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Physical activity experiences from the perspective of adolescent females in Northwestern Ontario communities

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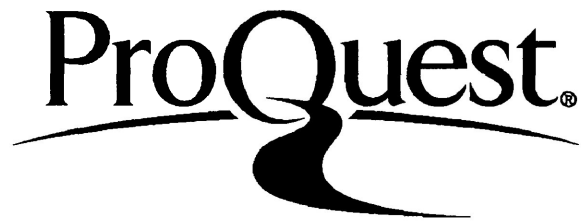
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Purpose: To explore the experiences of female youth residing in rural Northwestern Ontario communities with physical activity and gain insight into ways to enhance opportunities for females to be physically active. **Background:** Physical activity participation steadily declines as females reach adolescence and there is significant gap between participation in physical activity between males and females. The uniqueness of rural Northwestern Ontario communities may provide additional motivators or barriers that affect physical activity participation that may help explain the decline and differences between male and female behaviours. **Methodology:** Qualitative research methods were used to collect data from participants. Six adolescent females, between 15-16 years old enrolled in at a public secondary school and who reside in rural communities within Northwestern Ontario, voluntarily participated in this research study. Four females were from a First Nation community and participated in a focus group. Two females participated in individual face to face interviews and were from rural communities within the same district. Grounded theory methods were used to analyze and report information collected through line by line coding and allowing themes to emerge from participants' responses. **Findings:** Participants shared that physical activity is influenced by a variety of factors and not only one factor can contribute to behaviour change. Participants discussed existing motivators and barriers and areas of where improvement is needed to increase participation in physical activity among their population. Factors for participating in physical activity included improving physical appearance, achieving a sense of personal accomplishment, influence of peers and adult involvement, and the range and type of opportunities and resources available. Participants also provided valuable insight to enhance programs to increase physical activity participation for female adolescents.

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Literature Review

Physical activity is a broad term that describes any movement of the body that requires energy expenditure above rest; it includes all activities that fall under sport, exercise, and leisure time activities (Carron et al, 2003). In this paper, the term physical activity will be used to be inclusive of all of these activities; physical education, organized sport and unstructured activities such as walking are the main opportunities for physical activity among adolescents (Eimes et al, 2008). There have been many health benefits associated to physical activity, including decreased risk of chronic diseases, such as diabetes and cardiovascular disease (Katzmarzyk, 2004). Canadian physical activity guidelines recommend that youth participate in at least ninety minutes of physical activity per day (Active Healthy Kids Canada, 2009). The majority of youth in Canada are not meeting these requirements. Specifically in Ontario, 57% of youth ages 12-19 years old are physically inactive (Katmarzyk, 2004).

Benefits of Physical Activity

Physical activity is associated with many health benefits and has been proven to reduce risk of developing some specific health conditions and illnesses. Being physically inactive can potentially have detrimental effects to one's wellbeing and health. Physical inactivity has been well acknowledged as a risk factor for chronic diseases including cardiovascular disease, obesity (Pate et al., 1997), diabetes, hypertension, dyslipidemia, (Katmarzyk, 2004), colon cancer and breast cancer (McMurray, 2007). Being physically active reduces ones risk of developing these chronic conditions, as well as reduces the risk of hip fractures, symptoms of anxiety, and depression (Duncan et al, 2004). Physically active adult women have a 60-75% lower risk of developing cardiovascular disease than inactive women (Peterson et al, 2005). Being physically active also contributes to an overall healthy lifestyle. Among youth, being physically active is

instrumental for healthy development (Pate et al., 2005 both physically, psychologically (Barr-Anderson et al., 2008; Humbert et al., 2006), and socially (Higgins et al, 2003). Engaging in physical activity relieves boredom and stress, which are associated with participation in unhealthy or risky behaviours (Higgins et al., 2003). Regular participation in physical activity also promotes a more positive self esteem, has a strong impact on body image, and is protective against young women developing body image problems (Duncan et al, 2004). Also, participation in sports is associated specifically with positive health attributes. Youth that participate in sports are more likely to adopt other healthy behaviours including eating fruit and vegetables and practicing abstinence (Santrock, 2005). Participating in competitive sports has also been reported to yield the highest correlation of physical activity throughout adolescence (Aaron et al., 2002).

Trends in Physical Activity

Although the benefits of participating in physical activity are numerous, the North American population continues to be well below national physical activity recommendations for obtaining health benefits. Rates of physical activity are low amongst all populations; women, female youth, and older adolescents are the top three populations with the lowest rates (CFLRI, 2004). In Canadian adults, only 37% were considered active in 1995; trends have shown a small increase of one percent every year since 1981 (CFLRI, 1995). As age increases, the proportion of active Canadian adults decreases; approximately half of Canadians aged 18-24 years are active and rates decline as low as twenty-five percent of Canadian seniors being physically active (CLFRI, 1995).

These low rates are also prevalent amongst children and youth populations. Multiple studies report that North American children and youth are currently not meeting recommendations for physical activity. Although physical activity participation in youth has experienced a slight increase (less than 10%) within the past decade (Active Healthy Kids Canada, 2009) (CFLRI, 2004), the number of children and youth meeting standard physical activity guidelines is still alarmingly low. One report revealed that 3 out of 5 Canadian youth are not active enough for optimal health benefits (Higgins et al., 2003). This is supported by another Canadian report revealing 87% of children and youth are not meeting current Canadian Physical activity Guide of 90 minutes of activity per day (Active Healthy Kids Canada, 2009). When separating children and youth, the numbers are even lower for youth participation. Canadian youth aged 12-14 years old are more active than those 15-19 years old (CFLRI, 2004). The Health Behaviour in School Aged Children (HBSC) survey reported that only 27% of youth between grade 6-10 report to be physically active at least 60 minutes per day on five days of the week (Gibbons & Humbert, 2008). There is also a significant number of youth that do not participate in any physical activity at all. In the Healthy People 2010 report, only 64.1% of students reported participating in moderate-vigorous activity 3-7 days in the past week and only 47.4% of students reported being active at least 5 days per week; 13% reported doing no activity in the past week (Wu et al., 2006). One third of high school students in Canada reported doing no physical activity during their free time (Active Healthy Kids Canada, 2009).

Low rates of physical activity participation are evident throughout all populations in Canada. What is significantly alarming is the rate at which participation declines through adolescence. The Youth Risk Behaviour Surveillance Survey (YRBSS) reported that engagement in vigorous physical activity declines by 30% from grade 9 to grade 12 (Barr

Anderson et al., 2008). According to the 2000 Physical Activity Monitor, time spent in out of school physical activity also declined by 30% between 13 years old to 17 years old in Canadian youth (Katmarzyk, 2004). Similarly, another report found that physical activity declined by 26% during the four years of high school; however, time spent in a specific activity did not decrease (Aaron et al., 2002). Participation in structured programs, such as physical education class and sports, also declined. Enrolment in physical education class declined from 85% to 45% from grade 9-12 in Canadian schools (Katmarzyk, 2004). Sixty-one percent of 15-19 year olds participate in sports; this decreased to 34% once over the age of 20 year old (CFRLI, 2001).

Evidence has clearly identified low rates of physical activity participation in children and these rates only decrease further into adolescence. It is important to explore the significant difference in participation that exists between genders. Thirteen percent of grade 10 girls are physically active for sixty minutes everyday (meeting international guidelines) compared to a much higher rate for males of 27% (Active Healthy Kids Canada, 2009; CLFRI, 2001). From the YRBSS, girls are approximately 25% less active than males during school age years and physical activity rates decline at a higher rate amongst females; in females, participation rates decline by 7.4% per year, whereas participation rates for males experience only a 2.7% per year (Pate, 1997). The National Heart, Lung and Blood Institute Growth and Health Study reported that the median scores for physical activity in girls declined by 64% from age 9 to age 18 and African American girls scores decline by 100% (Dowda et al, 2007; Pate et al., 2005). Significant declines emphasize the importance of targeting physical activity interventions that meet the needs of females' youth to counteract this decline rate and promote lifelong physical activity participation. Specifically among females, the decline is even more drastic. The low rates of participation in physical activity have been partnered with an increase in the number of

youth and children that are overweight and obese. Canada is the fifth highest developed country for prevalence of overweight and obesity in youth in 2005-2006; Statistics Canada reported that 26% of children aged 2-17 years are overweight or obese (Active Healthy Kids Canada, 2009). The cost of obesity in Canada has been estimated to be 4.3 billion dollars (CFLRI, 2004). A high level of obesity not only creates a financial burden, it also associated with a decrease in physical activity participation. Higher body mass index (BMI) scores are modestly associated with lower levels of physical activity (Barr-Anderson et al., 2008). Being overweight also has an indirect effect on activity levels because it reduces self efficacy to overcome barriers to being physically active (Beets et al, 2007). Overweight females in grade 12 reported lower levels of enjoyment and were more conscious of their bodies during participation (Barr-Anderson et al., 2008).

Multilevel Influences on Physical Activity

Physical activity is a multifactoral health behaviour. In order to understand the behaviour, researchers must examine various different factors that affect participation. Social ecological frameworks illustrate how health behaviours are affected at different levels and have been increasingly used to understand patterns of physical activity participation. Social ecological theories assume that the environment influence behaviour (Cochrane & Davey, 2008). These theories suggest that health behaviours are influenced at multiple different levels and the degree of influences of each level varies depending on the individual. All of these influences need to be identified in order to understand the health behaviour and potential change (Elder et al, 2007). The theories emphasize the need to work at more than one of these levels to affect change (Spence & Lee, 2003) but does not propose which level is most important (Elder et al,

2007). Based on similar qualitative research by Humbert and colleagues (2006), three different levels, individual, social support and community, will be used to frame the discussion of factors for physical activity. The most proximal level is the individual; at the individual level, one needs to examine factors related to biology, socioeconomic status, attitudes and preferences. Moving outward from the individual, it is important to explore social support within an individual's life, including family, peers, teachers and coaches, which influence participation in physical activity. At the most distal level is the environment, which includes characteristics of community, neighbourhood, facilities, and physical space. Considering how physical activity is influenced at these three levels provides detail to understand why or why not youth participate in physical activity.

Individual Level

At the level of the individual, factors included are within and also outside of individual control. Factors including biology, such as age, and family socioeconomic status are elements that are not within the adolescent's control but have a significant influence on physical activity behaviours. Factors such as preference of activities, time and body image are within individual control; however, they are factors influenced by other individual determinants and other factors at other levels and youth may not have or may not feel they have direct control.

