really, like, it's hard to know 'cause they, when the gym is supposed to open, you know, like for both boys and girls to play, the boys just take over…

Speaker 1: Yeah, so it's like they have the gym anyway.

Speaker 2: This happens in a lot of other places too…like anywhere really that is for anyone. Um, the boys just think with sports and stuff it's all for them.

Speaker 4: Yeah, that makes it really hard to know, you know, 'cause the boys are always in the gym except for when we have our two days, and then they're always like everywhere else too, you know. It's just hard to know, since it's all theirs anyway.

Another participant described:

> They take over everything. They put in their heads that this is their gym, their park, like their space, and it shouldn't be for girls, and we should have a specific time that we tell them we're going to come play. We can't just come on a daily basis and go play even though, like, the space is supposed to be just as much for us as them. It's not fair at all,

> you know, ‘cause we have just as much a right to be there as they do even though they don’t think so.

Similarly, another girl said, “There’s open gym sometimes and the guys kind of take over. And girls don’t want to come in. I think one person-one girl-will be there sometimes. But otherwise it’s only guys. And it basically should be our time, too.”

Overall, there was discrepancy among participants regarding the amount of time boys were scheduled for male-only gym time. All participants were in agreement, however, that there was undoubtedly more male-only scheduled time than female-only time in PAS, and open gym tended to mean “boys gym.”

Sexism. Participants believed that sexist social constructions and ideologies led to males dominating PAS. One girl explained how sexist social constructions that females are less competent at physical activity impacted the boys and young men taking over spaces, stating, “The boys don’t think we can play sports because society says so. They’re like, ‘Oh, you can’t play sports and this’. So, the boys like hog the gym. It’s sexist.” Similarly, another participant indicated:

> Speaker 1: In the NBA they have like only boys you know, and the WNBA it’s only girls. Like, ‘cause of that I think, if we play with boys they would be like ball hogging, like sharing to the boys and say, “Huh, don’t pass it to the girls,” you know. Like, they want to win so badly I think. And they don’t think they can win with the girls.
>
> Chelsey: Why is that?
>
> Speaker 1: They don’t think we’re good enough, because our culture is sexist and says boys are better, or like girls shouldn’t play sports, like that.

In addition to this sexist social construction, other participants also experienced the social construction of females as weak and the sexist ideology that females need protection. They described how experiencing such sexism was a way for the males to usurp gym space. For instance, they said:

Speaker 1: They'll [the boys and young men] say, "Get out of my court. We don't want to play with you. You're not even the same strength as us. Why do you want to play with us, do you want to get hurt? Just get out of here before you start bleeding. Get out of my court!" They're not going to allow you to play with them or do nothing. And also the court is meant to be boys and girls a lot of time, but then they had to make girls gym because there was no place for girls to play, the boys would hog the ball. If you dropped the ball they'd take it from you and never give it back to you, so you have no point of even being in there, so you leave or walk out or watch them play if you're not going to get anything out of it. If you're just going to watch 'cause you can't get a ball, so what's the point?

Speaker 2: Yeah, usually on the week days it's basically guys. Even when it says girls can play too, but there's no point of playing because they're not going to give you the ball. It's easier on the two days that you have to play because you get to have your own ball. The boys are just so unfair and sexist, you know. It's more fun not deal with them.

Several other participants described how similar sexist beliefs and practices were present in other neighborhood PAS. They noted:

Speaker 1: When like, we're playing basketball with the boys outside, and then like, you know, 'cause I want them, cause if I want to play basketball, I want you to go hard on me so I can get better, I don't want you to go easy on me 'cause I'm a girl, and they like, take it easy on me, or they're like, if someone blocks my shot or something, you know, I accept it, but then they don't, "Why you blocking a girl's shot?"

Speaker 2: Yeah. I hate that.

Speaker 1: "Man what are you thinking? She's a girl."

Speaker 2: They're sexist.

Speaker 3: But they see, like, as I told you last time, when I was defensing, I showed him how I like to play and am good, and then he started to play.

Speaker 2: I remember playing basketball once, and they were surprised, like, I could actually play.

Speaker 3: Yeah, if you are more active, and you really don't care what you do, and you are more energetic and more free-spirited, and are really good at the sport you can go have fun with the guys.

Speaker 1: That's the only time they'll maybe let you play.

Chelsey: So how does that make you feel?

Speaker 2: That makes me feel happy, like one day, like, see the real person that I'm good. Girls can be good at sports, you know…but at the same time I also feel mad for like the other girls who they don't let play or like don't want to play like a boy to be let in

Speaker 1: I feel worthless. 'Cause they don't take me seriously…Like I'm wasting my time playing a sport that I'm not being appreciated for.

This quote also highlights that participants felt competent and appreciated when males played hard against them, and worthless when the boys and men "took it easy on them." Another girl further described the negative impact males' sexist practices and dominance of space had on her physical activity experience. She explained:

Speaker 1: Like, I wanna play, like, I wanna go to NCAA. I know that, I'm not lying…I wanna go to NCAA, but like, I don't have the space like, to practice, you know. I'm trying to like, I want to go to NCAA, I wanna practice, I wanna get better, but then it's like, it's not working out because there's no space. The boys have it all and don't let us like girls play most time. And when they do, you know, they don't play hard or really give us the ball, so like there's no point…And there's not, like, there's not a lot of time for it and then there's like all this and school and everything, you know? So I just wanna go to a place that's near to my house, I can just play without getting like, like this attitude, like, and I just wanna play, get better, come back home.

Chelsey: How does that make you feel that you can't, it sounds like you can't play as much as you want. How does that make you feel?

Speaker 1: That makes me feel like, they're like, getting in my way of my dream.

Participants perceived male stakeholders' sexism also played a role in males' dominance of PAS. For example, participants in one focus group noted:

Speaker 1: The thing is the men run the gym.

Speaker 2: But it is supposed to be open for everybody.

Speaker 3: If you talk to them. It depends on who you are, if you are just a girl, or lady, or a guy. Like it depends really. People that run the gym are all guys, so like you talk to them, but men are not going to listen to you. They just say, "Yeah, yeah, sure." And then never do anything about it.

Speaker 4: Yeah. They don't think womens know anything or really should play anyway, you know.

Speaker 1: And culturally we're expected to just give in to the boys, so they don't like see a problem, you know. They're like you have your two days already. Like, just be happy with that.

Similarly, a few other participants said:

Speaker 1: We have open gym, but I talked to the guy that's usually involved over here. I was like, "Can you talk to the boys and let them not always take over? They always bring out five or four balls and the guys always take them and don't share"…He said, "Sure," but like I don't think he ever did, like or at least, you know at least he didn't try very hard in my opinion 'cause nothing changed. Like the boys still hog everything, you know.

Speaker 2: I think it's kind of being sexist.

Speaker 3: Yeah, I do, too. Ok, The other day I was talking to one of the people that provide the gym, I asked him, "Why do we only get a Wednesday during the week?" He said, "'Cause more boys come, and they're gonna be mad if they don't get more gym time." So I said, "I think that's not fair. It's kind of, it's not fair there's a lot of girls that come here, too." He said, "Well, that's how it was made to be."

Despite these sexist practices by some male peers and stakeholders, participants cautioned against sweeping generalizations. They were quick to point out that not all Somali males were sexist. For instance, one group of participants explained:

Speaker 1: You know how we were saying the guys were kind of sexist?

Speaker 2: Not all guys are.

Speaker 1: They are also protective then they…

Speaker 3: Yeah, they'll protect us.

Speaker 1: They'll watch your stuff… they'll make sure you're safe, they'll be protective over us, and that can sometimes be good.

Speaker 4: There's some, there's some other guys who are like, "Back off the girl, man."

Speaker 3: Like when you don't wanna get hurt, they're like protective, and then it's good.

Speaker 5: It's kind of like there's this mix. Sometimes sexist, but sometimes protective and is a good thing. It just depends.

Speaker 1: There's a limit, there's a line that they shouldn't cross. Like they shouldn't discriminate against us, but they should watch over us and not let people hurt us, too. Like that, it's kinda hard to explain.

Speaker 3: Like if we're before basketball standing in the front of Coyle or something and one of the boys come out of the gym, they can be like, "Oh, you guys go in or go out." They're like, they don't want us standing over there 'cause they know what happens here, so like, "Go in or go out, or go home, or stay in here." That's what they say to us, and if we're at the basketball court, and it's like, 9 o'clock, they're like, "What are you guys doing here? Go home now." It's not to take the gym, but to make sure we're not going to get hurt.

Speaker 6: Yeah.

Speaker 2: Even though they're not our parents, they still watch over us you know…

Speaker 4: They still got our back 'cause we're girls and that's what they're supposed to do. And we like that protection.

Speaker 1: Yeah, protection is good, sexism is bad. That's it.

Male backlash, power and privilege. When participants resisted or challenged males' sexism and dominance, they often met backlash from the boys and men. The participants believed the backlash was primarily due to the boys and men's fear of losing power and/or privilege. For example, participants in one focus group explained:

Speaker 1: I think that, um, the boys don't want us to play with them or have space, 'cause we play and are good. Then the boys are gonna not like that, 'cause it's like you're trying to take their power.

Speaker 2: Yeah, well they think if we get more days like them it'll be more equal, and it's never been equal. They like it that way 'cause they keep control is what I think. Like they don't want it taken from them.

Speaker 3: Yeah, it's 'cause we're a girl. So they don't want to give Somali girls a chance to play basketball to know how good we are.

Speaker 4: We're not taking…We're not taking power. We're not taking anything. We're just getting what's fair, you know.

Chelsey: So let's, tell me more about that, I mean, why do you think they think that?

Speaker 1: I think they're scared, and also I think they're, like, just because we're girls, like 'cause, I don't know how to explain this…

Speaker 3: They don't want to be made fun of in front of their friends saying, "Oh, you got beat by a girl."

Speaker 2: I think there's, like, over 10 people that I know of, my sister is better than them, and other people are better than them. Like, and they're scared to have a bad reputation. "Oh, you just got beat by a girl and this and that."

Speaker 5: Yeah, I get that a lot, 'cause when I'm playing out here, you know, I just put my A-game, too. I just play, you know, and then, it's like, "Oh you got beat by a girl," the other person…

Speaker 4: You know we have a name.

Speaker 5: Then when I want to play with them, they're not gonna let me, 'cause all these people who are at the court are making fun of them. So like, next

> time I'm like, “Oh, can I play with you?,” he's gonna be like, “No, you can't play with me.”

In addition to losing power, participants thought males did not want to lose the spatial privileges they have always had. A woman highlighted this perspective, noting:

> They’re given everything. They have it easy. They’ve had it easy for a long time. They have had privilege, so nobody likes change, you know, and giving up what they once had even if it’s not fair. So they don’t like the fact that they have to leave because of “women” coming, “Oh why are they so important all of a sudden?,” you know.

Several other participants spoke to males’ loss of privilege, stating:

> Speaker 1: Like, the boys get really mad whenever we have girls gym. ‘Cause it's a privilege that they're losing, you know. It's like, their privilege to play anywhere they want, and then you make them, you tell them, “You're losing this privilege. There is this group that needs to play there,” you know. And it's like, “Oh,” you know, like, “Damn-it, why am I losing my privilege that I had?”
>
> Speaker 2: That’s why they used to bang on the doors angry, and sometimes still try to come in. They still aren’t okay we took days.
>
> Speaker 3: Well, we're not taking away from anyone. We're just, you know, asking for something that you have the right for. You do not, like, you're not taking, you're not stealing anything, like you, have a right to the gym just as much as they do.
>
> Speaker 2: Yeah, but they don’t see it that way. Like that’s why they get mad and try to keep us girls out even more. Like they have little tournaments and stuff like that in their little circles and then don’t let us play.
>
> Speaker 1: ‘Cause like, they say, “You have your two days, stay out.”

Surveillance tensions. When females were provided access to PAS, they perceived it often came with the need for surveillance**.** The conceived culture of surveillance, gender ideology that girls need protection and restrictions, and cultural-religious beliefs and tensions, appeared to underline a lived surveillance tension among participants. In particular, participants described complex feelings of safety in physical activity spaces with and without surveillance

due to these gendered, cultural, religious, and ethnic conceptions. The girls and young women felt physically safest in physical activity spaces with increased surveillance. However, they described mixed feelings of psychological safety in such spaces. In addition to surveillance tensions with safety, participants also perceived widespread parental support for surveillance practices.

***Physical safety*.** Participants overwhelmingly discussed feeling physically safest in indoor rather than outdoor spaces due to heightened surveillance indoors. For example, one participant said:

> Like I um, like, feel safe in a closed place and, um, you know, like, there are the people that are in charge of the place or the police inside to watch you, and that you can complain to if there's anything. ‘Cause there’s police or securities inside a lot of buildings in Cedar. So it's not like, an open place, like a park where whatever can happen to a girl, you have to find someone to seek help from, and there aren’t as many people around to see what’s happening. So, it's like, not as safe there, you know, outside at a park.

Similarly, another participant noted:

> There’s not too much violence indoors I don’t think because there’s more security, more safety, everyone’s looking out for the property and what people doing inside. Especially in Cedar, because that’s what we do. It’s cultural, we have unity. We watch out for each other. But outside nobody cares, nobody watches, I don’t think. You can get punched, anything can happen.

The indoor space participants felt safest in was the Brian Coyle Center, because it had a high amount of surveillance by security personnel, police, and other adults. For instance, one girl said she felt safe there because “there’s adults and there’s securities that are there watching and going to be there for you that nothing’s going to happen.” Similarly, a few other participants said:

> Speaker 1: Like, I feel safest at Coyle because there are more people around and they can see you.

Speaker 2: There's like, security and um, police is around there a lot so you won't get hurt.

Speaker 3: Yeah, we have cameras now and actual security and police with a weapon. If anything happens they are armed and ready to protect you, and the, you know, it's like, it's bringing more people in now, more Somali people especially, because they are always worried about safety, like especially for their daughters.

Chelsey: Where are the security and police when they're watching you?

Speaker 2: Outside and inside the front doors. Like walking around the Center.

Chelsey: Does that mean they watch you in the gym?

Speaker 1: No. Well, like, they're not supposed to, um because most of them are mens. But sometimes the security comes in to tell us our time is up or if they need to talk to someone.

Speaker 2: They're not supposed to come in though 'cause the program is only for girls.

Chelsey: So if they can't come in the gym, explain how they can watch you?

Speaker 1: Like, um we don't want them to watch us while we're playing. We just like that they're there to keep the building safe and like keep bad people away from us. That's, um, how I mean, you know, they watch over us…like, not that they sit here and watch us play basketball.

Another participant described how surveillance by G.I.R.L.S leaders in the gym increased her feelings of physical safety:

> In the Brian Coyle gym it's not just all teenagers be in there and no supervisor. There are actually ladies who supervise and there's like two or more. And um, they supervise and they're like watching, you know, to make sure there's no fights going on in the gym, make sure everybody's getting along, make sure no one who shouldn't come in does and hurts us girls or watches us that shouldn't…That's why I like Brian Coyle, someone is always watching over you.

Surveillance by the greater Brian Coyle Center staff also impacted participants' perceptions of physical safety. For instance, two girls stated:

Speaker 1: ‘Cause, we treat each other like a family, like, nothing bad will happen here. Like the workers watch over us here. If something like a fight happened, they will try stopping us, you know, ‘cause they know that fighting is bad and, like, it’s not good to fight and stuff, and they’re like really friendly people. So I feel safe, you know.

Speaker 2: Yeah, people are friendly at the Brian Coyle. I mean, um, the kind of image that other people give it, like, people who don’t live here isn’t fair, but Brian Coyle like, when you have problems or any kind of problems, you know, and you want to do something about it, like you come up to one of the workers in Brian Coyle and actually talk to them, you know, and they help you out and stuff.

In addition to supervision and surveillance from a variety of adults, participants felt physically safe at the Brian Coyle Center because of the security cameras there. For example, one girl said, “There’s barely no cameras away from Brian Coyle. And that’s where it’s easier to hurt someone.” Likewise, another woman described, “There's a whole bunch of cameras here. Well, not in the gym, but in the building, you know, to make sure nothing bad gonna happens to us girls.”

Participants in another focus group described how their feelings of physical safety at the Brian Coyle Center went beyond security cameras and personnel, and police and supervisor surveillance. They talked about how the close proximity of the building to the heart of the Cedar-Riverside neighborhood increased the likelihood of surveillance by family members and the greater community. For example, they discussed:

Speaker 1: At the Brian Coyle there's many people that will help you if you need help.

Speaker 2: Yeah, a lot of people.

Chelsey: A lot of people meaning like, who? Tell me more.

Speaker 1: A lot of people, like, they could witness if anything happens. They have securities, polices, but then also…

Speaker 2: Your friends, your cousins, parents…um elderlies, after-school people um, mentors, and front desk people. Like, other people who care about you and all that stuff are there and can watch over you.

Speaker 1: Yeah. Since Coyle is like in the heart of Cedar…

Chelsey: What do you mean, "heart of Cedar?"

Speaker 1: It's right by all the apartments where most Somali's live.

Speaker 3: Yeah, and it's by like the main places Somali's go in Cedar.

Chelsey: Can you describe some of those places?

Speaker 3: Well, like the restaurants, shops and all that stuff…oh, yeah, and the African Mall, the mosques, parks, like Currie Park, E-F Park, and like all those place.

Chelsey: Okay. Thank you for explaining. Before I interrupted you [name of Speaker 1 inserted here] you were saying, "Since Coyle is in the heart of Cedar…"

Speaker 1: Yeah, um…what I was saying was that like because Coyle is so close to everything, um where Somali's are at if they live in or come to visit Cedar, is that like everyone can get to it easy, so like lots of people are there and can watch you

Speaker 3: Like anyone, like can be there, and they'll just help you if you just say help, or if you talk to somebody they'll look into it and they can call 9-1-1 or call someone. They will be watching over you and like there if you need them.

Speaker 1: So nothing will harm you.

Speaker 3: Yeah, basically nothing will harm you because there are people around watching and um ready to help.

Speaker 1: Nice people.

Chelsey: What do you mean by nice people?

Speaker 1: There's no, not really people that are mean at Coyle.

Speaker 3: There's like, no one that will harm you here.

Speaker 2: They could, but nobody would try to.

Chelsey: So do all these nice people watch you when you're doing physical activity, like basketball then?

Speaker 1: No, only the women are supposed to. But the men are just there watching the buildings and stuff.

Speaker 3: Yeah, and if you did ever need anything the men could help too.

While most participants felt physically safest indoors at the Brian Coyle Center, some participants also felt safe at the U of M due to surveillance and proximity. For instance, one participant said:

> The U of M is close so people can get to it and watch you. And the place itself is a managed area, you know, the security, there's like, you know if you have issues, someone you could go to. And like, the fact, you know, it's an actual, they have consistency. Let's say, like, if you wanted to rent this room out, you know it's yours and it's on, like you could use that room, and like, no one else could come in and try to do it or hurt you. Um, it's private you know. So the fact that it's a facility that's managed, and that has rules and regulation that respects people, and you know, it's secured, you know, we have police, we have also security that could help out.

In addition to indoor PAS, participants also spoke of feeling safe at E-F Park and Currie Park, because of proximity and surveillance. For example, participants in one focus group explained:

Speaker 1: At the E-F Park and um Currie Park, like they're close. So…

Chelsey: What do you mean by close?

Speaker 1: Well, um to like the high rises, Coyle, which are the heart of Cedar. So like your mom, and um parents, and elderlies can be watching you.

Speaker 2: It's safety.

Speaker 3: Parent's like watch their kids and other people's kids. It's more safe because they and the security is, like um, right there. They can see you and make sure you don't get hurt or no one bother you.

Chelsey: Where do they watch you from?

Speaker 3: Um, mostly from the windows in the high risers.

Speaker 2: Yeah, their apartment windows.

Speaker 4: And if you need help, you can just go up the stairs or into Coyle

Speaker 1: No, not always. They also sit on the benches in the parks, too, and like watch there.

Speaker 2: Yeah, at Currie the benches are always full of the ladies watching.

Speaker 3: And there's a lot of people that are active there.

Speaker 4: Yeah, there's like people there to watch just like what we're doing.

Participants in another focus group discussed that peer, familial, and police surveillance makes them feel safe at Riverside Park, despite that the park is further away from the heart of the Cedar-Riverside neighborhood. For instance, they described:

Speaker 1: Like, who would harm you while you're doing something there [Riverside Park]? There are some people around walking and they can see you.

Speaker 2: Yeah, there's like, more people.

Chelsey: Tell me more about that. Like, who?

Speaker 2: Like your friends, or your cousin, or your sister and brothers, like that. They watch out for you and try and like, protect you or anything like that.

Chelsey: Is there anyone else there?

Speaker 2: There's like, security and um, police is around there…

Speaker 1: A lot of police are around Riverside Park.

Speaker 2: But not really like parents or elderlies. Um, like there's not that many adults, because it's kinda far away from the main part of Cedar. That's where most people live and um hang, not in Riverside.

Though some participants perceived a high level of surveillance at Riverside Park, several others believed it lacked surveillance due to its long distance from the heart of the neighborhood. For example, participants in one focus group discussed:

Speaker 1: I think Riverside Park is unsafe.

Speaker 3: Me too.

Speaker 1: Yeah.

Chelsey: What about it is not safe?

Speaker 3: People, they're not closer to Riverside. 'Cause most people don't live around here.

Speaker 2: Well, most people just don't go to there and like…

Speaker 4: They don't want to go far.

Speaker 1: Ok, and how does that, relate to not being safe?

Speaker 2: There's not people there, like no parents, or elderlies, or like other adults that can watch you.

Speaker 3: And there's barely no cameras and no securities there.

Speaker 2: And that's where people can have it easier to hurt someone. They can like hide in the woods and then come out.

Another participant echoed the same sentiment about parks in general, stating:

> What's not safe about a park is like, anything can happen, like, a shooting. No one is watching you. They are too far away from houses and other people. And like parks are a wooded place. Parks are kind of dangerous these days.

Psychological safety. In contrast to their feelings of physical safety, there was quite a bit of tension among participants' feelings of psychological safety in PAS with more surveillance. Many girls and women found comfort, freedom, and enjoyment (e.g., psychological safety) in being watched by female-only supervisors, parents, peers, and community members. However, the same participants also felt decreased psychological safety due to personal and parental fear of judgment when being watched.

Feelings of comfort, freedom, and enjoyment. Participants spoke of feeling comfortable and free in primarily the Brian Coyle Center gym, because of the female-only surveillance and privacy to be uncovered it afforded over all other spaces. To describe her personal feelings of psychological safety due to female-only surveillance, one woman highlighted the importance of female supervisors. For example, she said:

> Our coaches really supervise the girls' gym and are there for you, you know. They like really care and are watching over us to be sure nothing happens, that we have fun, that no boys or men will watch us playing, so we don't have to wear our hijabs and can wear whatever we want. I like that a lot, you know, it makes me feel um comfortable to come to girls gym and like not have to worry that someone will see me exercise who shouldn't, and that I can just be free you know.

Participants also discussed the significance of their mothers' surveillance on their feelings of comfort and safety. They noted:

Speaker 1: Brian Coyle is a safe spot because it is right in the heart of the community. There are a lot of people a lot of kids that live around here. It is real easy to get to, easy access, you can go in, go home late, not really late, but like your moms can come and check up on you and see what you are doing.

Chelsey: Why are moms checking up on you important?

Speaker 2: Like if they can't call you on your phone…

Speaker 1: They can just come out and see what you are doing. Like some parents don't trust their kids, some parents worry too much about their kids, so if they can see you they don't worry

Speaker 3: Yeah, if moms can watch, they know there's no boys there. Then they're like, "Okay, be active all you want, you know." And that's good for us, 'cause like we really do want to listen to our parents, so like we feel more comfortable and don't need to worry about making them mad, because they let us play.

Women in another focus group went beyond their parents and more broadly explained the significance of female-only surveillance on their comfort and freedom. They also added in the positive effect of surveillance on their physical activity enjoyment, stating:

Speaker 1: There's like a lot of people you know and you can be yourself around at Coyle and in the gym, 'cause culturally we're the same, and gender like we're all female in the gym, and it's closer to home. And everybody knows everybody and it's kind of safe.

Chelsey: What do you mean by safe?

Speaker 1: How should I say it? Safe like…

Speaker 2: Everyone has our backs because we're like family, because we share culture, you know. So everyone watches out for us, 'cause that's like what a family does. And it's only girls watching girls in the gym, because it's a closed place since we lock the doors, there's no windows.

So you can run around and wear anything, or um not anything if you want…

[laughter from group]

Speaker 2: To me that makes it um, I feel more comfortable.

Speaker 1: Yeah. Everybody knows everybody, especially the women. Nothing's going to happen to you. I don't know how to say it. How should I put it in words? They have your back.

Chelsey: How does that make you feel, knowing they have your back?

Speaker 1: Um, really comfortable and like safe…

Speaker 3: I feel free to just play basketball.

Speaker 1: Yeah, like I don't need to worry about anything bad happening and just can have fun.

Chelsey: What do you mean by no needing to worry about anything bad happening?

Speaker 1: Um, like…not worrying I'll get hurt, or that boys or someone who shouldn't will be watching me play. And I can wear no hijab, shorts, anything, 'cause no boy will see me not covered.

Similarly, girls in another focus group discussed feeling psychologically safe because of female-only surveillance and the privacy ensured by the indoor, closed nature of the gym. For instance, they explained:

Speaker 1: Like I feel most comfortable in girls' gym because there's no boys, like, watching us. Instead of outside, everybody's driving past and watching. There are probably a lot more privacy in the gym. 'Cause some girls I know are scared to play basketball in front of boys.

Chelsey: Why is that?

Speaker 2: Because, like, when it's girls, they're not nervous, I don't know. That's what I think.

Speaker 1: All the attention of all the boys watching the girls makes us nervous.

Chelsey: What is it about boys watching you that can do that?

Speaker 2: As girls, we don't feel welcome to wear like showing our hair and wear sweats playing basketball, 'cause it's like against our religion to do that kind of stuff in front of boys. So we feel like we can't play as well

because we're like so covered maybe, so we have too much pressures then.

Speaker 2: Um, That's kind of like, against our religion to, like, show our hair in front of dudes. So that's why they don't feel as comfortable as when they play basketball with the boys.

Speaker 1: Yeah, that's why it's just easier to play with girls. You don't have to worry about boys, your hair, what you wear, anything really. You just can be comfortable no matter how and play. Just play, you know, that's what I like.

Participants in another focus group supported this notion that female surveillance afforded by private indoor spaces leads to psychological safety, while the male gaze detracts from it. They explained:

Speaker 1: I feel safe when I'm indoors. I like that I can be comfortable and wear what I want.

Speaker 2: Yeah, inside I don't feel self-conscious, like boys are looking at me and stuff.

Speaker 3: Like if I had a say, because of all this, I would say have more activities inside because then you could take off your clothes, but outside you can't, summer especially, because there's a lot of people and you feel shy taking your clothes off in the middle of everyone. 'Cause like boys can see you and elderlies and parents might be watching and think you're bad.

Similarly, participants in another focus group said:

Speaker 1: I feel the most comfortable and not worried about anything in the Coyle gym, because there's privacy in the gym, like because it's inside.

Chelsey: What is it about privacy in the gym that makes you feel comfortable?

Speaker 1: Like I said, like it's inside, so no one can see you, expect the ladies who lead it and the friends who play.

Speaker 2: Yeah, there is no elderlies saying, "Why are you playing basketball? Why are you wearing shorts and have your hair showing?" And there's no elderlies saying, like, "The boys and girls are interacting and they

> shouldn't be." But if you were playing outside the court, and you're wearing shorts, they're all like, "Why are you showing your skin? Why are you doing this? Why are you doing that?" They will see you outside, and they will judge you. But since it's in the gym they're not really ever inside there, and they won't say anything, 'cause they know it's only girls now that are there and can see you.

Though participants felt most comfortable with female-only surveillance, this quote highlights they do not find such comfort in all females. There was widespread agreement among participants that female Somali elders' surveillance reduced their feelings of comfort and psychological safety, because of the personal and parental fear of judgment such surveillance elicited.

Fear of judgment. Participants believed the culture of surveillance, gossip and judgment by especially Somali elderly women, and the cultural code of maintaining family honor created a lived fear of judgment for some adolescent girls, young women, and their parents. This fear then prevented or limited the participants' physical activity in PAS, particularly outdoor, open spaces that were close to the heart of the Cedar-Riverside neighborhood. One participant spoke of her personal fear when she said:

> I don't know why they [elderly ladies] watch over us and judge us in Cedar. I feel like it's wrong, because it stops me and a lot of people from being active, especially outside and near Coyle and the high rises, because like that's where they really only go and can watch us…It's sad, because it makes us uncomfortable and worry and keeps us from like actually doing something, 'cause some people, like me, do care about other people's image, like how other people see them as and stuff.

Similarly, another participant said:

> Speaker 1: I get judged here [points to Currie Park on the map] the most, I mean, like outside, 'cause that's like where a lot of Somali people are at. Like I don't see a lot in other places that are further away, but here, it's like a lot of them are here. Especially the elderly ladies, they will judge you.

Chelsey: Do you mean here as in only Currie Park, or here as in other places, too?

Speaker 1: Only Currie Park. I never got judged anywhere else but that. But mostly in the summer though, ‘cause that’s when the elderlies go outside and just sit and watch. I swear, like, it seems like they don’t got nothing better to do.

Chelsey: How does that make you feel, when you’re judged?

Speaker 1: Um…Like I don’t really want to do physical activity there. ‘Cause like I don’t want worry what they’ll think or say and like get a bad reputation or something.

Another participant clarified that the fear of judgment can also be present in indoor spaces, though generally not to the extent as in outdoor spaces. For example, she said:

> Yeah, like other times, I don’t know for some reason, it’s not just Currie Park or outside where I’ve seen it. I mean it’s mostly there, but not always just there, you know what I mean? Like when you’re here at Coyle sometimes the elderlies would come in here and they would see you in the gym. And I think some girls don’t go in the gym ‘cause they’re scared of people judging them, and they don’t want to bring shame to their families. A lot of times when I used to go in there elderly ladies would be like, “Oh why are you guys playing with the boys, play with the girls, go do something else.” And I would just never get it, and I would go to my parents and my parents would be like, “Stay away from the boys, other people are watching. Just leave it alone.”

Regardless of whether a PAS was indoor or outdoor, the majority of participants agreed the further it was from the heart of Cedar-Riverside the less fear of judgment they felt. For example, one woman explained:

> I like both indoors and outdoors for activity…Um, like what we really need is like places that have activity that are farther away from Coyle and the high rises, or just if we stay in Coyle make sure no elderlies can get in…‘Cause like we need lesser Somalians there, so we’re not judged all the time…It’s tiring to always feel watched and like you have to be so careful what you do. You can’t just have fun, you know. I just want to have fun and not worry.

Participants in another focus group went as far as saying the only way they would feel less judged was to be active in PAS outside of the Cedar-Riverside neighborhood. They noted:

Speaker 1: The only place I'd feel comfortable and like free, is outside Cedar. 'Cause there's lesser Somali women over there. Like, well, they do go there sometimes, but not really, because they mostly stay in their community.

Speaker 2: Yeah, if you don't like want ruined, it's gonna make you a bad reputation if you associate with boys for the elderlies if they see you.

Chelsey: So which space do you prefer to be physically active in?

Speaker 2: The Y.

Speaker 3: They have the Jacuzzis and swimming pools and like…

Speaker 4: They have like swimming and basketball courts. Everything you need.

Speaker 2: And no Somalians.

Speaker 3: To say stop doing this stuff. Stop doing it.

Speaker 4: And fitness, a lot of things.

