Determinants of Disengagement of Adolescent Females in Physical Education:

A Grounded Theory Analysis

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Review of Literature

The purpose of this study was to investigate girls' high school physical education experience. More specifically it was to establish the key determinants that influence the disengagement of physical education participation among female adolescents. The following literature review will be divided into four sections: physical activity, physical education, Harter's competence motivation theory and grounded theory. The physical activity section will discuss the importance of physical activity, the growing concerns of physical inactivity, and physical activity rates among youth and more specifically female youth. The relationship between physical activity and physical education and the reasons for physical education participation and disengagement among female youth are the two main subcategories that will be addressed in the physical education section. The third section, Harter's competence motivation theory, will begin with a brief overview of various motivational theories followed by a more specific description of competence motivation theory. Finally, the characteristics of grounded theory will be described. Competence motivation theory and grounded theory were the theoretical models guiding this study. The competence motivation theory shaped the interview guide while grounded theory influenced methodological procedures during data collection and data analysis.

Physical Activity

Physical Activity, Exercise, and Physical Fitness Definitions

The terms physical activity, exercise and physical fitness are often used in the same context. In a paper titled 'Physical Activity, Exercise and Physical Fitness: Definitions and Distinctions for Health' it is clear these terms hold very different

meanings (Casperson, Powell, & Christensen, 1985). The definition of physical activity is "any force exerted by skeletal muscles that results in energy usage above the level used when the body's systems are at rest" (Donatelle, Davis, Munroe, & Munroe, 2001, p.212). A common method of measuring physical activity is to determine total energy expenditure through physical activity performed during sleep, occupation and leisure (Casperson et al., 1985). Leisure time physical activity can be further divided into sports, conditioning exercises, household tasks (for example, yardwork and household chores) and other activities (Casperson et al., 1985). Finally, physical activities may be categorized according to intensity level: light, moderate, or heavy.

Physical activity and exercise are often used interchangeably. One of the reasons is that exercise is a subcategory of physical activity (Casperson et al., 1985). However, exercise is physical activity that is "planned, structured, repetitive and purposeful" (McArdle, Katch & Katch, 2001, p.871). Finally, physical activity occurs when an individual performs different movements while physical fitness are qualities that individuals already acquire or attain. Greenberg, Dintiman, Oakes, Kossuth, and Morrow (2004) define physical fitness as "the ability to meet life's demands and still have enough energy to respond to unplanned events" (p.2). Physical fitness can be measured through two different components: health-related fitness and skill-related fitness (Caperson et al., 1985). Examples of health-related fitness components include cardio-respiratory function, body composition, flexibility, muscular strength, and muscular endurance while, agility, power, reaction time, coordination, balance, and speed are skill-related fitness components.

The main focus of the current study will be physical activity. However, the terms physical fitness and exercise will likely enter the conversation with participants.

Benefits of Physical Activity

Physical Activity and Disease Prevention

Physical activity should be an integral part of one's lifestyle to improve overall health and wellbeing (Greenberg et al., 2004). Being physically active can reduce the risk of cardiovascular disease, type 2 diabetes, and some cancers (World Health Organization, 2007). Both cardiovascular disease and cancer are the first two leading causes of death in North America (McCardle, Katch, & Katch, 2001). A review performed by Wannamethee and Shaper (2001) revealed a 40- 50% reduction in the risk of stroke and coronary heart disease (CHD) among individuals who are physically active. Studies examining cancer and physical activity are regarded as a fairly new field (Bauman, 2004). Much of the research reveals how regular physical activity can reduce the risk of numerous forms of cancer (Bauman, 2004). Thune and colleagues (1997) researched the impact of physical activity and the risk of breast cancer. Their longitudinal study consisted of 25, 624 women between the ages of 20 to 54 who were required to complete a health survey. Researchers were able to conclude that women who exercised at least four times a week were at a reduced risk for breast cancer.

While, results such as these are promising it is important to perform epidemiological reviews to update the evidence and demonstrate that physical activity continues to bear positive effects on health (Bauman, 2004). In a more recent study, Frieddenreich and Orenstein (2009) tried to determine whether past research concerning the positive relationship between physical activity and the reduced risk of cancer was

valid. They concluded that a positive correlation between physical activity and reduced risk of breast, colon and prostate cancers was credible. However, it was felt that the beneficial effect of physical activity on other cancers (e.g. lung, testicular, ovarian, and thyroid cancers) needed further study. The researchers agreed that despite the fact that more evidence should be established there is no harm in adopting the guidelines on physical activity for cancer prevention, given that there are clear health benefits for physical activity with other chronic diseases (Frieddenreich & Orenstein, 2009).