The period of adolescence is a complex time. An adolescent is going through a dynamic period and experiencing different roles in society. Stages of adolescence are associated with different characteristics. The adolescence phase is broken into three stages based on age and general characteristics typical to the period. The three stages of adolescence are early, middle and late. Early adolescence is the period when most of the puberty changes occur and a period

when youth are trying to figure out if what is happening to their bodies is normal (McMurray, 2007; Santrock, 2005). Middle adolescence is a key stage of identity formation (Santrock, 2005) where youth require strong support, guidance and security as they test who they are, and establish and confirm uniqueness (McMurray, 2007). Late adolescence is the stage of confronting identity and fitting this new identity back into their family and social world (McMurray, 2007). This life period is a key transition between childhood and adulthood and unique changes takes place during this time that affects lifelong development (Santrock, 2005).

A second determinant is socioeconomic status (SES), which is a very influential factor at the individual level for physical activity even though it is not within the control of the adolescent. Research suggests that lower SES level presents more barriers to overcome to be physically active (Humbert et al, 2006). Low SES increases the number of barriers as well as the impact of individual barriers to participating in physical activity. The barriers are often associated with cost and access to opportunities such as the cost of registration, cost of equipment required to participate in various activities, particularly in sports, and travel to and from games and practices (Duncan et al, 2004). Low SES families are three times more likely to report cost, lack of skill and difficulty accessing opportunities as barriers (CFLRI, 2004). Children from families within the lowest income brackets were also three times less likely to have participated in an organized club or sport than those children within a higher income (CFRLI, 2001). Studies have also reported that exposure and type of sport opportunities vary between children within different SES levels. Youth living in a higher SES family were more likely to participate in club sports (Kantomaa et al, 2007). Youth in higher income families were more likely to participate in downhill skiing for boys and girls; participation in dance and aerobics was more prevalent in females; and tennis and golf were more prevalent in males from

higher income households (Kantomaa et al, 2007). The barriers associated with living in a lower SES household are an important influence to understand as it affects a large proportion of children and youth. In Canada, one in six children and youth live in low income situations (Humbert et al, 2006).

Another factor at the level of the individual is personal preference of activities and reasons for being or not being physically active. As children enter into adolescence, their reasons and motivators for participating or not participating in physical activity may change. In a study by Allender and colleagues (2006), researchers looked at differences in motivators and barriers amongst children, adolescence and adults. Significant differences were prevalent; teenage women reported weight management, family and peer support, and developing new social networks as reasons for being active compared to young children who were motivated by something new and exciting, parental encouragement, and safety (Allender et al, 2006) . Similarities in barriers were identified for adults and female teenagers around identity conflict and negative high school experience (Allender et al., 2006; Kurc & Leatherdale, 2009).

Perceptions of participating in physical activity may change, especially for girls, during adolescence. Studies show that as girls enter their adolescence years, they begin to perceive physical activity as “childish” or “babyish” (Allender et al., 2006), contrary to males who perceive them as masculine (Rees et al., 2006). New interests develop as they experience new things and develop new relationships. This factor cannot be considered in isolation as influences of peers and family and other support networks are instrumental in developing preferences and perceptions of physical activity.

Both qualitative and quantitative research has revealed that female youth identified enjoyment as a key determinant of participating in physical activity. Female adolescents commonly reported fun and enjoyment as being the main element that motivated them to be physically active; they were more often cited as predictors for being physically active or not than perceived health benefits (Allender et al., 2006; Humbert et al, 2006). A national study of grade 9-12 students found that enjoying an activity was the strong and most consistent correlation for youth to participate in an active and this association was stronger in females than in males (Barr-Anderson, 2008). In a qualitative study of female high school students, enjoyment and fun activities were linked to participating in activities with their peers (Humbert et al, 2006). A qualitative study of Western Canadian grade 7 and 8 females preferred participating in activities that emphasized fun, enjoyment, and happened in a positive and social environment (Gibbons & Humbert, 2008). Girls classified as active shared that they were motivated to be physically active because it was an opportunity to develop new skills, increase self esteem and fitness, and develop social networks (Allender et al., 2006).

Change in preference for activities affects participation in specific activities. Sports are areas where typically there is a higher representation of males than females. Men over 15 yrs old are two times more likely to participate in sports than females in the same age groups (CFLRI, 2004). Participation in sport coincides with the decline in overall participation in physical activity during adolescence. Part of this decline may be a result in change in preferences as well as a result in change in time. One study reported a decline of 26% in school sports among adolescents, and although the number one reason for dropping out was due to an injury, the second, third and fourth reasons were related to demands of other activities, including getting a job, inconvenient or too demanding of a schedule of playing one sport, and increased time to

study (Aaron et al, 2002). Females have reported that participating in sports is too stressful because of the competitive nature and fear that they are not good enough to play (Dwyer et al., 2006; Santrock, 2005). There is also a struggle with personal identity, such as being a female and participating in sport. There is a common misconception and fear that participating in sports makes them masculine or “butch” (Dwyer et al., 2006; Rees et al, 2006).

Third, beyond personal preferences of activities, adolescence is a period where they experience a change in responsibilities that increases the demands of what time is spent on. Change in priorities occurs because of changes that occur in their roles in society. Lack of time becomes an increasing barrier during adolescence. Priorities change and responsibilities increase. As adolescents progress through high school, demands of school work, family obligations, and other extracurricular activities compete with time available for participating in physical activity (Eime et al, 2008 Humbert, et al, 2006; Rees et al, 2006). Homework, part time jobs and family responsibilities start to demand more of a youth’s free time leaving less time for physical activity. One study reported that responsibilities consume up to 4 hours of an adolescent’s day (Dwyer et al, 2006). Considering that a youth spends the majority of his or her day in school, this does not leave a lot of excess time for being physically active. The percentage of adolescents that have part-time jobs increases as age increases; in a cross sectional study of adolescents, under 10% of the group aged 15 years old had part-time jobs, compared to almost 40% of the group of 17 years old (Dowda et al, 2006). A part-time job for many adolescents is a family obligation in order to provide financial support for their family; on average, youth work 10 hours per week at a part-time employment (Dwyer et al., 2006). In one study, family obligations were only reported as a barrier to participating in physical activity among the low socioeconomic status group (Humbert et al, 2006). A study of Toronto female

high school students reported lack of time as an important barrier and those students taking academic level classes reported school and homework as a higher priority (Dwyer et al, 2006).

Beyond responsibilities of jobs and family, how youth choose to spend their free time also changes. A large portion of a youth's free time is reported to be spent engaged in sedentary activities focused around television, internet and computers. The Canadian HBSC survey found that among children aged 11-15 years old, up to 30% of males and up to 25% of girls watch more than four hours of television per day (Katzmarzyk, 2004). The Healthy People 2010 report found that 55% of students viewed over three hours of television per day and only 4.9% of students viewed zero hours of television per day (Wu et al., 2004). Participating in long periods of sedentary activities increases the likeliness children and youth will be overweight or obese. Obese children spend 51% more time engaged in sedentary activities than their normal weight peers (Katzmarzyk, 2004). The amount of time spent engaged in sedentary activities is concerning considering that youth are reporting that they prefer spending their free time doing these activities. Female youth reported that they would rather talk to their friends on the telephone or instant messenger (Dwyer et al., 2006). One female participant in this study reported that it was easier to sit in front of the television waiting for something to come on to watch than actually go something and sometimes, due to distance, it was too difficult to get together friends so it was easier to communicate with them on the phone or internet (Dwyer et al., 2006).

As noted there are many significant changes occurring in the life of a female adolescent that play a role in influencing physical activity participation. These changes and struggles also coincide with physical changes occurring in a female's body. Adolescence is a period when

females become more conscious of their bodies and development. Body image is a personal perception of one's own body and external appearance (Carron et al, 2003; Duncan et al, 2004). Body image problems arise when youth view their bodies as something they are not. Fifty-eight percent of female youth reported being overweight; however, when body mass index calculations based on weight to height ratios were completed, only 17% actually were overweight (Lutter et al, 1990).

Physical activity is a determinant for positive body image as noted among the health benefits of being physically active (Duncan et al, 2004). However, body image is also a determinant for being physically active. A positive body image promotes a healthy lifestyle and participation in physical activity. It provides motivation for exercise and greater self confidence in personal physical fitness and abilities (Duncan et al, 2004). Girls who were identified as active were motivated to be physically active because of the opportunities for increased self esteem as well as to improve fitness, personal skills and social networks (Allender et al, 2006). Girls with a low self esteem are more likely to drop out of sports or physically activity and were more likely take up unhealthy lifestyle behaviours, including smoking, alcohol, and drug abuse (Fenton et al., 2004). It is important that positive body image and self esteem are instilled in female youth to help promote participation in physical activity, and that female youth recognize the benefits of positive body image and self-esteem that come along with physical activity.

Social Networks

Relationships that youth have with people in their lives create important social networks that can be positive supports for participating in physical activity. Social support can be developed through relationships with peers, family, teachers and coaches. Peer connectedness is

part of a healthy development for adolescents and is one of five assets that youth should possess for positive and healthy development (McMurray, 2007). Peers are continuously reported as playing a strong influence for participation in physical activity. The majority of youth (78%) are able to identify having at least three friends that they considered to be physically active (Active Healthy Kids Canada, 2009). One study suggested the role of peers change between stages of adolescents. Before high school, youth use participation in sport as a way to meet new people and make new friends; however, in mid to late adolescent (once in high school), existing friends play a direct role in the decision of whether or not to participate in a sport (Active Healthy Kids Canada, 2009). Peers can have a positive effect as well as a negative effect on participation in physical activity. Peers may provide support directly and indirectly. Through encouraging friends to be active and providing motivation and actually doing participating in physical activity together peers provide direct support; indirect support is received through increasing self efficacy by helping each other overcome barriers, for example having a friend to be active with may help remove barriers associated with being too tired, poor weather or other factors that would normally interfere with participation (Beets et al, 2007). Participating in activities with peers has also been consistently linked to activities being fun which is a key intrapersonal factor for being physically active (Gibbons & Humbert, 2008; Humbert et al, 2006).

A second area where social support is obtained is through relationships with families. The family is a system that youth are part of and the relationship with parents and family during adolescence may look very different than in childhood (Santrock, 2005). The level of family support may shift as children age and enter different phases of their lives. Students between grade 9 to 12 report having less encouragement than children in younger grades (Active healthy Kids Canada, 2009). Parents and family have an important role in influencing physical activity.

Family support has been identified as a strong predictor of participation in team sports among grade 8 students as well as significant predictor of participation in vigorous physical activity outside of school for girls in grades 9 and 11 (Dowda et al, 2007). Parental support can facilitate participation in physical activity through role modelling physical activity, providing direct support and through encouragement. Parents that are role models for being physically active also act as positive social supports to encourage youth to be active. A higher proportion of youth in sport have parents that are active than youth who do not have active parents; youth have their parents actively involved in their sport (i.e coaching) represent up to 80% of youth who participate in sport (Active Healthy Kids Canada,2009).