Speaker 2: It's better. Somewhere else Somali aren't.

In addition to their personal fears, participants discussed a widespread perception of parental fears of judgment. Two other participants highlighted their parents' fears, indicating:

Speaker 1: There is times where parents be like, "Don't play with boys, you know, this is Cedar." People are watching and judge you, you know, like just don't."

Speaker 2: That's true.

Speaker 1: And it's like, I don't know, like, old ladies will be walking around and like,

Speaker 2: They will yell at you.

Speaker 1: on the tennis court. Like if we're like playing kickball with the boys, it's like, oh my gosh,

Speaker 2: It's a big deal.

Speaker 1: "What is she doing!" Like, it's like breaking the law. It's a law to them and like, and they freak out over nothing, you know. It's just kids. They

don’t know nothing, but then parents won’t let you do it anymore either.

Chelsey: Why not?

Speaker 1: Because my mom doesn’t want to be embarrassed like, “Oh, your daughter was…”

Speaker 2: playing in front of boys

Speaker 1: Yeah. She doesn’t want to be embarrassed because other people are telling her that.

Speaker 2: It’s not just our appearance. It’s also their appearance—the parent’s appearance of what other parents and elderlies think of them.

Speaker 1: No parent wants shame brought to them or their family, because like elderlies say that their daughter is playing with boys or doing something she shouldn’t be. So parents don’t really want you to play anywhere but girls’ basketball.

Speaker 2: Yeah, they need to know it’s only girls. Otherwise, “No, can’t do it,” they say.

Another participant also discussed how her mom’s fear of judgment, due to surveillance, kept her from continued physical activity engagement:

> When I played sports, my mom, there's a lot of people that like changed her mind. ‘Cause, like 8th grade year, I like, I played, you know. She didn't care, because I went to Marcy, you know. There's not a lot of Somalians there to watch you. And then I went to Roosevelt, and then she went crazy. Like, she was like, oh, just like all these people just like, her, her mind, she just changed. She was supporting me, coming to my games and stuff, and then all of the sudden, “You're not playing. You're not doing this. Oh, why are you doing this? It's not good for you, you know?” They just keep changing her mind, and like she worried about what they think and um will tell other people. Like one year ago, I played and now like all these ladies are like telling her, like, they see me somewhere and boys could be watching. Now my mom doesn’t want me to play, so like I don’t play, because as a Somali you’re supposed to listen to your parents and respect them.

Parental support. In addition to expressing the tension between surveillance and personal safety, participants discussed surveillance in relation to parental support. The girls and

women noted widespread parental support of their physical activity participation in PAS with heightened surveillance. Parents wanted to watch their daughters themselves and/or be guaranteed other parents or community members would watch over them. Parental support for surveillance stemmed from the conceptions that females need protection and restrictions to be safe, the culture of surveillance, and the oral culture of gossip and judgment, as well as the lived parental fear of judgment.

Participants perceived the most parental support for PAS where they could watch over their daughters. For example, participants in one focus group said:

Speaker 1:	They [parents] want to watch you play basketball, hang out with your friends, and have fun.
Speaker 2:	Yeah, they’re more supportive of places more if they can watch.
Chelsey:	Why is that?
Speaker 3:	Since we’re girls they worry more that we’ll get hurt or something.
Speaker 2:	Like, they're with you, you know.
Chelsey:	Tell me more about that.
Speaker 2:	Like, if they're with you, they don't have to worry about anything.
Speaker 1:	Yeah, they don’t need to worry if you're getting hurt, or you're playing with someone you're not supposed to, and be getting judged. Like, a lot of things.
Speaker 3:	At the end of the day parents just want to know you’re safe and not being in trouble. Like, if they watch us they can know that for sure, you know.

Given the parental desire to watch over their daughters, participants perceived parents preferred PAS closest to the heart of Cedar-Riverside for their physical activity participation. To parents, PAS accessibility meant the ability to more easily watch over their daughters themselves. The Brian Coyle Center was widely noted as the most parent-accessible and, thus, the most parent-supported PAS for surveillance. For example, a few girls indicated:

Speaker 1: Parents think it's safer for us [girls] to be somewhere, like Coyle, where it's um really close to everything and easy to get to, so um they can check on us, you know. 'Cause like, probably you call your mom and stuff like that, but I mean, eventually she has to check on you to see if you are doing good or not. 'Cause, yeah, like, parents are always worried about their children.

Speaker 2: Yeah, like she said, um your parents want to check up on you. Like, parents can get really attached to their kids. And like, even my parents they like to come here and sometimes I might forget my phone, so they come here and check up on me to see what I'm doing, how I'm acting, if I'm just doing nothing or if I came for a reason, and what's that reason behind it and stuff. They want to know I'm not doing anything bad, so they can like feel, um, more comfortable with me being away and doing activities and stuff.

Currie Park was also discussed as a highly parent-accessible and parent-supported PAS for surveillance. One woman explained:

> Currie Park is very comfortable for us and our parents, because like it's easy for our parents to get there, so they can be there and see us, they have nothing to worry about, they know what we're doing, we don't have anything to hide from them. There's places for us to play around and there's places for our parents to watch. It's really good.

Parent-support for Currie Park and other outdoor PAS only held if they, and other adults they trusted, were able to watch over their daughters. The increased parental desire for surveillance of their daughters was due to parental fear of intermingling leading to inappropriate male gazing and detrimental judgment by Somali elders. For example, participants in one focus group explained:

Speaker 1: Like, Currie Park, E-F Park, Riverside Park, you know, only has our parents support if they can see us or like the ladies leading the program are there, or someone is watching, you know. 'Cause they don't want us to get hurt…

Speaker 2: Yeah, and their [parents] problem is that they're afraid of intermingling

outside. They think we'll play with the boys, or if the boys won't stop looking at us, and like then they worry who else is seeing.

Speaker 3: They worry the elderlies are going to judge and ruin our reputation.

Speaker 2: 'Cause this is Cedar, that's what happens here.

Parents were also supportive of other PAS with a high level of surveillance by other trusted adults. The Brian Coyle Center was cited as the most parent-supported PAS, due to parental assurance of such surveillance. For example, one participant said:

> My parents like the Brian Coyle, like because they think I'm safe there because like, a lot of people live around here and know each other, and like, it's like, whenever you come here, you meet somebody you know, and like, if you drop your kid here, definitely you're gonna get somebody who's gonna watch after your kid, you know. You don't have to get worried, 'Oh, what if it gets closed? Where's my daughter gonna go if I'm in a meeting, or I'm doing this?' You know definitely somebody's gonna look after your daughter, you know. Somebody's gonna take care of her, make sure she don't get hurt or nobody bother her, drop her home if possible, you know, I guess. Basically, you know, somebody that you trust is gonna watch her for sure. And you know there's securities will help if she needs.

In addition to the Brian Coyle Center, participants in another focus group perceived parent-support for the mosques because of heightened surveillance. They explained:

> If I would say, 'Hey mom, I'm at the mosque, and I'm doing this and this and this activity,'" or "I'm going to girls gym at Coyle," mom already knows, 'Ok there's not, the opposite sex is not there, you know. There's not going to be any inter-mingling because there's people watching to make sure, so ok, it's good.' Her problem is that she's afraid of the inter-mingling with the, you know, opposite sex or that I might get hurt because I'm a girl, you know what I mean? People might bother me or judge me, things like that if I plays with the boys or people thinks I'm playing with the boys. As long as she knows okay, someone's watching so all that doesn't happen, she's like, "Okay, play."

Several participants perceived their participants would also be supportive of academic PAS as long as there was direct female-only, adult surveillance and indirect security or police

surveillance present. For instance, participants in one focus group explained:

Speaker 1: Our parents, they will like let you go to colleges or the University because they have a gym, you know. Just that if we go, um, someone has to be with us that's there with us. Instead of being there by ourselves.

Speaker 2: Like, we have to bring someone older. Somebody has to watch us.

Speaker 3: And there has to be securities there, or polices who are watching the building, and like can help if you need.

Chelsey: Someone like? Tell me a little bit about who has to be there with you.

Speaker 2: Ladies, like Salma and Fatimah, or you, you know.

Speaker 1: Yeah, like, adult ladies who run the program that they trust. They have to have trust, that's number one, you know.

Chelsey: And how, why is having female supervisors something parents support?

Speaker 1: 'Cause you want, they don't have to worry about you being alone and getting hurt.

Speaker 2: They won't think that we were with boys or, or anything.

Familiarity tension. Participants' described a lived tension between familiar and unfamiliar PAS. Participants felt more psychologically safe to engage in physical activity in, and perceived more parent support for, familiar PAS. Brian Coyle was the most discussed familiar PAS. However, there was tension between psychological and physical safety. Despite participants' overall desire for the familiar, participants also reveled in the excitement and freedom unfamiliar PAS offered.

Familiar spaces. Participants felt the most comfortable in familiar PAS, such as the Brian Coyle Center. For example, the girls in one focus group stated:

Chelsey: What makes you feel safe and comfortable at the Brian Coyle Center?

Speaker 1: Familiar territory.

Speaker 2: Yeah.

Chelsey: Ok, familiar… can you elaborate, tell me more what you mean?

Speaker 1: Like, most of us have been coming to Coyle for years….

Speaker 2: For a lot of years…

Speaker 1: And going to the gym for a long, long time. We know all the people who's in it, people who leave or come in, whatever. And we know what happens there, like what events and things they have.

Speaker 2: We all know them.

Speaker 1: We all know everyone and everything about there.

Speaker 2: There's a familiar, there's not an unfamiliar face.

Speaker 3: You know what I think, it's like a baby…it's like a baby is the most comfortable and feels safest, happiest, you know with their mom, dad, um like family they know. Like, it's the same thing for us. We like to be with the people we know, especially for exercising, 'cause like they understand what we need, you know.

Speaker 2: I don't think it's that, I think it's more like school...um, like, I think the fact that there's, I don't want to say 99.9 percent Somali are here…I think the fact that, it's the majority of the people here are Somali, you know, it's that you feel comfortable and safe. It's like going to class, like, the first day of class, and you see a Somali person, you go sit next to them, you know, it's just that kind of like, you feel that you get each other, and just like, I think the culture in itself, like, the cultural and religious values of Brian Coyle and having the majority of Somali people, I think it's what's grabbing a lot of people to come. It grabs me and my friends to come at least.

Women in another focus group discussed the same familiarity with the people and environment at the Brian Coyle Center. In particular, they expressed that mutual religion, ethnicity, and culture were key to such familiarity and, ultimately, psychological safety. They explained:

Speaker 1: I feel most comfortable exercising at the Brian Coyle Center, so that's like why I come here the most.

Speaker 2: Yeah, me too. It's safe.

Speaker 1: What do you mean by safe?

Speaker 2: It's a familiar place where everyone knows everyone, and like everybody gets along.

Speaker 3: We know everyone that comes here and works here, and like, they accept you and understand you, ‘cause it’s mostly Somalians there.

Speaker 3: Everywhere you go, you see Somalians. We’re the same ethnicity and like culturally we’re the same, too.

Speaker 4: They’re like your friends and family, and you know they’re going to there for you. ‘Cause that’s what we do in our culture, like we have each other’s backs, you know.

Speaker 1: Yeah, it’s like the consistency of always knowing who and what will be there, you know, plays a big part in it. And also, um, like, just, you're just gonna go in there and feel comfortable. It's a comfortable environment, like, a safe environment, you can wear whatever you want, um, without, you know, like, without violating the obligation of your religion.

Speaker 3: Yeah, I think the religious freedom is a big part of it.

Chelsey: Tell me more you about that. What do you mean when you say religious freedom?

Speaker 3: The way we dress is kind of different from other people, so like other places you get stared at and people come to you and are like, “What religious are you?,” and I have to explain stuff. But here everyone, well almost everyone, is the same, so there’s no big issue there. Everyone just understands.

Speaker 1: And we have a whole day of only girls basketball where you know there are no guys around so you can just do whatever you want, ‘cause everyone here are familiar with our religion you know, and like know what we need.

A few other participants connected their shared racial, cultural, and religious identities to feelings of familiarity and psychological safety, stating:

Speaker 1: Oh gosh, I think the Brian Coyle Center is the best for physical activities because it’s familiar. I mean, Brian Coyle respects you as a person, you know, your race, your culture, your religion and everything. That’s why it wins as the most comfortable, safe, you know, number one place for us girls.

Speaker 2: Yeah, I would say that there's a lot of Somali people in Cedar, especially at Brian Coyle, and we all respect each other like, like brothers and sisters, you know. Like, yeah, that's why I like to come to girls' gym here.

Speaker 3: I don't know if there is any comparison to this place in my experience. This place is just dedicated to the people you know. It feels like home, you know. We're all family here.

Speaker 1: Yeah, the Brian Coyle Center…Um, it's usually um, you know, we go to school, you know, most of the time, um, I'm at different places, you know. It's good sometimes, I come, I mean, I don't live in Cedar, but then I come here and, you know, I see Somali people and I say, "Yeah, you know, it's like a second home." It's good, like a good social thing, to come here, like twice or once a week, so you know, yeah, I don't see much Somalis otherwise.

Speaker 2: Socially it's a good thing, you know, yeah, like, get involved with, you know, different people is good, but sometimes, you know, you need your people that you feel more comfortable around.

Speaker 3: 'Cause one of like, Somali is like one of the only countries that have the same religion, same culture, same language, so it's like in Cedar-Riverside Somali people are here, it's gonna be the same language, same religion, same culture. So it's that consistency and familiarity of that, and just, I don't know, I really like it.

In contrast to their comfort in familiar spaces, most participants felt more uncomfortable and less psychologically safe in unfamiliar PAS. For instance, one woman said:

> Well, because people are not probably familiar with many other places than at Brian Coyle. Like Brian Coyle is here and they have probably been living here for years and you know it. You know everything about it. You go somewhere you don't know and you don't feel safe. You are like, 'Oh, I don't know this place and I don't know the people that are there, it is like I don't feel comfortable there. I don't want to exercise there.'

In addition to their own comfort of being active in familiar spaces, participants perceived increased parental support for their physical activity in familiar community spaces,

due to the conceptions that girls need protection and familiarity equals safety. The Brian Coyle Center was widely discussed as the most familiar space among parents. For example, one adolescent girl said, “They’re cool if they know the place, and like know I’m safe there. They don’t want to worry about me, and at Brian Coyle they don’t have to. ” Similarly, another participant said, “My parents think it’s safe and are, they feel comfortable if it’s a place they know. So like they know the people at Brian Coyle Center, and that’s why they let me go to the girls’ gym.” A third girl noted:

> My parents like to know I’m in the mosque, or Brian Coyle, or somewhere close to the high-rises in Cedar. I think it's just to raise, “Ah, ok,” peace. Rather than, like, “Oh mom, I'm in, like, you know, the YMCA, or Riverside, or I'm in this place,” because a lot of the times the older parents, like mine, they don't know exactly where these areas are and that worries them, especially for girls…They have more fears for us and don’t want us like somewhere we can get in troubles or hurt.

Similarly, a fourth girl stated:

> I think it depends on the parent and if they’re comfortable with their child going over there. Like my, when my mother came and looked at the Brian Coyle Center and talked to the people, she was able to like, let it go a little bit more than she used to hold in. Now she’s okay with me coming to the gym, because she knows the place, like she knows the people and that they’ll watch me, so I’ll be safe.

While discussing the familiarity and psychological safety participants personally felt and parentally perceived at the Brian Coyle Center, a tension between familiarity, psychological and physical safety emerged. The Brian Coyle Center was not always perceived as the most physically safe space. However, personal and parental familiarity with the space trumped the lack of physical safety at times, and led to continued psychological comfort, safety, and ultimately physical activity participation in the space. For example, participants in one focus group explained:

> Speaker 1: Alright. So far, like when it comes to safety, it’s horrible! ‘Cause so far like I been to like, you know, I’ve been to like Currie Park, kind of

right next to Brian Coyle, and then I was in Brian Coyle too. And in like my whole life time there was 6 shooting or 5 assaults. Like, I seen dead bodies around here, ‘cause, you know, I was like over there when a guy got shot and it was really horrible. This place has no safety anyway, it does have safety but they, you know, like, they’re building up their safety so like everybody can be safe. Every time like someone gets, like there’s a shooting, their safety keeps um increasing, you know. Like after that shooting they had those, you know, metal bars over there, which I thought was kind of genius, but then you know, people can jump over it, but, yeah.

Speaker 2: But there’s like cameras, and security now. Like, police are always around, too.

Speaker 3: It is really scary at Brian Coyle some time. Like sometimes you’re risking your own life coming here. Summer, like, it’s the worst!

Speaker 2: Well, it’s not so scary when you are inside the building…I mean don’t get close to the window, but then like, be in the gym. I mean like, in the library too like, there was once like all this shooting in the back of the window, but anyway. Like yeah, being in the gym is like really safe over there. Like, don’t get close to any windows anywhere else though.

Speaker 1: Yeah, but even though it’s not safe, you know, it doesn’t matter like to me or most other people. Like, if there is a shooting most people like, the majority of these people like, don’t even care, they are still going to come back to the Coyle. Like, before I remember I always see a lot of people. I like, thought, ‘Oh my gosh, I am shock, because there was like a shooting yesterday. How can they still be here, they don’t even care?’ But now I see, like I keep on doing the activity. I remember they were playing basketball and people would do things in the Coyle activity. Like, nothing even happened here, when yeah something really did happen. Like I don’t think people really care.

Chelsey: So why do you think…what keeps drawing people back then?

Speaker 1: To me like, Brian Coyle is their second home you know, like, if I never have my keys or anything like that. I would go to the Brian Coyle like, stay there until my parents come like pick me up. ‘Cause I feel the most

comfortable here, since I know everyone. Like to me I feel safer because of that than maybe a shooting will happen, you know.

Similarly, participants in another focus group said:

Speaker 1: I like the Brian Coyle Center, ‘cause it’s a place where you come here and you’re comfortable here. It’s really a second home.

Speaker 2: You know all the people.

Speaker 1: Yeah, nothing is really new, like the people are the same, the activities are the same, you know, so you are used to it. And you think, ‘Oh, nothing is going to happen, someone’s not just going to come and shoot up the whole place. That’s not really necessary.’ Even though people have come and done that I you just still don’t think that will happen again, ‘cause like you know the people there would never do that like.

Speaker 3: I am kind of 50/50 on it, on safety. Anything can happen. It is like a lot of people go there and something just might happen. One person might get angry and just blow out on a whole bunch of people and we could all get hurt, so like that’s not safe. But at the same time, yeah, everybody knows each other, you’re comfortable with everybody, and you feel safe coming here because of that, you know.

Speaker 2: Everybody is united.

Speaker 1: Well, I think, no matter what happens, Brian Coyle, whether people consider it safe or not, they will still come, because it’s the only space you can come to and actually be yourself, it’s where they feel home, and it’s where is the center to their building, like you know what I mean, Riverside. It’s the heart of Cedar, you know. But at the same time, there has been a lot of crimes, there has been a lot of incidents of un-safety. But, after a while, people get over it. And, it's like they call that home, so, no matter what happens they'll still continue coming.

Though participants perceived most girls and young women would continue coming to the Brian Coyle Center for physical activity despite physical safety concerns, they were clear to point out not all girls and young women would for personal and parental reasons. For instance, one woman explained:

Oh, I think that Brian Coyle has like, you know, like, it's my opinion it's dangerous, like sometimes. But it's like it doesn't matter, we are all a community like, most of us we don't really care. We will still go back to the Coyle and exercise, but like for some people if there's a shooting they will stop coming to the place sometimes, for a while, they like think, 'Oh my gosh,' if some shooting happened like, 'how about if it did happen again.' And like, their parents think, 'I don't want my children over there. We're going to change to another place, you know, go somewhere else instead of there. Like somewhere safer.' So yeah, not all girls and women will keep coming, you know.

Participants also highlighted a mutual understanding and cultural and religious acceptance among people at other PAS leads to feelings of familiarity and comfort. They said:

Chelsey: What is it about those spaces as to why you feel comfortable?

Speaker 1: I know the place.

Speaker 2: In those spaces, I got used to it.

Speaker 3: Um, because like, just what we said, you get used to it, familiar people, familiar environment, like, um…

Speaker 4: Familiar people. Like mostly Somali people you know, we're the same culture, same religion. And in the gyms or workout places it's only girls.

Speaker 3: People accept you there and stuff like that.

Speaker 1: They know who you are.

Speaker 5: They already know culturally and religiously what you're doing and why you're doing it, you know.

Speaker 3: If you're playing, and you're just like, ok, let's say I just walk in, I take off my scarf and I just start playing. They're not gonna look at you like, 'Oh, ok.'

Speaker 6: 'Cause they know that's okay because it's only girls. And ok, if someone like, let's say people know me and they, you know, you can be yourself around them, like over there, 'cause they know you're like that and they accept that, and like, they just used to it, they don't really care. So yeah.

Several participants also suggested their parents would be supportive of physical activity programming held at educational institutions. For example, participants in one focus group discussed:

Speaker 1: My parents would be supportive of here 'cause a college place is a learning place, and parents want us to always be learning. That's most important.

Speaker 3: Yeah, if it's at a college, my parents would think it has learning in it, you know. They would like that.

***Unfamiliar spaces*.** Though participants primarily desired familiar PAS because of the psychological safety they experienced there, they also enjoyed the excitement and freedom unfamiliar PAS offered or could offer. A participant in one focus group discussed excitement over the opportunity to meet new people and try new activities in unfamiliar PAS, stating:

Speaker 1: For me, I haven't been anywhere else but here, and if I were I would go to these places but it would take me to like get out of my comfort zone and to go to these new places

Chelsey: So what do you mean it would take you out of your comfort zone? Tell me more about that.

Speaker 1: More like socializing with new people basically, and meeting new people and doing things that I normally don't do that's around my community

Chelsey: Would you or wouldn't you like that?

Speaker 1: Oh, I would really like that and I think other girls would, too, you know. It's really fun to meet new people and try new things. And I'd feel free, you know, to just have fun and do new stuff.

Chelsey: Would you want only new people in the space?

Speaker 1: Oh, no. Like I want some new people there to get to know them, but mostly we still need leaders of the program there we trust and parents trust, you know. For safety, you know. We feel comfortable with them because they know us and we know them. And, like, I still want all the same girls who come to basketball now, because they are my friends.

Likewise, several other participants discussed:

Speaker 1: 'Cause everyone always comes here, I think they actually want to explore other places.

Chelsey: Why do you think they would want to do that?

Speaker 1: I didn't know there was all these places [points to many spaces on the participatory map]. I didn't even know Cedar-Riverside was that size. And like I don't think other people did either, so it'd be fun to get to try new things.

Speaker 3: I'm sick of staying where I am. It's boring and same old, you know. Like it'd be really fun to try new places for physical activities.

Speaker 4: Like you're sick and tired of, like, the same place all the time and the new place like you can be free to explore. That is exciting to me, you know.

Speaker 4: I want to like, do new things and see new places instead of doing the same thing and I think we should stop, like, playing always basketball and everything and like do something like, I want to like, go hiking, or something, you know. So in a new place we could be free to do new activities.

Speaker 5: Yeah, that'd be so fun to play more than just basketball. I think, I want to one day, you know how they have a soccer field at Riverside Park, I want to one day just go and play and see what they're going to say cause we shouldn't just be doing basketball. We should actually be playing soccer. They should be fixing up that tennis court over there and we should be playing tennis or something.

Speaker 3: I think 'cause there's more to explore in this world. We shouldn't just be playing basketball. There's so many other activities that we can do.

Speaker 1: That's true.

Speaker 2: Playing other sports is part of physical activity too.

Speaker 3: Yeah. It's not just basketball.

Chelsey: Okay. So, give me a list of some. You said the tennis courts, you said soccer. What other activities?

Speaker 2: Bad…what's that called...the one with the rackets, net, and the um weird thing you hit?

Chelsey: Badminton?

Speaker 2: Yeah, that…I want to try it.

Speaker 1: Dance, Volleyball.

Speaker 4: Swimming would be really fun too.

Speaker 5: Football.

Speaker 3: Baseball, or um softball.

In particular, participants spoke of wanting to try dance, swimming, and football. For instance, a girl explained the desire to dance was because, "It's freeing to, like, just move your body and have fun listening to music. And we all like to dance, you know, like hip hop we do it all the time on our own, so it'd be fun to do it with friends and stuff." In regards to swimming, another participant said:

> Well, for the swimming part then. Um, like, back then Somalia, like, a lot of, like my mom used to tell me she used to swim, you know, like, it was kind of the favorite sport then, um, cause like there's like, you can just go in there, and like, there's isolated places you can just go, and like, a group of women, can swim there. So it's like, it's kind of like, in tradition to swim, more than really play a ball…'Cause like it was hot there and ladies wanted to cool off and get clean, and it was really fun and they could just be free in the water I think. Like, maybe, that's why we like it so much, um, it's our culture and we want to have fun and just be free to splash around, you know.

While participants agreed on the aforementioned reasons for wanting to dance and swim, they cited a variety of reasons for desiring to play football. For instance, several participants explained:

Speaker 1: I want to play football because it's fun, it's easy to play with a lot of girls.

Speaker 2: Everybody just plays basketball that much, like you could play other activities too, so football would be fun.

Speaker 3: Maybe because, it's like, for us, like Somalis, it's not in our culture and it's like, something new that, you just like, find out about, and it's like,

well maybe it's like, it's not what I, for me. When I used to see football on TV, I'm like, ‘Oh, this is like, kind of barbaric sports, it's like people tackling each other, hitting each other.’ And when like, when you get to learn it, and people explain, you know, this is how you do it, it's just like, you get into the mood, and you're like, ‘Oh, you know, oh I want to win,’ just like any sport…

Speaker 4: It’s the competitive.

Speaker 3: and it's, it's, I think it's really fun.

Speaker 2: I agree with her, and then also the fact that it's like, 3 things in 1, like the tackling, the catching, and the running, and it's just, like, it's not doing just one thing, and just running after a ball like basketball, but it's also, you're either running after the ball or person, or you, I mean, it could also be like flag football, like trying to get the flags out of the person and things like that. So there’s more to it, you know.

Chelsey: So are you all talking wanting to play tackling or flag football or both?

Speaker 2: Flag football, not tackling, tackling. (Laughs)

Speaker 1: Tackling wouldn’t really be that different really. Like, we’re practically tackling in basketball sometime.

Speaker 3: We’re not supposed to be though!

Speaker 2: Yeah, that’s a foul.

Speaker 1: But no one calls it, so sometimes people do. Seriously, I’ve seen it! It’s crazy!

Chelsey: So do you want tackling football then?

Speaker 1: No it’s more fun and safer if it’s flags. Like, I don’t like basketball is that way, I’m just saying it is you know.

Speaker 3: No tackling, flags are better.

Speaker 4: Yeah, flags.

Another participant also explained wanting to try football because:

> It’s like, okay we all watch TV and look at football. We’re just sitting there and watching it. We’re not playing it. We’d rather get up and do some sort of physical activity, and actually do it ourself, and actually play football rather than sitting there and watching.

Participants did not only want to experience a variety of activities in unfamiliar PAS in the Cedar-Riverside neighborhood, but also wanted to experience the excitement of travelling to unfamiliar PAS outside of the neighborhood. For example, one girl described:

> It would be nice if this program would take us places out of our community or in other community that we have never heard of. Like somewhere else, you know. ‘Cause it’s fun to go on a road trip together and like play other teams and meet new people, like real basketball teams do, you know.

No matter how much participants desired the excitement and freedom of trying a variety of physical activities in unfamiliar PAS, however, they still wanted elements of the familiar. The majority of participants said they wanted to meet at the familiar Brian Coyle Center and travel to any unfamiliar spaces together for comfort and safety. For instance, they said:

Speaker 1:	We shouldn’t only stay in Coyle and Cedar. Like, we need to go to other places.
Speaker 2:	Yeah.
Speaker 3:	Um-hm.
Speaker 1:	But like, we should meet at Coyle first, and they like can provide a truck.
Speaker 2:	Transportation.
Speaker 4:	A truck, you mean, you mean a van?
Speaker 2:	Whatever.
Speaker 4:	They have a van.
Speaker 1:	Okay, then. A van.
Chelsey:	Why do you want them to provide a van?
Speaker 1:	Well, ‘cause like anywhere but Coyle is kind of far, and parents can’t really bring us. So we need to get there and be safe and stuff.
Speaker 3:	Like that way we can all go together.
Speaker 4:	It’s safety.
Speaker 3:	Yeah, so you know when you get to the new place you know people there. You won’t like be all by yourself in a new place, like that. So it’ll be comfortable and you’ll feel safe.

Similarly, another participant noted:

> That is nice too but I think it should originate like in the Coyle. If we are going somewhere else we should all meet here first and walk there or get a van or something like that…It's more comfortable and safer to go together 'cause you don't know what the new place will be like. It's just good to be with people you can trust just in case, you know.

Likewise, a third participant stated:

> Like, it would be cool if we are actually talking about actually doing these things it would be really nice if we all would meet up at Coyle and they would take us there. It would be way easier if that would happen, because you don't actually have to ask your mom to take you and everything and we don't have to walk. It is way easier, because the parents still know who you are with and like you'll be safe, and you don't need to worry like you'll get there and not know anyone or get hurt, you know.

Inclusivity tensions. There were a few inclusivity tensions among participants regarding who they felt comfortable to be physically active with in PAS. The tensions were over female-only versus inter-sex PAS and participant age-range. Despite these differences, participants agreed on and supported inclusive ethnic and religious policies in PAS.

***Female-only versus inter-sex tensions*.** There was tension among participants over what genders should be included in PAS and future physical activity programming. Due to the cultural norm that females and males should engage in physical activity separately and covering restrictions, the majority of participants preferred female-only physical activity spaces. For instance, one woman said:

> We need to keep spaces where we exercise female-only, because um, well, technically we cannot exercise in front of men. For example, as students we have access to the gym, but like, unless we reserve it, or like, it's only exclusively for females, we can't really go, and you know, run around there, cause we aren't supposed to play with men and can't uncover in front of them. So what drives women to this center and program is it's reserved for them. There's time where they can visit and do workout and not worry about men seeing them or anything else.

Several other participants echoed this sentiment, stating:

Speaker 1: We need more spaces for just girls, 'cause we don't get what guys get.

Speaker 2: You know, 'cause we want to show them that it's not always about guys. And we should get to play, too.

Speaker 3: If we have our own spaces, we can be more comfortable, like wear what we want and just be free. Like with the whole Brian Coyle that's why it's so blue, 'cause just the women are allowed to be inside the gym, and that's when they can go to the locker, put on their shorts or whatever they desire, and then be comfortable and, you know what I mean, play basketball or run around the gym. They have complete control over that space and that makes them not worry about anything, you know, and just have fun playing…And when it's just girls then our parents will trust us and more girls will come out.

Speaker 2: Yeah, more girls will come out of their shell and stuff like that, out of their house.

This quote also highlights parental support of female-only PAS. Several other participants also discussed the need for PAS to uphold the cultural/religious value of being female-only in order to maintain parental support. Specifically, participants perceived parents were more supportive of female-only PAS because of their desire for their girls to be healthy, yet their fear intermingling due to the culture of surveillance, gossip and judgment, and the cultural and religious beliefs that men and women should be separate for physical activity and females need protection. One woman highlighted this, noting:

Speaker 1: Parents will not say, you know, if its religiously good and you get your exercise and stay in shape. They want you to stay in shape, you know, but at the same time if it's not religiously good, they'll say, "No, you can't do that."

Chelsey: Describe what you mean by religiously good?