Physical Activity and Physiologic Function

Physiological decline can be significantly altered through proper exercise and nutrition (Fleischmann et al., 1998; Kohno et al., 2000; as cited by McArdle et al., 2001). For instance, an individual who is physically active has a 25% higher aerobic capacity than a sedentary person within the same age group. Therefore "an active 50 year old person often maintains the functional level of a 20 year old" (McArdle et al., 2001, p.877). A more specific example of the positive relationship between physiologic function and physical activity is how regular physical activity can help strengthen bones and muscles (Center for Disease Control & Prevention, 2008). This can be especially important for older adults as this assists in the prevention of hip fractures and helps to manage arthritis pain (Center for Disease Control & Prevention, 2008).

Another reason for maintaining strong bones is to help prevent osteoporosis. According to Osteoporosis Canada (2009) osteoporosis affects 2 million Canadians each year. With this disease individuals are more susceptible to hip fractures (Osteoporosis Canada, 2009). A research group studied osteoporotic fractures in 9704 women to determine if physical activity is related to lower incidence of hip, wrist and vertebral

fractures (Gregg, Cauley, Seeley, Ensrud, & Bauer, 1998). Findings revealed that participants who demonstrated higher levels of physical activity (leisure time, sport activity, household chores) and fewer hours of sitting were at a reduced risk for hip fracture.

Physical Activity and Weight Control

An additional benefit of regular physical activity is its relationship to healthy weight maintenance (Greenberg et al., 2004). Lahti-Koski, Heliovaara, and Vartiainen (2002) investigated the effects physical activity, food choices, alcohol consumption, and smoking had on body mass index (BMI) and obesity. Through a survey of 24,604 men and women between the ages of 25-64, it was found that leisure time physical activity and daily vegetable consumption was inversely correlated to obesity (Lahti-Koski et al., 2002).

Physical activity and weight control may also play an important role among the youth population as well. For instance, one study determined the relationship between environmental influences, physical activity, and weight status among 8 to 16 years olds (Dowda, Ainsworth, Addy, Saunders, & Riner, 2001). After analyzing the surveys of 2791 participants the results revealed that boys and girls who were involved in an exercise program or on a sport team were less likely to be overweight (Dowda et al., 2001).

Physical Activity and Psychological Well-Being

While physical activity has demonstrated a positive relationship towards disease prevention, physiological function and aging, it is important to also discuss the psychological benefits of physical activity. For instance, regular exercise can be seen as a

means to manage stress (Greenberg et al., 2004). Through exercise the body produces endorphins which are neurotransmitters known to create exhilarated and relaxed effects on both the brain and the rest of the body (Greenberg et al., 2004). Hassmen, Koivula, and Uutela (2000) studied the psychological effects associated with physical exercise with 3403 participants between the ages of 24-64. Assessments included exercise habits, perceived health and fitness, Beck Depression Inventory, State-Trait Anger Scale, Cynical Distrust Scale, and the Sense of Coherence Inventory. Results showed that regular exercise was positively related to psychological well-being. For instance, participants who exercised on a regular basis (2-3 times a week or more) experienced less stress, anger, cynical distrust, and depression compared to those who had minimal exercise or did not exercise (Hassmen et al., 2000).

It is clear that physical activity is associated with numerous positive outcomes. In fact, "regular physical activity improves more than 50 different physiological, metabolic, and psychological aspects of human life" (Donatelle et al., 2001, p.212). All of these factors contribute to increased longevity and greater quality of life.

<div align="center">Physical Inactivity</div>

Despite the benefits of physical activity, rates of sedentary behavior are still quite high. Only 44% of the Canadian population, 20 years of age and older, is considered to be active (Canadian Fitness and Lifestyle Research Institute, 2004). From this percentage 24% are moderately active while the remaining 20% are active. As adults get older their activity levels decrease and women become less active than men. The Canadian Fitness and Lifestyle Research Institute (CFLRI, 2005) states "if Canadians were to become

more active, there would be; 26% fewer deaths from type II diabetes, 20% fewer deaths from colon cancer, and 22% fewer deaths from cardiovascular disease" (p.1).