Parents are an obvious support for youth when transportation and financial means are required to participate in physical activity or a sport. There is a positive association between participation in physical activity and family support as means of transportation for youth (Dowda et al, 2007; Dwyer et al., 2006). In a study of rural female youth, lack of parental support to provide transportation was the only element they identified as a barrier to being physically active despite their geographical remoteness (Beets et al, 2007). Also, another report suggested that among low socioeconomic status female youth, parental support might instead be the support of an adult and the presence of an adult is a key motivator to assist with organizing activities (Humbert et al, 2006).

Community Environment

The third level of influence is community. The community level consists of schools, neighbourhoods, workplaces, physical space (including parks and playgrounds), and society (including policies).

Schools are institutions within the community that the majority of youth attend on a regular basis. Physical education class is one avenue where the majority of youth are exposed to structured physical activity. Physical education has the potential to engage adolescents in physical activity and promote lifelong physical activity behaviours (Gibbons & Humbert, 2008); unfortunately, studies have reported that many females have expressed negative experiences in physical education classes that have inhibited or reduced their participation in physical activity (Eime et al, 2008). There is a higher participation in physical education classes by boys than girls (Wu et al, 2004). Level of enjoyment was reported to be lower in females in grade 6 to 8 than in males in the same grades (Barr-Anderson et al, 2008). Qualitative studies have examined why females do not enjoy physical education class. Girls have expressed they do not have the support they need, including appropriate time and support for skill development or fair playing time, and lack skills to participate in physical education classes (Active Healthy Kids Canada, 2009; Gibbons & Humbert, 2008). Girls also report that choices of activities in physical education are too limited and do not meet their interests (Active Healthy Kids Canada, 2009; Gibbons & Humbert, 2008,). Research completed in New Zealand outlined “girl-friendly” physical education characteristics as result of research with high school females. These characteristics included opportunities for gender separation in class, opportunities to be physically active, offering non competitive activities, emphasizing lifelong physical activity, elements that make it fun and enjoyable, appropriate instruction methods, and the opportunity for develop of skills (Gibbons & Humbert, 2008). One reason that may contribute to negative experiences of physical education class is the lack of trained professionals to lead the classes. In Canada, only 23% of schools have trained physical education instructors (Active Healthy Kids Canada, 2009). Low enrolment in physical education may also be a result of conflict with course

schedule. Because physical education is typically not compulsory through high school, other courses may be offered at the same time requiring a student choose another course over physical education (Dwyer et al., 2006).

In Canada, the majority of girls do not participate in physical education once it becomes an elective course (Gibbons & Humbert, 2008). Thus, opportunities within the community that provide opportunities for females to be physically active during their adolescent years are important. It is also important that schools are aware of this and work with community programs to encourage students to participate. School programs that encourage physical activity participation outside of school hours, through the promoting active transportation, use of community facilities and activities are ways that schools and communities can work together to ensure physical activity opportunities are available outside of physical education (Hastie, 2007).

The physical environment and neighbourhood that youth reside in is also a key factor that influences physical activity participation. Neighbourhood characteristics and environment enable physical activity as well as being a barrier for physical activity. Proximity to parks and recreation facilities is an important predictor of physical activity (Cohen et al., 2006). Adolescents that are active reported that it is important to have access to shops, have a positive social environment recreation facilities and an aesthetically pleasing environment in close proximity (Mota et al, 2005). A study of 60 high school females found that the closer the proximity to a park, the higher the participation in moderate-vigorous physical activity during out of school time, and time spent active in the park accounted for 4 to 6% of total non school moderate to moderate-vigorous physical activity (Cohen et al., 2006). Access to exercise facilities and trails is also positively correlated with physical activity (CFLRI, 2005). A Los

Angeles study reported that adults were more likely to be involved in leisure activities if they lived within a one mile radius of a park (Cohen et al, 2006).

The CFLRI (2005) found that availability of and access to local facilities, parks and playgrounds is high among the population. Eighty to 90% of youth and children report having access to a gym, playground equipment, school playing fields and paved areas that could be used for physical activity at their school or within their community (Active Healthy Kids Canada, 2009). Ninety-two percent of parents reported having public facilities and programs available in their community; 60% of these parents identified that they met their child's needs however 40% of the parents indicated that their child rarely or never used these facilities or programs (CFLRI, 2005). Thus, suggesting that access and availability to parks and public facilities may not necessarily lead to use. From the same report two out of five Canadian children reported rarely or never using public facilities or participating in public programs (CFLRI, 2005). A study of San Diego youth reported that only 7% of youth use public space and recreation facilities (Potwarka, 2008). A study looking at females 12-14 years old documented the average distance that females report walking to be only a half a mile, therefore it might unlikely that this population would utilize a park that was located further away (Cohen et al., 2006).

Additionally, the use of a park may not translate into being physically activity at a park. Cohen and colleagues (2007) observed that the largest proportion of park users were doing sedentary activities while at the park; only 35% were doing some sort of physical activity which varied from walking to participating in vigorous activity. Use of parks also increases with progression into adolescence. The majority of parents reported that their home was the most

popular place for their children 5 to 12 years to be active; however 76% of parents indicated their teenage children were more likely to use public facilities (CFLRI, 2005).

If facilities and structures are available, the factors that contribute to use or non-use of these facilities must be explored. Perception of safety is an element that may be responsible for use of local facilities. As perception of safety decreases among youth, participation in physical activity coincidentally declines (Active Healthy Kids Canada, 2009). People living in low income situations are four times more likely to cite safety as a barrier for being physically active (CFLRI, 2004). Humbert and colleagues (2006) reported that in their study of female high school students, safety was only discussed as an issue among those in the low socioeconomic status group. Another report shared that many facilities in low income neighbourhoods are not well maintained, lack equipment and are overall lower quality facilities (Humbert et al, 2006), which may also contribute to low perceptions of safety. However, safety is not necessarily perceived as a barrier for all populations. A study of grade 7 to 12 students' revealed that safety was not a barrier for physical activity (Mota et al, 2005). In Canada, 83% of youth report that their neighbourhoods are safe for younger children to play in (Active Healthy Kids Canada, 2009).

The features that exist in a park are another area to explore around park usage. Researchers have questioned whether certain features promote physical activity participation. Features might actually be a determinant of park usage than proximity or size of park (Potwarka, 2008). From observations of how people were using parks, it was revealed that people were more likely to be engaged in some sort of physical activity in parks that had multipurpose areas such as a soccer field, or a volleyball court (Cohen et al, 2007). Other features that have been

observed to promote more physical activity include the presence of water attractions, shade and swings (Potwarka, 2008).

Health in Rural Northwestern Ontario

Because place of residence is a social determinant of health (Eime et al, 2008), it is important that a description of the communities be understood as it potentially influences health status. Northwestern Ontario encompasses Thunder Bay, Rainy River and Kenora districts. The Northwestern Health Unit catchment area encompasses both the Rainy River and Kenora districts. Rainy River District is comprised of primarily rural communities and has no urban influence due to the great distance (300-400 kilometres) to nearest urban centre. All of the communities within this district have populations of under 10, 000 persons. One third of the population is under the age of 19 years old (NWHU, 2007). Another characteristic specific to this region is the high population of Aboriginal persons. Fifty-one percent of self-identified aboriginals reside in rural areas (CIHI, 2006); specifically in the Northwestern Health Unit catchment area, approximately 25% of the population is Aboriginal. Rural communities typically have lower levels of education, higher rates of unemployment and lower income levels (CIHI, 2006, Eime et al, 2008). In Rainy River District specifically, all of these trends are evident. Median family income is approximately \$6000 less than the provincial median (Statistics Canada, 2001). Levels of education are also significantly lower in the Rainy River District. Among adults aged 35 to 44 years old, 23.3% do not have a high school education, approximately 4% lower than Ontario average (Statistics Canada, 2001). As socioeconomic status has been indicated as correlate of physical activity, these rates may have an impact on health behaviours, including participation in physical activity, among this population.

Rural communities typically have poorer health status and lower participation in physical activity than metropolitan areas (Eime et al, 2008). In general, this is the trend found in rural communities in Northwestern Ontario. Rates of smoking are higher in Northwestern Ontario and consumption of fruits and vegetables are lower (NWHU, 2007). Thirty-two percent of the population in Northern Ontario smokes (Sahai et al, 2000). Young females residing in rural and northern communities rate their own health lower than those dwelling in other areas; only 17% of girls dwelling in rural communities rated their health as excellent compared to 33% of those living in metro centres (Mitura & Bollman, 2004). Lower self concept among girls in rural communities leads to increased risks of depression (Mitura & Bollman, 2004), higher mortality rate among youth, and higher injury-related (including suicide and accidental) mortality rate (CIHI, 2006).

Although, in general, people dwelling in rural Northwestern Ontario typically have poorer health behaviours there are a few exceptions. Levels of stress amongst people dwelling in Northwestern Ontario are lower (NWHU, 2007; Sahai et al, 2000). Sense of belonging is also reported to be higher in small and rural communities (NWHU, 2007). Physical activity rates are actually similar between northern or rural regions compared to areas of strong metropolitan influence such as urban centres (CIHI, 2006). There are not significant differences in the percent of the populations that is physically active three times per week between Northern Ontario compared to the provincial rate (Sahai et al, 2000). However, adults dwelling in small communities (population of less than 10, 000) are less likely to participate in sport than adults living in larger urban centres (CFRLI, 2004). It is also commonly reported that opportunities for physical activity and sports are limited in smaller communities (Eime et al, 2008) and these communities are less likely to have safe places to walk, recreation trails and residents are less

likely to be satisfied with the number of opportunities available for sport and physical in their communities (CFLRI, 2004).

Unfortunately, positive health behaviours do not counteract the negative health behaviours to reduce the prevalence of chronic illness in the region. Health disparities are prevalent among the populations of Northwestern Ontario and the region has significantly higher rates of chronic diseases than the provincial rates. Cardiovascular disease is much higher in this region than other areas of the province and is third leading cause of premature death for the area (Sahai et al, 2000). Rate of diabetes in NWHU catchment is 7% higher than provincial rate (NWHU, 2007). The Northwestern Ontario region also has a significantly higher proportion of population that is overweight or obese; specifically within the Northwestern health Unit catchment area, 23.4% of adults over 18 years old self report being obese, which is almost 10% higher than the provincial rate (NWHU, 2007). High obesity rates also increase the likeliness of populations developing other chronic diseases associated with obesity and potentially increasing the reported trends even higher. Higher rates of physical activity and other healthy behaviours, including tobacco free living and healthy eating, need to be reinforced to manage chronic disease and reduce new incidents.

Purpose of Study

The purpose of this study was to explore the experiences and perceptions of physical activity for female youth living in rural communities within Northwestern Ontario. Physical activity experiences, patterns of physical activity, relationship with peers and family, perceived supports within their community and potential opportunities that would motivate them to be physically active were explored. Based on the additional health issues that the populations face

in Northwestern Ontario, it is expected that female youth will have valuable experiences, which are specific to the uniqueness of this area, to add to the findings from previously conducted similar studies.