Speaker 1: Only girls, no guys. 'Cuz if its girls and guys together, like your family won't let you. They would say like, "Why would you play around with guys when they're in the same room as you?" and something like that

> ‘cause we’re not supposed to be active with boys in our culture. They think it will ruin our reputation if someone sees or something. But if its only girls, there’s for sure no boys there they would actually tell you, “You should go and do basketball or something. Go do whatever.” That’s why my parents let me keep come to our basketball program.

Another participant indicated:

> If I would say, “Hey mom, I'm at the mosque. I'm doing this and this and this activity.” My mom already knows, ‘Ok there's not, the opposite sex is not there,’ you know, ‘there's not going to be any inter-mingling,’ so, ‘ok, it's good.’ Yeah, their problem is that they're afraid of the inter-mingling with the, you know, the opposite sex or that we might get hurt because I’m a girl, you know what I mean? People might bother me or judge me, things like that if I play with the boys. But she wants me to be healthy. So if she, um, can be sure the program will stay only females she has no problem with me going.

While the majority of participants personally desired, and perceived parental support for, female-only PAS and continued programming, a few participants resisted the cultural rule of female/male separatist physical activity and wanted inter-sex PAS. One participant highlighted this resistance, stating, “Most of the people in our culture say that it’s wrong to play with boys and it’s better to play with girls, but at the same time some think differently than that. I am one of those people. I think we can have more fun and learn more about each other if we could play together.” Another girl said, “In our religion we can’t play with boys, but some do it. I do it, and I don’t care what people think. It’s not like I’m breaking the law, you know.” In another focus group, several other participants stated:

Chelsey:	If anyone could be in your physical activity space or our program, who would you want to come to the program?
Speaker 1:	Friends.
Speaker 2:	Friends.
Chelsey:	Friends meaning?
Speaker 3:	Everyone.

Speaker 2: Girls and boys.

Speaker 1: Yeah, I just want to be able to play with any of my friends. Like, not have to have it be just girls. Like, just play when I feel like play with whoever is around to play with and not have to worry.

When asked more specifically about their desire for inter-sex activity, participants distinguished between physical activity programming and open gym time. They wanted female-only PAS for physical activity programming and team sport purposes, but inter-sex PAS for open gym. One participant articulated this point, indicating:

> I think physical activity spaces should be both girls-only and boys and girls together, ‘cause you know, like yeah, both would be good. Like, if you’re asking for the team or our program I’d rather have like separate, so we can practice together and like get the ball and stuff. Oh, and play games. Like the sport teams, like basketball, at my school—there is a girls’ team and a boys’ team. But then for the open gym I think like girls and boys should play together, since it’s just about fun then.

Age range tensions. In addition to gender tensions, participants cited a wide range of acceptable ages for females in PAS and future physical activity programming. For instance, some girls thought program participants should include girls and young women “8 until college” or “10 to college,” because those were the ages at which “most girls want to exercise and have like the time to do physical activities.” Other girls thought the age range should include teenagers and young adults. For example, one girl said, “Um, basically, like us, our ages, from like, I think, 15 and up. Like 25.” Another girl said:

> Teenager to college age, um, 13 to 20 or something. Like, I don't think it should have old people ‘cause they judge us and stuff. It’s not as fun with them, you know. And they are busy working two jobs, taking care of the kids, the house, you know. We only have school, homework, so like have the time to come.

While the majority of participants capped the programming age at about 25, some girls thought their parents and older generations should also be included. For example, one woman noted:

> Parents and older parents too, to be honest, should be a part of the program because they have less access than anyone. I mean parents who are, like, let's say a woman gives birth, she is 25. She's past, like, you know, she doesn't have the opportunity that we do as teenagers and college kids anymore. Like, it's done for her, like, I mean unless she pursues it and does that extra effort to find resources which most Somali women doesn't, they just you know what give up on it ‘cause there’s not really anything for them anyway…. And like adult men and women who are retired, they don't have the resources we do. They're given a retire money and, most likely, those retire money are used to send back home. They're not benefiting themselves to be honest, and they need the exercise the most.

Women in another focus group supported this point, stating:

> Speaker 1: We need much more focus on older generations—parents and elderlies, because there’s nothing for them program-wise
>
> Speaker 2: But the parents, their exercise is basically the cooking, and you know, home activities that they do, and you know their kids and stuff, they never have the opportunity to go exercise, and that's why they're having diabetes and high blood pressure and all that stuff, 'cause we consume a lot of oil, a lot of sugar…
>
> Speaker 3: And the sun is not there.
>
> Speaker 2: And the sun is not there for us to get out in, as you know, Minnesota is like, mostly winter than it is summer.
>
> Speaker 1: Like, during the whole winter they're locked up, they're in the house.
>
> Speaker 2: That's why the elderlies especially have a lot of illnesses, because the whole winter they don't get to get out of the house. Especially with the grandparents, like if they're older, they never get to get out of the house. That's why, like, in the state of focus and adolescence, I think it would be more proper or helpful that there is centers where…
>
> Speaker 3: Older too.
>
> Speaker 2: The community even like, those who are retired focuses on adults to get out of the house and to actually do activities, that's like, one big dream I have in the future. I think there should be a program for adults,

especially mothers and elders, in addition to teenagers and young adults like us.

Speaker 3: Definitely there should.

A few other participants supported these perspectives. For instance, one girl thought programming and PAS "should be for all women of all ages." Another girl also said, "These spaces and our program should be for all ethnicities, all religions, all ages. It doesn't matter as long as it's only women." The inclusivity of all ethnicities and religions was also a common theme among participants, and is discussed next.

Inclusive ethnicities, races, religions, and cultures. Despite gender and age tensions, all study participants agreed the program should be inclusive of women of all ethnicities, races, religions, and cultures. For example, participants in one focus group explained:

Speaker 1: I think the program and these spaces should be for any lady. Whoever lives in, or like comes to, the Cedar-Riverside.

Speaker 2: Anybody's welcome.

Speaker 1: Any woman, any girl, from any religion, from any race, anybody who needs to be in their own space. Whites, Somalis, other cultures, Muslim, Christian…Just any female, you know.

Speaker 3: Yeah. They're all welcome.

Chelsey: Why anybody?

Speaker 1: Because anyone, everyone should have the right to play if they want…

Speaker 2: Just because we're getting, uh, uh, like discriminated against by the boys, doesn't mean we should do that to other people…

Speaker 1: We don't wanna disclude anybody. We know what it feels like to not be wanted or allowed, you know, so like we want everybody to just have fun. All the girls come together, play, have fun.

Speaker 3: And then it's also…

Speaker 2: I don't want, like, just Somalis, but other people from other cultures, too. I want like, everyone should go there, like…

Speaker 1: Everybody.

Speaker 3: It should be a learning environment where we learn from different cultures, but also do our physical activity.

Similarly, participants in another focus group said:

Chelsey: Besides gender and age, since we already talked about those, who would you want in the program and PAS?

Speaker 1: Any race can be there, like, it's not just Somalians every day.

Speaker 2: Yeah. White, Black, Mexican, Asian.

Speaker 3: And religion doesn't matter either. Doesn't have to just be Muslim, you know.

Speaker 2: Yeah, It doesn't matter.

Speaker 1: Doesn't matter.

Speaker 4: Doesn't matter.

Speaker 3: We want this program where anyone, any girl, can come. Like, every girl, or um lady, has a right to come and feels like they are welcome here.

Participants so strongly promoted ethnic, racial, religious, and cultural inclusivity that they suggested specifically targeting and recruiting more girls of diverse identities outside of the Somali and Cedar-Riverside community. For example, they discussed:

Speaker 1: I think we need to like recruit more girls like outside of the Somali community, and like Cedar-Riverside. Because like, there is only like not that many other girls that come here. Most of us come here almost every day, but we're all Somalis, and like we all know each other, and like have same culture, religion, you know. I feel it is a small number, but we all know at least some people outside of this community that we can bring into this community.

Chelsey: Describe what other girls you're talking about.

Speaker 2: Asian, black, African American, White, Hispanic…like any race, any culture.

Speaker 3: And all religions, not just Muslim.

Chelsey: And why is it important to bring in these other girls?

Speaker 1: So we can get people outside of the community –

Speaker 3: ‘Cause Cedar can be known as a good place. Like, right now seems people think Cedar is bad because what they hear on news. Many are afraid of us. When like really Somalis are peaceful people. Islam, you know, tells us to be peaceful.

Speaker 1: Yeah, so people can see we’re really not bad and So we can get a better name, you know.

Speaker 2: And because diverse, we can, like, learn from each other and we can understand each other.

Speaker 1: And the more the better – the more the merrier. Like, the more teams and fun you can have with more people.

Accessibility desires. Participants widely discussed three types of accessibility as directly impacting their lived experience in PAS: transportation, financial, and resource accessibility.

***Transportation accessibility*.** Participants noted that ease of transportation to PAS was vital to their physical activity participation in the respective spaces. For instance, several participants explained:

Speaker 1: I mean, the reason why I mostly do physical activities at Coyle is because of convenience. It’s right in the middle of everything, you know, easy to get to, ‘cause my parents doesn't have a car, doesn't drive. So, in order for me to enroll in a program or go anywhere, it is better that my parents can take me with their own feet and pick me up with their own feet. You know what I mean, and like, distance close is best for walking.

Speaker 2: Yeah, like, I live in Cedar. The reason I only go to Riverside Park is because of field trips. My Mom will not let me go there, she has to drive all the way there. She will say no, which wastes my time, but like, the only reason I go is for field trips and stuff, like other places too U of M and Augsburg and stuff like that with my school would take me and yeah. My Mom would never take me to these places, she said it’s just too far away she say and I can’t keep checking on you, and since we live right next to Brian Coyle and Currie, she will like let us walk here

and she can walk over too and peek on us, you know, and I mean, go back home and like, all the times she will do that. So for me, the physical activity space needs to be accessible for transportation-wise.

Speaker 3: For me, I don't live in Cedar and my parents have a car and they still won't drive me anywhere else but Coyle 'cause they think it's too far. You know, they would be, "Oh, I can't drive you there, so you can't go," you know. It has to do with many factors, but you know closeness and accessibility, I mean are most for transportation and them letting me go.

Speaker 4: I think it's, there's a lots of ways to get here you know. Like, yeah, we can walk ourselves too if we live close, but there's also the bus, the train, you know. Oh yeah, and some of the girls and the program leaders drive, so we can sometimes like get a ride with them.

Speaker 2: I think the other thing is, like, um, like, if it's a place, like, right here [Brian Coyle Center], there's a lot of moms that know each other, and like, if your mom is distance she can call the mom that lives here and have her pick you up and bring you where you need.

Speaker 3: Yeah, like if one of these ways, we can just get to these different places in Cedar then we could try them. Like, I'd like that, you know.

Similarly, participants in another focus group said:

Speaker 1: The number one reason why Brian Coyle Center wins for everything I think is 'cause it's closer. Like, there's just accessibility.

Speaker 2: Yeah, many people live in the towers and, you know, most people don't want to walk that far, so Brian Coyle Center and Currie Park is like right there, so they all go to those places.

Speaker 3: And the train is here. Like we all have access to it and can take it to get to Cedar.

Chelsey: So what do you mean by access and accessibility?

Speaker 3: It's like we can get to the places easy

Speaker 1: Yeah, I go to Brian Coyle 'cause it is a lot easier to get to…it's by the high risers, bus routes, train station, parents know where it is and can bring you, all of that, it's easy.

Speaker 2: I think it would be hard like to do physical activities or have our program somewhere else ‘cause it’s hard to get there, like…

Speaker 4: If transportation was provided it wouldn’t

Speaker 5: If you could walk together there it’s okay.

Speaker 4: Mainly if transportation was provided, that would be definitely easy.

Speaker 2: Yeah, and fun.

Speaker 4: 'Cause my mom always says, “Do you have transportation?” She doesn’t really care where I go, just needs to know I’ll get there and get home safe, you know.

Speaker 2: 'Cause she's at work at every time, and the gas is going up high, and she doesn't want to like….

Speaker 5: My mom works full time, too.

Speaker 3: Well, if everyone meets at one spot, like Coyle would be good, and then goes to another spot to do something, then that would be like, it would make a life a lot easier for people. Transportation would be taken care of then, you know.

Speaker 1: My mom works every day. Walking's better… but people…

Speaker 3: It depends on where it is, you can't walk everywhere.

Speaker 1: It cost money for gas.

Speaker 2: Things got harder because of the economy.

Speaker 3: Especially transportation, and I don't live here, so if my mom, so I can do anything as long as I have a ride home. She just can’t bring me.

Speaker 5: Yeah.

Speaker 4: But if she knows I’ll leave home and come home safely, at least I’ll come home, so she’s okay with me going to do physical activities.

Speaker 1: You're safe.

Speaker 3: Yeah, so if there's not no ride, I have to take the bus, and the bus is not, like, at night, not safe.

Speaker 4: It's better to have a child come home safe than not come home. So transportation is everything.

A third group of participants also discussed parental support for close, transportation accessible PAS. They also added the significance of transportation accessibility on parent surveillance. For instance they said:

Speaker 1: Parents support Brian Coyle the most, because they want a close place that they know, where they can drop off their daughters easy and come pick them up again.

Speaker 2: If they could walk to it that's best. Sometimes, it feels like, ok, if it's somewhere around here, moms, like, let's just say her daughter says, "Ok mom, I'm here," and then after like she says, "Ok, I'm coming home at a certain time," and she doesn't. Then mom just gets worried, but if it's close and she can get to it easy she can come down and walk to that area.

Speaker 3: That makes a big deal. Whereas if the mom can't drive or it's too far, and then, the daughter says, "I'm gonna be home in 2 hours," and then, you know, a lot of moms tend to be worried for no reason sometimes, you know. But just knowing that, 'Ok,' they had that feeling that just that, 'Ok, if something happens I can get to my child.'

Speaker 2: Yeah, that's why like farther places, like Riverside Park, you know aren't as good for parents. Because that's kind of a little bit, it's not far but it's far. You have to walk there, blocks.

Speaker 3: You have to walk a block or two. It's behind Starbucks and stuff.

Chelsey: So why are they not supportive if you have to walk far for it?

Speaker 1: Because then you have to walk.

Speaker 3: And something could happen to you.

Speaker 2: The cars could hit you, and there's many intersections.

Speaker 4: It would be unsafe, I guess. It's like far from the apartments, so they can't get to you as quick.

Speaker 2: When you're walking there's a highway also and then there's a lot of cars going around, and why would your parents want you somewhere far away from home. They want you close so they can bring you, pick you up, and get to you if they're worried, you know.

Financial accessibility. In addition to transportation, the financial accessibility of PAS positively impacted participants' physical activity levels. Though participants did not specifically mention class when discussing financial accessibility, they made it clear that free and/or inexpensive PAS are imperative for their physical activity participation due to personal and familial monetary resources. For instance, one participant said:

> It's important that physical activities are accessible to girls, I mean, like doesn't cost money. Like, I think that might be another thing that girls are active here most, because anybody can join the girls' program and no one needs to pay money 'cause it's hard for them to have the money sometimes…So even though there are many ways girls can be active and many things that girls might do 'cause of all these places on this map, the only ones they really go to are free or cheap ones. And like that's really only the Coyle gym.

Another participant supported this point, stating:

> I don't know, it's just, like, a lot of the, like, looking at the maps, so many places aren't accessible. Like, the U of M, like, the gym, you can't go there unless you're a U of M student and you gotta swipe your card, and you have actually to be an active student, or if not you'll have to pay and it's probably expensive. Most of the other places where you could actually do physical activities on this map are like that, you'd have to pay a lot, you know, and like, that kind of limits people, to kind of like, go there. So coming here the fact that it's free, and it's available and it's open, I think people are taking opportunity of getting more involved and active, like there's not, I don't think there's any other program or other centers that are on the map that's actually free or cheap enough and available to the public that's, that would be willing to have, you know, the Sunday, Wednesdays. Let's say like, one of the YMCAs agrees to it, you know, we could pay, like, maybe a monthly fee, but, just like, it's really expensive sometimes.

Several other participants also said:

> Speaker 1: We all come here because it's free.
>
> Speaker 2: Yeah, it's free.
>
> Chelsey: Tell me more about that.
>
> Speaker 2: We don't have to pay just to have fun.

Chelsey: And why is that important or not important?

Speaker 3: 'Cause we should have fun without paying no money.

Speaker 4: Yeah, moving your body and doing physical activities are a right, not something you should have to always pay to do, you know.

Speaker 1: And if we had to pay, so many girls couldn't keep coming.

Chelsey: Why is that?

Speaker 4: Well, for one, like we're all kids or college students, so we couldn't get like the money.

Speaker 2: Yeah, and we can't really ask our parents, 'cause like these are hard times and like they probably don't have the money to give us, you know.

Resource accessibility. Participants also discussed the significance of PAS' resource accessibility on their physical activity behaviors. They were most active in PAS with a wide variety of physical activity and non-physical activity resources. For example, one participant said:

> Nowhere else but Coyle has access to a gym, like exercise spots, in addition to all its other the great resources. Like, there's not really anywhere else to be physical, like Mixed Blood Theater, you actually have to stay silent when you're watching the plays so how are you going to move. And if you're going to be really active and plus you have to move around, you should be actually in the place jumping around talking, what are we supposed to do? The Darul Quba if you're a girl, ok there's no problem with you being with a girl and a boy because obviously it's an Islamic center so obviously you're going to be separated. If you're in E building or any of the buildings, you can't be really active without bothering somebody, without running into somebody, without somebody getting mad at you, without being told by the security guard this is private property. The African mall, it's a place to shop; how are you going to run around in a mall where's there's people running around? And in the cultural center, it's just a mosque, Islamic center also, they don't have a gym in there to run around, they don't have a track field, they don't have anything. It's just a building that's there…So my opinion there's resources at those places, but not physical ones. That's why like everybody goes to the Brian Coyle 'cause you have a gym and you have like everything else here, too.

Likewise, several other participants said:

Speaker 1: You can go to Brian Coyle and play basketball but then when you come out you might get shot.

Speaker 2: That's a really good point. Nobody still cares though. People still come. Like, we all still come.

Chelsey: Why do you think people don't care?

Speaker 3: It's a phenomenon because I don't think they have any other choices you know. Coyle is the only place with so many resources and a girls' gym time. You gotta do, what you gotta do.

Speaker 2: You have no choice, you have no other choices.

Chelsey: No other choice meaning?

Speaker 3: There's no other Brian Coyle Center like this in this facility.

Chelsey: What do you mean by there's no other Brian Coyle Center?

Speaker 3: It's closer to home, everybody knows how to get here, it's a large space, um there's many resources. Like there's computers for you to use and books to read, you can get homework help. And right after you're done with your homework, maybe you have to print something and then you can go to the gym and if you have to drink something, there's a drink right there, there's a water fountain, there's everything, there's a coffee shop, there's girls group, just everything. No other place has all that stuff.

Speaker 3: Yeah, It is a place where we can like do sports and like get homework help or just have fun with your friends.

Speaker 4: You do more than one thing here. It is not just one thing. Like, there's just a lot of resources.

Several other participants in another group also said:

Speaker 1: Brian Coyle it's like where everyone goes 'cause it has many activities. It's just like yeah, there is many programs here. You get help with your homework and use the computers. You can eat food and learn new things and read books. There's friends that come here to meet each other so they can all go somewhere together, it's like a meeting area. There is the gym where we mostly come on Sundays and Wednesdays

and the afternoon and that's just for us to be active without boys there who are hogging the gym. People treat you nice in there and you get to play basketball and just play sports. There's the café also here, so we can get a drink or something like that.

Chelsey: How do all these resources tie with physical activity at Coyle?

Speaker 3: It ties it with us being here, it's calling out to us saying, "Oh, you want a drink or do you want a latte right now? Oh yeah, there's a café right across from your house. Go there." And that's just what keeps bringing you there, because all the little resources are there and that's what brings you somewhere. If resources are good that's how you go there all the time frequently. So the more stuff at places for physical activities the better. People keep coming that way.

Though the Brian Coyle Center had the most resource accessibility, a few participants described how the variety of resources as Riverside Park and Currie Park led to girls' physical activity. For instance, they said:

Speaker 1: For Riverside Park, many girls might go there a lot because there is so much to do. Like, they might go for picnics and stuff and might play basketball or volleyball or even soccer there, or they might go with their parents to go pick up their brothers, because a lot boys walk over to Riverside park to play basketball. So maybe you have to pick up your brother or to give your brother something, and you just start shooting around or playing with whatever girls are there, too, or you maybe wanted to go there and play with a few friends or just have a little picnic or a get together there because it's like more private than Currie Park, because Currie Park, a lot of people are there and a lot of commotion and things like that. There's just so much options at Riverside it makes it easier to do activities.

Speaker 2: There's lots of options at Currie, too. Like there's the playground has everything, basketball, soccer, tennis, everything. Um, I really, like think it has more than Riverside.

Speaker 1: Yeah, I guess, that's true. But it's not as private.

Speaker 2: But it's closer, so more girls like go to it, you know. Anyway…we're not talking about that, you know—like, we're talking resources. And there's so much to do at Currie, everything really.

In addition to these parks, several other participants discussed how the array of resources at the local University and colleges led to their physical activity participation. They stated:

> If for example, like, if you, are like a student at these places and you have to go there for classes and work study, and everything else and like, you're already there in that environment, and then you see opportunities where you can be involved physically. And, so like, that you know, that's good, cause I'm already here, so, you know, it doesn't like take you to come out of your house and plan ahead of time. Just like, 'Oh, I'm already here, so let's, I'll take advantage of the resources.' I think that's what kind of makes it easier for a lot of people to, um, to, to come and do physical activities there. As she said, because of the many programs that are at those schools.

Some participants also explained that the neighborhood mosques offered a variety of resources. They said:

Speaker 1: At the mosques, I do more exercises. Like all their activities kind of like draw me in.

Speaker 2: Yeah, same for me.

Chelsey: Can you describe what activities you mean for me?

Speaker 1: So I'm part of this, like, group. They have about 30 girls and they meet every Thursday, I mean, every Sunday at the mosques. So within that, they have, they taught different things. Like, firstly it's, um, religious teaching, like, after they do, there is some woman that comes through and shows, for example, how to fix scarves, like, you know, the hijab, and another woman came and told is just what you have in your car in case of emergency, and sometimes they have cooking, and then after that they will have, you know, there's this woman that comes and is Muslim and shows activities, physical activities, and how to be healthy and all that stuff. All these benefits, like, make me always come.

Chelsey: What do you mean by benefits?

Speaker 1: Like, access to so many different resources.

Speaker 2: Yeah, if a place has lots of different things for you to do and learn, not just physical activities, like they are a part of it, but not the one thing,

you know, like you will be more like to go, ‘cause you’ll have so much to do.

Speaker 3: Yeah, I definitely think the places with everything are the best for physical activities.

Similarly, two other participants said:

Speaker 1: I go to the mosque because of all the stuff that’s there. Like, we play soccer inside the mezeret…You can't play, like, upstairs where the Imam, like the Sheikh, leads, or like where the mens are, but like the bottom side is like for women and usually there is activities, like physical ones and lots of other stuff. We had days that we'd meet there. Like, basically to play soccer or do any other activities. There was a lady that showed us workout activities and, like, there’s been other ladies who talk about nutrition, um health things, safety, hijabs, and all sorts of other stuff, you know.

Speaker 2: And some of us also go there for um like Dixey. It’s like a weekend school where you learn about the religion more and the Quran , and sometimes if you don’t pass the thing you’re supposed to read you have to run around the mosque; you have run inside and sometimes the outside, some girls run. It’s like if you don’t pass, your punishment instead of sitting down, go do this or go do that and it’s better than just sitting down since you didn’t accomplish what you were supposed to. Like, a lot of girls like running for the punishment, because they feel like they learn the religion but then get exercise, you know. I really think that’s why some come.

Despite the participants’ whom perceived mosques were relevant PAS, there was overall tension among participants over whether or not females did and/or could do physical activity at a mosque. For instance, one participant said:

> The mosque is like, it's like going to church. Like going to church and gonna go play basketball in church. So it doesn’t matter how many resources and activities are there, there can’t be physical ones. Like, that's not right for our religion…Culture might say, “Fine,” but religion does not allow it and that is what matters in a mosque.

Another participant said, “Cause like it's a cultural place where you just pray and be quite, not do physical activity. So I’ve never seen that there. I mean like maybe it could be there, but like I just don’t think so with religion.” A third participant supported this perspective indicating, “I don’t see how you can do a physical activity at a mosque. You just sit down and either read Quran or listen to the Imam speaking, or pray, that’s basically it, you don’t play in the mosque ‘cause it’s about religion.” When asked about this tension, one woman said:

> I think the people that did mark the two mosques thought active as in somewhere you are always at instead of active as in physical. So they might have misinterpreted what you meant by it, so that could be why. Or like maybe there are like physical activities there and only a few girls know about them.

Strategies for change. The participants were especially energized when discussing strategies for change in PAS. They cited a continuum of agency- to social- to structural-strategies. Each of the strategy categories are highlighted in this section.

Agency strategies. Participants described two agency strategies: resistance and advocacy. Each of these strategies is detailed below.

Resistance. Participants resisted cultural, gender, and religious conceptions that girls are less physically capable than males by proving their competency. For instance, a few girls said:

Speaker 1:	Like, we just need to show them we can play, and that just because we’re girls and everything doesn’t mean we’re weak and not like good. ‘Cause one day we played against boys and then we beat them. So, we showed them…
Speaker 2:	We’re trying to show new things, that girls like matter and need exercise just as much as boys.
Speaker 3:	Yeah, we should get just as much gym time and other of these spaces.
Speaker 2:	We’re trying to change culture here a bit and like make it more active for like girls.
Speaker 1:	Yeah, and we still want to show other people that we can play and that doesn’t mean it’s only for males. The more people see that we can

actually play the more they'll support us doing it, you know, 'cause they'll realize like we're serious and we need space to get better, too.

Speaker 3: The thing is though, like, in order to show we're serious we need to keep showing up and coming to basketball. Like, right now, sometimes we have lots of girls who come to the gym, and other times we have like only three, you know.

Speaker 1: Yeah, we need more consistency. Like, all of us need to come each time, or like as much as we can, not like hit or miss kind of stuff.

Several other participants discussed a metaphor to highlight the importance of proving their physical competency:

Speaker 1: Okay. I want to add. She says the guys think we're going to get hurt like that. But I think I'm tougher than some other guys. Just because they're buff, they look good and everything. They might have skills, but we have skills. Everyone has their own skills in different ways.

Speaker 2: Talking about what you said, I remember one day my mentor was telling me a story about this really, really, really buff guy…

Speaker 3: Yeah.

Speaker 2: came into the city bus and he was threatening everybody. And he was angry and he was mad. And this boy that was smart, he was like, "You need to calm down". It was based on physical features and like what is it called? What is it called?

Speaker 3: Based on being smart or being physical.

Speaker 1: Smart is better than being physical, because the little boy beat the guy with his knowledge.

Speaker 2: Wait, no. The little boy didn't beat the guy. The big guy was actually a sensitive guy cause a really old little man came up to him like said, "What's the matter?" And the big guy was like, "What do you want from me?" And then the old guy was like, "Do you want to talk about it?" And the big guy was like, "Yes." And the big guy was like, "I never had anybody to tell me that. I never had anybody to tell me, do you want to talk about it?" And the big guy ended up being sensitive. And what I'm trying to say is that if they view us girls as weak and

only good for school and the home we can show them that we're actually strong and have the right to play sports and be active. And what you said that girls might get pushed around. I think it might be the opposite. We might push them around, like, whether we actually play against them or just get the space we deserve, you know.

A third group of participants also spoke about proving their physical competency as a form of resistance, stating:

Speaker 1: You do have to prove yourself at open gym and like the parks because they always want you to sit outside, but sometimes they let you in and then if you make the shots, it's easier that way.

Speaker 2: You have to prove who you are, and like how well you can play the game.

Speaker 1: No one wants a loser on their team.

Speaker 3: They're like, "You're a girl. How can you play with us?" and stuff, but then...

Speaker 2: When you show them how good you are in the game they'll accept you and just play around, and let you stay.

Speaker 1: Yeah, like, when I go in the gym like I play knock out with the older boys and they don't care. I'm like a little sister to them and I can play with them. They don't mind 'cause I'm good, well actually like better than lots of them. Unless they are playing a game which I wouldn't understand. Then I would sit out and then they'd be like, "Oh it can be your turn after that when you know how and can do it good enough," you know.

Speaker 3: Yeah, on the basketball court there's this boy. I won't say his name, but we're playing against them. And I think I'm good at shooting, and defense, and everything. And I was defense against him and he got pushed like, 'Well, wait. See?'

Speaker 4: Oh yeah!

Speaker 3: I was showing him 'cause he didn't think I could play.

Speaker 2: So, how did he react?

Speaker 3: He was shocked. He was good at shooting, but then at the same time I was good at defense. It was like, “Everyone has their own good assets”.

Speaker 1: That’s true.

Speaker 5: We can prove them all wrong that we’re good and should get to play in the gym, too.

Another form of resistance by a few of the participants was not caring about and/or ignoring what other people—community members and elderlies, their parents, and their male peers—thought about their participation in PAS. For instance, one girl said:

> I don’t know. Lots of people in this community, especially like the elderlies, think it’s like really bad, but I would really hate it when they say that. I wouldn’t listen to them, kind of get annoyed and tell them, “Alright I understand what you’re saying, but I don’t really care what you’re saying,” you know. ‘Cause, you know, like, they would always tell me, “Oh my gosh, you’re playing with boys, or oh my gosh, you’re in the gym again.” Then I remember they were like telling my Mom and then she would yell at me. I would like, get really mad so I, sometimes I would stay away from boys, not playing with them, ‘cause then I don’t want to get yelled at, I guess. And there is like a lot of my Mom’s friends outside that will tell on me. That’s why sometimes I didn’t used to play. But now, I don’t care what they say or if I will get it in trouble—I’m going to play anyway, you know.

Likewise, another girl stated:

> You have to not care about, like, what other people think about it. Like, the elderlies are there, but I’m not scared of the elderlies. I just don't care about them. I know I’m not doing anything wrong, I’m just playing, you know, the sport I love, so whatever I just keep playing. They can say what they want. It’s not gonna stop me.

A few other participants also spoke of disregarding their parents’ concerns about their physical activity by not caring what they think. The girls in one focus group explained:

Speaker 1: My parents always let my little brother do anything he wants, like play any sport he wants whenever he wants, you know. He can just go do it. And like, he’s younger, you know. It’s just like…I don’t know. It’s like, I don’t understand it. And I never asked them why, like it’s pointless, ‘cause I am not going to listen to them. Well I do listen to

them but, like sometimes, if I wanna like, If I'm really bored I have to play with someone, or want to go to girls gym, I'm not going to listen and just go, so, yeah.

Speaker 2: Yeah, it's like you respect your parents, 'cause you're supposed to, but like sometimes you don't listen to them.

Another girl noted:

> I get a little bit more freedom now. Like, I remember I used to come back around 6 o'clock when I was like 9, 10, but now I come back home around 9 or 8, probably 10 sometimes, 'cause I'm busier like with homework, and friends, and like going to the gym and doing activities. And my mom calls me, but sometimes I really don't listen to her calls 'cause I just don't care. She won't follow me, but when I come home I know she is going to say something, and like well, sometimes she'll yell at me, but I do have excuses sometimes. Yeah, and I don't really care that much if I get yelled at or what she thinks. Like, she will forget afterwards.