Physical Inactivity and Youth

Various groups (e.g, the CFLRI and the Public Health Agency of Canada) have tried to understand and educate the general population on physical activity through studies and guides such as the Physical Activity Monitor (PAM) and Canada's Physical Activity Guide. The World Health Organization (WHO) believes that "patterns of physical activity acquired during childhood and adolescence are more likely to be maintained throughout the lifespan, thus providing the basis for active and healthy living" (2007, p.1). Physical activity is just as important for young people if not more than older individuals as it helps to build and maintain healthy bones, muscles and joints (WHO, 2007). According to WHO (2007), physical activity for children and adolescents facilitates integration with others, a sense of achievement and self-confidence, expressing themselves and having social interactions. The Health Behaviours in School-Aged Children (HBSC) survey indicated that participants who exercised frequently were more likely to maintain positive peer relationships and eat well (WHO, 1998).

Unfortunately, physical activity rates among youth are not any better than older groups; 51% of Canadian youth are sedentary with a disappointing 18% accumulating enough physical activity to meet the international guidelines for optimal growth and development (CFLRI, 2004). Every year Active Healthy Kids Canada (2009) releases a report card on physical activity, and once again Canada has scored an "F". One explanation for low activity rates and increase in obesity among youth may be attributed to the increase of television watching, playing video games, and using the computer

(Active Healthy Kids Canada, 2009). According to Zimmerman, Christakis and Meltzoff (2007), the average age at which children began to watch TV was four years in 1971, but today it is five months.

Physical Inactivity and Gender Differences

Katzmarzyk and Arden (2004) confirmed that gender differences exist regarding levels of participation in physical activity. When comparing girls to boys, only 12% of teenage girls and 27% of teenage boys meet the international guidelines for optimal growth and development (CFLRI, 2004). Similar to adults, activity rates among adolescents decrease as they get older (CFLRI, 2004). On the other hand, physical activity levels among boys remain constant until approximately 16 years of age and then drastically decline (Katzmarzyk et al., 2004). For instance, 56% of youth between the ages of 15 to 19 are sedentary compared to 51% of youth between the ages of 12 to 14 (CFLRI, 2004). Teenage girls display higher rates of inactivity in both age categories; 63% 15-19 years and 55% 12-14 years compared to boys, 44% 15-19 years and 43% 12-14 years (CLFRI, 2004).

Dowda and colleagues (2001) have commented about the important role schools can play in promoting physical activity. More specifically, "school based interventions have shown that physical education classes can provide vigorous physical activity and promote skills necessary for developing good activity patterns" (Perry CL, Stone EJ, Parcel GS, et al, 1990, as cited by Dowda et al., 2001).

Physical Education

Schools provide children with the opportunity to be physically active (WHO, 2007). Physical education focuses on the development of health, moral (concept of fair

play, difference between right and wrong, helping others), and social development, in addition to physical skill acquisition (Sallis & McKenzie, 1991). It also promotes lifelong physical activity participation (McKenzie, Sallis, Kolody, & Faucette, 1997). Sallis and McKenzie (1991) believe that "school physical education is the only major institution that can address the health-related physical activity needs of virtually all children" (p.124). Researchers such as Corbin and Pangrazi (2003) argue that physical education programs should meet physical activity guidelines, which would amount to 60 minutes per day. This idea is further supported by Healthy People 2010 that provides health objectives for the U.S.A. (U.S. Department of Health & Human Services, 2000). It appears that many believe that physical education has a major role to play in promoting physical activity.

Sadly, many schools' physical education programs are not offered frequently enough to help students meet the recommended levels of physical activity (Fairclough & Stratton, 2006). However, we must not ignore the fact that "physical education should be seen as one school-based outlet for physical activity, which complements the opportunities afforded to students before and after school, at lunchtimes, during break/play times, and in the community" (Fairclough & Stratton, 2006). In addition, schools seem to have the greatest potential in creating a public health impact since it is one of the only institutions where nearly all children can be reached (Standage, Duda & Ntoumanis, 2003).

Unfortunately, some studies have reported that participation and interest levels in physical education classes decrease as students get older (Van Wersch, Trew, & Turner, 1992; Papiaoannou, 1997). According to Chen and Ennis (2004), once high school

students have met the minimal credit requirements in physical education for graduation, many will not take additional physical education classes. The National Center for Education Statistics (1996) confirmed that enrollment in high school physical education decreased by 30% from 1988 to 1996. A Canadian study discovered enrollment rates in physical education classes in grade 9 to 12 dropped significantly from 95% to 45% (Allison & Adlaf, 2000). According to the CFLRI (2004) only 46% of children and youth really enjoy physical education classes. This is a cause for serious concern. This leads researchers to study and discover the reasons why there is a lack of interest among students to participate in physical education.