Background Information

Physical activity has been identified as a key determinant of a healthy lifestyle and for reducing the risk for many chronic diseases, including obesity, diabetes and cardiovascular disease (Katzmaryk, 2004; Rees et al, 2006; Thompson et al, 2008). With increasing obesity rates and concerns of child health associated with obesity (Pearce et al, 2009), physical activity has become a factor of increasing focus. At all ages, females are less active than males. This difference is very evident during the adolescent years. More alarming is the rate at which participation in physical activity declines during adolescence, especially amongst females. The 2000 Physical Activity Monitor reported that out of school participation dropped by 30% in youth between 13 and 17 years old (Gibbons & Humbert, 2008). Opportunities for physical activity have been historically based on the type of activities that fit the preference of the boys, such as sports of a competitive nature (Gibbons & Humbert, 2008). It has been reported that girls would be more active if there were more opportunities that met their needs (affordable, safe, suited personal interests) (Rees et al, 2006). Preferences for physical activity as well as support and motivation differ between boys and girls (Higgins et al, 2003). It is important that female needs and preferences are understood to ensure opportunities for female activities levels to at least equal male activity levels, if not exceed them.

Research Purpose and Questions

The purpose of this project is to explore female youth perceptions and experiences with physical activity. The intent is to gain insight into experiences with physical activity to enhance opportunities for females to be physically active by engaging a small group of female youth to share their experiences around physical activity for improving physical activity programs. The project will specifically explore attitudes toward and perceptions of physical activity, barriers, and motivators within their community for being physically active, and what might increase participation in physical activity and meet needs using grounded theory methods (Charmaz, 2006).

Methodology

Recruitment & Participants

Participants were recruited through contacting local clubs and organizations, including sports teams and youth groups that have female youth membership. Leaders of local female soccer and volleyball teams, after school recreation program and Youth Action Alliance program were provided with information to share with their participants. Females had to be currently between the ages of 15-16 years old, enrolled at a public secondary school and reside in communities within a specific district within Northwestern Ontario to be eligible to participate in the study. Ten participants were originally recruited; however, due to scheduling conflicts only six females were able to participate in the study. Two females completed individual face to face interviews and four females participated in a focus group. The participants volunteered to participate and represented a convenience sample. Any female that expressed interest in participating in the study was provided with an information package and consent forms. All participants were required to obtain parental consent to participate in the research study as well

give personal consent. If a participant returned her signed consent form, the researcher contacted her to schedule a time and location for her to participate in the study. The focus group exclusively included Aboriginal females living in a First Nations community; the females who participated in the individual face to face interview were not aboriginal. Due to the capacity of this study, it was not possible to continue interviewing participants until nothing new was shared, or until saturation about the topic was reached (Cutcliffe, 2007).

Data Collection.

Data was collected through semi-structured face to face interviews and one focus group. Participants only participated once, either in an individual face to face interview or a focus group. Schedule and availability of participants determined whether an interview was completed or they joined in the focus group. Two individual face to face interviews were used solely to accommodate females that were interested in participating but unable to attend the scheduled focus group. The amount of time the participants committed depended on the method they participated in. Interviews lasted approximately 15-30 minutes. The focus group lasted approximately two hours. Interviews and focus groups were held in locations determined by the participants to ensure they felt comfortable in the setting and it was accessible to them. The focus group was held in a location where the participants regularly gathered. The researcher wanted to ensure the participants were in a familiar environment where they felt comfortable (Creswell, 2007). Snacks and refreshments were also provided during the focus group.

An interview guide was used for all data collection. The interview guide was based on two previous qualitative studies. First, research conducted by Gibbons & Humbert (2008) explored the experiences of grade 7 and 8 females in physical education from Western Canada

schools. This original guide was intended to gain information about participation in physical activity specific to physical education classes. The second qualitative study that was used as a basis for the interview guide was “Creating community, assessing need” (Whaley & Haley, 2008). Whaley and Haley (2008) applied an asset mapping strategy to collect information from adult community members in a rural community about physical activity opportunities in their community. This process was noted to be a positive way to engage community members and allow them to identify issues associated with physical activity in their community and recognize physical activity as a priority (Whaley & Haley, 2008). Both studies reported positive feedback on the qualitative nature of the research to gather insightful data about experiences with physical activity. The interview questions included in these previous studies were used to guide the development of the focus group questions that were used to collect data in this project. Adaptations were made to focus on community opportunities and meet the needs of a different target population. The interview guide developed for this project was used a guideline; additional questions were asked depending on the response the participant gave if more details or elaboration was required. The format of the focus group also utilized “Tips for running focus groups with youth” (Biscope & Maley, 2002) as a guideline to ensure a successful group was facilitated in a supportive environment. A preamble was given at the start of each interview and the focus group to express the interviewer’s respect to all of the participants’ opinions, confidentiality of everything shared and encouragement to feel comfortable sharing a broad range of information. The participants were also informed that the information they shared had the potential to lead to change within their community and potentially enhance existing programs or develop new programs as result of their opinions. It is important that youth feel they have the opportunity to contribute to something larger than a two hour discussion and are provided with

the opportunity to remain connected to the project to be involved in the changes (Biscope & Maley, 2002). They were given as much time as they needed to answer questions and were encouraged to share freely, whether or not they felt they were directly answering the questions or not. The interviewer tried to facilitate a discussion rather than a question and answer format to allow for more sharing and flow of information.

All interviews and focus group information were audio taped and transcribed verbatim by the interviewer. Audiotapes were reviewed multiple times to ensure all details were accurately transcribed.

Incentives such as passes to yoga classes and volunteer hours were provided to all participants. Focus group participants were also provided with snacks and beverages. Compensation or incentives helps acknowledge youth that their contribution is important and valued (Biscope & Maley, 2005).

Data Analysis

Grounded theory was used to analyze the data to develop themes associated with the participants' experiences with physical activity. Grounded theory is a methodology by which theory is developed as a result of the data. The theory is developed through categories that are indicated by the data and is meaningful to explain a phenomenon, in this case, physical activity behaviour (Charmaz, 2006; Cutcliffe, 1999). Multiple steps of coding were completed to break the data into small pieces before putting it all back together into coherent themes that are meaningful to explain the experiences of physical activity amongst the participants.

The first step of the coding process was using line by line coding methods (Charmaz, 2006). Each line was described by a word that was closely related to the idea shared in the segment of words. The researcher attempted to use words that preserved actions that participants were sharing. The researcher attempted look at each line separately to ensure that no perspectives or underlying concepts were overlooked. During this initial phase of coding, the researcher is allowing discoveries to come through the data and actively not applying preconceived concepts (Charmaz, 2006).

Once applying a rigorous initial coding process, by reviewing all transcripts multiple times, the research looked at larger chunks of data and moved into a focused coding phase. The focus coding stage may allow for more complete thoughts to be understood, however, smaller chunks may remain in order to preserve a specific thought. The larger chunks of data were termed bibbits, by Kirby and McKenna (1989). The researcher compared bibbits between transcripts to find similarities between data. The similarities found between data led to potential categories that were identified based on the information from the data. Concepts that were similar created categories that fit. Information was constantly compared between each other to determine the categories that would be used. This constant comparative analysis allows the researcher to live in their data and let the similarities in the data create themes to work with. During this phase, the researcher was careful to not force any segments of data into themes but allowing for segments to stand alone if there was not a natural fit. Bibbits that could not explain the category were left aside and led to areas where more questions needed to be asked. In a larger project, this will drive additional data collection from more participants, however, within the scope of this project the questions will be identified as further areas of research. The researcher continued comparing bibbits and categories until satisfied with groups that were

developed. These groups were then used as the themes to answer the original research questions and are described in the results sections.

During the data analysis phase, the researcher worked to understand how the participants experience events, the meanings they attach to physical activity, and how interactions with social networks influence their participations and contributes to developing their attitudes and values around physical activity.

Findings

This research study collected qualitative data from female adolescents that chose to participate in either a face to face interview or a focus group. The participants shared personal perspectives about physical activity, positive and negative influences for physical activity participation and ideas to promote physical activity for female adolescents. Through sharing personal experiences, the participants provided a great depth of information around physical activity participation in their peer group. The participants recognized that physical activity was something they perceived as important, however, it was clear it was a health behaviour they did not participate in daily. *“I wish I was physically active everyday...me too... ya me too”* (Focus Group Participants A & B). The experiences that the participants shared will help to better understand how desire and intention to be physically active translates into participation. Seven main themes were identified from the stories shared by the participants to describe motivators and barriers to physical activity participation that include factors at the level of the individual, social systems and community.

Barriers and Motivators for Physical Activity

Physical activity can fit into my lifestyle

Participants were asked to define physical activity in their own terms and share how it fits into their lifestyle. The participants immediately associated physical activity with general movement. The participants listed a variety of activities that they considered to be physical activity. Activities included were both structured and unstructured “*Movement... playing games like in gym class or playing a bunch of sports together as teams. Walking, climbing stairs at school*” (Participant 2). Physical activity was identified as something that fit into their lifestyles to some extent. The activities fell into a range of informal activities such as walking or biking, to more formal activities like structured team sports or scheduled workout routine. “*I think physical activity is something that keeps you moving, it does not have to make you move a lot but just keep you going, like walking, or picking up the living room or like cleaning cabins or bigger stuff like going to the gym or sports*” (Participant 1). Examples of activities that were given included walking home from school, housework, climbing stairs, going to the gym and playing team sports. The participants in the focus group also recognized their participation in traditional powwow dancing as a way to be physically active.

Participants also shared times when they are physically active but they are not really thinking about being active. Physical activity was something that fit into their daily routines, for example, duties as part of their job or getting from one place to another. One participant shared the demands of her job included tasks that were physically active so she felt that everyday she was physically active. “*I think I am pretty active because I work here... and you always are doing something outside or cleaning cabins*” (Participant 1). Four participants identified that physical activity was a means of transportation for them, so that was a reason why they

participated in certain activities, like walking and biking. Depending on where the females lived affected the extent to which active transportation methods were used. One female shared that because she lived outside of the main part of the community and far from where all of her friends reside, she biked or walked often because it was the only way she was able to go places. *“Biking mostly because I live way up there so I have to bike everywhere either that or I walk”* (Focus Group Participant D). Walking was also transportation for getting to and from school or bus stop. *“Walking home from the bus I felt like that was physical activity”* (Participant 2).