As this quote highlights, in addition to not caring what their parents thought some participants resisted their parents by also making excuses. Another participant stated:

Speaker 1: Well, he [speaking of her brother] keeps like saying like, you know, excuses. "I want to play basketball. I can't stay here all the time, I can't do this, I can't do this, I have to run around and do activities, I can't," you know. He like whines, my mom, she couldn't take it anymore, so she lets him go outside. And I had to watch him, since that's what I'm supposed to do as a girl you know, babysit and chores, like that's my "job." But it actually worked good, so like babysitting, that was my great excuse, my great way to go outside to do activities. Like, if my mom didn't want me to go something, I just say well, [name of her brother] needs to be watched so I'll go babysit him, then she always let me go there.

Chelsey: Would you babysit your brother then?

Speaker 1: Kind of like, well…I'd go play basketball in the gym or like go to girls' gym, but I'd take breaks and go make sure he was good, you know. So in that sense, yeah, I guess, sort of.

Several other participants also resisted their parents by arguing with, and/or lying to, them. For example, they said:

Speaker 1: I argue with my parents and like, I argue and I argue until I get my way and I'm like, "Please, you know, you have to understand, I can't be stuck in the house doing nothing. You guys want me on Facebook, okay then I'll be on Facebook?" And I know they don't, you know, so like after that when me and my cousin said that, they were like, "Okay, you know what you need, is some sunshine and like activity," you know, "Go," so I guess, yeah.

Group: [lots of Yeah and Me too]

Speaker 2: And like, it's not just arguing with them, you know, like sometimes girls lie.

Speaker 3: We have to sometimes.

Speaker 2: Yeah 'cause parents want to know there's no boys if you're going to do exercising. But like there's actually might be boys, 'cause it's pretty much impossible to guarantee no boys, so like they lie to their parents.

Speaker 3: Sometimes they lie 'cause they want to leave.

Speaker 4: Yeah, they really want to go and exercise, have fun.

Speaker 5: They just wanna play you know.

Speaker 3: Yeah.

Speaker 2: A lot, um that happens a lot I think.

Speaker 4: Yeah, and like if parents find out…

Speaker 1: Probably 'cause of the elderlies

Speaker 4: they don't really trust them again. So then the girls like feel like they need to lie again or like make excuses to ever leave. It's kinda hard.

Speaker 5: Yeah, 'cause no one wants to lie, you know. We all want to tell our parents the truth. It's just hard when it's like you feel like you just wanna play, but they aren't going to let you.

While some participants felt they and/or their peers resisted parents, several other girls and women discussed how they were straightforward with their parents to gain their support. For instance, participants in one focus group said:

Speaker1: I always tell my Mom before I go play exercise or go to girls gyms.

Speaker 2: Me too. Like I just tell my mom, “Mom, you need to trust me. It’s not like I’m going to do anything bad. It’s just basketball…

Speaker 3: Yeah.

Speaker 2: You can’t always make me stuck in a room. Like, I need to leave sometimes.

Speaker 4: Yeah, we need to go out of our house and play just as much as boys.

Speaker 2: And my mom gets it when I tell her like that. So like you can be honest I think.

As with their parents, several girls also resisted their male peers’ lack of support for their use of physical activity spaces by not caring what they thought:

Speaker 1: I think it’s a big issue, like that we don’t have as much space as the boys, and then like the little we do get the gym the boys aren’t happy because they think we took what’s theirs.

Group: Yeah.

Speaker 2: Well, they can just be unhappy. I don’t really care.

Group: Me neither.

Speaker 1: Yeah, maybe then they can see what it’s like to feel left out, how much it hurts, you know. Like, you just want to play, but no one will let you.

Similarly, another participant said:

> There are too many boys at the parks, but still sometimes we girls are not scared to play with the boys and don't care. We just want to have fun with the boys and play even if they don’t want us to. We don’t care and just do it, and keep doing it, you know, to like show they we’re not going away, like the space is not just theirs, you know.

This quote also highlights the persistence—another form of resistance—the girls and women exuded. Participants spoke of continuing to play no matter who was trying to hold them back. For example, focus group discussed:

Speaker 1: Well, it’s like sometimes you have to just change it yourself. Be strong and do it. You can’t just sit there and watch. Be like, “Oh, why can’t we play?” You just have to let them get used to you like let them know,

"I want to play the sport". They're going to give you a chance if you fight hard enough.

Speaker 2: You can't always be shy if you want to do something. You always have to go for it.

Speaker 3: Yeah.

Speaker 4: Yeah.

Speaker 5: And be confident.

Speaker 2: So, it's like if we're going to improve this map we have to stop being shy and just do it. If you want to play football just ask, "Can I play football with you guys?" If you guys want to play soccer…

Speaker 5: And if they say no, do something about it.

Speaker 2: No, they're not going to say no.

Speaker 5: But what if they did? There's always an if…

Chelsey: What if they did? What could you do about it?

Speaker 5: Get a group of girls and come after them.
[group laughs]

Speaker 3: Yeah.

Speaker 5: Literally if you're going to send…

Speaker 2: Just bring your own football and just form a team.

Speaker 3: Yeah, just go in. It's not their property. And don't care what they say. Just ignore them like they're not there, and play.

Speaker 4: Yeah. Exactly!

Speaker 3: Just play, keep coming and keep playing. Eventually they will either let us play with them or leave. Either way we're going to be playing.

Several other participants also discussed the importance of persistence as an agency-related strategy for change, noting:

Speaker 1: I used to just go in the gym and just play with the boys. At first they didn't get used to me 'cause they would look at me weird and be like, "Oh what are you doing in the gym?" But after a couple of years they just got used to me coming in the gym and playing.

Speaker 2: Yeah.

Speaker 1: They're not used to seeing a lot of girls. It's like it used to be only me. Out of a bunch of guys it was only me standing on the court. But now there's more that come and play, and like it's getting better even with girls' gym you know.

Speaker 3: Yeah. So, you just have to let them get used to you 'cause if they see your face every day they're going to get used to you during open gym or like get used to girls gym.

Speaker 2: Yeah, not bang on the doors or try to come in then.

Speaker 3: But if they see you once in a while they'll be like, "What's this girl doing at the gym? Does she know how to play basketball? Why do the girls get the gym?" Stuff like that.

Speaker 1: So don't run away from them. You gotta keep going, so they just get used to it.

Not all participants resisted negative conceptions of their physical activity participation and use of physical activity spaces, however. According to one girl, "There are girls who are scared of not being good enough or what people will think, then they just don't come to the gym, or if they do they don't play." Adding to this personal component, several other participants also stated male peer intimidation as impacting girls' perspectives:

Speaker 1: Some girls are just shy. They don't want to go up and take over the gym.

Chelsey: Tell me more about what you mean some girls are shy?

Speaker 3: It's intimidating.

Speaker 4: Some boys are just intimidating.

Speaker 5: Yeah, like some of them are tall and you just look at them like I don't want to even bother.

Speaker 1: I don't want to start up nothing, so I will just leave.

Chelsey: What do you mean you don't want to start up nothing?

Speaker 1: 'Cause, you know, boys they are going to try to argue with you.

Speaker 5: There is like a whole group of them then that is just…

Speaker 4: It is kind of awkward. You are the only girl there and playing with a bunch of guys. Or if it's girls gym and you're with more girls it can still

be awkward, because the guys are angry we have “their” [emphasizes “their” and makes quote marks with hands]. It depends on the person really and how awkward you feel.

Speaker 5: If it’s too much, like, those girls are just not going to do it, deal with it, you know.

Another girl described parents also factor into other girls’ lack of resistance:

> One of my friends, like, she can barely, she does come outside, but like not that much, like about 1%. Like I’ve seen her only twice in the summer outside, but then like she is an A student you know. She’s only always doing her work, work, work, and stuff like that, but then I think her parents are like, you know, telling her, “Do your work instead of going outside and playing or going to girls’ gym,” you know. And like she just like does it, never questions it, like doesn’t want to get in trouble you know. Even though like I know she really wants to be active and have fun with us.

Advocacy. In addition to their resistance strategies for change, participants cited several advocacy strategies. For instance, participants in one focus group discussed the need for girls and women to stand united and fight for space that’s just as much theirs as their male counterparts:

Speaker 1: So many Somali girls and women don’t say anything, 'cause they're scared.

Speaker 2: Yeah, they don't have the guts.

Speaker 3: They don’t have the guts, but if we all come together it wouldn’t be so scary and we can just…

Speaker 2: Yeah, we all need to come together, like be united.

Speaker 3: be like, “Listen up!” Like, let's say, let's just like bring up the situation, that we need more spaces. Like do something about it and stand up for ourselves.

Group: Yeah.

Speaker 3: Let's say that when somebody gets shot, you know, the whole community saw it, but then they’re gonna turn away and say, “Oh we didn't see anything,” cause you know, they don't wanna stand up.

They're afraid that the person who did it might get them, you know, even though everyone wants it to change and it to be safer and stuff.

Speaker 4: So they just be quiet.

Speaker 3: But if we all tell somebody who got shot, like one person can't get hurt, you know, and change can happen then. Like that, so if we stand up together for what we believe in, maybe we could get it.

Speaker 1: I think maybe we should come out of our shell, we should just say that it's not fair. Like show them this study like we talked, and fight until we get more spaces…I think instead of staying in the shell and later you'll like regret it, um, in your life and like, cause since you didn't do this, and you didn't do that. Like I never want regrets. I wanna do something really big, and like, I wanna like, lead a newspaper or something, and like, start a new thing and I wanna like make people like shocked. And I wanna like, changes their mind and everything.

Group: Me too!

Speaker 1: And like this is a good place to start.

Similarly, participants in another focus group discussed:

Speaker 1: You know how we're talking about all this, like how we don't have as much spaces and stuff, right now? I think there should be like, we should all work together and start something about it instead of talking about it.

Speaker 2: Like what would that be like?

Speaker 1: Advertisements, talk to people, like…

Speaker 3: Let them know how unfair it is, and like that we want to be active too. Like tell them why we need it and stuff, and how much fun we have .

Speaker 1: Talk to the person that owns here, or like runs here.

Speaker 3: You know how there's a big land over there? Like a big space right there?

Speaker 4: Yeah.

Speaker 3: Let's open a women's center, like, we can get people to sign a petition. And make it happen.

Speaker 4: Yeah.

Speaker 5: We need to make a lot more places like how the Brian Coyle Center is.

Speaker 3: The only way that will happen is if we start doing something ourselves.

Speaker 5: Yeah, like, last week, we kinda did this. Like, me and some girls were competing with some boys, and one of them was like saying, “Oh, girls should not have the gym at all,” you know. So we're like, “Why you gonna do that?” You know, “We like to play, too.” So we said we're gonna see who gets the most signatures that they should have the gym to play in. So we started going around like asking even guys why they, “Why don't you like girls playing basketball? Why don't you like girls having the gym?,” you know. So they started telling us, “Oh, ‘cause they're not supposed to be in the gym, they're supposed to be at home, they're supposed to be with this, you know. They don’t even want it?” But then, um, we had, we got the most, you know, the most signatures from girls ‘cause all girls wanted the gym, you know. And most guys then were like, we get it most time, so they need time too, you know, and most girls play good, they, good in basketball, you know. So like it took only signatures to change their mind.

Speaker 1: Yeah, like, so if we did that in all Cedar we could like have enough signatures to get more days at Coyle, or like maybe get even other places or a Center and stuff.

Participants in a third focus group also said:

Speaker 1: I think we could get where we could share the gym equally. It is just that we don’t speak up.

Speaker 2: We should have a meeting and tell people like, “Hey, you know, girls like to be active too. It’s not just the boys, you know. Girls need it and deserve it too.”

Speaker 1: Just speak up.

Speaker 3: Speak out. Yeah. Step up, you know. Meeting and petition and stuff like that.

Speaker 1: Yeah, ‘cause if you speak out and get your voice heard, then, you know, something can change, you know. And like people can, be like, “Okay, I never knew that. I never knew girls felt that way.” They

would be like, “Oh okay.” Then they can be more understanding, ‘cause we are not asking for the whole seven days, you know. We are asking just at least three, you know. The boys can have the four, you know. And, yeah….

Speaker 3: I agree with like all of us like coming together and speaking out. But like, no, it’s not fair if the boys get four and we get three. Like, why should they get one more? I want equal…

Group: Yeah!

Speaker 3: That’s like what I think we need to say at the meeting.

Speaker 4: Yeah, and it needs to be all of us, or like as many that can. ‘Cause if you take people from the, like girls from the community, and girls from the Wednesday and, um, Sunday basketball group, who are like, or feel great passion about this room, are looking for more space, and ask for more space, it will work better than you going there as an individual.

Speaker 1: Why do you think that?

Speaker 4: ‘Cause, like, you have more voices, you know, with you instead of like, being the only voice and presenting to everyone. Like, I think it will be stronger and, like, it will be easier to hear more voices and it's not gonna be like, “Oh she's just like, just talking about it.”

Speaker 2: It has to be organized, not just, like, “Hey, we want…,” you know. Like, kind of do more research on what the rules are and like, and use this research, things like that, so, you go there with actually, like, a plan, you know. Whether it's a presentation, like, “Hey, it says this, and this, and this. We have a right to this, and this, and this based on rules and research and fairness.” Outside from just like, “We want this, and we have to have it without saying why.” But, you know, so if it's like planned and just like organized, and just like, you know, with using appropriate language and things like that, you know, and have like support, I think that would get also more attention all of us.

Social strategies. Participants also described several social strategies for change. These strategies included increasing parental and community support, male peer support, and program support. Details for each strategy are discussed in this section.

Parental and community support. The girls and women suggested holding frequent parent and community events to increase awareness of physical activity opportunities and promote the health benefits of physical activity. For example, a few girls said:

Speaker 1: There should definitely be a parent night. Remember basketball. There was a day that my mother wouldn't let us go to basketball 'cause she thought there was going to be boys and girls for Wednesdays and Sundays for girls basketball. And I was like to my mom, "Let's go. Come with us. I'll have you talk to the supervisor. You're going to come talk to her." I was like, "Her sister went to the private school with us and she's a good girl", da, da, da, da. And when my mom talked to her, she liked her, because she kinda knew her and then learned there wouldn't be boys there. And the supervisor said how important it was for us to be active. Then she was okay with us going.

Speaker 2: Yeah, if we have a parents' night and stuff parents can learn that certain days we have gym time or that place is just for girls, and get to know people who work and go there, you know what I mean. I think a lot of the girls' parents would be off their back just to know, that, "Ok, Mom, I'm going to so-and-so today," you know. And like, "Remember you met them and it's safe--you know where it is and stuff."

Speaker 1: Yeah, like parents just want to know where their daughters is at, and what better way than having them come to show them.

Another girl suggested:

> You know how in basketball, and like, during the sport you have parents' night and community night, we should have that for this program. Where there's some nights where we all get together and make it with awesome food, some Sambusa, make it like cultural. Build the relationship with the parents, 'cause it's not always like, they know what's going on, and that makes some of them not want us to come. And like the community, especially elders, need to know what's going on, so like they stop making up stuff and assuming things, you know. Like if they all can get comfortable with this is who's there, this is what we do, it's safe, it's good for us, there won't be boys, that's important.

A third woman also echoed this sentiment, noting:

> I think a community night and invite parents so there can be awareness would be good. Like, just raising awareness about how this program has exercise and educating Somalis that, you know, it's good for their kids to exercise, it's good for their bones, it's good for their muscles, it's good for everything, you know. Um, because a lot of them, like, they're like, they're not, like the majority of them are not educated. Like, a lot of them are illiterate, so you need to tell them you have to exercise, especially the girls, it's like, "Why?" And like, they don't even know the religious part of it—that there won't be boys. They would like that and they need the educational part of it…A lot of awareness would really help in getting the support of those parents.

Another social strategy was promoting the educational components of physical activity programming. Participants' perceived parents to be especially supportive of programming that had an educational element. Such support appeared to be linked to the Somali ethnic-cultural value of academics over athletics. For instance, a few girls discussed:

> Speaker 1: Parents gossip about it [the physical activity program] and if it was good.
>
> Chelsey: What do you mean if it is good?
>
> Speaker 1: If the program is good it takes you to good places and it teaches you good things and it have good educations. Parents care about what you learn. If it teaches and has a change in the child it would be good and the mother and father would gossip about it and tell it to different people and let their daughters go.
>
> Speaker 2: Yeah, we like need to like make parents aware that this is a really good program 'cause like we get exercise but also like learn so much you know. And we could even learn more I think, like have more classes on nutrition, and like exercise at home and stuff.

The participants also suggested encouraging female parents and community members to participate in physical activity programming. One girl described:

> So that could be very successful if you come up with places to swim. I know that we had places that had um, Somali women swimming time on weekends and there was a

> big group of Somali women who, just, were, like, attending and enjoying it, so I think that's what we need. We'd all like it, and maybe our moms and other women would too, you know. So we could have all the women come to the program on a certain day, and like the moms and elderlies could get exercise, too, and like see how fun it is and why we love it.

Another woman said:

> We need to include our moms and other women, like Somali elders, in the program sometimes or like if you want to go on a run take your mom with you and walk or jog even instead. Like, we need them to get healthier and be active, and there's not really anything else for them, you know. And they will see exactly what we're doing and become more understanding I think and like support us coming then.

Male peer support. In addition to female support, participants desired gaining male support by opening up peer conversations, providing males opportunities to dialogue, and having males serve on leadership committees. For example, one woman noted:

> We need to do what we're doing right now, but with males, too. We need to talk to them and have their help. They're not doing anything about it right now, because they have a court outside and they get the gym all the time. But maybe we can have a boys group for them or something, something to have them not think about their basketball for a while, and have a chance to see how unfair it is to us girls….They need a guys' group, because the boys, like every time a boys group starts for them it always ends for them. But at the same time it's unfair for us girls, it's unfair for them to always take the gym, and it's unfair for us to always have the girls groups, so we are both doing things that are unfair to each other. For a while last year they were trying to have a boys group, but the person who was trying to do it got fired. So I kind of feel sad for them, because they never get to have boy to boy conversations all together like group talks like us girls do. So maybe we could do that for them if they just give us another day. And then some of the boys from boys group could work with the leadership committee from our group and then together I think we can get more days and respect. 'Cause like we need some boys on our side.

Likewise, participants in another focus group said:

Speaker 1: We should like, have a youth executive board, where there's like 5 or so youth come together to talk about the spaces…It should also have male representatives so that we put out a picture that some males actually do care that girls are getting their physical activity and they do care about the issue and that they want our rights to be, how would you say [short pause] fair.

Speaker 2: Yeah, ‘cause there's this guy that I know, and he does a poetry thing. He was like, proud of us because we did poetry, 'cause we [points to friend next to her] were like the only two girls that did it, and we wanted to see more girls, like, do those things and he was like, surprised and was like happy and wanted to see more girls too.

Speaker 3: Yeah, some guys like definitely think it’s good we do things and exercise, so we need them on the board, you know.

Chelsey: So why is that important that you have males on board?

Speaker 1: To show the other males that there's males that actually do care.

Speaker 4: Nobody's really gonna listen if there's girls you know, but if there's guys, like, then ‘Oh, there's a guy representing girls. Oh my God, let's listen,’ you know, so that's better for us and for them too, because they're speaking for us, and we are getting a change. Like, somebody's speaking for us and stuff like that.

Program support. The girls and women also desired future physical activity programming to include increased communication and program variety. A few girls discussed the need for more effective communication, stating:

Speaker 1: Like only the women who been coming to girls gym know when it is. Like, if we don’t tell our friends, you know, then no one new knows about it and stuff.

Speaker 2: Yeah, and like if we have a time to do activities at another place, like we had soccer at the park, but no one knew.

Speaker 1: If we knew about it more we would go there. If the leaders would just tell us about the place.

Speaker 2: Sometimes they do tell us. Like, we don't always listen though.

Speaker 1: Yeah, well then, they can remind us. It helps, I think.

Given their desire for trying new activities in new spaces, several participants wanted programmers to ask for and listen to their suggestions and increase program diversity. For example, one woman said, "We need them to add more activities, and like take us try new places…We need them to like hear what we need, this study, you know, and add varieties, so we don't get bored and people come." Another woman noted:

> I like basketball, but it's same old. We need you guys to have other things, too, like really fun things, like the hip-hop we did that one time. And like lots of us really want to not just stay at Coyle every time…we want you to reserve other places.

***Structural strategies*.** Structural strategies were the final type of strategies for change discussed by participants. Participants talked widely about the need for a structural change of equality for all PAS. Specifically, they believed it is their "fundamental human right" to be active in physical activity spaces in their community. In order for this right to be recognized and equality to be achieved, they discussed the need for institutional support from a range of powerful stakeholders, including religious leaders, local academic institutions, local non-academic institutions, the government, and multiple systems.

Religious leader support. Participants believed Somali religious leaders to be instrumental supporters of physical activity equality, and hence PAS equality. For example, a few participants explained:

Speaker 1: We need to like, kind of get the Sheikh, sorta like pastors in English… But like, you know, people that are knowledgeable about the physical activity, health aspect of the religion get them to kind of like tell parents and the community the verse of what is says in the Quran or, um, any proofs that they have and kind of get them more involved. There are women that, um, that are very religiously educated that are physically active, you know that could kind of get those, um, that are older, to come and then the Sheikh's can convince them… 'Cause the

Sheikh's are elders and, you know, age has a lot of respect in the Somali culture and religion. And whatever the Sheikhs or what the Imam says goes, so if you get like, people from the community who are religiously educated, and kinda get them to kinda, you know, be part of the group, and kind of like say, "The religion says this, or the culture says this, and physical activity is okay, and girls should have just as many places as boys for activity" that kind of easily gets more people active and could get us more of these spaces.

Chelsey: Anything to add?

Speaker 2: Well, I agree with her, because if you, um, like for a lot of Somalis, they became more educated about religion after the Civil War. And it's like, just like, it's like, any other group of people who are following who, like, you know a particular faith, they take whatever they want, and leave whatever they don't want. So, it's like when they're doing something, they're gonna pick something from their religion to justify it, and they're gonna ignore it, you know, when they want to, you know, do it. So it's like when you get someone like a Sheikh or Imam who, like, authenticates, you know, evidence, and you know tell them so this is what the religion is saying and there's no way for you to really go against it, so, like, their argument is going to get weak and they'll get convinced.

Academic Institutional Support. Participants suggested support from academic institutions located in the Cedar-Riverside neighborhood was necessary for achieving spatial equality. For instance, one girl discussed that these institutions should donate physical activity spaces to the program and community, stating:

Speaker 1: The community trusts the University and local colleges. They have their kids going there, some of the kids graduating there, they want their children to go there. Like, you know what I mean, most of their kids, like, grow up saying, "When I grow up I'm gonna go, you know, to the University, or you know, I'm gonna go to 'x' college." So, it's, to them it's like home. It's a second home, so that's why they would want,

uh, like a place for physical activity there. And plus, it's like, you know, it's safe, you know, they're not afraid…But mostly it's home, it's close to home, they have spaces to share, and, you know, there's their relationship with our community. They are trying to get involved with us and the whole healthy living thing, you know, so why not build off that.

Participants in another focus group said:

Speaker 1: I think they, like, all University and colleges, they're in a competition, you know what I mean, we do this for the community, we do this for the community. Honestly, it is, it's like, the school, the school gets a lot of credit, they get a lot of money and then people sponsor, you know, about a lot of things, knowing that, because there are people who are like, ok, are you helping the community, we're helping the community this many people, guess what. The alumni's will pay money. Ok, we'll donate this much, you know, da da da . I'm just thinking if we were to, if you guys were to use that too, you know, be like, ok you know…

Chelsey: Would that be ok to use that? Or is that exploitation?

Speaker 1: I think that, I think, I think, no, I think it's, it's ok for uh, for you guys to be like, "Listen, I know you want to help the community. This is how you could help the community—by donating space—and this is the benefit that you will get from it. And it's not like you could just help the community and you won't get nothing. You will get, you know, your school's going to be well known"…

Speaker 2: And tax-deductible.

Speaker 1: Tax-yeah thingy. "Ok, you're saying that you want to help the community? Ok, ok this is our idea, support us, give us space, you know what I mean. And then you could write into your mission, add to your mission." Because one of their missions is to be diverse, and to be one with the community and all that. And be like, "Ok, make your mission come true," so you know what I mean? So in that sense, because of using them to be like, "Ok this is what you're saying. Show us action."

Rather than a giving a PAS donation, a few other participants thought post-secondary institutions, could offer PAS in exchange for their students' community or volunteer service. For example, two women said:

Speaker 1: From what I heard from my friends, is that, um is the colleges are very big in our community, and they have all their student do community services. So in order to send their kids off to these centers, they might as well offer them places, you know what I mean, resources, just for them as an exchange.

Chelsey: So like a bartering chip?

Speaker 2: Yeah, 'cause I know most of the students go there for scholarships and stuff. And for scholarships they wanna give back to the community, so they want to find their students places where they can serve people who are in need of anything, like, where there's tutoring, where there's activities or anything there is. So if they want something from us, they could give us gym space or something back, you know.

Speaker 3: Yeah, like, every week, like one day of the week, have their gym reserved. And have some of their, the girls who want to volunteer in the community like actually work with the gym, and then, help, you know what I mean, with the, um, elders, or the adolescence, you know, do activities and stuff like that.

In addition to providing PAS, participants also thought grant writing support from these post-secondary institutions was important for achieving physical activity equality. For example, several girls said:

Speaker 1: We just need people who are willing to help us, 'cause we can't write, what is it called?

Speaker 2: A grant?

Speaker 1: Yeah. We can't write a grant. We need people who want to do that and know how to do that, like you or other people from the University or local colleges, you know, and can like help us out. 'Cause like, there's a lot of places that are open that nobody uses, that we could use.

Non-academic community institutional support. In addition to academic institutional

support, participants highlighted the need for non-academic community institutional support. They believed leaders of such institutions needed to ask and listen to what females want/need to enhance girls' physical activity participation. For instance, a few participants stated:

Speaker 1: We need a stronger people, like the people that work and run these places on the map. I think they should be stronger and they, they need to put in their mind everyone. Not just talk to the boys and give them every little thing they want, but everyone. They need to ask us girls, like, how come like you feel you can't be in the gym, you know, and like what do you want for physical activities and stuff. And then they need to be fair and give us what we need too.

Speaker 2: Yeah, like the person that's in charge, you know, they need to do something about it. They can't just sit around and be unfair. They need to listen to us and be fair, 'cause otherwise it's discrimination.

Chelsey: What do you mean by fair?

Speaker 1: The administrators should give girls equal days, like get more days on the week. Like Tuesday or other days, so it's same number for girls as for boys. And the number needs to be fair, like…

Speaker 2: They should only have like one co-ed day, since no girls can really play that.

Speaker 1: Yeah, co-ed days really are boys' days.

Speaker 2: Yeah, and I don't think we should do it on Sundays. Sundays is a lot harder for us to come because on Sundays girls have to clean their room, mostly everybody on Sundays has to prepare for school the next day. Maybe you forgot your homework and you want to try and do it but you want to do it but that's the day you want to go to the gym because that's the only day you can actually play because there's no guys there. It's a lot harder to come on Sundays and then you have to clean and do your homework, wash yourself for the next day. You could do it in the morning but then you might be late for the bus, maybe do it late in the night time and lose your sleep. There's so many pros and cons, you don't do something about, so it would be better if there were other days, now we have it on a Wednesday, maybe on a

Thursday, also like two days on another week day and then the weekend.

Speaker 1: Yeah, really it needs to just be the same as the boys get, like same number of weekdays and times. They don't use the gym 'cause they're too busy on Sundays, you know, so why should we have to use it then?

The participants also wanted institutional leaders to do a better job of including females in decision-making, organizational leadership roles, as they believed such roles are essential for achieving PAS equality. For example, one woman said, "The person that's in charge here in most of these places are guys too, you know, so guys have all the power. I want to see a girl in charge and can advocate for us." Likewise, another girl said, "We need some ladies in charge to stand up for the girls' rights and stuff."

Government support. The participants also believed government support was crucial for achieving systems change spatial equality. For instance, a few women discussed:

Speaker 1: The government supports programs to have these people who have high blood pressure and high diabetes get moving, not just send them home and continue to drink more sugar and a lot more oil and, you know what I mean, sit home and not do anything. And they say they support like keeping kids from obesity and getting women healthier and stuff, but then don't do anything about it here. They don't give us space, or anything. We need their help too, because that's, I mean, I think that's, the only way anything will like really [emphasis in voice] change.

Speaker 2: Yeah, I think we should like, 'cause like, if there was a youth voice or young women there to go up and talk to senators and representatives, I think we need that. I think us females should go target the female representatives of the Minneapolis district or the Cedar district and have them represent us. We need them.

Multiple systems support. Several girls and women discussed the necessity of multiple systems working together to achieve physical activity spatial equality. For example, women in one focus group said:

Speaker 1: We need to incorporate with many different services, like centers and schools, the University, colleges, everyone to share, their facilities at different times.

Speaker 2: And different places.

Speaker 1: Or like different times. Like, they'll say that the school is in session five days a week, and the weekends they can donate, or like, they allow you to share it once a week or something.

Speaker 2: Yeah, like a community effort type thing.

Likewise, several other participants highlighted the importance of community members and institutions coming together for change. They also added in the significance of the government's role. For instance, one woman explained:

> Um, about, where a potential female-only center should be, I thought of like, there's a lot of schools being closed down, you know, so I thought, those could be a good place for it. And one thing about the Somali community is, they are very, very into it when it comes to fund raising and stuff like that. You see how many mosque are open, so they, it doesn't have to be, like, the center I view, it doesn't have to be, like 100 percent government paid, kind of thing. But I think if the community were to take part and do a lot of fund raising, like, come up with half of the money, or some sort of thing, they would. And then we could be like, listen, this community is, like, is the low-income families and this is how much they came up with, they need this, they want this, you know what I mean, so then the government will be more willing to help with the rest I think.

CHAPTER 5:

DISCUSSION

The purpose of this spatial needs assessment and Thul and LaVoi (2011) extension study was two-fold: (1) to employ Henri Lefebvre's (1991) Conceptual Model of Social Space and aspects of a FPAR approach to explore Somali adolescent girls' experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood of Minneapolis, MN, and 2) to understand the implications for locating and implementing future physical activity programming. The results from the participatory mapping sessions and focus group discussions support, challenge, and add to previous research, as highlighted in the first section of this chapter. The next sections comprise the theoretical implications of the findings, practical implications of the findings, limitations, future directions, and conclusion.

Support and Challenge of, and Additions to, Previous Research

Overall, the findings revealed perceived, conceived, and lived physical activity spaces are impacted by the intersection of gender, race, ethnicity, class, religion and culture and are imbued with power relations. This finding is in line with numerous spatial theorists and researchers who have written about identity markers and power in space (Friedman & van Ingen, 2011; Lefebvre, 1991; Muller Myrdahl, 2008; Rose, 1993; Vertinsky, 2001). For the ease of reading, the rest of this section is laid out the same way as the results chapter—with perceived, then conceived, and finally lived space connections to the literature.

Perceived space results. Lefebvre's (1991) definition of perceived space includes the location of physical objects and places, and the everyday activities (e.g., physical activities) that take place within such spaces. Thus, the PAS locations from the participatory mapping trend results and their relationship to the literature are highlighted first. Next, the ways the

participants' definitions of physical activity—which included some of the everyday physical activities they performed in PAS—support and challenge previous research are presented.

PAS locations from participatory mapping trends. The participatory mapping trend results indicated the Brian Coyle Center—the PAS closest to the heart of the neighborhood where the majority of participants lived or frequently visited—was the top PAS across the mapping questions. This finding is supported by research suggesting that the proximity of sport and exercise facilities is correlated with physical activity location preference and participation in general (French, Story, & Jeffery, 2001), and specifically for diverse populations of adolescent females (Rodríguez et al., 2012; Sabo & Veliz, 2008).