Garn and Cothran (2006) studied both the students' and teachers' perceptions of fun in physical education class. Three key themes that emerged were the teacher, the task, and the social aspect. The teacher was seen as a critical factor that contributed to the students' enjoyment. One student commented, "…I had the best gym teacher. He liked what he did. He was young and participated with us. He was fair and fun". Students also discussed teachers who decreased their level of fun. For instance, not paying attention to the students, showing that they did not care, or displaying favoritism were the main problems. One mentioned how "the teacher never came out of the office". The second theme, the task, was associated with personal competence or feelings of achievement. Feelings of fun were experienced when they felt competent in the task. On the other hand, when students were unsuccessful in accomplishing the task, there was a lack of fun as well as a lack of meaning. For example one student commented:

"We would do stupid skills tests like doing a certain number of pushups for an A. This didn't teach me anything like how to train to get stronger to do more pushups. It just showed me who the strongest kids in the class were."

Finally, being able to spend time with peers was of great importance. Physical education was viewed as fun if students had the opportunity to "hang out" with friends. New activities were more enjoyable if they could be done with peers. Competition was also briefly discussed but the researchers did not consider it as one of their themes as they felt it was "an interesting but inconclusive topic that emerged…" (Garn & Cothran, 2006, p. 289).

Physical Education and Gender Differences

The study by Garn and Cothran (2006) discussed how the teacher, personal competence and peers were critical factors that contributed to enjoyment in physical education. It is equally important to note that both male and female students were addressed in this study. It is clear that participation among adolescents is of great concern as one out of every five teenagers opt out physical education (CFLRI, 2004). However, there should be particular focus on female adolescents since they do not report enjoying physical education as much as boys (CFLRI, 2004). Reasons for disengagement may be that the curriculum in physical education is intended for those who are white, middle class, Anglo Saxon, and male (Coakely, 1994). While physical education content is supposed to be neutral, that is, geared for all, many programs do the exact opposite by focusing on physical skills, which translate into strength, speed, and power (Amour, 1999). This can be seen in many physical education programs where traditional sport-based curriculum continues to be taught (Azzarito & Solomon, 2005). According to

Azzarito and Solomon (2005) this type of curriculum discriminates against the participation of girls. With the introduction of Title IX in the U.S., physical education classes were encouraged to become coeducational (McKenzie, Prochaska, Sallis, & LaMaster, 2004). It was felt that offering mixed classes was the best way to provide equal access to curriculum activities (Flintoff & Scraton, 2005). However, some teachers feel that it is difficult for boys and girls to achieve success when being taught together in the same class (Napper-Owen, Kovar, Ermler & Joella, 1999).

Part of this may be due to the fact that boys and girls have different degrees of interest when it comes to physical activity participation, as mentioned above. It is believed that gender biases continue to be present in physical education classes (Napper-Owen et al., 1999*;* Azzarito & Solomon, 2005). These biases may be difficult to overcome given that the curriculum has a tendency to emphasize "male values of competition, aggression, and toughness" (Napper-Owen et al., 1999). With this in mind it is evident that girls are becoming "turned off" of physical education (Flintoff & Scraton, 2001). A middle school physical activity and nutrition project (M-SPAN) examined ways to increase physical activity levels in middle schools since girls were less active than boys (McKenzie, 2001). Girls were less active during free play, drills working on skill development, and game play. According to McKenzie (2001), these results demonstrate that physical education does not provide girls with equal opportunity to be physically active. This study also presents little support of the notion that compulsory coeducational classes offer unbiased opportunities for physical activity participation (McKenzie, 2001).

While, it was not clearly stated as to why physical education did not provide equal opportunity for girls to be physically active the following study may shed some light.

Following a feminist postructuralist perspective Azzarito, Solmon and Harrison (2006) performed a qualitative study with 15 female students who participated in coeducational physical education classes. After collecting field notes and performing informal and formal interviews with the female students results revealed that participants perceived gender stereotypes as a barrier towards their participation in physical education. Many participants saw the value in physical education and wanted to participate however, gender stereotypes and expectations (e.g. which games are feminine) affected their choice to engage in certain physical activities and disengage from others.