Physical Activity is associated with desired attributes

Physical activity was discussed as a factor that was associated with other desired attributes including an ideal body image and personality characteristics. Participating in physical activity was understood to be a means to improve physical appearance. Being physically active to get in shape was repeated message shared from the participants. Physical activity was a way to make your body look better. In the focus group, one of the participants shared one of the reasons she participates in powwow dancing. *“Powwow dancing gives you manly legs”* (Focus Group Participant C). Physical appearance was identified as an important aspect. One participant shared that body image was more of a motivator to be physically active than physical health associated with being physically active. *“... [Girls] do not choose to participate in activities because they feel like it is healthy, but probably because they want to be in shape and have good bodies. That is what I think of it as. I do not really think of being healthy when I do it”* (Participant 2). Another participant identified that the main reason girls participated in physical activity was to be attractive to males. *“For boys. Girls want boys to always look at them. They want to be in the best shape they can. Most guys, not all, but most like girls that are*

in shape and active and that can do physical activity so they want to do it for that” (Participant 1). This participant also expressed that many girls aspire to achieve the ideal body as portrayed in magazines and engage in sports and recreation activities to attain these ideal standards. *“I think depending on your personality like preppy or high maintenance girls want to stay more in shape because they see models that are all fit and they are in magazines and are thin and have perfect bodies”* (Participant 1). In the focus group, this message was echoed by one participant who expressed the pressures that females have to look good and this pressure was increased when boys were prevalent. *“[Boys] make you feel pressured to look good, especially if you do not know them...”* (Focus Group Participant A).

Additionally, certain desired personality characteristics were associated with being physical activity. One participant shared that.. *“If you are physically active you are more goal-setting and more outgoing and you are ready to stuff not just sitting by yourself alone, you could gain friends* (Participant 2).

Physical Activity requires energy and effort

The participants recognized that physical activity was demanding of energy and time, two things they felt they did not also have in excess. Lack of time and energy was indicated as a potential reason that girls were not physically active. Physical activity was not always something they felt like doing nor had the energy to do it. Although none of the participants shared that this was personal issue, they did recognize that it may be a potential issue for other females their age. Participant 1 shared that due to the geographical distances between communities, some girls have a two hour bus ride to school and by the time they get home, have supper and do homework there is not really any extra time or energy to invest into physical

activity. *“People from [community] have a long bus ride; it tires you out so when you get home you are really blah and tired and usually when you get home you want to take a nap. That wastes like an hour or so and then when you wake up it is supper time and you feel like you just wasted the day away”* (Participant 1). Common excuses participants heard from their friends is that they were too tired or too lazy to participate in physical activity or other sedentary activities were preferred (such as computer related activities). Not having energy or not feeling like participating but being forced to still participate were also barriers to participating and having fun. One participant made it very clear that participating in physical activity had to be on her own terms and when she wanted to do it, not when someone else told her she had too. *“Ya if it not a chore than it is fun. If you are not being forced to do it...When you get yelled at or are forced to do it you don't want to do it. Sometimes you just don't feel like it because you are tired or something than you won't want to do it”* (Participant 2).

Being physically active was associated to how their bodies felt while being active. Participants in the focus group described activities as hard, having tired and sore body parts and getting sweaty. Physical exertion was a negative association for physical activity. Feeling tired, muscle fatigue and overexerting their bodies' discouraged physical activity. *“Powwow dancing is hard sometimes if you have to dance a long song or it is hot. Ya when it is hot. It is hard because my legs start getting tired”* (Focus Group Participant B & C). Getting sweaty was also identified as a negative side effect of being physical activity. *“They are afraid to sweat their hair out... I do not like sweating. I really hate sweating. And my face gets all red. And the way you feel it so hard to keep going and you want to stop do not like to sweat my hair out”* (Focus Group Participant A). She felt pressure to always look a certain way and getting sweaty

negatively affected her appearance. Other participants in the focus group echoed this concern but did not share any personal perspectives.

Physical Activity is rewarding.

Rewards were discussed in two different ways: opportunity to gain a personal sense of accomplishment as well as the need to get recognition for participating in physical activity. Getting a personal sense of accomplishment and success was shared as a motivator for physical activity. The participants shared that they felt a sense of achievement once completing physical activity. *“The way you feel when you feel after... you feel good. I just feel good afterwards”* (Focus Group Participant B). It was evident that they had a rewarding sensation by being active, even if during the experience was not so positive. This positive end result of physical activity was identified as a reason they did activities again. *“After you are done you want to do it again. You just feel so good. The way your body feels if you did lots of stuff”* (Focus Group Participant A). *“The most important thing is not doing the activity but how good you feel at the end of doing it; you feel on top of the world that you are in awesome shape. It is just a great success when you finish”* (Participant 1).

The participants also shared that they would be motivated to participate in physical activity if they received rewards and recognition for participation. The participants made it clear it did not have to be rewards based on skill level or winning but instead on commitment and participation in activities. *“There should be rewards, not oh like you get this much money for working out hard, but like hey you showed up so here is a tee-shirt and we can all wear them while we work out”* (Participant 2). *“Or maybe something that would motivate them to come and to keep coming. Like at the end of the week have something for the people who came. Ya just*

have prizes for people for coming”. (Focus Group Participant A). *“Rewards for just participating. Whoever has the most enthusiasm or something...? I don’t know. Or volunteer hours for school”* [Focus Group Participant D).

Physical Activity is influenced by the people around me and the people participating

Social networks and supports were identified as key factors for physical activity participation. Physical activity was promoted by having peers directly participate in physical activity, encouragement and support for family, Support was discussed on different levels. Social support was recognized as having people to do the activities with and having someone encourage them to be physically active. The discussion around having friends involved in the activity indicated that peer support is vital to participation. Having peers around was discussed as bringing a new energy and participants perceived activities to be more fun if their peers were involved with them. *“I get hyper at school because there are so many people around. I just feel good being around lots of people. I start jumping around and feel good”* (Focus Group Participant A). *“It would be boring by myself. I would not want to go swimming by myself; it is just more fun with other people”* (Focus Group Participant B). Peers provided the most effective social support when they played the role of actually participating in activities together. This seemed to be more important and a facilitator to be physically active than just their friends supporting them to be active.

Participating in activities with peers increased the likeliness the girls would participate in physical activity. As mentioned earlier, a key component of an activity being fun was engaging in activities with their friends. *“When there is a lot of girls into the sport and if you are really into the sport that you are doing it s fun to, if not and they just sit and complain or nobody wants*

to do a physical activity with you it is not fun” (Participant 2). It was also evident that not having peers getting involved created a negative environment that made the activity not fun. Just as having fun was associated with engaging in activities with friends, not having fun is associated with peers not wanting to participate. Not having anyone to participate in physical activity with or any support to be physically active was a major factor influencing behaviour. Participants reported that their friends would rather do other activities, or would complain about participating. *“In gym class there were a lot of girls that chose not to do physical activity because they did not want to listen to the teacher and they thought they were just cool. They really annoyed me”* (Participant 2). This concern was echoed by another participant: *“Phys. Ed. Class was fun. Well it wasn’t fun this year because it was so small. Most of the girls did not want to play. Too girly to play. They got scared all the time”* (Focus Group Participant 2). Not having someone try out for a sport was a factor that was shared by one participant as a reason that she choice not to try out for school sport team. *“I was going [to try out for volleyball] but no one would stay with me for try outs. I didn’t want to be by myself”* (Focus Group participant 2). Direct participation of peers and friends were instrumental in providing the needed motivation to be physically active and enhance elements of fun that an activity could offer.

Peers were also viewed as negative influences for physical activity when they preferred spending their time doing other activities such as sedentary activities, smoking or using substances or alcohol. Exposure to sedentary activities that involved technology was also a point of discussion among the focus group participants. *“Technology. People would rather play a game on the computer or watching a movie. People think it is more fun than being physically active”* (Focus Group Participant A). Time spent on the computer drastically interfered with the time that was available to be physically active. Participants shared that they stayed up most of

the night on the computer on social networking websites and gaming which meant that they spent most of the day sleeping. *“On computer all night and sleep in really late. I know they are on the computer late at night because I am always on the computer late night and see them on”* (Focus Group Participant A). Participants identified that they felt many of their friends preferred spending their time doing these activities rather than being active. *“Computers. Cause they are inside and people like to go on Facebook”* (Focus Group Participant D). Using drugs was identified as activities that were preferred amongst some of their peers. *“Drugs. Ya. And booze. Interferes with being physically active because they think it is more fun...”* (Focus Group Participant A).

Additionally, females recognized the difference between participating in physical activity with female peers compared to male peers. Participating in activities with male peers was viewed as a negative influence for participation. All the participants were very clear on identifying the physical activity opportunities had to be exclusive to females. Having only females involved was evidently crucial to creating an environment that the girls felt comfortable being physically active in. *“They won’t be so scared to try if it is just girls. ‘Cause I remember trying to play in a baseball game and I was like come on lets go play and they were all like ‘nah they are all big guys playing”* (Focus Group Participant D). *“Girls are more encouraging than guys. Guys just kind of watch you. If you do it wrong they will laugh at you. With girls they are like yes you can do it”* (Participant 1). It was clear that inclusion of boys would change the dynamics of the group. *“Boys are ... I do not like boys. They are mean. [They] make you feel pressure from them to look good. Especially if you do not know them... Girls get catty [if boys are around] so [she] likes one guy but he starts really talking to [another girl] and they are best*

friends they would stop talking to each and not want to do anything together” (Focus Group Participant A).

Families and parents were also identified as support by three of the participants. Families play support roles by providing encouragement, transportation, and also by participating in activities with participants. One participant identified her father as key support because he organizes activities in the community, encourages her to participate in these activities, participates in activities with her, as well as provides logistic support such as transportation. *“My dad makes me do it. He makes me play baseball. In a positive way. He supports me...My dad would come pick me up... Well actually I dance powwow with my dad”* (Focus Group Participant B). Another participant identified her mother as a support because by doing things for her mother, who was unable to do them, got her physically active as well as engaging in low intensity activities with her mother. *“My mom. She can’t really do anything so I like to do things for her... if she needs coffee I will run to the store to get it for her. I helped her plant flowers but then our dogs dug them all up”* (Focus Group Participant A). Family support also promoted other healthy behaviours along with having an active lifestyle. *“When [my cousin] goes for a run I will join her as often as I can, or I will go on my own. She eats healthy so I eat healthy when we are together. I usually eat what she eats”* (Participant 1). Parents and families were not discussed as reasons not to participate or as creating barriers for being physically active.

Although lack of parental support was not acknowledged to be a barrier to participating in physical activity, lack of adult support was recognized as a barrier among the participants in the First Nation community. Focus group participants identified that the lack of adult support in their community to organize activities and trips off the community has negatively affected their

participation in physical activity. When they had a formal adult supervisor (recreation director) who organized activities they felt they were more physically active. *“Nobody ever does anything around here. No one supports us. They kind of just gave up on us. There used to be activities. Ya when there was a rec director. Ya that is the last time I remember doing anything”* (Focus Group Participants All). Adult support was recognized as an important element for this group of participants. They discussed that activities organized just by them would not be as much fun and as many people would not participate. The presence of an adult would give more credibility to activity and encourage more people to participate. Certain activities required the support of an adult to facilitate, including trips to go swimming, and baseball tournaments. *“We just need to have someone start doing stuff again. Ya cause there isn’t really anyone. I do not even know who the rec director is. We can’t do anything just by ourselves. Other people won’t come ‘cause they won’t think it’s a big deal or anything... ‘Cause we are just kids”* (Focus Group Participants All).