Furthermore, the Brian Coyle Center houses the G.I.R.L.S. program. The program was strategically placed there because program developers believed the facility best upheld gender, religious, and cultural norms and values. Thus, it is not surprising that study participants—all who attended G.I.R.L.S. at least once—would select the Brian Coyle Center as the top PAS across, and for most individual, mapping questions.

The participatory mapping trend results also revealed participants perceived males to have more PAS than females. This finding is supported by research indicating that adolescent females and women—especially those whom are underserved—have less access to spaces in general (Rose & Ogborn, 1988) and physical activity spaces specifically (Bengoechea, Spence, & McGannon, 2005; Thul & LaVoi, 2011) than their male counterparts. This trend, in part, allows for continued male dominance and the "othering" of females in space, especially within the physical activity domain. Another participatory mapping trend result showed participants perceived a low availability of PAS. This finding is troubling given that adolescents and adults indicate a greater availability of physical activity spaces helps them be more active (French et al., 2001; Richter et al., 2002; Rodriguez et al., 2002; Sabo & Veliz, 2008). Finally, the participatory mapping trend finding that participants preferred indoor to outdoor PAS across

mapping questions is supported by research suggesting private, indoor physical activity spaces are linked to East African adolescent girls (Thul & LaVoi, 2011) and Muslim young women's (Jiwani & Rail, 2010) physical activity participation.

Physical activity definitions and activities from focus groups. The participants' array of definitions of physical activity—which included some of the activities they performed in PAS—both supported and challenged previous research. For instance, it is not surprising the participants provided a wide range of physical activity definitions. Nahas, Goldfine, and Collins (2003) indicate there is no standardized definition of physical activity. A commonly used definition of physical activity, however, is "bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure" (U.S. Department of Health and Human Services [USDHHS], 1996, p. 21). According to this definition, physical activity encompasses a variety of activities. Wiese-Bjornstal and LaVoi (2007) suggest physical activities may fall under the following contexts: recreation and adventure activities, exercise and fitness programs, leisure-time active play, recess and active transport, organized sport programs, and physical education pre-school through 12th grade.

The aforementioned definition and contexts—especially exercise and fitness programs and organized sport programs—of physical activity are often used in physical activity programmatic research for a few reasons. First, according to the USDHHS (2008) in their *2008 Physical Activity Guidelines for Americans*, children and adolescents (aged 6-17) should participate in at least 60+ minutes of physical activity daily, of which at least three days should be vigorous-intensity activity and the remaining majority of the time should be either moderate- or vigorous-intensity aerobic physical activity. In addition to aerobic activity, the USDHHS indicates children and adolescents should participate in muscle- and bone-strengthening activities at least three days per week. To help youth and adolescents meet these guidelines and accrue health and developmental benefits associated with such activity, most physical activity

programming includes activities that “substantially increases energy expenditure” (USDHHS, 1996, p. 21) (e.g., involve moderate- to vigorous-intensity physical activity). Thus, physical activities within Wiese-Bjornstal and LaVoi’s (2007) contexts, especially exercise and fitness programs and organized sport programs, are the traditional mechanisms implemented by program developers to help youth and adolescents obtain the necessary intensity levels of physical activity.

The East African adolescent girls in Thul and LaVoi’s (2011) study supported the use of Weise-Bjornstal and LaVoi’s (2007) physical activity contexts. The girls were asked to describe, “What physical activity means to you?” As with the participants in the current study, they primarily discussed that physical activity means “movement.” The continuum of activities in the two studies differed, however. For instance, in the current study participants cited physical activities to include sport, exercising, dancing, acting housework, gardening, praying, and so forth. In Thul and LaVoi’s study, the girls’ description of physical activity encompassed only the contexts Wiese-Bjornstal and LaVoi described, such as exercising (e.g., swimming, running around, etc. both in gyms and for leisure), dancing, playing sports (e.g., soccer, basketball, volleyball), and participating in “gym” or physical education classes. This difference suggests more culturally comprehensive contexts and a wider definition of physical activity may be warranted. For instance, the CDC definition and Wiese-Bjornstal and LaVoi’s contexts represent a Western conceptualization of physical activity, which may limit the scope of understanding of non-Western populations, marginalize physical activity that is occurring, and lead to development of ineffective and colonial programming. A more inclusive definition should include physical activity that is a part of everyday activities and rituals that are a part of some Eastern cultures (Leinberger-Jabari et al., 2005).

In a 2004 focus group study exploring Somali adult refugees’ and immigrants’ community perceptions of diet and physical activity in Minnesota (Leinberger-Jabari et al,

2005), the participants discussed how physical activity was a part of their everyday lives back in Somalia. Both male and female participants "said that they maintained an active life by walking, and through their work…[as well as] 'farming,' 'fetching water,' 'household chores,' and 'taking care of the children'" (Leinberger-Jabari et al., p. 12). Only a few of the men and no women cited "leisure activities such as 'running' and 'playing soccer' as ways they exercise" (Leinberger-Jabari et al., p. 12). The participants stated that many of the same everyday activities in which they participated in Somali are those they do to also stay active in the United States. Such everyday activities also appear to be appropriate for Somali adolescent girls, given that the participants in this study noted they believe physical activity includes, and they participate in, less traditional Western activities such as babysitting, housework, cooking, and gardening.

Thus, physical activity programming tailored to the Eastern populations of adolescent girls, could benefit from thinking about physical activity in a way that encompasses the continuum of physical activity from less traditional, less strenuous daily activities that involve movement (e.g., cooking, cleaning) to activities that "substantially increases energy expenditure" (e.g., exercise and fitness, organized sport) (USDHHS, 1996, p. 21). This would be the most inclusive approach to understanding and promoting culturally relevant physical activity among Somali adolescent girls. A specific definition for physical activity that could be used and takes the continuum into account is "intentional, voluntary movement directed toward achieving an identifiable goal" (Hoffman & Harris, 2009, p. 6). These tasks include intentional and voluntary movement because an individual chooses to engage in the activity, and they all involve an identifiable goal of playing the sport, making a meal, or scrubbing the floor.

Conceived space results. As with perceived space, the conceived space results yielded several similarities and differences to previous literature. Conceived space is the most dominant form of space, and represents the socials spaces we socially construct and engage in through our

beliefs, thoughts, and ideas (van Ingen, 2003). Thus, conceived space includes knowledge, signs, and codes that maintain social significance, are formulated into verbal representations, and represent the normative beliefs and values of a cultural group.

The gender ideologies and expectations conceived space themes included the beliefs that females need protection and restrictions, females should uphold "traditional" gender roles, and females are expected to give into males, along with the social constructions of femininity. These results were similar yet add to existing research. For instance, significant others in the lives of females, especially parents, often fear for the safety of girls compared to boys in sport and physical activity. Such fear can lead to parental beliefs and behaviors suggesting females need protection and restriction (Fredricks & Eccles, 2005; Gordon-Larsen et al., 2004; Thul & LaVoi, 2011). Also, both American culture (Coakley, 2009; Hasbrook, 2005) and especially Muslim cultures (De Knop et al. 1996; El-Fadl, 2001; Jawani et al., 2011)—such as the Somali, Muslim culture of the participants in this study—often equate femininity with more domestic roles and responsibilities rather than participation in traditionally masculine physical activity contexts. Muslim cultures also may comprise more deficit-oriented social constructions of femininity related to physical activity. Thus, it is not surprising the participants noted what appeared to be heightened conceptions that females should uphold gender roles and more negative social constructions of femininity (e.g., physically lazy, physically disinterested, less physically competent) as normative beliefs in their culture. What may be more unique, however, is the extent to which the intersection of gender, the Muslim religion, and Somali ethnicity and culture may have influenced these conceptions. Separate bodies of literature suggest Muslim females (El-Fadl; Jawani et al.) in general and East African, Muslim females (Thul & LaVoi)—of which Somalis are one sub-group—specifically cite the aforementioned conceptions as influencing their physical activity participation. The intersection of the participants' gender and unique ethnicity, religion, and culture, perhaps led to the heightened conceptions in the present

study, but future studies are warranted to further explore the intersection's impact on conceived space.

The cultural and religious beliefs and tensions conceived space results, including support for physical activity, female-only versus inter-sex physical activity, and covering, are reflected in previous research. Specifically, participants' discussion of the conceptions highlighted the tensions between Islam as a religion promoting health and wellbeing for, and equality among, both males and females on every level—from the physical (both in terms of physical activity and dress) to the intellectual to the social to the spiritual—and Islam as a cultural form placing gender restrictions on females (Jawad, 1998; Jawad et al., 2011). Participants never fully agreed where the beliefs were driven by religion versus culture, suggesting there is not only cultural-religious tension between different Muslim cultures, but also within-culture tensions. Indeed, understanding these complex tensions is an undertaking that needs much more study.

The conception that females should give into males, particularly when it comes to physical activity, is a unique contribution to the literature. To my knowledge, there is no physical activity literature noting this conception. With that said, more general research indirectly supports this conception. For instance, Mernissi (1987) indicated Islam gives men an inherited right at birth to claim hegemony and hierarchy over females in all regards. One aspect of such hegemony, then, is females' giving males what they claim, including physical activity spaces.

The ethnic Somali cultural norms conceptions of community cohesion, culture of surveillance, oral tradition, respect for elders, and desire for females to be healthy were also consistent with, and added to, previous research. Community cohesion has long been important for immigrants' settling to, and assimilation in, a new land (Fitzpatrick, 1966). Such cohesion results in immigrants' settling together and feeling a sense of belonging to one another, and can

lead to a deep concern for each other. Thus, it is not surprising participants reported that many Somali immigrants settled together in Cedar-Riverside, as well as that the community watches over one another. This culture of surveillance appears to be unique among Muslim women, and particularly the Somali, Muslim females in this study. For instance, previous research on surveillance in physical activity contexts has focused primarily on the male gaze (e.g., Webb, McCaughtry, & MacDonald, 2004). In the current study, however, it was the community gaze, particularly by Somali, female elders, that affected conceptions of, and participants' lived experiences with, physical activity. This is a unique addition to the literature and deserves further exploration in future studies.

The Somali oral tradition findings also support and challenge the literature. Participants' account of an oral tradition is in line with Ahmed (n.d.) who said, "In the Somali context, orality is the preferred medium used for cultural representation" (n.p.). Ahmed also indicates the Somali oral tradition primarily focuses on storytelling for passing down historical accounts and virtues from generation to generation—positive uses of oration. Participants' perceptions of, and experiences, with the Somali oral tradition challenge this research in regard to the gossipy and judgmental nature of orations around females' physical activity. Indeed, while there are benefits to Somali oral traditions, there are also disadvantages. The negative influences of oration are, hence, a relevant area of future study.

Last, but not least, the conceived space results of respect for elders and desire for females to be healthy are consistent with previous research. For instance, Heitritter (1999) discussed that in the Somali community elders are "assigned highest respect by religious tradition" (p. 4). In addition, the desire for females to be healthy is in line with other research indicating two of parents' most basic desires for their children is for them to be healthy and happy (The Gill Foundation, 2012).

Lived space results. Lived space is "the social space through which life is directly [through both the real and imagined] lived" (van Ingen, 2003, p. 204). Thus, lived space is where perceived and conceived spaces interact and play out. It is also considered contested space—a "terrain of social struggle, counter-discourses and resistance" (van Ingen, p. 204). The lived space is where oppressive marginalizing, discriminatory, and othering practices are produced, implemented, and reproduced. Indeed, the participants perceptions, and lived experiences, support these notions of lived spaces, as they described several tensions, struggles, and counter-discourses regarding the intersectionality of gender, race, ethnicity, class, religion, and culture in the production of physical activity space.

One struggle was the lack of freedom for girls. The struggle is supported by previous research suggesting that Muslim adolescent boys and men have more freedom—particularly when it comes to physical activity—than Muslim adolescent girls and young women (De Knop, 1993, as cited in De Knop et al., 1996; Jiwani & Rail, 2010; Thul & LaVoi, 2011). This research also supports that gender ideologies of females needing protection and restrictions and females maintaining "traditional" gender roles, along with the cultural-religious belief of covering, heighten females' lack of freedom in physical activity spaces.

Participants reported gender spatial inequality, including male-dominance of physical activity spaces, sexism, and male backlash, power and privilege. These findings are in line with research suggesting females are discriminated against in sport spaces (Rose, 1993). As noted in the perceived space participatory mapping trend results, there is a magnitude of research indicating males have more access to physical activity space than females. Furthermore, Zaman (1997) supported participants' experiences with sexism by suggesting social constructions of females as less physically competent and weaker than males are forms of sexism males employ to maintain power. This dissertation was the first study, however, to uncover the ways in which these sexist practices contribute to spatial inequalities—a unique addition to the literature.

Finally, the finding that participants experienced male backlash when they resisted or challenged males' sexism and dominance aligns with previous research. Mansbridge and Shames (2008) note it is common for a group of actors challenging the status quo to meet resistance and backlash of those in power. Backlash is a mechanism for the powerful to attempt to regain the lost or threatened power and privilege. Often the greater an actor's or group's perceived threat to a loss of power and privilege, the greater the magnitude of backlash. Thus, the backlash described by participants in this study may have been uniquely heightened due to the patriarchal hierarchy of the Somali, Muslim community where males may have even more to "lose" by women gaining power.

Participants experienced a wide range of surveillance tensions related to physical and psychological safety. To my knowledge no previous research has uncovered these specific tensions. Thus, the participants' surveillance experiences serve as a unique contribution to the physical activity literature.

In contrast to their surveillance tensions, participants experienced familiarity tensions that were generally consistent with previous research. The majority of participants preferred familiar physical activity spaces, which is in line with research indicating familiarity with exercise and sport facilities is a physical activity determinant (Humpel et al., 2002). The participants also wanted to experience more unfamiliar, new spaces and activities. Such variety is important for maintaining physical activity motivation (Ntoumanis & Biddle, 1999) and positive physical activity experiences (Strean, 2009). The majority of physical activities participants wanted to try (e.g., swimming, dance, and recreation and competitive team sports, such as soccer, volleyball, etc.) align previous research by Thul & LaVoi (2011). With that said, hockey and football emerged as new activities of interest.

The inclusivity tensions regarding female-only versus inter-sex activity, age range, and inclusive ethnicities, religions, and races are also generally supported by previous research. The

majority of participants preferred female-only programming, which is consistent with a plethora of research on Muslim adolescent girls and young women's physical activity preferences (see Flintoff & Scraton, 2001; Kay, 2006; Mernissi, 1987; Thul & LaVoi, 2011; Zaman, 1997). With that said, a few participants expressed desire for inter-sex physical activity options. This tension among participants is representative of the cultural-religious divide Jawad (1998) spoke of in her research. The age-range tensions align with developmental research. Adolescence is a time of gaining peer acceptance and attaining autonomy and emotional independence from parents and other adults (Rice, 1998), hence why the younger (14-17) adolescent participants would roughly select their same age range. Young adulthood is often a time of reconnecting with and revaluing those very individuals (Rice); this could be why the older (18-22) adolescent participants would include their parents and elderly women in addition to the younger age groups. Finally, the ethnicity, race, and religion inclusivity noted by the participants is support by Thul & LaVoi (2011) who found East African adolescent girls desired physical activity programming that was inclusive of all women regardless of race, ethnicity, or religion.

The transportation, financial, and resource accessibility participants discussed are also supported by previous research. Transportation accessibility and proximity of physical activity facilities are consistent determinants of physical activity (Humpel et al., 2002; Sabo & Veliz, 2008). Likewise, a lack of transportation to exercise facilities is a barrier to physical activity participation (Richter et al., 2002). These same researchers have also found that financial and resource accessibility serve as enablers of physical activity participation.

Finally, the array of strategies for change participants' cited suggests an ecological-systems approach is necessary for achieving spatial equality. The agency-social-structural continuum of strategies for change included the need for a wide range of stakeholders' involvement. This variety of stakeholders and strategies map onto Bronfenbrenner's

(1977, 1979, 1993) ecological systems theory. For instance, the agency strategies are at the personal level, parental and community strategies and stakeholders are at the social level, religious leaders, local academic institutions, local non-academic institutions, and the government are all at the environmental/structural level—each of these multiple levels or systems influence one another bidirectionally and together have the greatest likelihood of affecting societal and cultural spatial change for Somali, adolescent girls.

Theoretical Implications of Findings

There are several important theoretical contributions of the results. First, the participants' responses in the participatory mapping sessions and focus group discussions mapped onto Lefebvre's (1991) Conceptual Model of Social Space, and suggest that a complex intersection of gender, race, ethnicity, class, religion, and culture influenced their perceptions with, and experiences in, perceived, conceived, and lived spaces. A handful of research by primarily one scholar (van Ingen, 2003, 2004) has used Lefebvre's theory to understand the physical activity spaces of primarily White, adult athletes. To date, I am the first researcher to apply Lefebvre's model to understand Somali, Muslim adolescent girls' experiences in physical activity space. Thus, this study provides a theoretical contribution in that it extended the breadth of the theory to a unique population, and illuminated the conceptual triad is a relevant model for understanding physical activity spatial experiences—with both physical and social space—among this population of females. Furthermore, the study provided a platform for the traditionally silenced Other, Somali, Muslim adolescent girls' to share their voices and write their own realities regarding physical activity space—a gap Collin's (2009) stated needs to be fulfilled in research.

A second theoretical implication is based on the complex intersectionality of gender, race, ethnicity, class, religion, and culture. This is the first study to include ethnicity, religion, and culture as key identity markers in the spatial triad analysis of perceived, conceived, and

lived space. Thus, it extended the breadth of spatial inquiry beyond the traditionally studied gender, race, class, and sexual orientation markers. Furthermore, the added constructs of religion and culture, proved especially influential in understanding Somali, Muslim adolescent girls' perceptions of, and experiences, with space, given gender, religion, and culture intersected for virtually every conceived and lived space results theme and affected the perceived space trends. Thus, future studies assessing Somali, Muslim females' experiences with the production of space will likely benefit by including religion and culture among other pertinent identity constructs, such as gender.

A third theoretical contribution pertains to power. The findings revealed perceived, conceived, and lived physical activity spaces are imbued with power relations. For instance, participants spoke of numerous ways Somali female elders, parents, male peers and stakeholders, and several more powerful others constructed spatial boundaries that often marked their exclusion. This finding is consistent with previous literature indicating the production of, and behaviors within, space are intertwined with power relations, and that powerful individuals exercise control over spatial production (Lefebvre, 1991; Rose, 1993; Vertinsky, 2001).

Additionally, participants described several instances of both accepting and resisting hegemonic notions of space. Participants' active consent at times to the aforementioned dominant groups'—male peers and stakeholders and Somali female elders—conceptions and productions of space link to Gramsci's (1971) hegemony theory. For instance, Gramsci believed power relations are never just simply imposed by the dominant group, but also involve the accepted subordination of the Other. The majority of the time, however, participants appeared to challenge Gramsci's notion of power by citing numerous instances in which they resisted, and hoped to resist, the dominant groups' spatial ideologies and practices.

A fourth theoretical contribution emerged among the intersection of the identity markers in this study and the conceptual spatial triad. It appears a unique model could be

developed to depict the relationships between the perceived and, especially, conceived and lived space themes. Given the complex relationship between the identity markers and each spatial theme, this model would also be very complex. Thus, only a few of the many potential relationships are reflected here. For instance, it appears as though the ethnic Somali cultural norm of community cohesion and the normative belief that girls need protection and restrictions together influence a culture of surveillance in physical activity spaces, which in turn can lead to personal and parental fear of judgment in such spaces. This fear may result in girls having less freedom than boys to be active, and tensions among the participants perceptions of, and preferences for, closed/indoor versus open/outdoor spaces, physically versus psychologically safe spaces, and the proximity of spaces. All of these conceived and lived space constructs can lead to increased or decreased physical activity opportunities and participation depending on their frequency and direction (see Figure 4 on the next page).

Another potential relationship in the emergent model appears to involve gender ideology and social constructions and their influence on Somali, male peers' oppressive spatial behaviors. For example, it appears social constructions of femininity, such as girls are less physically competent, and the gender ideologies that females should uphold traditional gender roles and responsibilities rather than be active and females should give into males, result in males dominating, and acting sexist in, physical activity spaces. Their sexist beliefs lead to behaviors of backlash when females resist their domination and oppression. Ultimately, any one of these—male spatial domination, sexism, or backlash—can lead to girls' decreased physical activity.

A fifth theoretical contribution involves this study's unique methodology. This was the first study to employ aspects of FPAR, as well as the method of participatory mapping in conjunction with focus groups to explore Lefebvre's (1991) conceptual spatial triad. The methodology proved relevant for assessing perceived space among the participants, as well as

for providing a base for understanding the conceived and lived space constructs in the focus group discussions. Given participatory mapping is a FPAR method, it was an especially useful platform for understanding the typically-erased Somali, Muslim, adolescent girl perceptions and experiences with perceived space physical activity locations. In this sense, including aspects of FPAR with the theory and methods really highlighted the complexities I was trying to reveal and understand. Indeed, future researchers utilizing Lefebvre's theory should consider involving an FPAR-informed approach and conducting the mixed methods of participatory mapping and focus groups to understand the spatial triad.

An sixth theoretical contribution is that this was also the first study to utilize Lefebvre's (1991) model and explore its relationship with the identity markers in a physical activity programming spatial needs assessment. The perceived, conceived, and lived space results—including the ways gender, race, ethnicity, class, religion, and culture intersected with the spaces—provided an array of insight into where to locate and how to implement future physical activity programming (see next section). Hence, the model may be pertinent when conducting spatial needs assessments of other physical activity programming.

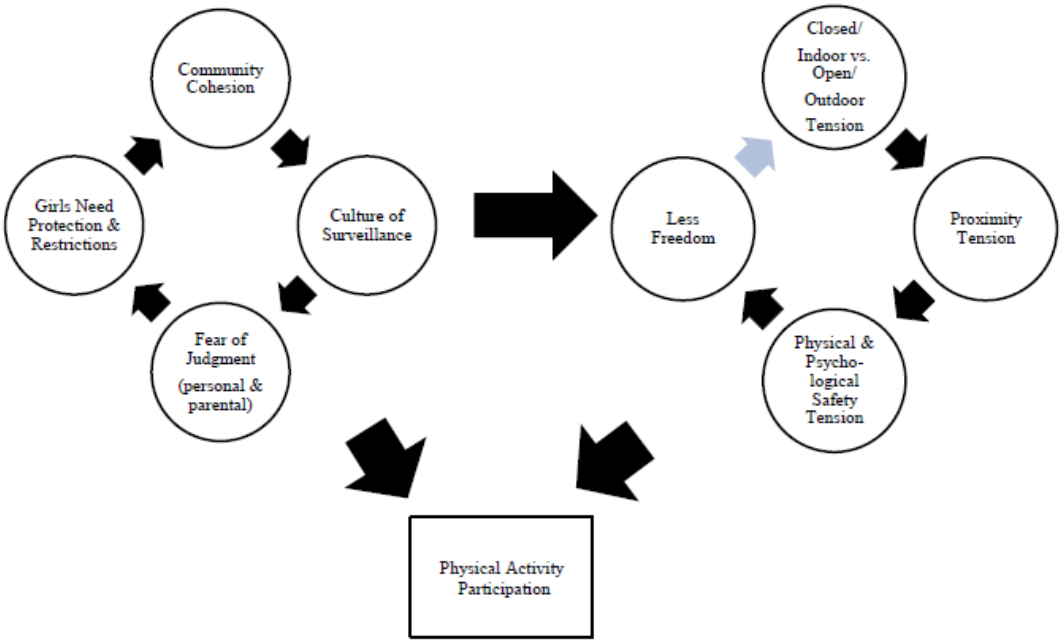

Figure 4. Example of a future model depicting some of the study results. Note: The full model will include all of the conceived and lived space themes, as well as the identity markers.

A final theoretical contribution is that the study findings provide valuable insight into the importance of community-based and culturally tailored health promotion interventions. The majority of prevention and health promotion programming for adolescents has been school- or after-school-based (National Research Council and Institute of Medicine, 2009). Some of these interventions also include a family component, but rarely do they reflect broader social-ecological contexts. This study suggests these contexts are imperative for researchers to consider when developing and implementing physical activity promotion interventions. For instance, the results indicated community-based physical activity programming that involves a wide range of ecological constructs may be the most culturally appropriate intervention for Somali adolescent girls. Public health scholars support the need for community-based physical activity promotion (van Sluijis, McMinn, & Griffin, 2007), and prevention and health promotion scientists highlight the need for culturally tailored and appropriate programming

(Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003), but rarely there is a need for the two to go hand and hand. Moving forward, this study suggests the need for the fields to inform one another and for researchers to consider the relevancy of community-based, culturally tailored interventions in addition to traditional intervention contexts.

Practical Implications of Findings

In addition to theoretical implications, there are several practical implications of this study's findings. These implications are primarily focused on locating and implementing future physical activity programming, given that was a key purpose of the study. To begin, participants' wide ranging definitions and performances of physical activity suggest a broader, more inclusive physical activity definition is needed in programming and academia, as well as for governmental standards. Such a comprehensive and inclusive definition is imperative for capturing the full range of physical activities that are culturally relevant for ALL girls. Thus, programmers should work to provide a wide variety of more to less strenuous physical activities for participants.

A second practical implication is related to the closed/indoor nature, proximity, and familiarity of physical activity spaces. The majority of participants described felling physically safest in closed, indoor physical activity spaces, because of perceptions of heightened surveillance in such spaces. For instance, most participants perceived the Brian Coyle Center to be the safest closed, indoor PAS because it had the most surveillance of any space in the Cedar-Riverside neighborhood. Parents also were more supportive of closed, indoor PAS and were less supportive of open PAS, such as outdoor parks, where there was heightened surveillance by male peers and elders. The parental lack of support for outdoor, open PAS was due to the potential for intermingling and the judgment such gazing could lead to for both their daughters and themselves. Additionally, the proximity of spaces mattered for feelings of surveillance and physical safety; the closer the space was to the heart of the neighborhood, the greater the

surveillance and physical safety participants perceived and the more participants described wanting to be active there. Finally, participants felt safest engaging in physical activity in familiar PAS. Participants' desire for familiar PAS was due to their own, and their parents, knowing and being comfortable with the people in those PAS. Specifically, participants perceived greater parental support for their physical activity participation in familiar PAS where parents knew direct surveillance by themselves, other parents, or other trusted adults, and indirect surveillance by security guards and/or police would be present. Hence, the majority of future physical activity programming should be located in closed/indoor, close, and familiar physical activity spaces.

Participants do not want programming to be exclusive to such spaces, however. For instance, the adolescent girls and young women also desired some programming in farther away, unfamiliar, and open spaces—a third practical implication. The participants reveled in the excitement and freedom unfamiliar PAS offered, and want to meet new people and try a variety of physical activities in the new spaces. Specifically, they wanted to participate in a wide array of physical activities—from swimming to dance to ice skating to tennis to a variety of recreational and competitive team sports, such as soccer, volleyball, softball, hockey, and football.

Riverside Park, which is one of the furthest places from the heart of Cedar-Riverside, was the primary new space they discussed wanting to try. There was some tension among participants, however, regarding whether or not such farther away, open/outdoor spaces involved enough surveillance to be considered physically safe. Thus, when experiencing these news spaces participants still desired elements of the familiar, including meeting at the Brian Coyle Center, travelling together to new places, and having the program run by the current leaders in order to ensure their direct supervision and physical safety. Indeed, program developers and leaders should consider offering a wider variety of physical activities, as well as

occasionally varying the location of program in new closed/indoor and open/outdoor spaces. In these new spaces, the aforementioned elements of the familiar must be present for participants to feel secure and attend the program.

A fourth practical implication is based on surveillance distinctions. Participants differentiated between who they felt comfortable being watch by in what context. All participants noted feeling physically safe when only females were directly watching their engagement in physical activity, and males and/or females where indirectly keeping watch over the physical activity spaces as a whole. There was quite a bit of tension among participants' perceptions of surveillance and feelings of psychological safety. The majority of girls and women found comfort, freedom, and enjoyment—all aspects of psychological safety—in being directly and highly watched by trusted female supervisors, parents, and peers. For this reason, they felt the most psychologically safe in indoor, private/female-only PAS that were close to the heart of the neighborhood. At the same time, however, participants felt psychologically unsafe in high surveillance, close PAS due to fears of personal and parental judgment by elderly Somali women. Overall, participants desired to be watched (by trusted females only), but not judged to ensure psychological safety. Indeed, program developers and leaders should ensure males and/or females are indirectly watching over program locations, but that they are the only individuals directly watching participants.

A fifth practical implication has to do with program participant inclusivity. Despite some study participants wanting inter-sex PAS, the majority of the adolescent girls wanted all programming spaces to remain female-only. Their desire for female-only PAS was due to the cultural norm that females and males should engage in physical activity separately and covering restrictions. There was no clear cut majority regarding what age participants in the program should be, however. The younger adolescent participants noted a range from 8-25 years old, while the older adolescent participants believed the program should be open to females of all

ages. Further inquiry into this age-inclusivity tension is warranted to ensure programming is serving the appropriate demographic.

All study participants overwhelmingly agreed on, and desired, an ethnically, racially, religiously, and culturally inclusive programming and PAS. They discussed a range of personal to social to fundamental reasons for such inclusivity. Personally, participants did not want to discriminate, and do unto other females what has been done unto them. Socially, participants believed inclusive programming and PAS could serve as a diversity learning platform, where diverse girls could come together under the common ground of physical activity and learn about one another. In particular, they believed outsiders to the Somali and Cedar-Riverside communities could learn of the true, peaceful nature of Somali, Muslims and the neighborhood. Fundamentally, participants believed it is a right of women to have access to physical activity spaces and programming; hence, they wanted all girls to have access to their program and its respective spaces. Overall, programming should be inclusive to females of any race, ethnicity, religion, and culture.

A sixth practical implication is based on accessibility. Participants discussed the significance of PAS' transportation, financial, and resources accessibility on their physical activity participation. The more proximate the PAS was to the heart of Cedar-Riverside, the more transportation accessible it was deemed, since participants could easily commute to the PAS via foot or light rail. Participants believed PAS to be financially accessible if they were free or inexpensive. Participants also highlighted the importance of a PAS having a variety of resources on-site. It is important to note, the more accessible a location was perceived, the more positive the physical activity experiences and the greater the amount of physical activity participation the participants described in the space..

A final practical implication emerged among the participants regarding the agency-social-structural strategies for change continuum. Participants employed and suggested several

agency-resistance (e.g., proving competency, not caring about what and/or ignoring what others' thought, and persisting) and agency-advocacy (e.g., stand up for their rights by petitioning and talking and advertising about the spatial inequality) strategies for reclaiming their rights to physical activity space. While the vast majority of participants were active resisters and advocates of their physical activity spatial rights, a few girls discussed their, and others', accepted subordination due to male and parental intimidation.

Participants experienced and/or hoped for several social strategies for change. One strategy was to increase parental and community support through holding parent and community awareness events, promoting the education components of the program, and including other females in the program. Participants believe their parents and community ultimately want what's best for them, including health; they just need to know their daughters will be safe and able to uphold their cultural and religious values in the activities in which they engage. Thus, creating awareness about the cultural relevancy of physical activity in general (e.g., linking health benefits to the Quran) and physical activity programming specifically (e.g., female-only, educational elements, etc.) is essential.

In addition to parental and community support, participants also desired gaining male support. They believed this could be gained by providing the opportunity for peer dialogue and inviting males to serve on leadership committees. Increased program supports in the forms of communication and program variety were other social strategies for change noted by participants.