Physical Education and Females

Since the focus of this literature review revolves around the notion of disengagement of physical education among female adolescents it is important to discuss what is meant by the term disengagement. To disengage is to withdraw from something previously involved in. In this case examples of disengagement in physical education class could be having a parent write a note to be excused, sitting on the bench during class, making an excuse not to participate, or skipping class.

A study titled Negotiating a Physical Identity: Girls, Bodies and Physical Education (Garrett, 2004) focused on gender, the body, and physical experiences among females in physical education. Through interviews, results revealed sport-based curricula generally equated with negative experiences among participants. Some of the factors contributing to the females negative experiences in physical education were related to the public nature of physical education and skill level. In physical education performance is often made public. Consequently, everyone in class is able to see whether performance was a success or a failure. In addition, in this study the focus was on winning therefore

increasing pressure to perform. The lack of opportunity to learn physical skills also hindered participants' engagement in class. As a result, some females felt incapable to execute the skill, were scared to fail, or feared that they may be judged by their classmates. All of these factors contributed to disengagement in physical education class (Garrrett, 2004). Hastie (1998) confirmed that skill improvement plays an important role when it comes to girls enjoying physical education class. Information was derived through interviewing 35 girls during a field hockey unit in physical education class. Results indicated taking control in the lessons, playing games, working with peers, and team affiliation were all factors that contributed to the participants having fun.

Flintoff and Scraton (2001) performed a study interviewing 21 15-year-old girls regarding their opinions towards physical activity and physical education. Many of them viewed physical activity as a way to stay healthy and fit. It is also a way to develop and improve physical skills. Although physical activity was viewed as important, the girls did not feel physical education was a priority compared to the other classes. Flintoff and Scraton state that the participants saw physical education as "[…] a break from academic work; it was rarely viewed as worthwhile in its own right" (p.10). Results also showed the importance of providing a choice of different activities as well as the type of activity. Therefore, while increasing the number of choices was a key factor, the girls felt it was equally important that the activities offered to them be of value. More specifically, activities offered could relate to participants physical activities performed outside of school. Finally, the teacher affected the participants perceptions towards physical education. Some girls discussed how their teacher did not care about them. Others discussed how qualities such as, being fair, encouraging, and approachable contributed to

the makings of a good teacher. While, many of the participants in this study were considered to be physically active this did not equate to them enjoying their physical education class. This study demonstrated how the participants were aware of the importance of physical activity although they did not understand the purpose of physical education. More specifically participants valued physical activity and were aware of its importance unfortunately it was felt that physical education class did not contribute in achieving these goals.

Gibbons and Humbert (2008) studied 90 girls in grades 6 and 7 enrolled in coeducational physical education classes. The objectives were to determine physical activity preferences, barriers toward physical education participation, and their knowledge of the important health benefits physical activity. Results were viewed as four themes: variety and choice of a lifetime, personal competence, a healthy body is a moving body, and emerging sense of gender equity (Gibbons & Humbert, 2008). The themes of variety and choice of a lifetime and emerging sense of gender equity support Flintoff and Scraton's (2001) findings. Participants in Gibbons and Humbert's (2008) study mentioned how it was not only important to provide a wide variety of physical activities but to have a say in the choices offered. These young adolescents also felt that the activities being taught should be of relevance to them now and to their future lifestyle. The girls also discussed that some of their teachers paid greater attention to the needs and interests of the boys. Finally, personal competence in skill was another important factor. Participants indicated how there was little practice time to improve on certain skills being taught in class. As a result, feelings of frustration and worry would set in and affect their sense of personal competence.

Findings by Napper-Owen, Kovar, Ermler and Mehrhof (1999) confirmed that many school physical education programs continue to promote traditional male activities with a focus on competition and physical contact. Another important finding about the 180 schools was that 70% of the physical education teachers were male while the remaining 30% were female. This should be carefully considered since female students regard their female coaches and teachers as greater role models (due to a personal relationship) than females viewed through the sports media (Lenskyj, 1994). Since males dominate the physical education teaching field this makes it difficult for female students to interact with a female role model. As a result, this may negatively impact their physical education and sport participation (Napper-Owen et al. 1999).

The previous studies demonstrate how determinants for disengagement among females in physical education cannot be attributed to one or two factors. Topics such as physical competence, having a good teacher, peer acceptance, providing choice, having time to improve on skills and gender equity seemed to be important issues for females. This demonstrates that multiple factors contribute to a more enjoyable and positive physical education experience among female adolescents.