Social supports were also discussed as being developed through participating in physical activity and engaging in physical activity was motivated by having the opportunity to develop friendships. Participating in team sports and physical education classes were recognized as a means to develop new friendships. Team sports provided positive support systems and encouragement. Friendships that existed were strengthened. *“I would rather do a team sport not only for the exercise but you get to build friendships, they are encouraging and they are always there for you”* (Participant 1). It was also discussed that trying out for team would be an opportunity to meet new friends. During a discussion in the focus group of why Participant B did not try out for a team, Participant A encouraged her to try out anyways because she could have met a new friend. Physical education classes were an opportunity to develop new friendships

especially when in a class with people that were outside of their regular social group. *“When I was in gym I made friends that I never had hung out with before but we all had to work together as a team...”* (Participant 2). The opportunity to work together facilitated these new friendships.

Finally, social supports were identified also through people that inspired the participants to be physically active because of their own physical activity level. Participants identified as being inspired by these role models to participate in activities. In the focus group, the participants discussed a family that provides motivation to be physically active. *“[Family Name] ...ya my brothers and their friends... cause they are always doing stuff. Or they are playing baseball or they come up here and skate board and then jump over stuff. We get to do stuff with them”* (Focus Group Participants All). One participant shared that women and girls being active in public promoted physical activity. *“[fitness centre staff] are always at public events and trying to help people out... or sometimes you will see a bunch of girls running for a jog and you think oh I will try that so you go do that”* (Participant 2). Another participant had a very close relationship with a female family member that was a role model because of degree of participation in physical activity and acted as inspiration for the participant herself to be active to be more like this family member. *“I think you always have to have somebody you look up to, for me it is [my cousin]. She is great shape and she is awesome in every way. So I try to stay in shape and keep going. If I need inspiration I look to her”* (Participant 1).

Built Environment influences my choice to be physical activity

Participants recognized that their physical surroundings promoted influenced their participation in physical activity. Participants described their physical surroundings as influencing their ability to participate in physical activity by lacking desired resources or

facilities that were appropriate for their target group and also by promoting unhealthy behaviours.

There was a negative perspective from five of the participants around what their communities offered in terms of space and facilities for females their age or people like them to be physically active. Certain desired elements appeared to be lacking. All the participants identified facilities or areas in their communities that could be used for physical activity; however, they did not really express that they thought these places motivated them personally to be physically active. The perception appeared that these places were for other people. *“The arena, swimming pool, the hockey rink, skating, work out rooms... it is kind of pushed on a lot of people here but they just accept it”* (Participant 2). In the focus group, the participants discussed although they have a recreation centre in their community, it does not actually help them be active anymore. *“The Gym... no it does not help but it is somewhere you can go to be physically active... The gym here does not help us be active. Needs activities actually planned out and followed through”* (Focus Group Participant A). The participants again reinforce the need for adult support to increase participation in physical activity.

Second, the participants expressed that some resources that they would use were not available or safe to use. The participants also discussed activities that they enjoy doing that could be enhanced with improved facilities or recreation space in their communities. *“They should maybe fix the dock at the beach so people can go swimming again... There is a big Danger sign and you can't go on it. Nobody wants to swim on the beach because that is where all the dirty stuff is”* (Participant 2). Among the focus group, participants identified that although their community was safe, they also found it was boring to walk around the same areas all the

time. The community used to have trails but no longer have been maintained and thus, cannot be used. Participants identified that having trails within their community would encourage them to walk more. *“We could go walking in the bush... there are not trails... there used to be some by my house but not anymore... I would walk in on trails in the bush... I like walking over away by [her] house but walking around the same part of the community it’s the same stuff, gets kind of boring”* (Focus Group Participants All). One of the interview participants also identified that areas of her community were more restrictive to activities because of roads with high traffic density that ran through neighbourhoods. She did not perceive that her community offered an appropriate place to go running. *“There is not really a track or something. Or you could go run around the high school track but if you are there at night and you are training hard then the police would probably come by and be like why are you are in the school yard. The water front you can go running, but it is really for walkers and you have to run up top then you are closer to the highway which isn’t really smart to do. There is no real place where people can go that are free”* (Participant 2).

Finally, the participants shared that their environment promoted unhealthy behaviours and that was a barrier to being physically activity. Healthy eating and tobacco use were two behaviours that participants expressed as being promoting around their school environment.

Nutrition was recognized as a component that relates to health. The participants identified that their bodies required healthy nutritional foods to fuel their bodies in order for them to be physically active. Unhealthy foods were readily accessible, probably more accessible than healthy foods, and it was common for females within their age group to regularly consume these foods for breakfast and lunch. Consuming these foods does not provide the energy needed

to be physically active as well as peers were more likely to spend their lunch hour or break times at fast food restaurants than doing other activities. Participants also recognized the negative influence of the location of their high school situated directly beside five fast food restaurants. *“They put the high school by a bunch of fast food restaurants but not by the arena....people would skip and would have gone to the arena but at least they would be working out and they wouldn’t be skipping and going to fast food restaurants and eating all the time”* (Participant 2). *“Food. Fast Food. Most high school girls go out to eat, a lot of them go out to MacDonald’s and fast food places which probably is not good for your body and it makes you tired and you do not feel energized”* (Participant 1). One of the focus group participants also shared that peers would rather sit around and eat junk food than participate in physical activity. *“They are sitting around at home eating chips all the time. Ya that is what they would rather do”* (Focus Group Participant C)

Prevalence of tobacco use and alcohol and substance use were also discussed at behaviours that negatively impacted participation in physical activity. One participant shared that having designated smoking pits near schools is a negative influence to physical activity participant. *“[Schools] have designated smoking pits... smokers can smoke over there, so they are not physically active... they are not going to go out to sports or anything”* (Participant 2).

Community lacks organized opportunities that fit my needs

Beyond facilities, the participants recognized that it was important to have more than just facilities but also structured activities to participate. The general consensus was that opportunities that existed through school and within communities were not perceived to meet the skill level or needs of the participants in this study. Participants shared that they did not feel

comfortable participating in certain activities because of their skill and that some opportunities were too exclusive. Girls discussed that only a certain group of girls made school sport teams and it was a very “cliquey” group. *“Only [sports teams] people are on the teams...Teams are so cliquey, so stereotypical, just the same people”* (Focus Group Participants B & A). School sports produced feelings of exclusion. If one did make the team but were not part of the group one would still not be accepted. *“It’s a really tight knit group of people that work out together every day and they get to be on the teams, they get to be better friends and you don’t really get to join in. I don’t know it’s a lot of disclusion for a lot of people so they won’t really want to do it”* (Participant 2). *“You have to be a typical sporty girl that is good at sports to play sport. If you are not good than everyone will laugh at you... they will laugh at you and be like get off the team you are making us lose”* (Focus Group Participant A & D). Opportunities in the community to participate in sport and physical activity were discussed as requiring skill that some of the girls felt they did not have so they did not feel comfortable participating. Two of the participants recognized that there were not really opportunities within the community or school to participate in sports or physical activity if they did not have a high skill level. *“A lot of teams at the high school it’s like you have to be really good. There is no like B team. There is not everybody just gets to get together and makes up a little team and just does something”* (Participant 2). They chose not participate in activities they enjoyed doing because they felt they were not good enough to play. *“League soccer, I do not want to go into it but I do. ‘Cause I like the game but there are a lot of people who are really active and they have been in it forever so you wouldn’t feel comfortable and there is a higher expectation”* (Participant 2). If they lacked skill it was common to feel inadequate and not participate or if they do choose to participate, they would likely be teased. *“If I did want to play hockey or wanted to go skating than I would feel different*

from other people because they have been in the sport for so long and you probably aren't as good" (Participant 2). A participant in the focus group shared that she was not good enough to play which discouraged her from participating in activities with her friends. *"You guys always leave me behind and I was so far behind, and I was tired and my legs were hurting so bad. I kept stopping because my legs hurt so bad... I can't hit far at all or even past the inside of the bases. Do not really play because everyone just teases me"* (Focus Group Participant A).

Characteristics of a female specific program to promote physical activity.

Finally, the participants were asked to share characteristics of a program that would promote females their age to participate in physical activity. The motivators shared above overlap with the components that a successful program would have to include. Some logistical characteristics were discussed, including the activity being schedule around work schedules and sleeping patterns. A program held early in the morning was not appealing. The most important element was creating a safe and support environment to participate in activities, which was facilitated by creating motivation through the above mentioned factors as well the following, including providing the opportunity to be learn new skills and have a positive adult support.

Participants shared that the program must be organized for girls and must be a place or activity that girls feel comfortable participating in. *"There is a specific designated place where they do not feel like they are going to be out-casted"* (Participant 2). Features that described a safe and supportive environment including the activity being exclusive to females, did not require a specific skill level, and provided opportunities to improve skills and learn about healthy living. *"It would include exercise kind of like a day just for girls. Like a whole day for exercise with only girls there like at the gym and the whole gym. Just for girls. Have a workout, like a*

yoga plan; go to the pool swimming and a healthy lunch activity. Try new activities without being embarrassed because you are a whole bunch of girls who have not done it before and it's all new to you" (Participant 1).

Opportunity to develop new skills and knowledge

An opportunity to try new activities and learn skills was also a consistent element that the program should include. The girls shared some examples of activities they would like to participate in and the underlying message was the opportunity for everyone to participate no matter what their skill level was and to have fun. Activity suggestions ranged from sports such as football, swimming and soccer to games of low organization, such as scavenger hunts and water gun fights, to instructional activities such as yoga and weight training. The participants expressed that having someone to instruct proper techniques and enable the opportunity to develop and learn new skills were important. *"Would be nice to have someone there to show you how to use it. Like a first demo. Someone to teach you. Someone to help you..."* (Participant 1). *"Maybe a personal training person could volunteer and show how to properly stretch and would have to charge for it or be paid for it. It would more of a learning experience and it would be fun and not forced on people"* (Participant 2).

In the focus group, participants discussed the opportunity to participate in less organized activities and adapted versions of sports that would enable skill development but also just be a time to play and socialize. Activities that incorporated being social were very important. *"Could be a sport but kind of set up different... like I don't know... to get girls more interested... Something being social with everybody but still being physical..."* (Focus Group Participant A) *"Ya girls are very social..."* (Focus Group Participant B & D). *"If being social was part of the*

game” (Focus Group Participant A). *“Like football, you can huddle”* (Focus Group Participant D).

Healthy Eating is an important component.

All of the participants also requested the program promote healthy eating. They suggested the activity should provide an opportunity to learn about health eating and learn and apply skills to prepare and cook healthy meals. *“Or maybe we could have little cooking things and learn about cooking healthy things. So we have energy”* (Focus Group Participant D). *“Eating wise, someone to help you eat healthy and how you can keep your body healthy”* (Participant 1).