In addition to agency and structure strategies, participants experienced and suggested numerous structural strategies for achieving their fundamental human right of physical activity spatial equality. Specifically, they discussed the need for support from a range of powerful stakeholders, including religious leaders, local academic institutions, local non-academic institutions, and the government. Overall, girls, program leaders, community partners and

members (e.g., parents, male peers, etc.), and advocates must together employ these multi-systemic strategies—from the agency to the social to the structural levels—to reclaim females' rights to physical activity spaces. After all, achieving spatial equality will take a collective effort of the wide range of aforementioned stakeholders due to the complexity of the intersection of the identity markers on individuals' and the communities' perceptions, conceptions, and lived experiences in physical activity space. Hence, the participants in this study may benefit from the creation of a multidisciplinary action group, including a stakeholder from every level previously discussed, to brainstorm and implement spatial equality strategies for Somali, adolescent girls. Additionally, participants could form a separate girls' leadership team to help organize and lead the multidisciplinary group, as well as to serve as the liaison between the group and girls in the community in order to bring the voices of the collective to the group and surrounding community.

Limitations

There were several limitations in this dissertation study. First, all of the participants were Somali, Muslim, adolescent girls who had participated in the G.I.R.L.S. program at least once. They also represented a range of more- to less- active physical activity levels within and outside of the Cedar-Riverside neighborhood, so the number of participants from each segment (e.g., Cedar-Riverside resident/more active, Cedar-Riverside non-resident/less active, etc.) was relatively small. Participant responses may not be representative of, and therefore should not be generalized to, other populations of adolescent girls.

Despite knowing which participants were more and less active, a second limitation of the data is that we are unable to discern the frequency, duration, and intensity, of physical activity occurring in specific spaces. Thus, we do not know how active participants were in each space they circled. Such data would have been beneficial for comparing more active to less active participants' responses among spaces (e.g. perhaps participants who are more active

know of more PAS, because they have tried them). Similarly, a third limitation is that participant familiarity with the Cedar-Riverside neighborhood (e.g., residents versus more-familiar non-residents and less-familiar non-residents) may have impacted the results. During the participatory mapping activity I heard several non-residents and even some residents mention they were unfamiliar with some of the PAS on the map. Thus, participants may not have circled all of the spaces that may be potential PAS for the mapping questions and future physical activity programming.

A fourth limitation is that we do not know what specific physical activities (an aspect of perceived space) participants engaged in within each space, given we only asked generally their definition of, and behaviors, regarding physical activities. Future studies could gain a more holistic understanding of perceived space by asking participants to list the activities they participate in within each map space.

A fifth limitation is that no immigrant identity construct was included in the study. How "new" participants are to the American physical activity culture—both in terms of immigrant status and level of acculturation—may impact their perceptions of, and experiences with, physical activity space. Thus, including both immigrant status and level of acculturation (e.g., years living in the United States) as key intersectional identity markers with gender, race, ethnicity, class, religion, and culture in future spatial studies would provide a more holistic way of exploring perceived, conceived, and lived physical activity spaces among immigrant populations.

A sixth limitation is that participants' rarely discussed race, ethnicity, and class in their responses. This is likely because the participatory mapping and focus group questions were more gendered, religious, and cultural in nature, hence, biasing participants to focus primarily on those identity constructs. Future studies may benefit from the addition of more direct race, ethnicity, and class based methodological questions. Furthermore, race, ethnicity, and class are

often viewed as controversial topics (Lusk & Weinberg, 1994), so perhaps participants did not feel as comfortable discussing them, particularly with me—a privileged White, middle-class woman—despite that I knew most of the participants well. White researchers must be cognizant of how their White privilege may impact the openness of participants'—even those with whom they have formed a trusting relationship.

A final limitation is that G.I.R.L.S. leaders rather than participants themselves designed the participatory mapping. Though participants were told they could circle any place on their maps that was not labeled, they may have perceived the spaces that were pre-labeled by the leaders were the most relevant to the study. For instance, during one of the participatory mapping session, I overheard a participant say, "Why should I circle any other places? These must be the ones that matter. Plus, it's just making more work for me" (n.a., personal communications, June, 5, 2011). Indeed, future studies may benefit from participants being involved in the creation of the participatory maps from the start of the process.

Future Directions

In addition to the future directions listed in the previous sections, this study yielded several other ideas and opportunities for future research. While this study answers critical sport studies scholars' call for more sophisticated studies examining the intersectionality of multiple identity constructs in research (McDonald & Birrell, 1999), particularly in physical activity spatial research focused on typically-erased populations, (Muller Myrdahl, 2009; Friedman & van Ingen, 2011), it is only one study. Much more research on the intersectionality of identity constructs among women, especially diverse populations, in sport spaces is needed.

The most widely discussed conceived and lived space themes that emerged in the study were the culture of, and tensions around, surveillance. It appeared surveillance manifested uniquely for the Somali, Muslim, adolescent girl participants. For instance, they desired physical activity spaces where there could be surveillance, yet at the same time resisted the

notion of being watched. Further study regarding the effect of surveillance on Somali, Muslim adolescent girls' and young women's experiences and behaviors in sport spaces is warranted. Foucault's (1995) panoptic model of surveillance may be especially pertinent to such research.

Covering among Muslim women is unique aspect of surveillance that should receive special attention in future research. The adolescent girls and young women in this study cited several tensions with covering, but all agreed that no matter what females must have some level of covering when engaging in physical activity. The more comfortable the covering was, the more likely it appeared females were to be active. Thus, participants may benefit from designing their own exercise "uniforms." They could work with students in the College of Design to create patterns for uniforms with the same general design, but varying degrees of being "covered" to reflect their individuality and cultural variation among covering definitions. Elderly women who sew at the East African Women's Center could then make the uniforms. Thus, the project would serve two main purposes: 1) to empower the girls and ensure they feel comfortable exercising in a variety of open and closed spaces, and 2) to build a positive relationship with elderly women, since they are significant others regarding younger females' physical activity participation.

Another important future study is exploring non-active Somali adolescent girls' experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood. Such a study should include an FPAR-informed approach, and would be beneficial for understanding the similarities and differences between the non-active and active. It would also help program developers and leaders know how to promote the program to non-active individuals, so that the program becomes as inclusive as possible and all females in the community have the opportunity to reap the numerous physical and psychosocial benefits of active living.

One remaining idea for future research is to explore significant stakeholders' (e.g., male peers', parents', religious leaders', and community institution coordinators' and supervisors') perceptions of the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood. Their perceptions, in addition to the Somali adolescent girls' perspectives in this study, would provide a holistic understanding of space in the neighborhood. Such an understanding is essential for achieving spatial equality for Somali adolescent girls in the community in general.

A final future direction is that girls themselves remain active agents for change. In line with FPAR, it is not enough that participants shared strategies for achieving spatial equality in the focus groups; rather they must continue to be a part of the action stage of the research project. For instance, they should be a part of deciding the type and timing of action steps. To make this happen, we have already held one "G.I.R.L.S. Take Action" strategizing pizza party. At the event, we discussed the study findings, and created a "Take Action" outline. Several of our action agendas have already been completed (e.g., adding G.I.R.L.S. participants to the G.I.R.L.S. leadership team, and implementing a wider variety of physical activities). One meeting and crossing off a few action steps are not enough, however. It is my job, along with the G.I.R.L.S. leaders, to ensure the participants continue to shape their own spatial realities. Furthermore, we must maintain detailed documentation of the actions, and resulting changes, taking place in space. According to Muller Myrdahl (2011), there is little knowledge of how social change works in and through sport and physical activity spaces. Thus, we have the potential to help this knowledge base grow by sharing how the results of this study and the action steps they sparked lead to social change.

Conclusion

This dissertation served as a spatial needs assessment and extension to Thul and LaVoi's (2011) groundbreaking research. In the dissertation, I employed Henri Lefebvre's

(1991) Conceptual Model of Social Space and aspects of a FPAR approach to explore Somali, adolescent girls' experiences with, and perceptions of, the intersection of gender, race, ethnicity, class, religion, and culture in perceived, conceived, and lived physical activity spaces in the Cedar-Riverside neighborhood of Minneapolis, MN, as well as to understand the implications of the model for locating and implementing future physical activity programming. This was the first study to utilize Lefebvre's model both in regard to a spatial needs assessment and the target population—Somali, Muslim, immigrant, adolescent girls. It was also the first study to incorporate an FPAR-informed research design and the quantitative participatory mapping method with focus groups. Results supported the relevancy of the model, research design, and methods for future spatial needs assessment studies, as well as for exploring future identity marker intersections among this population of girls. Results also revealed the complexity of the intersection of the identity constructs on the participants' perceptions and experiences in space. Given such complexity, achieving spatial equality for Somali adolescent girls will require multi-systemic efforts—from the girls themselves, to program developers and leaders, to parents and community members, to male peers and stakeholder, to religious leaders, to local academic and non-academic community institutions, to policymakers. Everyone must work together to achieve spatial justice for Somali adolescent girls.

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Appendix A

Pilot Participatory Mapping Activity Guide

PILOT PARTICIPATORY MAPPING ACTIVITY GUIDE

Directions: For this activity, you will be asked to answer the questions below by circling places using the colored marker noted by each question on the corresponding Twin Cities Map handout. Be sure to use the correct color for each question. Try to circle the places as exact as possible. You may circle as many places as necessary to answer each question (e.g., you may circle multiple places for the same question). Also, if necessary, the places you circle in for the questions below may overlap.

Questions:

1. Where are you CURRENTLY physically active? **(yellow)**
2. Are there places where FEMALES in your community are physically active? If yes, where are these places? **(orange)**
3. Are there places where MALES in your community are physically active? If yes, where are these places? **(purple)**
4. Are there places you consider PHYSICALLY SAFE for physical activity? If yes, where are these physically safe places? **(blue)**
5. Are there places you feel would allow you to be physically active and MAINTAIN your CULTURAL AND RELIGIOUS VALUES? If yes, where are these places? **(red)**
6. Are there places in which you FEEL COMFORTABLE to participate in physical activity? If yes, where are the places you feel the *most* comfortable? **(green)**
7. Are there places your PARENTS ARE SUPPORTIVE of you to be physically active If yes, where are these places? **(pink)**
8. Are there any places where would you like to do physical activity in the FUTURE? If yes, where are these places? **(black)**
9. If you could choose any place to have more physical activity PROGRAMMING where would it be? **(gray)**

Appendix B

Study Participatory Mapping Activity Guide

STUDY PARTICIPATORY MAPPING ACTIVITY GUIDE

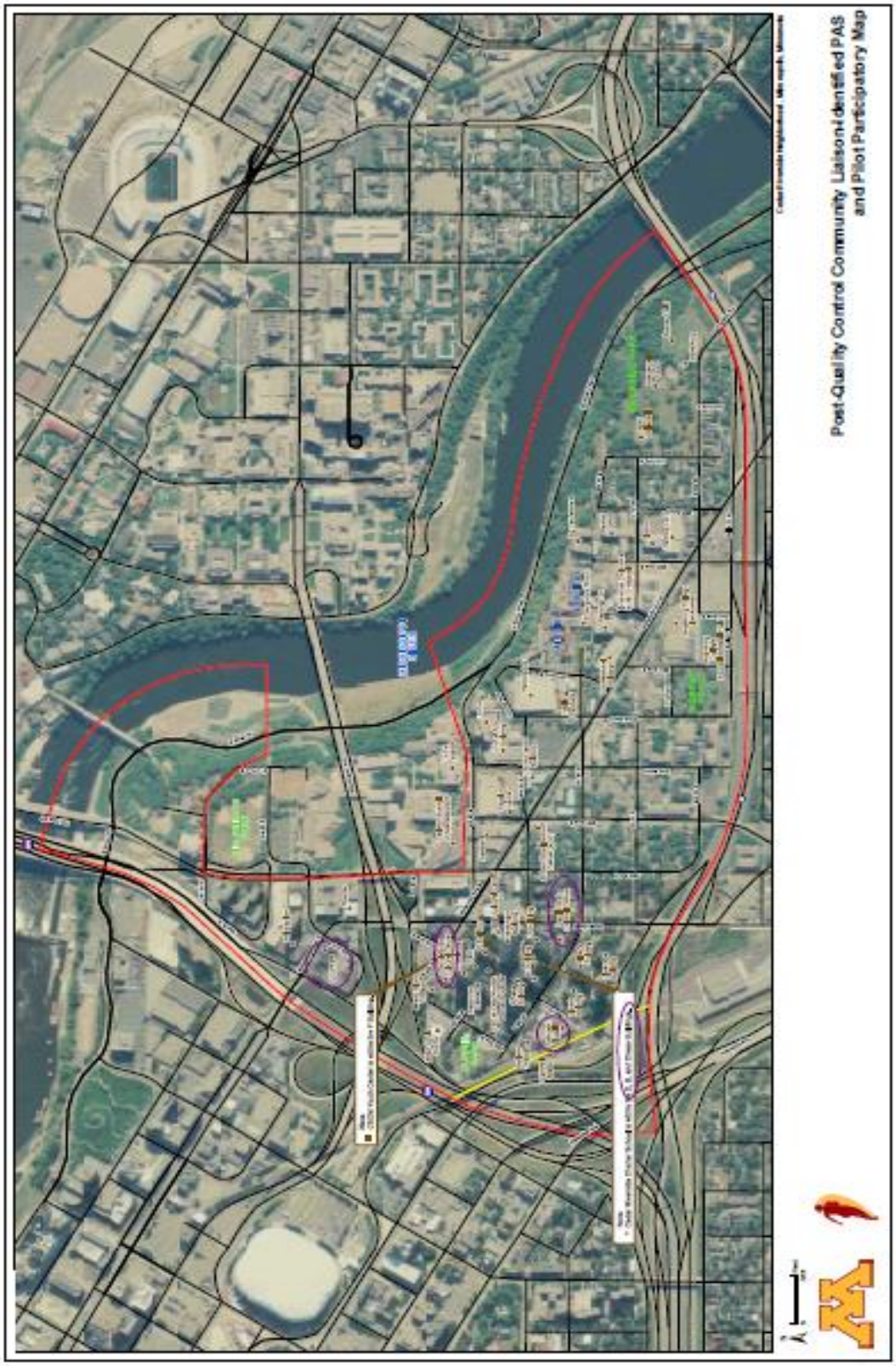
Directions: For this activity, you will be asked to answer the questions below by circling places using the colored marker noted by each question on the corresponding Cedar-Riverside Map handout. Be sure to use the correct color for each question. Try to circle the places as exact as possible. You may circle as many places as necessary to answer each question (e.g., you may circle multiple places for the same question). Also, if necessary, the places you circle in for the questions below may overlap.

Questions:

1. Where are you CURRENTLY PHYSICALLY ACTIVE? **(yellow)**
2. Are there places where FEMALES in your community are PHYSICALLY ACTIVE? If yes, where are these places? **(orange)**
3. Are there places where MALES in your community are PHYSICALLY ACTIVE? If yes, where are these places? **(purple)**
4. Are there places you consider PHYSICALLY SAFE (e.g., not violent, not afraid for your safety) for PHYSICAL ACTIVITY? If yes, where are these physically safe places? **(blue)**
5. Are there places you feel would allow you to be PHYSICALLY ACTIVE and MAINTAIN your CULTURAL AND RELIGIOUS VALUES (e.g., maintain privacy and modesty, female-only places, etc.)? If yes, where are these places? **(red)**
6. Are there places in which you FEEL COMFORTABLE (e.g., friendly, supportive, etc. places) to participate in PHYSICAL ACTIVITY? If yes, where are the places you feel the *most* comfortable? **(green)**
7. Are there places your PARENTS ARE SUPPORTIVE of you to be PHYSICALLY ACTIVE? If yes, where are these places? **(pink)**
8. Are there any places where would you like to do PHYSICAL ACTIVITY in the FUTURE? If yes, where are these places? **(black)**
9. If you could choose any place to have more PHYSICAL ACTIVITY PROGRAMMING where would it be? **(gray)**

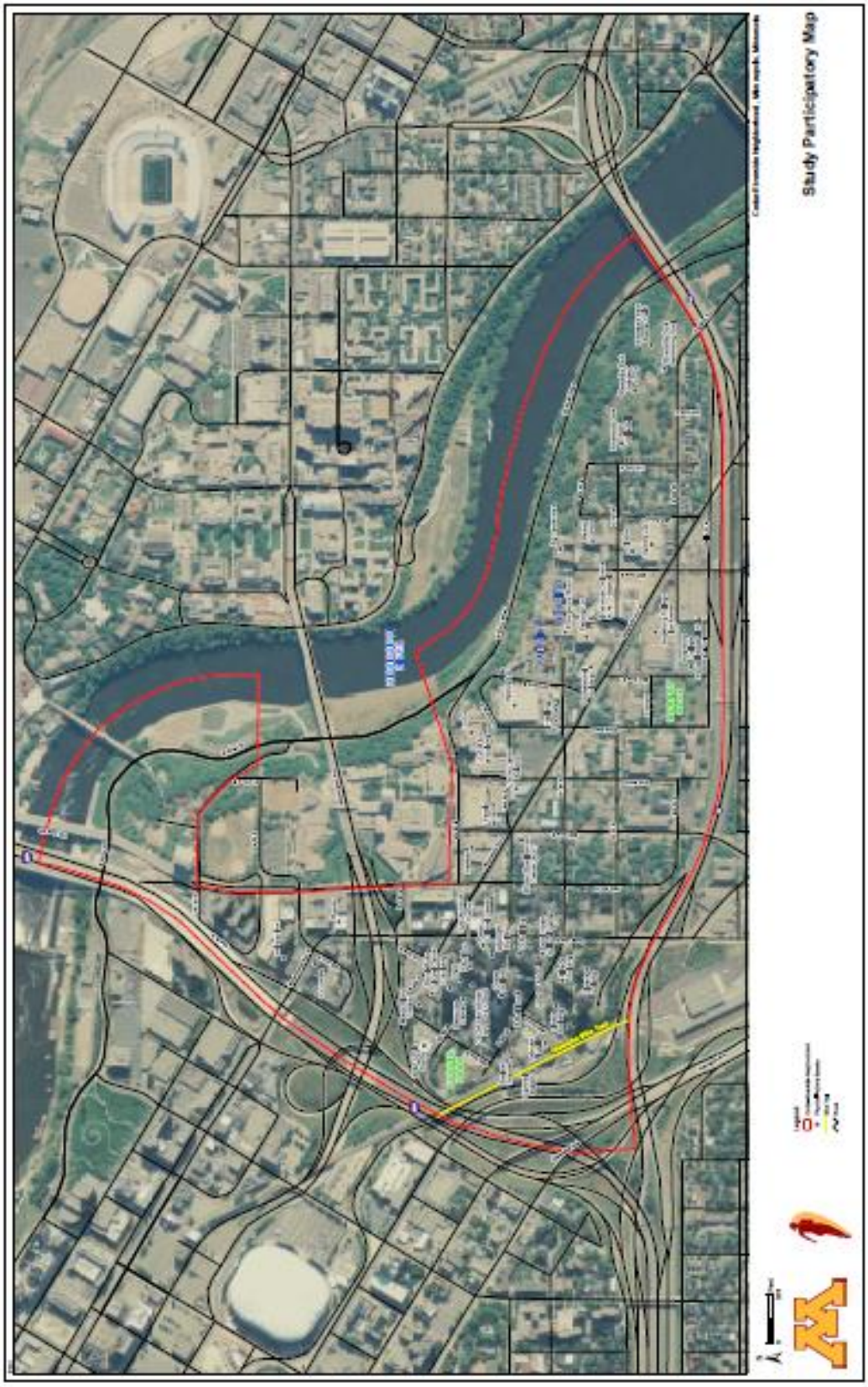
Appendix C

Pilot Participatory Map


Post-Quality Control Community Liaison-Identified PAS
and Pilot Participatory Map

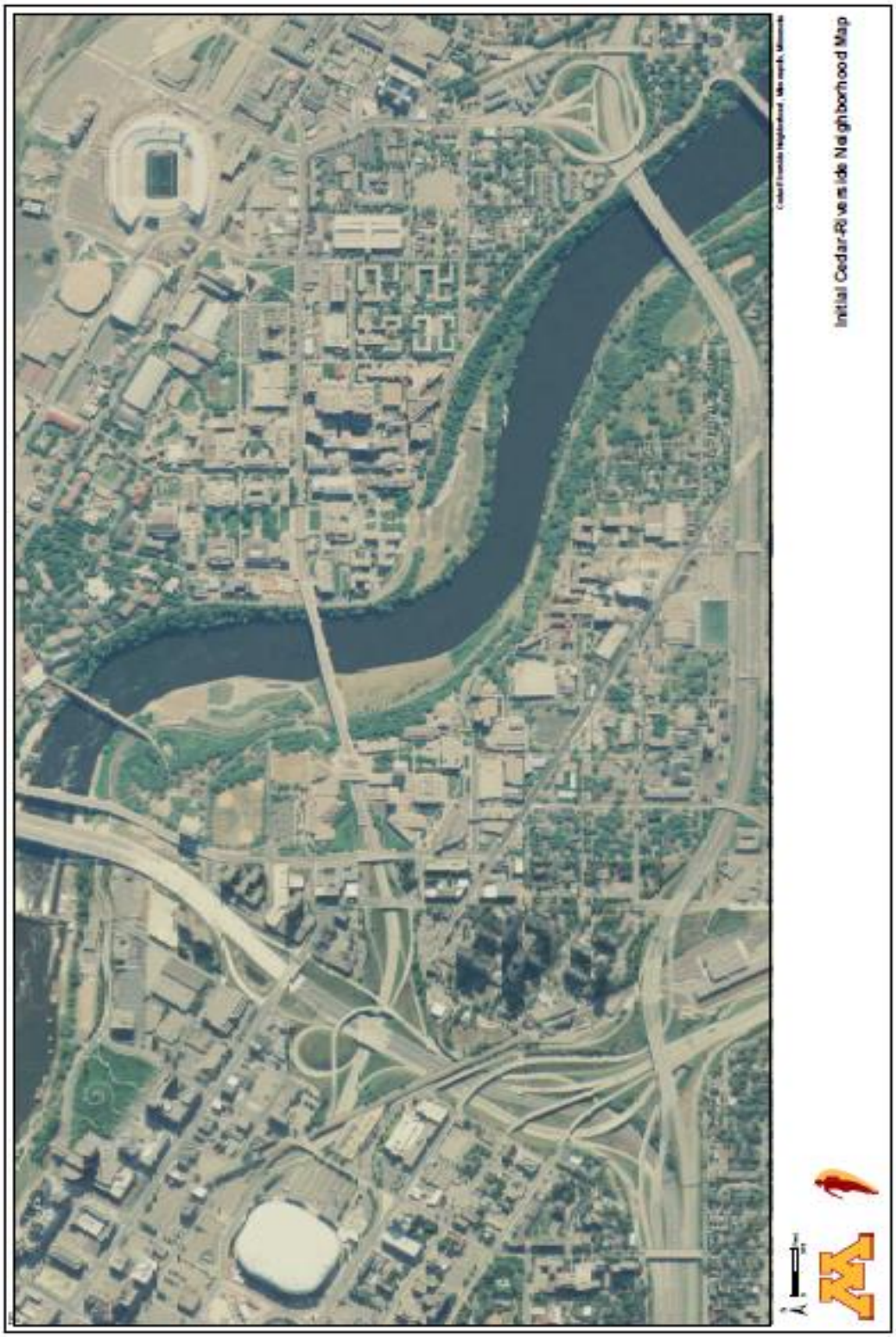
Appendix D

Study Participatory Map


Study Participatory Map

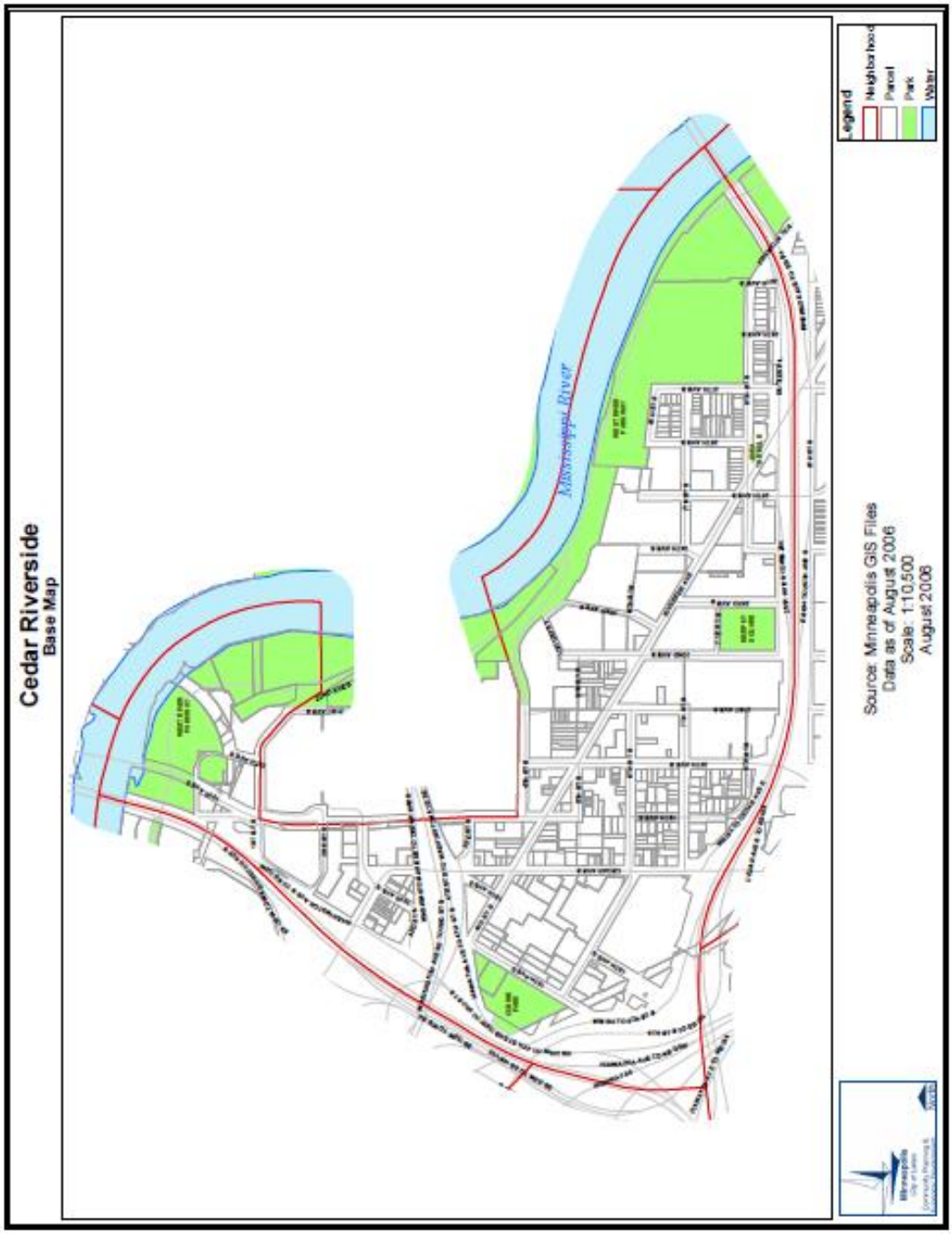
Appendix E

Initial Cedar-Riverside Neighborhood Map


Initial Cedar-Riverside Neighborhood Map

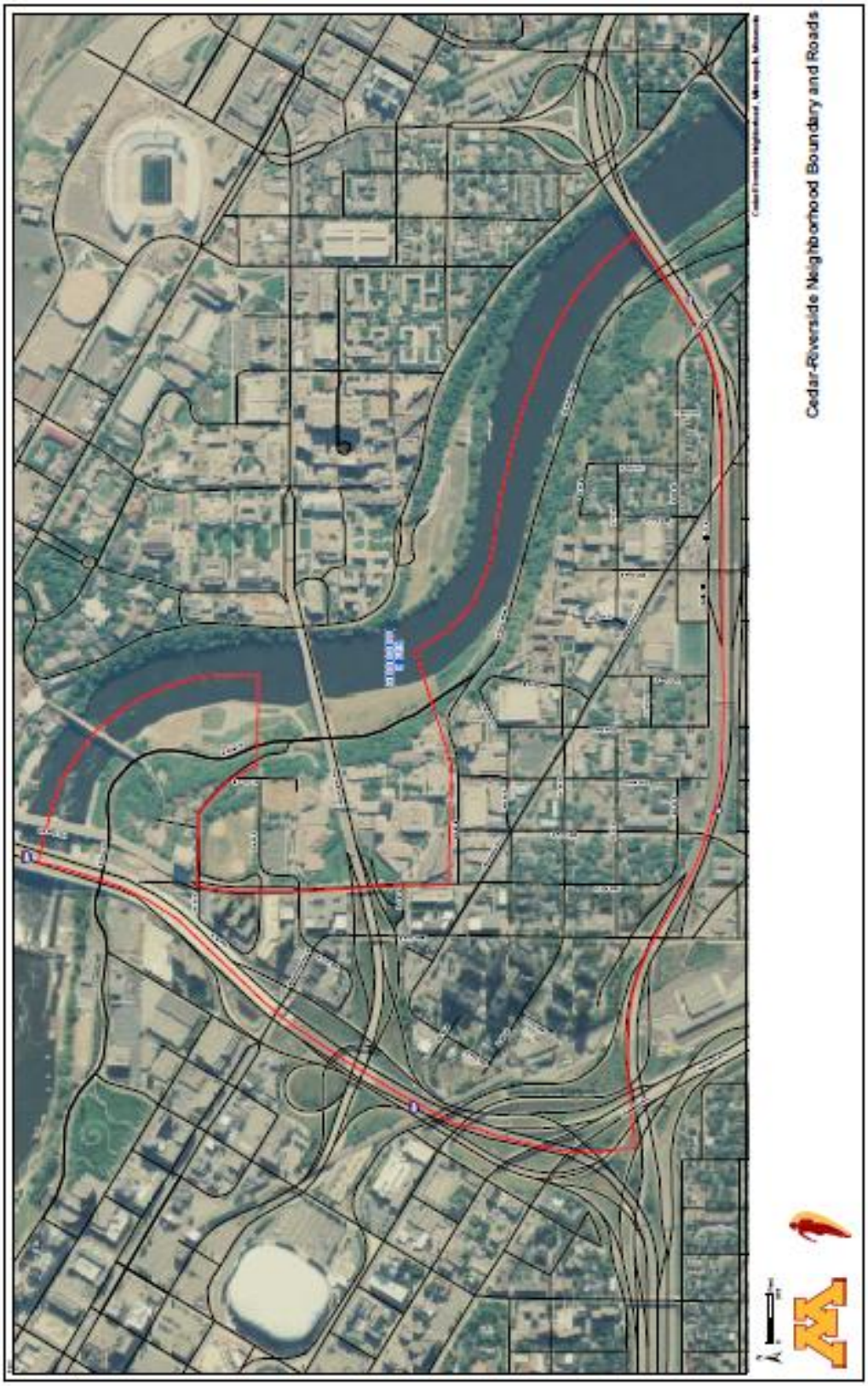
Appendix F

Cedar-Riverside Neighborhood Base-Map


Cedar Riverside
Base Map
Mississippi River
Legend
Neighborhood
Parcel
Park
Water
Source: Minneapolis GIS Files
Data as of August 2006
Scale: 1:10,500
August 2006