Physical Activity and Sport Theories

The beneficial health related outcomes associated with physical activity, how physical education can promote physical activity and how girls view physical education differently than boys have been discussed. More specifically, the research demonstrates how reasons for disengagement in physical education are multi-faceted. Some of the main conclusions to explain female disengagement are the curriculum content, the negative perception associated toward physical education, the lack of choice in activities,

allowing time to develop skills, being able to interact with peers, gender equity, and the female teacher as a role model. As previously mentioned physical education plays an important role in educating and promoting the notion of adopting and maintaining a physically active lifestyle among our children and youth (Azzarito & Solomon, 2005). Unfortunately from the research mentioned above it is clear that these objectives are not being met since physical education is not enjoyed by all, more specifically many female adolescents. Researchers (Azzarito & Solomon, 2005; Gibbons & Gaul, 2004; Lawson, 1998) believe it is time for the physical education program to be completely altered so that all students are given the opportunity to participate. However before this can be achieved it is important to identify and explain the factors constraining and alienating female adolescents from participating in physical education class**.**

Given the fact that physical education is multidimensional it is important to look at various constructs that extend beyond its realm. In studying related issues such as physical activity and sport, this may give us a greater understanding as to why a high percentage of female adolescents disengage from physical education. Social psychological factors that affect physical activity and sport participation might be a starting point. Early research examining reasons for participation and disengagement in sport among children began in the 1970's (Weiss & Williams, 2004). These studies were performed to assist youth organizations understand reasons for increasing and decreasing enrollment in their programs and discover what were the most popular sports by age, gender and community type (Gould, 1982). It was researchers by the name of Alderman (1978) and Wood (1976) who initiated the first studies looking at the reasons why some children participate in sport and what led others to withdraw. Since little research had

been performed in this field various motivation models were borrowed from the social psychology domain (Weiss & Williams, 2004). Alderman (1978) and Wood (1976) applied the incentive motivation model by Birch and Vernoff (1966) (Weiss & Williams, 2004). After studying 2000 Canadian young athletes participating in a wide variety of sports it was discovered that the strongest predictors for participation were "affiliation (making friends), excellence (doing something well), arousal (seeking excitement), and esteem (recognition of one's achievements)" (Horn, 2008, p.116). This research led to the development of many more studies during the 1970s and 1980s (Weiss & Williams, 2004). A review performed by Weiss and Ferrer-Caja (2002) discovered that many of the results in their studies were comparable to that of Alderman and Wood. Findings revealed three reasons for engaging in sport: (a) "to develop or demonstrate physical competence or adequacy (e.g., learn and improve skills, be physically fit, get stronger, achieve goals), (b) to attain social acceptance and approval (e.g., make friends, feel part of a group, receive coach/parent approval), and (c) to enjoy experiences related to sport involvement (i.e. have fun, feel excited)" (Weiss & Ferrer-Caja, 2002 as cited by Weiss & Wiliams, 2004, p.224).

With the help of these early studies various theoretical models would be created in order to explain reasons for participation and disengagement in sport (Horn, 2008)). Findings from previous research demonstrate that a multidimensional focus is necessary as theories of motivation cannot simply consider one or two factors (Horn, 2008). Seeing the complexity that lies within understanding motivational orientations and participation behaviors, current theories must take into account a combination of social-environmental

and individual difference factors to explain motivated behavior (Weiss & Ferrer-Caja, 2002).

<div align="center">Competence Motivation Theory</div>

An integrated theory that has become quite popular in the sport and physical activity domain is the competence motivation theory (Harter, 1978; Horn, 2008). This model helps to understand peoples' behaviors and motivational patterns in both the sport and the physical activity fields (Weiss & Ferrer-Caja, 2002). Harter's model falls under one of the four theories of achievement motivation (need achievement theory, attribution theory, achievement goal theory, and competence motivation theory). It can be viewed as a means to explain the factors that motivate individuals to act (Weinberg & Gould, 2003). Harter developed the theory by revising and extending White's (1959) model of effectance motivation. The competence motivation theory is a multidimensional model "that influences and is influenced by a number of cognitive, affective, social and behavioral factors" (Weis & Williams, 2004). This model also takes on a developmental perspective whereby age and gender differences are considered (Weiss, Corbin, & Pangrazi, 2000). This construct proposes that feelings of competence and self worth affect various emotional states (e.g., anxiety, enjoyment, pride), which are the main determinants of motivation. For example, if a young hockey player has a lot of confidence in herself, feels skilled, and thinks she is improving, this will increase positive feelings such as enjoyment, satisfaction, and contentment. These emotional states will lead to increased motivation which is also likely to increase the desire to continue to participate in the activity (Weinberg & Gould, 2003). Another factor that should be added to this example is the influence of individuals such as parents, coaches and peers. If the