Positive Adult Support

All of the participants also agreed that the activity should have adult involvement to support program. The leader of the program was discussed amongst the focus group participants and they expressed that having a leader who was a role model for physical activity and the girls were familiar with would increase their likeliness to participate. *“It needs to be led by someone sporty and fun ... And that kind of knows us”* (Focus Group Participant A & B). The leader would be responsible for the organization and facilitation of bring participants together but be open and democratic to the activities that were planned. *“It should be an organized event, but shouldn't have to make people feel like that they have to work , just come out and hang out and play”* (Participant 2). *“And get the kids involved because sometimes we do not want to do the things they plan... We should have votes to find out what sports we should do”* (Focus Group Participant D).

Having fun in a safe and supportive environment and having opportunities to succeed were key elements that were blended in among the above discussed themes. Participants openly described a variety of influences that affect their participation in physical activity. The findings emphasize that physical activity participation is affected by a range of determinants and all areas need to be considered in order to improve opportunities and increase participation among adolescent females.

Discussion

The purpose of this project was to explore the experiences of female youth with physical activity and gain insight into ways to enhance opportunities for females to be physically active. The female youth participants represented different rural communities, including a First Nation Community, in Northwestern Ontario.

The findings from the interviews and focus group reinforces that physical activity is a multi-factorial behaviour and one single factor cannot explain this health behaviour. The participants were not able to describe only one factor as being the main factor influencing their decision or ability to participate in physical activity. A socio-ecological framework suggests that these influences at different levels need to be considered in order to understand any health behaviour (Elder et al, 2007). The participants shared how physical activity was impacted by factors at varying levels, including influences within the individual, between social networks and of their environment. These three levels intertwine with each other; a single factor could not be addressed in isolation of another. Thus, it is important for health promoters and other health care providers to recognize the complex and multi-factorial nature of physical activity for adolescent females.

The socio-ecological framework provides the structure for the discussion. The participants highlighted intrapersonal, interpersonal and environmental supports that motivated their participation or presented barriers for their participant. By reflecting on discussions between participants it is evident that there is overlap between these levels.

Two intrapersonal or individual motivators that were identified for choosing to participate in physical activity were how physical activity could change how they looked and how physical activity could make them feel. Participants shared that physical activity was motivated by the desire to be attractive and have an ideal body image. In contrary to findings reported by Gibbons & Humbert (2008), health benefits were not discussed as a main motivation for participating in physical activity; however, the participants did acknowledge that health benefits were an outcome of being physically active. Other research, however, does support that the desire to have an ideal body was a motivation for being physical activity amongst female adolescents. Previous studies reported that females were motivated to be physical activity as a means of controlling their weight and to improve physical appearance (Pfaeffli, 2009; Gibbons & Humbert, 2008).

Body image is a perfect example of how socio-ecological factors intertwine and reinforces that it is important to address factors at all levels. Adolescence is a period when females become more conscious of their bodies and development (Santrock, 2005) thus it is natural for this to be a period where they are concerned about their how their bodies look. However, the ideals for body image are created by the images that society portrays. Society presents an ideal that females have to be thin; thinness represents desired characteristics including, being of high social class, being successful and having the ability to attract a man

(Lutter et al, 1990). This message was echoed by the participants in this study. Participants shared that a motivation for being physically active was to be attractive and attract males.

Although in this study, the females did not specifically report that self consciousness of their body's appearance was a barrier to participating in physical activity, indirectly it was evident that it did change how they participated in physical activity. Preference to participate in activities that are exclusively for females was a common desire of the participants in this study. Previous researchers have made similar observations. A qualitative research of grade 7 and 8 girls reported that participants in the study also reported negative attitudes towards having males involved in physical activity opportunities (Gibbons & Humbert, 2008). Some females reported that male involvement increased self consciousness of bodies because of reactions received from males during physical activity (Dwyer et al., 2006). The presence of males in the environment has a potentially strong impact on participation rates. One study reported that a third more females said that they would use the pool if boys were not around; females in this study expressed that they changed the way they engaged in activities in the pool to reduce attention being drawn to themselves (James, 2000).

In findings from another study that explored the experiences in physical education among Aboriginal youth, the participants reported they avoided physical education because they had to change their clothes to participate once they were in high school; females shared that they were very self conscious of their bodies and to avoid feelings of insecurity or discrimination they stopped attending physical education class (Halas, 2004). The findings in the current study and supported by previous research reinforces the need to have specific opportunities for only females to participate in physical activity to work towards increasing physical activity levels

amongst female adolescents. It also highlights the impact of personal body image on participation in physical activity, and emphasizes the need for positive body image ideals to be promoted and provide opportunities for females to increase their self esteem.

A second intrapersonal factor that was emphasized among the participants was the sense of accomplishment they gained from participating in physical activity. The females expressed that participating in physical activity was rewarding and they felt successful when completing activities. The “In Her Voice” project reported that many of the participants shared similar feelings and positively associated physical activity to a sense of accomplishment; physical activity improved attitude, provided females with more energy and females noticed the difference in how they felt when they were not active (CAAWS, 2009). The findings of this study, then, confirm the findings of the “In Her Voice” project.

This is also another example of how levels of influence impact each other. Feelings of success and accomplishment cannot be obtained if the appropriate opportunities are not available. The participants in this study shared that the lack of perceived skill and opportunities to participate in activities that were appropriate to their existing skill levels was a barrier to participating in physical activity. The participants perceived that they could not participate in opportunities within their community or school because their level of skill was not good enough and only certain people could participate or get picked to be on teams. This is a common issue for adolescent females. The perception that their peers have better skills reduces the likelihood of participation (Gibbons & Humbert, 2008). A study that investigated female participation in physical activity in rural communities also reported similar concerns as participants in this study; females shared that it was discouraging that the same people made all the school teams and they

were unlikely to try out for activities because of this (Eimes, et al, 2008). Also, in the “In her Voice” report (CAAWS, 2009), female participants expressed a lack of opportunities now that they were in their teen years and talked about what they were able to do when they were younger. Lack of perceived competence hinders the enjoyment of the activity which is also a barrier; feeling competent in a physical activity setting increases the likeliness that females will have fun and as a result, choose physical activity more frequently (Humbert et al, 2008). Skill development needs to be encouraged at all age levels for females to continue to increase the options they will feel competent in trying. Females in Eime and colleagues’ (2008) study revealed that skill development was vital to their continued participation in activities once they were out of high school; lack of skills were a clear barrier to pursuing new activities in new communities while pursuing post secondary education.

Lack of opportunities that meet the needs of adolescent females is a concern that needs to be addressed in our communities. Females need to have options available to them while they are still interested in physical activity. Options should accommodate the needs of females by providing the opportunity to develop skills to instil a sense of accomplishment and provide opportunities to be successful.

Finally the impact of interpersonal influences or social networks was an important theme. Not surprisingly, direct involvement of friends was important to motivate participation as well as the potential opportunity to build new friendships motivated participation in new activities. Role models and adult supports, including parents, were also discussed as playing a role in motivating participation. The involvement of peers was a reoccurring theme throughout the interviews with the participants. The participants emphasized that physical activity needed to be fun and that

was accommodated when the activity involved friends and the opportunity to be social. Findings from similar research indicated that peer support was the strongest and most consistent predictor of a change in physical activity participation (Barr-Anderson et al, 2008). A similar study supported that being able to participate in physical activity with friends in a positive social environment without harassment was a positive motivator for participation (Gibbons & Humbert, 2008). Similar to the experience of the participants in this study, lacking friends to participate in activities was a clear barrier to being physically active; females shared that doing activities alone was not motivating to participate in physical activity (Humbert et al, 2008). In previous studies, peers have been identified to help increase self efficacy for physical activity. Females are more likely to overcome barriers, such as tiredness and busy schedules, when their peers are involved in the activity (Beets et al, 2007). Peers were also motivators for participation in physical activity when they directly asked peers to attend an activity with them (CAAWS, 2009). As peer connectedness is a critical phase of adolescence, these opportunities to bond with friends are important (McMurray, 2007). It is crucial that opportunities to develop new friends and develop a sense of belonging is facilitated through healthy activities, such as sports and recreation activities, instead of through unhealthy activities, such as alcohol and substance use.

Limitations

Due to the capacity of this project, only a limited number of participants were used for this research providing only the perceptions of a small group of female adolescents. However, many of the experiences shared by this group of females were validated by other previous studies suggesting that other females in their peer group have shared similar experiences. Due to the nature of working with youth and focus groups, there were also some limitations within data

collection methods, the depth of information collected and representation of each participant. Because of conflicting schedules and geographic distance between the youth, it was not possible to have all the females interested in participating join the focus group, thus requiring two separate interviews be set up in addition to the focus group. The focus group situation may not be the ultimate situation for all participants to feel comfortable sharing personal experiences. Youth are very conscious of how they are perceived by their peers, thus, some may have withheld sharing information reflected a difference opinion than someone else in the group or information that they felt would elicit an unfavourable response. There is also the potential for participants to agree with their peers even if it did not reflect their own feelings. This reinforces the importance of facilitating an environment that is comfortable for all participants and ensuring that all participants feel they have an equal opportunity to share their opinions and experiences, honestly and openly.

Implications for practice

It is important to recognize that the majority of the participants were residents of a First Nation community and the experiences shared by the focus groups lends some insight to perceptions and opportunities for physical activity within First Nation communities. Four out of the six participants resided in a First Nation community. Although in general, responses between the First Nation participants and the Non First Nation participants were similar, there were some areas of distinction. In these discussions, adult support was a theme repeated throughout the two hour session. Although the Non-First Nation participants did recognize the need for adult support or leadership to organize and make the activity happen, the role seemed to be to a lesser extent than discussed in the focus group. The focus group participants repeatedly expressed the

importance of the role of the recreation director. The lack of a recreation director in their community was viewed as direct barrier to them being physically active. It is important for the leaders of First Nation communities to be aware of the impact of this staff position in their community. The participants all agreed that the role of the recreation director was important because the he or she organized opportunities that would bring their peers together to be physically active and also provided opportunities for the youth to do activities outside of the community.

Also, while searching to find background research documents to support the experiences of the participants, it became obvious that limited research exists, with the exception of Halas (2004), around physical activity practices, particularly from a qualitative perspective, and specifically focusing on First Nation populations. The Canadian Community Health Survey (CCHS) reported a high prevalence of participation in leisure time physical activity among Aboriginal men and women 12 years old and over; however, persons living on-reserve were excluded from the survey, and the data collected solely participation rates (Bryan et al, 2006). Because of the high risk among First Nations people of developing Type 2 diabetes (MacMillan et al, 2003), it is important that physical activity behaviours and opportunities be explored within First Nation communities, and that physical activity opportunities be available and accessible for all age groups, particularly youth.