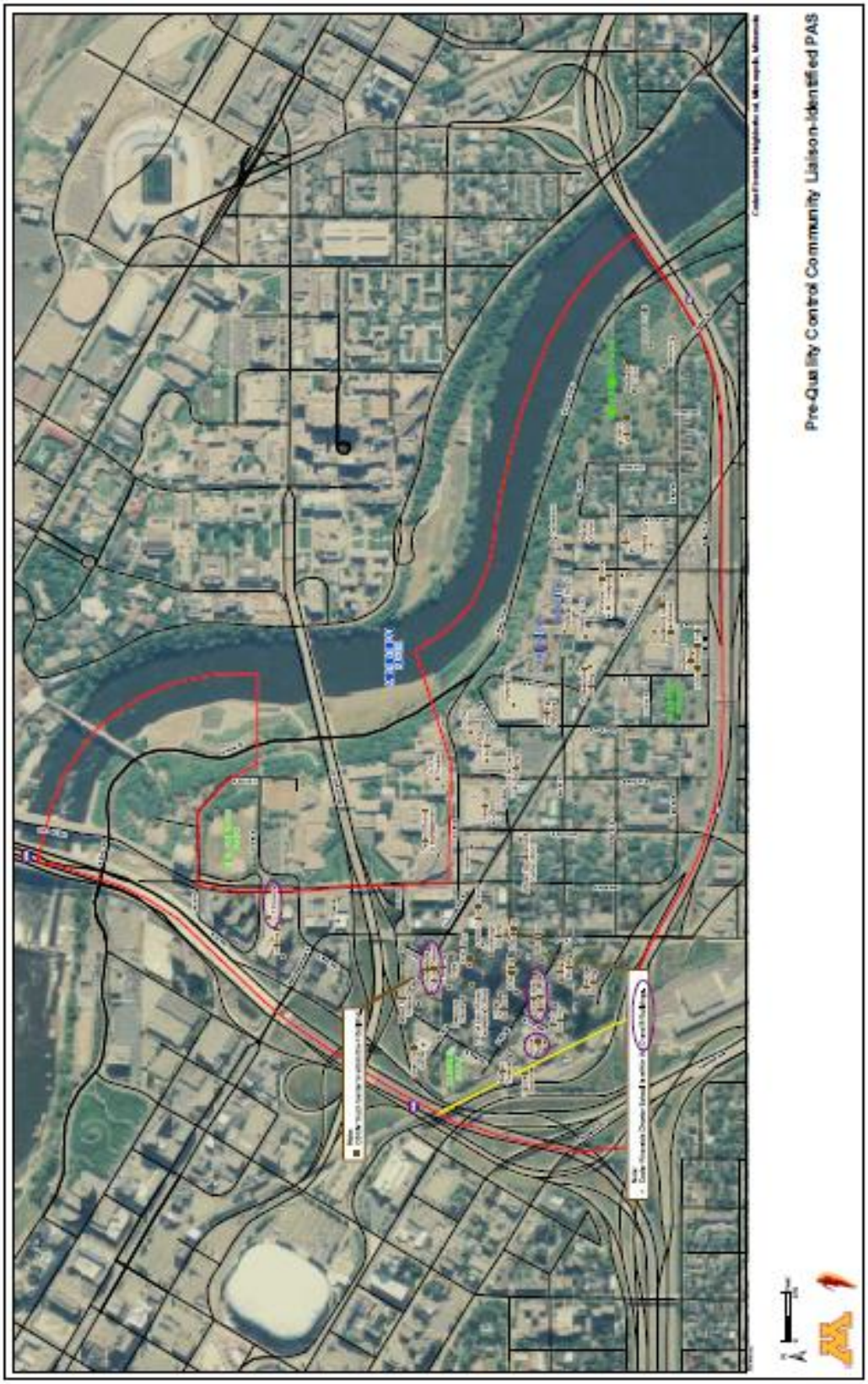
Appendix G

Cedar-Riverside Neighborhood Boundary and Roads Map


Cedar-Riverside Neighborhood Boundary and Roads

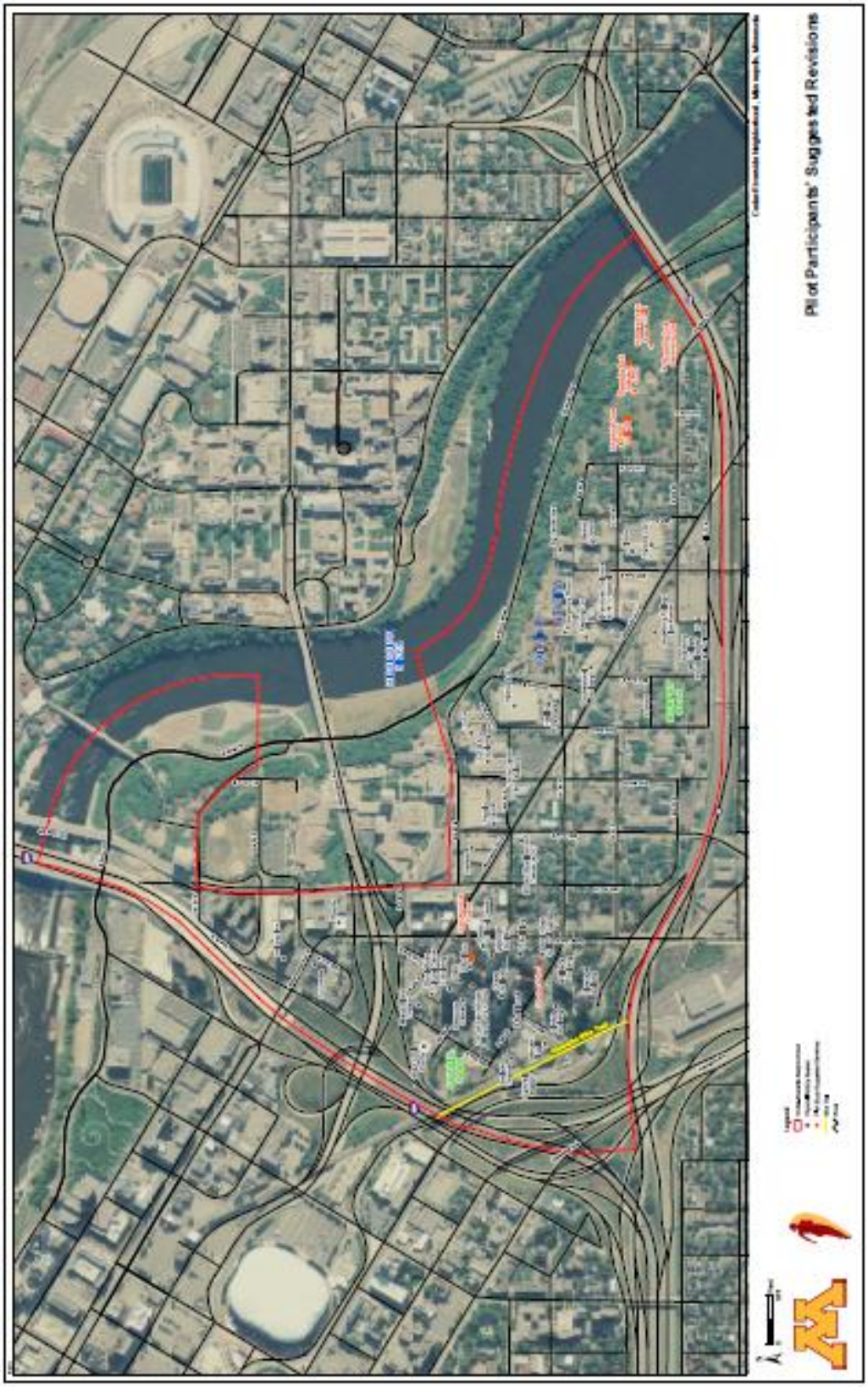
Appendix H

Pre-Quality Control Community Liaison-Identified PAS Map


Pre-Quality Control Community Liaison-Identified PAS

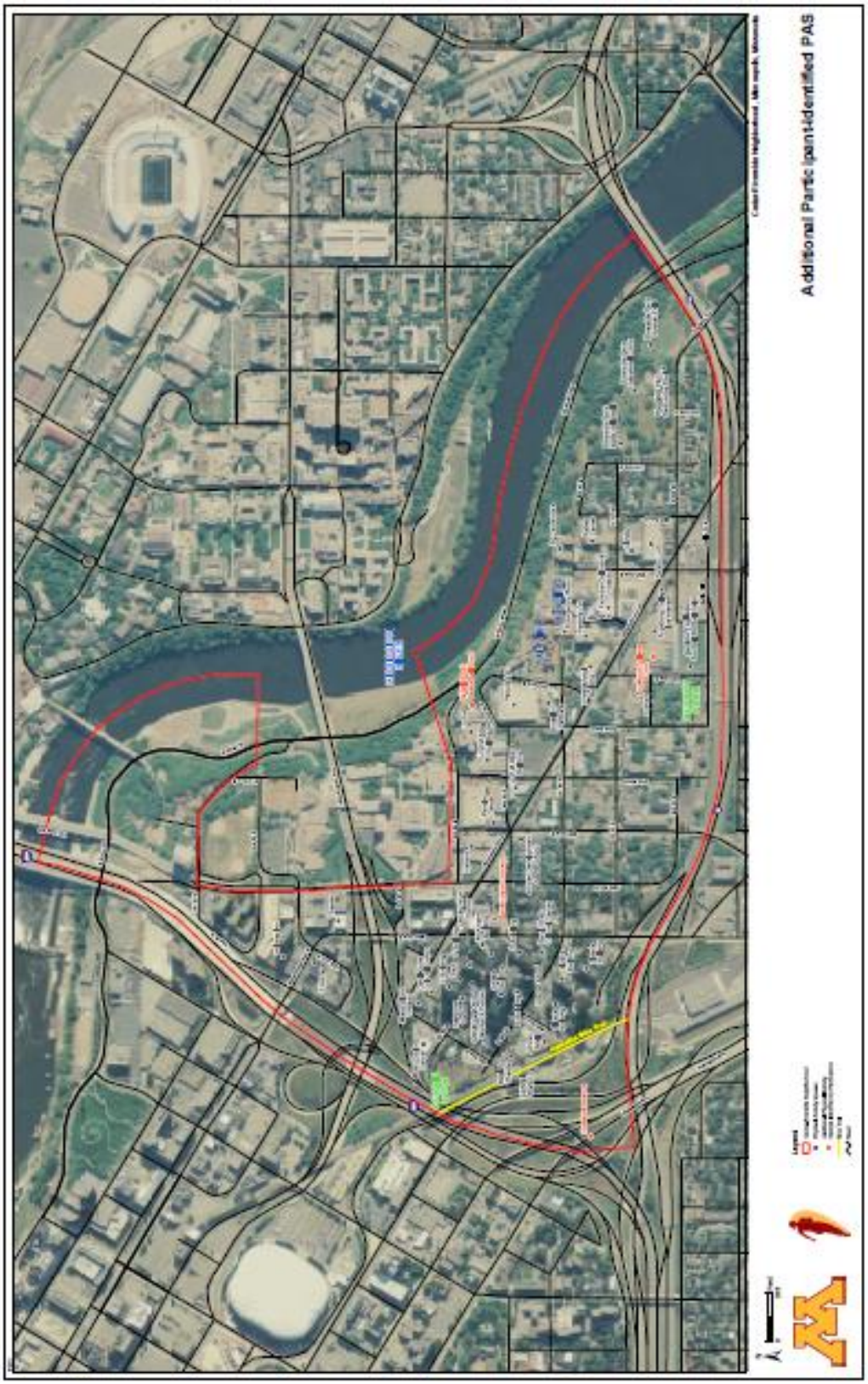
Appendix I

Pilot Participants' Suggested Revisions Map


Pilot Participants' Suggested Revisions

Appendix J

Additional Participant-Identified PAS Map


Additional Participant-Identified PAS

Appendix K

Semi-Structured Focus Group Interview Guide

SEMI-STRUCTURED FOCUS GROUP INTERVIEW GUIDE

Warm-Up Questions:

1. Since we'll be talking about physical activity today, I would love to know how do you define physical activity?
2. What activities do you do that you consider "physical activities"?

Conceived and Lived Space Questions Based on Participatory Mapping Trend Maps:

1. The spaces here [point to blue spaces on map] with a lot of blue are where many of you said you currently do physical activity. Can you tell me about the reasons why you are active in these places?
    a. Why aren't you active in these other spaces [point to red spaces on map]?
3. The spaces here [point to blue spaces on map] with a lot of blue are where you said females in your community are physically active. What are the reasons females are active here?
    a. Describe to me who the typical female is in these spaces. How old? What race or ethnicity? What religion?
    b. Why aren't females active in these other spaces [point to red spaces on map]?
4. These spaces here [point to blue spaces on map] with a lot of blue are where you said males in your community are physically active. What are the reasons females are active here?
    a. Describe to me who the typical male is in these spaces. How old? What race or ethnicity? What religion?
    b. Why aren't males active in these other spaces [point to red spaces on map]?
5. I noticed that there are more spaces [point to blue spaces on both maps] you said males are active than females are active in your community. Can you tell me about why that is the case?
6. In these spaces here with a lot of blue you said you feel physically safe for physical activity. What about these spaces are physically safe for physical activity?
    a. Why aren't these other spaces [point to red spaces on map] physically safe for physical activity?

7. These spaces here with a lot of blue are those you said would allow you to be physically active and maintain your cultural and religious values. Describe what it is about the space that allows you to uphold those values?
    a. What does the space look like? Who is in the space?
    b. Why don't these other spaces [point to red spaces on map] allow you to be physically active and maintain your cultural and religious values?
8. In these spaces here with a lot of blue you said you feel comfortable to participate in physical activity. Tell me about the reasons why these spaces make you feel comfortable for physical activity?
    a. Why don't these other spaces [point to red spaces on map] make you feel comfortable for physical activity?
9. These spaces here with a lot of blue are where you said your parents are supportive of you to be physically active. What is it about these spaces that you think your parents are supportive of?
    a. What is it about these other spaces [point to red spaces on map] that your parents aren't supportive of?
10. These spaces here with a lot of blue are where you said you'd like to do physical activity in the future. Tell me about what your reasons for wanting to do physical activity in these places?
    a. What is it about these other spaces [point to red spaces on map] that you didn't say you'd like to do physical activity in the future?
11. These spaces here with a lot of blue are where you said you'd like to have more Physical Activity Programming for adolescent girls and young women in the future. Tell me about where in this space you'd want the program to be?
    a. Describe why you'd like the program here. What is it about this space that would be conducive to a program?
    b. How do you think the program would look in this space?
        i. Tell me about who you think would be there? What would they be doing?
    c. What is about these other spaces that you didn't say you'd like physical activity programming in the future?

Wrap-Up Questions:

1. Out of all the space on the map, are there any issues around physical activity that have occurred in your community we haven't discussed?
    a. If yes, what are those issues that come to mind?
    b. Have you personally experienced this issue? If yes, tell me about how you experienced it?
2. Is there anything else you would like to add?

Appendix L

Demographic Questionnaire

DEMOGRAPHIC QUESTIONNAIRE

In this survey, we will ask questions about you and your experiences in physical activity. Your participation is completely voluntary, and there are no right or wrong answers. All responses to this survey will be strictly confidential; in no way will you be personally identified. Thank you for your cooperation providing information regarding physical activity participation. If you have any questions about this survey, please contact Chelsey Thul at: 612.625.7327 or rodd0020@umn.edu, or Dr. Nicole LaVoi at: 612.626.6055 or nmlavoi@umn.edu

Contact Information

Name (only the lead researcher will see this for contact purposes): _____

What is your current address? _____

Phone number (for study contact purposes):_____

Involvement in Cedar Riverside Neighborhood (if not a resident)

1. In an average week, how many days do you spend time in the Cedar Riverside neighborhood? (Mark one)
   - ❑ 0 days
   - ❑ 1 day
   - ❑ 2 days
   - ❑ 3 days
   - ❑ 4 days
   - ❑ 5 days
   - ❑ 6 days
   - ❑ 7 days
   - ❑ Other (please explain): _____

2. Describe what brings you to the Cedar Riverside neighborhood: _____

   _____

   _____

Gender

What is your gender: ❑ Male ❑ Female

Age

1. What is your current age? (Mark one)
   - ❑ 14 years old
   - ❑ 15 years old
   - ❑ 16 years old
   - ❑ 17 years old
   - ❑ 18 years old
   - ❑ 19 years old
   - ❑ 20 years old
   - ❑ 21 years old
   - ❑ 22 years old
   - ❑ Other (please explain): _____

Education level

1. What is your last completed level of education? (Mark one)
   - ❑ Grade 1 ❑ Grade 4 ❑ Grade 8 ❑ Grade 12
   - ❑ Grade 2 ❑ Grade 5 ❑ Grade 9
   - ❑ Grade 2 ❑ Grade 6 ❑ Grade 10
   - ❑ Grade 3 ❑ Grade 7 ❑ Grade 11
   - ❑ Other (please explain): _____

Race/ethnicity (2-part question)

1. Do you think of yourself as… (You may choose more than one)
   - ❑ White
   - ❑ Black or African American
   - ❑ Hispanic or Latino
   - ❑ Asian American
   - ❑ American Indian or Native American
   - ❑ Other_____

2. Is your background any of the following? (Mark one)
   - ❑ Hmong ❑ Somalian
   - ❑ Cambodian ❑ Ethiopian
   - ❑ Vietnamese ❑ Other: _____
   - ❑ Laotian ❑ None of the above

Religion

1. At this time, what is your religious preference? (Mark one)
   - ❑ No religion ❑ Islamic/Muslim
   - ❑ Roman Catholic ❑ Orthodox
   - ❑ Jewish ❑ Episcopal, Anglican
   - ❑ Lutheran ❑ Methodist
   - ❑ Presbyterian ❑ Baptist
   - ❑ Buddhist ❑ Hindu
   - ❑ Other (please explain): _____

Immigrant Status

1. Which of the following statements best describes you and your family (check all that apply):
   - ❑ I was born in the US
   - ❑ I was NOT born in the US
     If you checked this box, please answer the following:
     In what country were you born? _____
   - ❑ My mother was born in the US
   - ❑ My mother was NOT born in the US
     If you checked this box, please answer the following:
     In what country was your mother born? _____
   - ❑ My father was born in the US
   - ❑ My father was NOT born in the US

If you checked this box, please answer the following:
In what country was your father born? _____

<u>Physical Activity Level</u> (3-part question)

In a usual week, how many hours do you spend doing the following activities:

1. Strenuous exercise (heart beats rapidly). Examples: Biking fast, aerobic dancing, running, jogging, swimming laps, rollerblading, skating, lacrosse, tennis, cross-country skiing, soccer, basketball, football. (Mark one)
   - ❑ none
   - ❑ less than 1/2 hour a week
   - ❑ 1/2 - 2 hours a week
   - ❑ 21/2 - 4 hours a week
   - ❑ 41/2 - 6 hours a week
   - ❑ 6+ hours a week

2. Moderate exercise (not exhausting). Examples: Walking quickly, baseball, gymnastics, easy bicycling, volleyball, skiing, dancing, skateboarding, snowboarding. (Mark one)
   - ❑ none
   - ❑ less than 1/2 hour a week
   - ❑ 1/2 - 2 hours a week
   - ❑ 21/2 - 4 hours a week
   - ❑ 41/2 - 6 hours a week
   - ❑ 6+ hours a week

3. Mild exercise (little effort). Examples: Walking slowly (to school, to friend's house, etc.), bowling, golf, fishing, snowmobiling, yoga. (Mark one)
   - ❑ none
   - ❑ less than 1/2 hour a week
   - ❑ 1/2 - 2 hours a week
   - ❑ 21/2 - 4 hours a week
   - ❑ 41/2 - 6 hours a week
   - ❑ 6+ hours a week

Appendix M

University of Minnesota IRB Approval Letter

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Human Research Protection Program
Office of the Vice President for Research

D528 Mayo Memorial Building
420 Delaware Street S.E.
MMC 820
Minneapolis, MN 55455

Office: 612-626-5654
Fax: 612-626-6061
E-mail: irb@umn.edu or ibc@umn.edu
Website: http://research.umn.edu/subjects/

March 10, 2010

Chelsey M Thul
Kinesiology 2061
Room 100 CookeH
1900 University Ave S E
Minneapolis, MN 55455

RE: "Employing Visual Methods: East African Adolescent Girls Explore the Intersection of Space, Gender, Culture, and Physical Activity"
IRB Code Number: **0910P73554**

Dear Ms. Thul

The Institutional Review Board (IRB) received your response to its stipulations. Since this information satisfies the federal criteria for approval at 45CFR46.111 and the requirements set by the IRB, final approval for the project is noted in our files. Upon receipt of this letter, you may begin your research.

IRB approval of this study includes the assent form received March 10, 2010 and the parent consent form, consent form (14-20) and recruitment materials received February 4, 2010.

The IRB determined that children could be included in this research under 45CFR46.404; research not involving greater than minimal risk.

The IRB would like to stress that subjects who go through the consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. Please keep this in mind when calculating the number of subjects you request. This study is currently approved for 40 subjects. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

For your records and for grant certification purposes, the approval date for the referenced project is November 6, 2009 and the Assurance of Compliance number is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003). Research projects are subject to continuing review and renewal; approval will expire one year from that date. You will receive a report form two months before the expiration date. If you would like us to send certification of approval to a funding agency, please tell us the name and address of your contact person at the agency.

As Principal Investigator of this project, you are required by federal regulations to:
*Inform the IRB of any proposed changes in your research that will affect human subjects, changes should not be initiated until written IRB approval is received.
*Report to the IRB subject complaints and unanticipated problems involving risks to subjects or others as they occur.
*Respond to notices for continuing review prior to the study's expiration date.
*Cooperate with post-approval monitoring activities.

Information on the IRB process is available in the form of a guide for researchers entitled, What Every Researcher Needs to Know, found at
http://www.research.umn.edu/irb/WERNK/index.cfm

The IRB wishes you success with this research. If you have questions, please call the IRB office at 612-626-5654.

We have created a short survey that will only take a couple of minutes to complete. The questions are basic, but will give us guidance on what areas are showing improvement and what areas we need to focus on:

https://umsurvey.umn.edu/index.php?sid=36122&lang=um

Sincerely,

Jeffery Perkey, MLS, CIP
Research Compliance Supervisor
JP/bw

CC: Nicole LaVoi

Appendix N

Consent Form

CONSENT FORM

You are invited to be in a research study of exploring Somali adolescent girls' perceptions about the relationship between spaces within the Cedar-Riverside neighborhood, gender, race, ethnicity, class, religion, culture, and their physical activity participation and experiences. The study is important for improving future physical activity programming. You were selected as a possible participant because you are a Somali adolescent girl between the ages of 14-22. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Chelsey Thul, Ph.D. student in the School of Kinesiology and research assistant in the Tucker Center for Research on Girls & Women in Sport at the University of Minnesota.

Background Information:

The main purpose of this study is to understand your perception, as a Somali female, about the relationship between spaces within your community, gender, race, ethnicity, class, religion and culture, and your physical activity participation and experiences. Because location of physical activity programs is important, the results of this study will help inform where future physical activity programming should be located in the Cedar-Riverside neighborhood, so that you and other girls like yourself have the opportunity to participate.

Procedures:

If you agree to be in this study, we would ask you to do the following two things:

1. Fill out a form and answer a few questions about your age, gender, identified ethnic group, etc., and answer questions about spaces in your community (e.g., where do you feel safe, where do you do physical activity, etc.) by coloring the spaces on a map of Cedar-Riverside. This activity should take no more than 20-30 minutes (including directions).

2. Participate in a group interview, which will last approximately one-two hours, to discuss your map with other Somali girls. The interview will be voice recorded. Chelsey Thul, the lead researcher for this project, will conduct the interviews. A fake name will be given to all interviews, so no one other than the researcher will know who you are.

Your participation in this project will help us understand the relationship between space, gender, race, ethnicity, class, religion, culture and physical activity among adolescent girls like yourself. Such information is important for knowing where to best locate future physical activity programming.

This study is completely optional. Your name will not be linked to your responses and only myself will have access to your specific responses. If a comment of yours was to be cited in the final report it would be done so without your name, and you would be asked to give final approval. Thus, please be as open and honest as possible.

Risks and Benefits of being in the Study:

The study has very few risks. Questions and discussions are basic and should not be uncomfortable for you. If there is a question that you do not want to answer, you do need to answer. There are no direct benefits to you for being in this study.

Compensation:

The following participant incentives will be provided to you for your participation: a $15 gift card for completion of Phase I (demographic questionnaire and mapping activity) and another $25 gift card for completion of Phase II (the in-person group interview) of the study. Thus, an individual who completes the entire study will receive a total of $40 in Target gift cards.

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records. We will not include your real name on your map or the audio tape recordings of the interview. Only researchers will have access to the audio recordings and maps. All records (including maps and audio tapes) will be erased within one year of being made.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota, the School of Kinesiology, the Tucker Center for Research on Girls & Women in Sport, or the G.I.R.L.S. program. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researchers conducting this study are: Chelsey Thul and Dr. Nicole LaVoi. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact Chelsey Thul, the lead researcher, at the Tucker Center for Research on Girls & Women in Sport, 612-625-7327, and rodd0020@umn.edu. You may also contact Chelsey's advisor, Dr. Nicole LaVoi, at any time at 612-626-6055 or nmlavoi@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature:_____ Date: _____

Signature of parent or guardian:_____ Date: _____
(If minors are involved)

Signature of Investigator:_____ Date: _____

Appendix O

Assent Form

ASSENT FORM

We are asking if you will be in this study because we are trying to learn more about your experiences with spaces in your community and their relationship with your physical activity. We hope that by understanding your experiences we may be able to understand where future physical activity programming in Cedar-Riverside should be located. The lead researcher for this study is Chelsey Thul. She is a Ph.D student in the School of Kinesiology and a research assistant in the Tucker Center for Research on Girls & Women in Sport at the University of Minnesota.

If you want to be in the study we will ask you to do two things:

1. Give your okay (by signing this form) to be in the study, fill out a form and answer a few questions about your age, gender, etc., and answer questions about spaces in your community (e.g., where do you feel safe, where do you do physical activity, etc.) by coloring the spaces on a map of Cedar-Riverside. This will take 20-30 minutes.

2. Take part in a one-two hour group interview with Chelsey; the interview questions will be based on the map you color. During the interview and all other parts of the research, you will be given a pretend name. This name will be used to make sure that no one knows your real name. This will help protect your privacy.

You will be asked questions about your experiences with physical activity and the spaces you color on the map. You will be asked to answer honestly to each question. The interview will be taped on a tape recorder, so the researchers can think about the data at a later time.

You will be given the following things for your participation: a $15 gift card for completion of Phase I (demographic questionnaire and mapping activity) and another $25 gift card for completion of Phase II (the in-person group interview) of the study. Thus, an individual who completes the entire study will receive a total of $40 in gift cards.

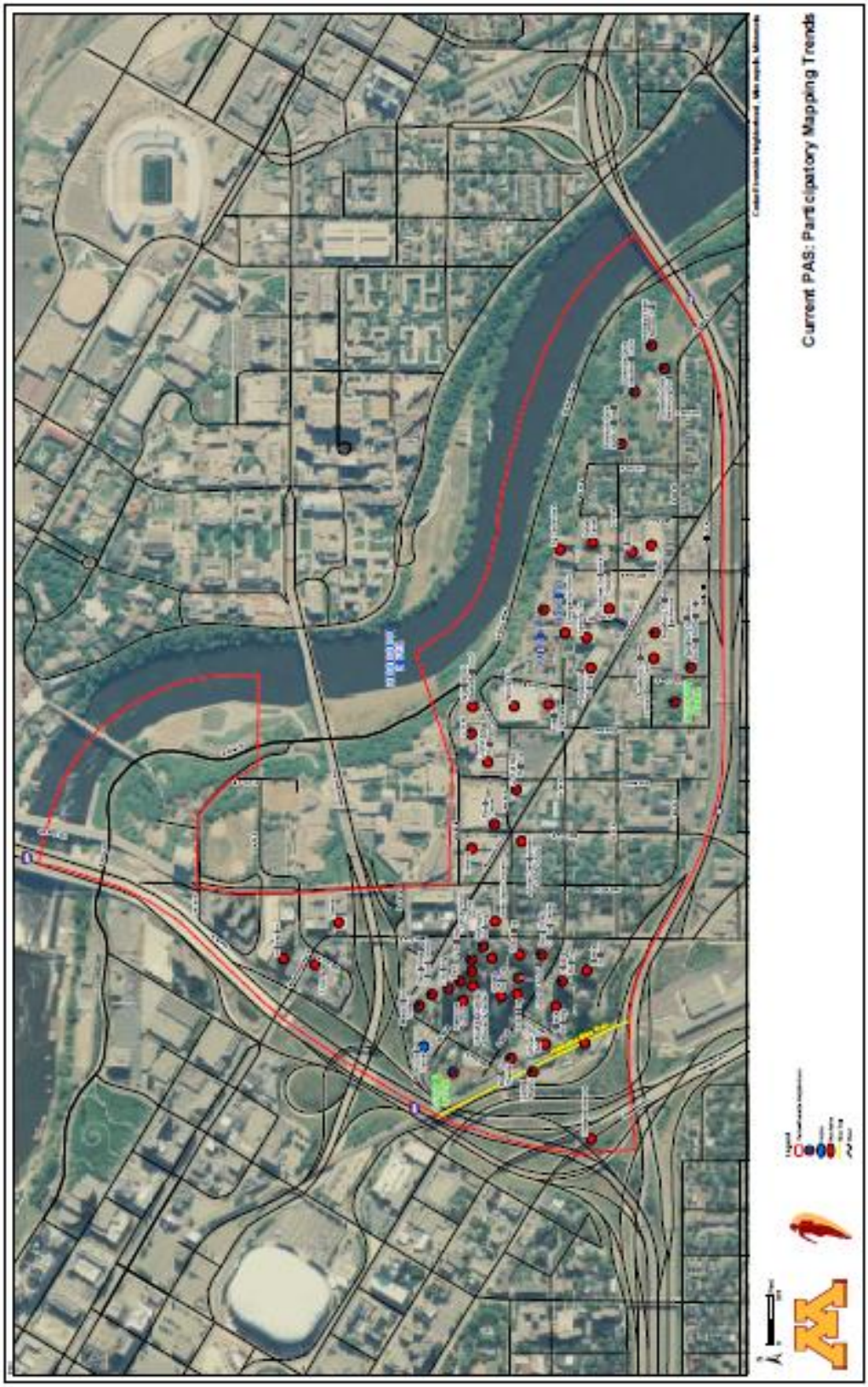
If you change your mind and want to end the study, you can do so at any time. Being in this study is totally up to you, and no one will be mad at you if you don't want to do it. The records of this study will be kept private. We will not include your real name or any other information that will make it possible for people to know who you are in any report that we write. Research records will be stored in locked files and on password-protected computers. Only the researchers will be able to see to the records.

You can ask any questions that you have about this study. If you have a question later that you didn't think of now, you can ask us next time. Signing here means that you have read this paper or had it read to you and that you are willing to be in this study. If you don't want to be in this study, don't sign. Remember, being in this study is up to you, and no one will be mad at you if you don't sign this or even if you change your mind later.