parents of this young hockey player provide feelings of approval and positive reinforcement then this will positively influence perceptions of competence and affective states. This in turn will result in high levels of competence motivation to continue to aspire to be successful in hockey (Weiss & Williams, 2004). While, this example demonstrated a positive outcome, Harter believes that the factors mentioned above (e.g. positive affect and reinforcement from significant others) do not suffice to change one's level of competence motivation (Horn, 2008). Instead she feels it is important to consider that "success at optimal challenges, or difficult but realistic goals, provides the greatest feelings of positive affect and intrinsic motivation" (Horn, 2008, p.118)

The previous example demonstrates what occurs during a successful mastery attempt; however we must consider that not all experiences will be positive. This is an important element that Harter refines through White's original model. In the competence motivation theory both successful and unsuccessful experiences are taken into account. As a result, not only does this theory regard successful and unsuccessful attempts as two separate entities, but it is able to consider what occurs when there is a balance of experiences that result either in success or failure. For instance, how is an individual's competence motivation affected when positive mastery attempts occur along with unsuccessful mastery attempts?

The main concepts of Harter's theory have been summarized by Weiss and Williams (2004) and include "developing and demonstrating competence, attaining social acceptance, and enjoyment of one's experiences. These three concepts will now be elaborated upon under the headings; perceptions of competence, social influences, level of affect/emotion and previous physical activity experiences.

Perceptions of Competence

Perceptions of competence can be described as a persons' opinion about their skill level in a specific domain such as, school or physical activity. (Weiss, Corbin, & Pangrazi, 2000). Youth who report increased levels of physical competency are more likely to take pleasure in and remain involved in the activity compared to youth who report decreased levels of physical competency (Weiss et al., 2000). Maintaining high levels of interest and experiencing enjoyment increases youth's motivation to be physically active. There are various ways individuals are able to identify their level of perceived competence; outcome, social, and internal sources (Weiss et al., 2000). Outcome sources can be seen as knowing what place you finished in a race, comparing your result to a standardized test, or receiving a medal in a tournament. When individuals compare themselves to their peers and receive reinforcement or feedback from a coach, parent, or teacher these are known as social sources. Finally, recognizing improvement, experiencing enjoyment, accomplishing goals and exerting effort are forms of internal sources.

When referring to gender and age these three sources are used differently. Children (ages 5-9) have a tendency to rely on parents, having fun, and completing basic skills as their main sources of feedback (Weiss et al., 2000). As children get older (10-15 years) there is less of a dependence on a parental feedback, and peer comparison becomes more important. The level of competition increases and those who perform better than their peers will feel higher levels of physical competence. Teachers and coaches also play an important role in providing feedback and this allows the children to see how they compare to their peers. There seems to be a big shift among older teenagers (16-18 years)

as they make it clear that self-improvement and attaining their goals are main sources for evaluating personal competence. In addition, this age group finds it important to be interested in the physical activity or sport. Gender differences do not seem to emerge until the teenage years (13 years and older). Boys view "competitive outcomes and speed and ease of learning new skills as more important than girls do." (Weiss et al., 2000). Girls on the other hand, "indicate greater use of internal sources (attraction toward physical activity, achievement goals) and social sources (feedback and evaluation by adults and peers) more frequently." (Weiss et al., 2000).

Social Influences

Social influences such as parents, teachers, coaches, and peers contribute towards achieving physical competence, having fun, and the level of commitment towards an activity. These groups of people provides feedback, reinforcement, and serves as role models, which in turn has a great impact on a child's level of competence motivation. This can be seen through feelings of enjoyment, self-confidence, perception of physical competence, and motivation (Weiss et al., 2000).

Parents have the greatest impact in the early stages of a child's life, as they are the ones who initially involve their child in sport and physical activity (Fredricks & Eccles, 2004). Parents drive their child to games and practices, purchase sports equipment, and register them for lessons. Since children at a young age seek support and recognition, parents have added influence in their child's physical activity experiences. Parents influence motivation by providing encouragement and positive and negative reinforcement. By participating in physical activity, being on a sports team or coaching, parents can serve as role models for their children. Through engagement parents

demonstrate proper or improper conduct and the importance of incorporating physical activity into one's daily life. Due to differences in procedures and difference in the age groups being observed, findings studying role modeling remain to be equivocal (Fredricks & Eccles, 2003). Research performed by Babkes and Weiss (1999) discovered children had a greater level of enjoyment, intrinsic motivation, and perceptions of competence when their parents were viewed as good role models compared to children whose parents were not seen as good role models.