Considering the responses from all participants and supporting documents, other recommendations have been suggested to improve the quality of opportunities for females to be physically active and increase the likeliness of female participation. Service providers working to increase physical activity rates in young females need to consider a few specific elements to

create a safe and supportive environment. An important first step is to engage female youth in the process of developing and planning physical activity initiatives. When asked to share elements of a program that would successfully promote physical activity participation in female adolescents, the participants did not have any hesitations to describe some key characteristics for their ideal situation to engage in physical activity. It was clear that these young females knew what they wanted and what would work to increase their physical activity participation. It is important that practitioners capitalize on this knowledge to assist with developing successful programs. Adolescent females should be provided with the opportunity to be engaged in the decision making process and be actively involved in the planning and implementation of programs that are being designed for them. The participants, although not necessarily specific on activities, were confident and agreed on the characteristics that programs needed to have; their suggestions included being exclusive to females, having positive adult support, the opportunity to have fun and socialize, and the opportunity to gain knowledge and develop skills. Often youth are considered a difficult population to engage. It is important that female youth are engaged even if it may be a slow process. One of the participants expressed that the leader of a program must be someone the participants are familiar and comfortable with. This indicates that successful recruitment may not occur through mass promotion of a program. It might require a more personal approach and the time to develop relationships before developing a program or gaining participation.

When engaging female youth into program planning it is important to consider the influence of peers. Service providers also need be cautious that they are not only responding to the needs of the females with the loudest voice. In the focus group, there was one participant naturally more outgoing who dominated more of the conversation; however, it was important to

recognize the lack of comments from the other participants did not necessarily mean they agreed with her comments. It is important that opportunities to hear all opinions are created to ensure a safe and supportive environment for all participants. The breadth of the details and conversation is greater if more people feel comfortable sharing and different perspectives and ideas are revealed.

Second, skill development needs to occur at an earlier age. Children need to have the opportunity to develop and continue to build skills so that when they are adolescents, it will be less likely that this will be barrier to being physically active. If female adolescents had the opportunity to gain skills during their childhood, they may have more self efficacy to participate in physical activity during their adolescent years. Skill building opportunities and opportunities to engage in physical activity without skill need to be available to female adolescents. Participants in this study indicated the desire to learn new skills. Females need to have opportunities where they can be supported to play at any level and have adequate opportunities to practice and adequate support to improve.

Because the participants emphasized the importance of feeling good as a motivator to being physically activity, service providers should ensure there are opportunities for participants to be successful and gain this sense of accomplishment. Service providers should create opportunities for every female participant to be successful based on their participation and not solely on outcome measures. Female participants need to be reassured that they are in safe and supportive environments and be encouraged to try new activities without being teased or feeling inadequate. As mentioned earlier, females recognized that being physically active is a rewarding experience; it is important that activities are designed to facilitate this positive outcome. One

suggested way to do that is to have females track their feelings following participation in an activity through journaling exercises, or simple chart with “emoticon-like” stickers to identify feelings (CAAWS, 2009).

When promoting physical activity, it is also important to highlight the benefits that females indicated as being important to them; among the participants in this study there were attaining a desired physical appearance and gaining a sense of accomplishment. It was evident that these two factors were more influential than health benefits, so it is important that messages capitalize on this and promote physical activity in a language that is relevant to the target population. Communication efforts need to emphasize that physical activity can provide a positive sense of self and body, and make one feel strong and accomplished beyond just promoting the chronic disease prevention messages.

Participants in this study recognized that structures exist within their environment that affect physical activity participation, including lack of resources and safe places to walk or bike, and the prevalence of fast food restaurants,. It is important to consider these factors when designing and maintaining communities and ensure that environments enable optimal health by increasing opportunities for active transportation, recreation and decreasing exposure to unhealthy food options.

Significance to Public Health

Public health has the responsibility to increase active living and promote healthy weights as outlined within standards of Chronic Disease Prevention under the guidelines of the Ontario Public Health Standards (Ministry of Health and Long Term Care, 2008). Creating supportive environments is a key element within these guidelines. The participants in this research

identified characteristics of a supportive environment for females to participate in physical activity. Through increasing capacity as outlined in standards, with the community, as well as working with school boards and municipalities, public health is in a situation where they can provide guidance for practices and policies that enhance opportunities and support for females to participate in physical activity.

Not only do we need to encourage physical activity to ensure we have healthy active adolescents that will lead to healthy active adults and families, but participation in physical activity is also associated with other positive health behaviours. Youth that are physically active are less likely like to have mental health issues and less likely to participate in high risk behaviours, including substance abuse (Higgins et al., 2003). By promoting and increasing physical activity participation in our female youth population, practitioners are also encouraging other positive health behaviours. Skills and knowledge for active living needs to be instilled at early ages to increase the likeliness that physical activity participation will continue into adulthood and senior years to continue to reap the health benefits and reduce chances of developing chronic diseases.

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Appendix A

Interview Guide

1. How would you define physical activity? What does it include?
2. What are your perceptions and beliefs around physical activity?
3. What are your current patterns around physical activity? including frequency, who you are active with, activity preference etc.?
4. Is there a reason why you or females your age participate in the activities that you do? Or choose to not participate in certain activities?
5. What elements, supports, resources, facilities, people exist in your community that are used or help you or female's your age be physically active?
6. What elements, support, resources, facilities, people exist or are lacking in your community that restrict physical activity or contribute to physical inactivity for females your age?
7. What other issues affect participation in physical activity for females your age?
8. If you or females your age were responsible for developing a physical activity initiative or program in your community, what would you include to encourage female youth participation?

Appendix B

Verbal Script for Introduction to Interview

Hi, my name is Becky Holden. I am a graduate student at Lakehead University. I am currently working on my research project. I am interested in exploring female experiences and perceptions around physical activity. I have 8-10 questions that I will be asking you during our meeting, however, the discussion will not be structured and your comments will guide the discussion. Please do not be concerned if you feel you are not directly answering the question; all information is relevant. All information shared will be audio-taped and will be confidential. I will ask that you do not speak while others are speaking to ensure that all comments are clearly recorded. If you have any questions or concerns, feel free to ask them before we begin or anytime during the interview. Thank you for participating in this project.

INFORMATION LETTER FOR PARTICIPANTS

Spring 2009

Dear Potential Participant,

I want to invite you to participate in a study that I am doing for my research project for Masters of Public Health degree. I am doing this research to better understand the perceptions of female youth around physical activity. I am also interested in finding out what type of resources or opportunities for physical activity they feel are appropriate and motivating for their age group and gender. This project will be an opportunity to engage female youth in public health to develop resources and/or opportunities that better suit their needs. Whether you are currently physically active or not, your views are important.

Your participation in this research project would include participating in a focus group that will last approximately 60 to 120 minutes. The interview will cover topics such as your perceptions and patterns of physical activity, experiences participating in physical activity, community resources for physical activity and barriers to being physical activity. The interview will be conducted at a time and place to suit the preference of all the participants in the focus group. All discussions during the focus group will be audio taped so I can have an accurate record of our conversation. All raw information gathered throughout this study, including the audiotapes of the interviews will be kept strictly confidential and will only be accessed by me and my research supervisor, Dr. Elaine Wiersma. A summary of the information will be shared with the Northwestern Health Unit to assist with planning programs for adolescent youth, however, they will have no knowledge of the identity of the participants.

All audiotapes will be destroyed once the study is completed (by the end of 2009), and transcripts of the interviews will be kept in a locked filing cabinet in the researcher's office until they have been thoroughly analyzed. All information pertaining to the study will be kept in a locked filing cabinet at Lakehead University for a minimum of five years.

I do not anticipate that the nature of the conversation may be difficult, but your interviewer will be sensitive to this. If you decide to take part in this study, I have attached a consent form that will need to be signed by yourself and your parent/guardian stating your consent to participate in a focus group. Participation in this study is completely voluntary and you may choose not to participate. During the interview, you may decline to answer particular questions if you wish. You may also choose to withdraw from this study at any time. Any decision not to participate or to

withdraw from the study will have no impact on your status as a student at Fort Frances High School. A summary of the study will be available in the Fall 2009 by request.

This study has been approved by the Research Ethics Board at Lakehead University. The Office of Research at Lakehead University is available for any concerns and comments pertaining to this study and can be reached by contacting (807) 343-8283. Should you have any questions about my study, please feel free to contact me at (807) 482-9928.

If you choose to participate in this study and have returned the signed consent forms, I will contact you, via telephone, to set up time and location for participation in the focus group.

Thank you for your interest and potential participation in this project. I look forward to working with you.

Sincerely,

Becky J. Holden
Graduate Student, Master of Public Health Program
Lakehead University

DECLARATION OF INFORMED CONSENT

I have read the information letter provided by Becky Holden describing the purpose of the study. My consent to allow my daughter to participate is made under the following conditions:

1. That I and my daughter have read and understood the information in the study cover letter.
2. My daughter's involvement includes participating in a focus group that will take a maximum of 120 minutes and will be scheduled at a time and location convenient for the participants. The discussion during the focus group will be audiotaped.
3. My daughter will be contacted via telephone to set up a time to participate in the focus group.
4. My daughter's participation is completely voluntary and all data collected will be used solely for teaching and research purposes.
5. All information will be kept strictly confidential, accessed only by the researcher and research supervisor involved in the project. Participant names will not be identified in any documents, written or oral reports pertaining to the study.
6. My daughter may withdraw from the study at any time by simply notifying Becky Holden, and may refuse to answer any questions during the focus group. Her withdrawal from the research will have no impact on her experiences at Fort Frances High School.
7. It is not anticipated that my daughter will experience physical or psychological harm.
8. The findings of the research may be prepared for publication at professional conferences and journals.
9. The findings of the research will be shared with the Northwestern Health Unit to assist in developing youth friendly programming.
10. Data will be published in aggregate form, and no individual participants will be identified in published results without their explicit consent.
11. All data will be securely stored in a locked filing cabinet at Lakehead University for a minimum of five years.
12. I may request an executive summary of the findings upon completion of the study. These will be available through Lakehead University after fall 2009.

This study has been reviewed by the Research Ethics Board at Lakehead University and has received ethics clearance. The Office of Research Ethics at Lakehead University is available for any concerns and comments pertaining to this study. Please ensure section below is complete.

Consent to participate in a focus group interview

Name of Participant _____

Signature of Participant _____

Telephone Number: _____

Date _____

Signature of Researcher _____

Consent for the focus group interview to be Audiotaped

Name of Participant _____

Signature of Participant _____

Date _____

Signature of Researcher _____

Parental Consent to allow daughter to participate in a focus group Interview

Name of Participant _____

Signature of Parent/Guardian _____

Date _____

Signature of Researcher _____

Parental Consent for the Focus Group Interview to be Audiotaped

Name of Parent _____

Signature of Parent/Guardian _____

Date _____

Signature of Researcher _____