Signature of participant_____
Signature of person explaining study _____
Date_____

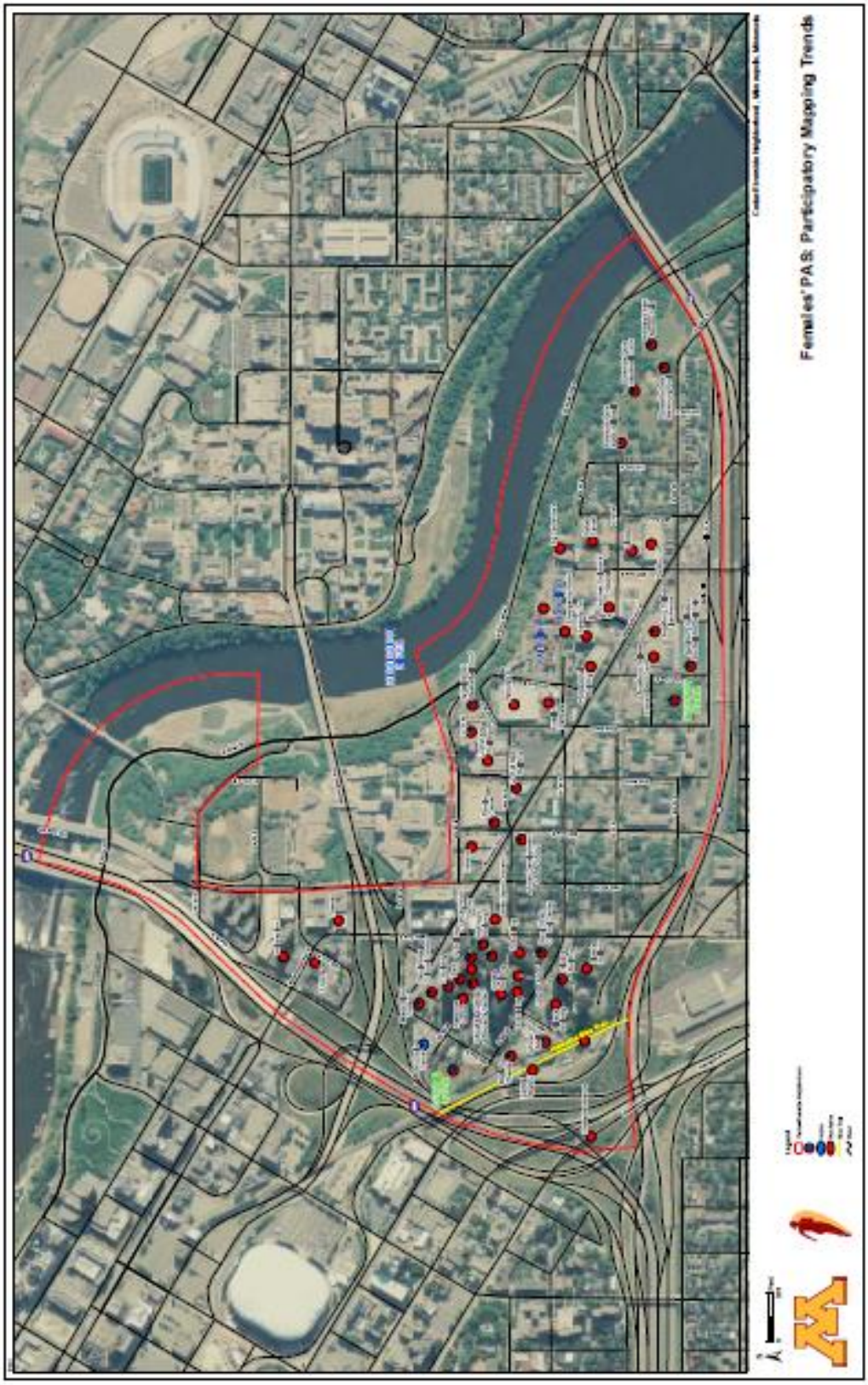
Appendix P

Current PAS: Participatory Mapping Trends Map


Current PAS: Participatory Mapping Trends

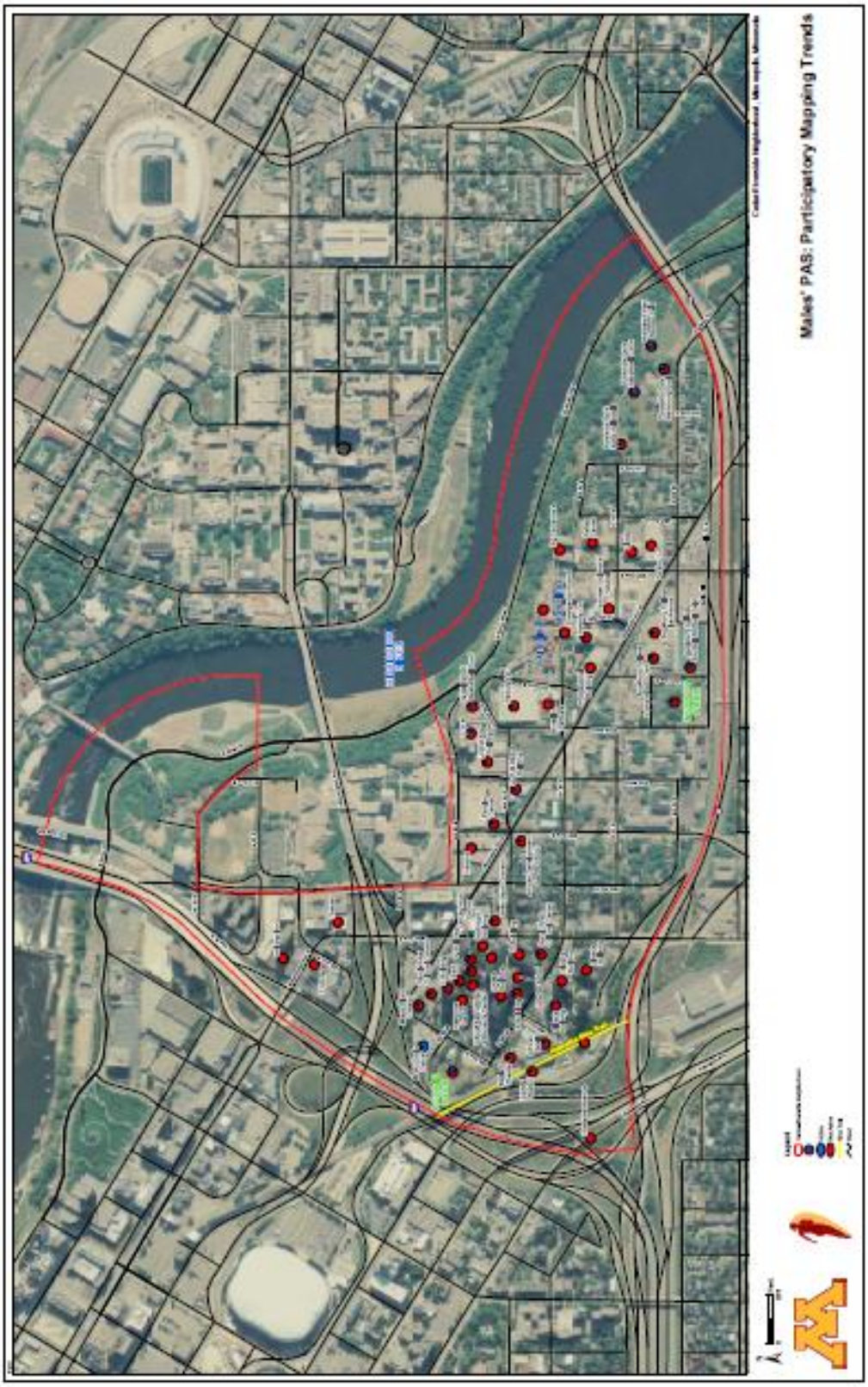
Appendix Q

Females' PAS: Participatory Mapping Trends Map


Central Avenue Neighborhood, Minneapolis, Minnesota
Families' PAS: Participatory Mapping Trends

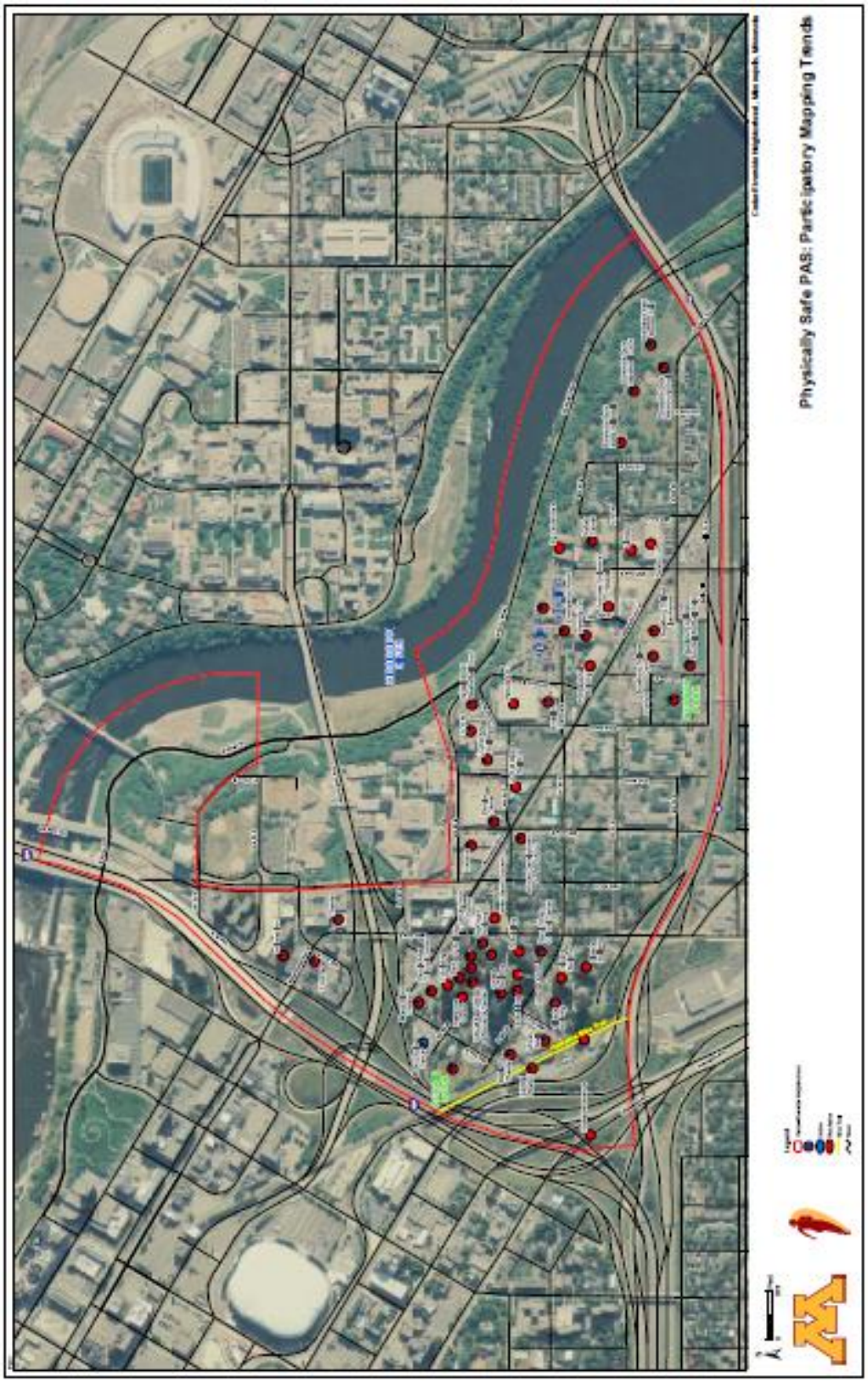
Appendix R

Males' PAS: Participatory Mapping Trends Map


Males' PAS: Participatory Mapping Trends

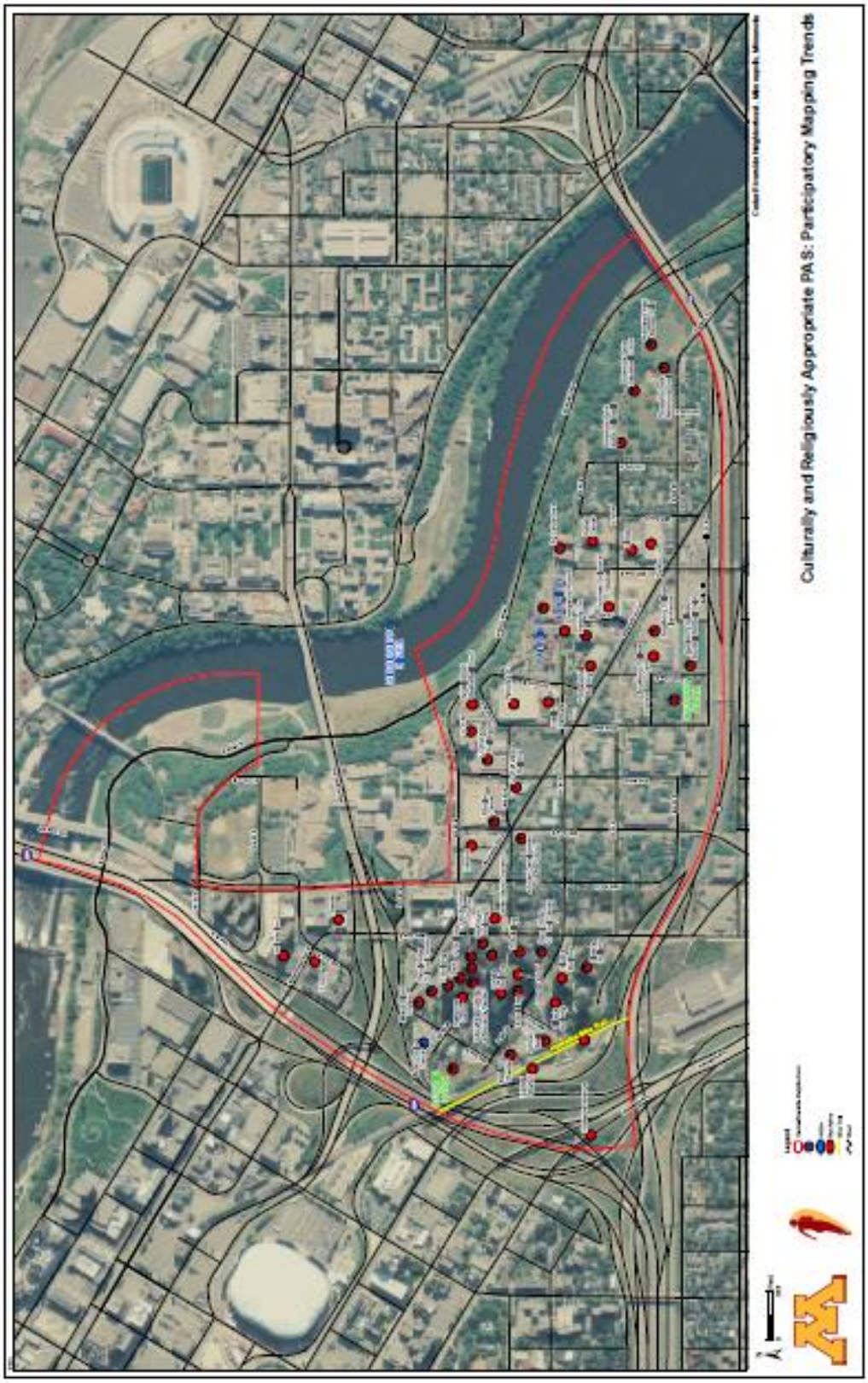
Appendix S

Physically Safe PAS: Participatory Mapping Trends Map


Physically Safe PAS: Participatory Mapping Trends

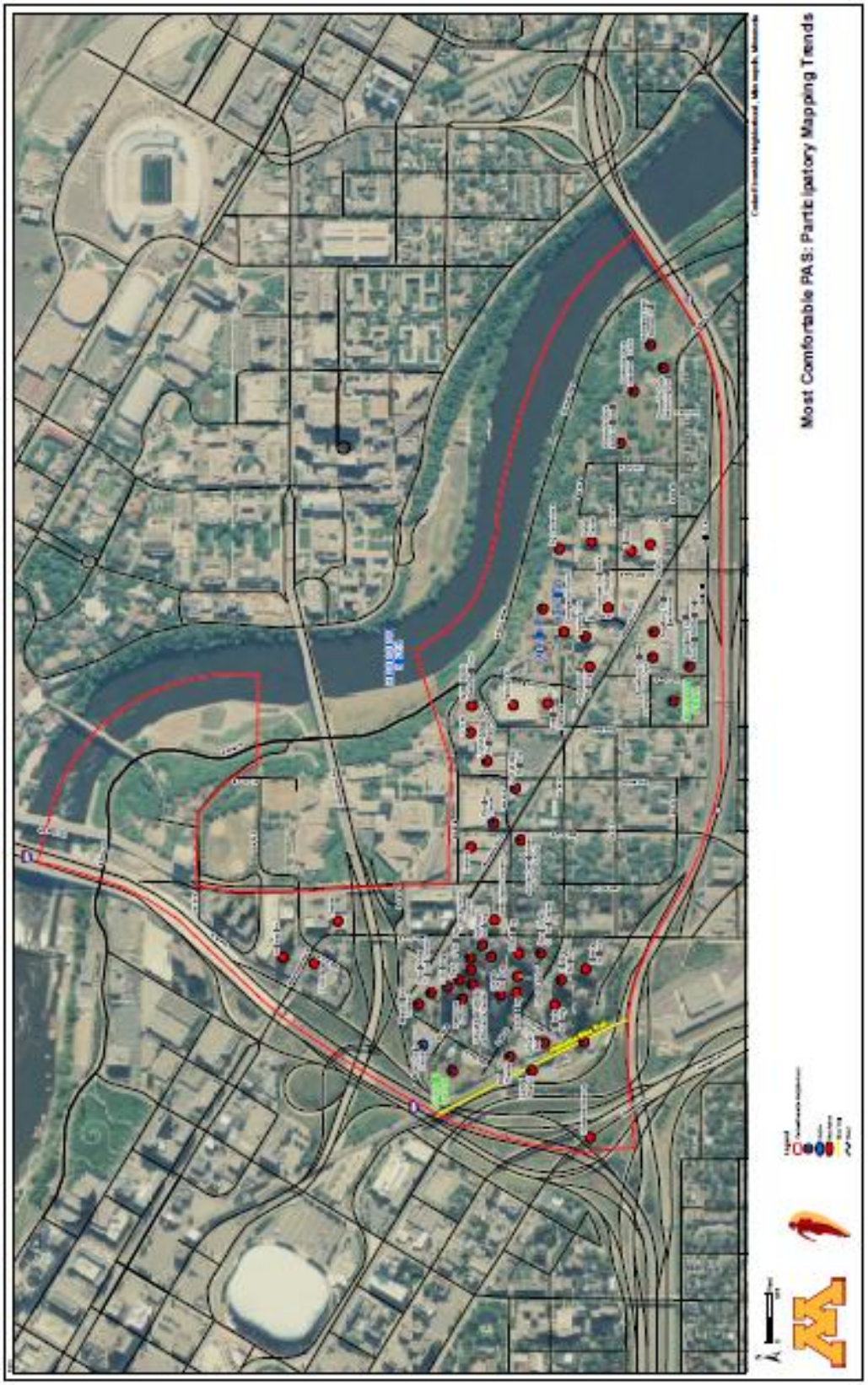
Appendix T

Culturally and Religiously Appropriate PAS: Participatory Mapping Trends Map


Culturally and Religiously Appropriate PASS: Participatory Mapping Trends

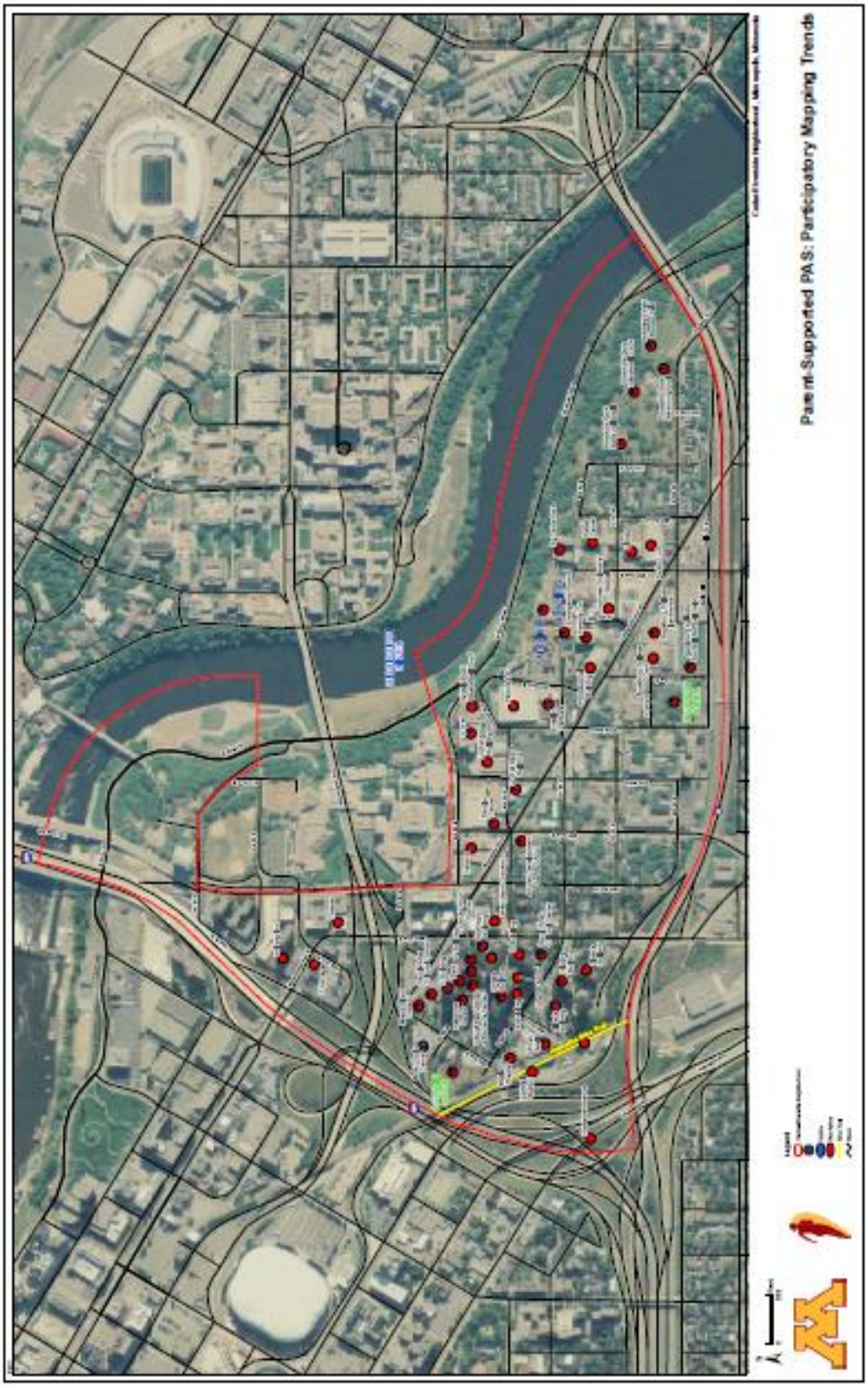
Appendix U

Most Comfortable PAS: Participatory Mapping Trends Map


Most Comfortable PAS: Participatory Mapping Trends

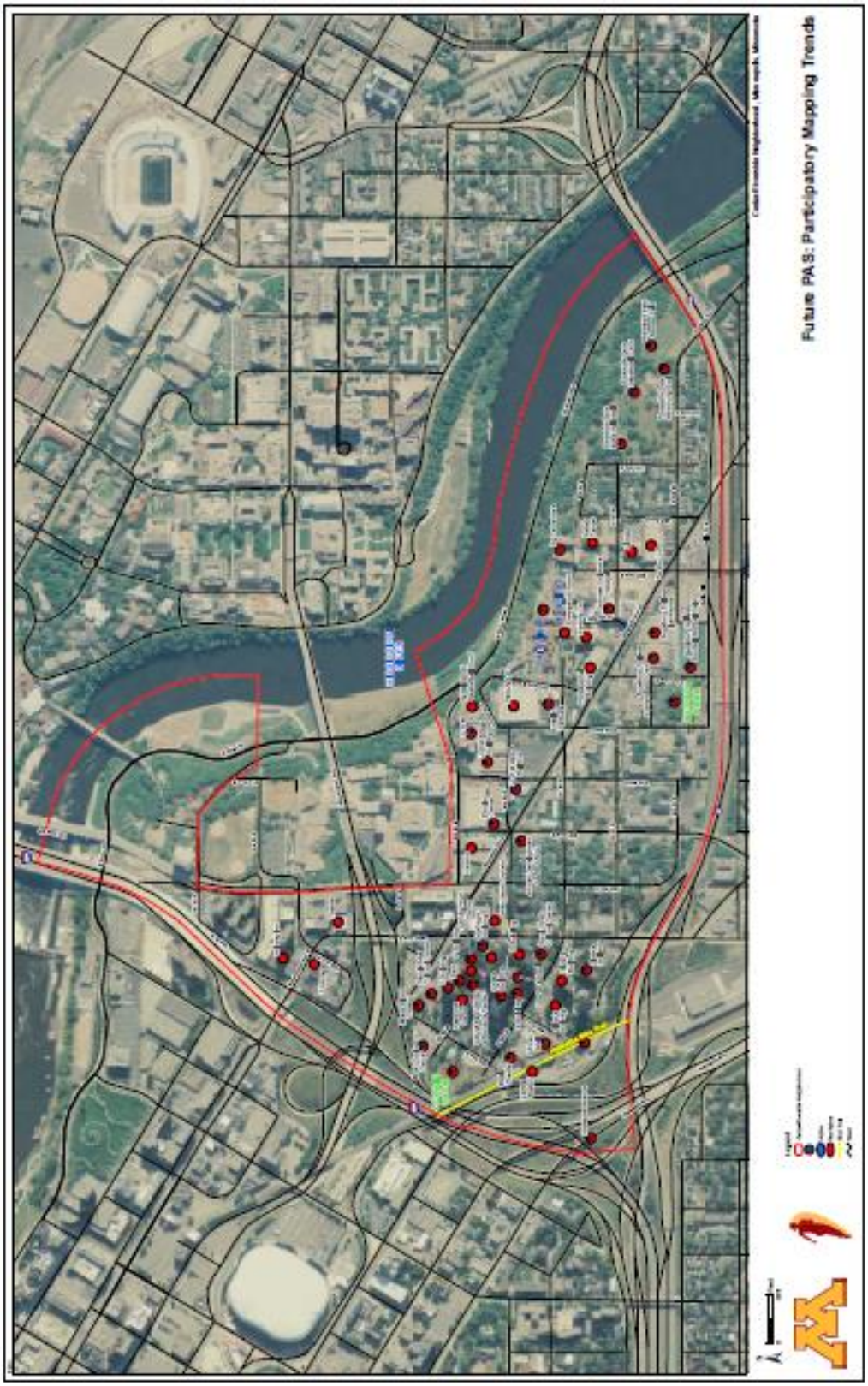
Appendix V

Parent-Supported PAS: Participatory Mapping Trends Map


Parent-Supported PAS: Participatory Mapping Trends

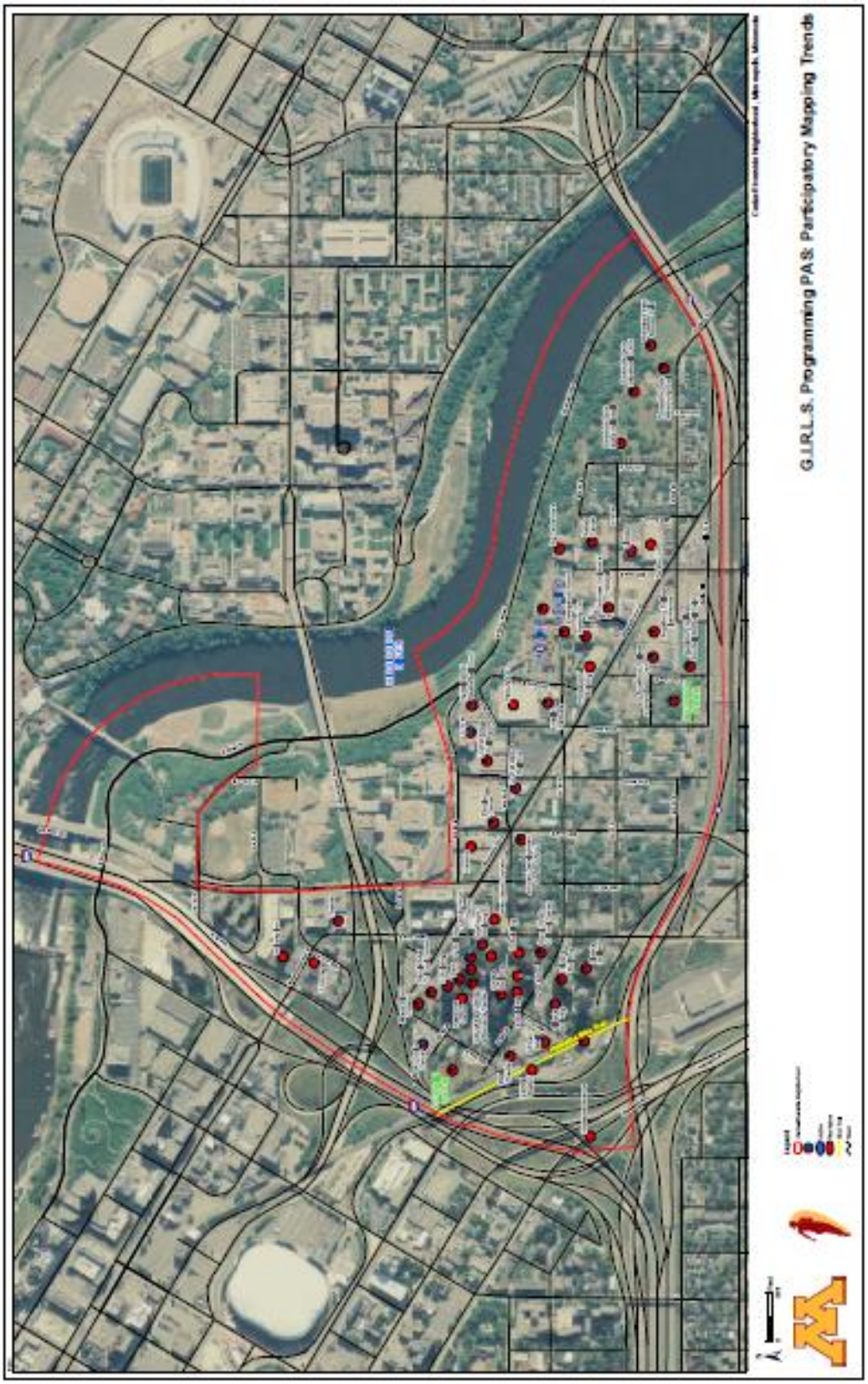
Appendix W

Future PAS: Participatory Mapping Trends Map


Future PAS: Participatory Mapping Trends

Appendix X

Physical Activity Programming PAS: Participatory Mapping Trends Map


G.I.R.L.S. Programming PAS: Participatory Mapping Trends

Appendix Y

Datalyst LLC Transcription Services Confidentiality Agreement

Confidentiality Agreement
Transcription Services

I, Datalyst LLC, transcriptionist, agree to maintain full confidentiality in regards to any and all audiotapes and documentation received from Chelsey Thul related to her doctoral study on "Understanding the Intersections of Physical Activity, Gender, Culture, and Space among Somali Adolescent Girls: The Foundation of Culturally Relevant Physical Activity Programming."

Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of audio-taped interviews, or in any associated documents;

2. To not make copies of any audiotapes or computerized files of the transcribed interview texts, unless specifically requested to do so by Chelsey Thul;

3. To store all study-related audiotapes and materials in a safe, secure location as long as they are in my possession;

4. To return all audiotapes and study-related documents to Chelsey Thul in a complete and timely manner.

5. To delete all electronic files containing study-related documents from my computer hard drive and any backup devices immediately upon receiving confirmation transcripts have been received by Chelsey Thul.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audiotapes and/or files to which I will have access.

Transcriber's name (printed) Amit Shah, Managing Member, Datalyst LLC

Transcriber's signature _____

Date 6/10/11