Seeing parents as role models can be especially important among females. Female college athletes reported that participating in games and sports were part of their daily routine with their families and that at least one if not both of their parents participated in sport (Weiss & Knoppers, 1982). How parents value fitness seems to have an added benefit for girls compared to boys. Brown, Frankel, and Fennell (1989) discovered that female adolescents were more likely to remain involved in physical activities in school and in the community if their mothers also participated in athletics. Another study by Greyson and Colley (1986) supported the notion that parents as role models were significant in their daughters' physical activity participation. The same study also discovered how parent participation in sport does not seem to be as strong a predictor of their sons' participation in sport.

Because males and females are differentially affected in sport based on parental involvement it is important to understand these gender differences. According to Eccles (1993), sons often receive greater support from their parents to participate in sport and physical activity than daughters. Parents spend their time differently with their sons compared to their daughters. For instance, parents are more inclined to play sports with

their sons and take them to sporting events. Parents may tend to support the notion that girls are more suited for certain sports than others by registering them for 'female oriented' activities such as dance, ice-skating, and gymnastics (Fredricks & Eccles, 2004). These examples reveal how boys and girls are encountering different types of athletic encouragement.

With regards to the physical domain the coach is the most powerful socializing agent (Weiss & Ferrer-Caja, 2002). Physical education teachers and coaches begin to have a strong effect on athletes and students during late childhood and adolescence (Harter, 1992). The manner in which a coach organizes the practices and reacts to athletes' mastery attempts and outcomes can greatly impact children's and adolescent's competence perceptions. Amorose and Horn (2000) performed a study with adolescent and college female athletes relating to coaching feedback and competence motivation. Results revealed athletes had higher levels of perceived competence, interest and enjoyment from coaches who gave more praise and instruction and less punishment.

Considerable amount of research has been done in the area of coaching, however, there seems to be a lack of research examining the types of feedback physical education teachers provide and how this relates to a students' perceived competence (Horn, 2002). Since physical education teachers' nature of the job is similar to that of an athletic coach examining studies that have performed investigating how coaches affect their athletes perceived competence may be helpful. Conversely, further research needs to be performed with a focus solely on physical education teachers. Findings may reveal additional information that would not relate to coaches.

As previously mentioned youth are able to assess their ability in the physical domain through peer comparison (Weiss & Williams, 2004). Unfortunately, compared to parent and coach influence fewer studies have been performed concerning the role close friends, classmates and teammates may bear on children and adolescents. Nonetheless, studies that have been performed on peer influence have demonstrated that peer acceptance and perceived physical competence are strongly related (Horn, 2008), For example, children (ages 8-13) who felt they had high levels of physical competence also viewed themselves as being popular within their peer group (Weiss & Duncan, 1992).

While friends may be part of the peer group, peers and friends are not considered to be the same. For instance, "friendship is a specific peer construct pertaining to a mutual, reciprocated relationship between two individuals" (Horn, 2008, p.237). Comparable to peer relationships, friendship is also strongly associated with affect, perceptions of competence and motivational orientation (Horn, 2008). It is believed that close, positive and quality friendship is related to greater enjoyment, increased intrinsic motivation and a greater chance of remaining committed to the sport (Weiss & Smith, 2002).

Level of Affect/Emotion

Level of affect/emotion is an important construct incorporated into the competence motivation theory. Affect or emotion refers to an individuals' feelings. These feelings can be considered as either negative or positive responses. For example, positive affective responses could be, enjoyment, pride and pleasure. On the other hand, negative affective responses could be, anxiety, shame or sadness (Weinberg & Gould, 2003). An important addition Harter made to White's original model was that

perceptions of competence and control are vital outcomes of affective responses (Harter, 1978). It is these affective responses that influence competence motivation (Weinberg & Gould, 2003). If athletes do not receive encouragement from parents, peers, and coaches, they do not see signs of improvement and have low self-esteem then this will result in negative affective responses such as anxiety, embarrassment, and unhappiness. These feeling will lead to a decrease in motivation, which may end in discontinuing the activity.

Previous physical activity experiences

A strong component of the competence motivation theory is its developmental framework. Harter argued that White's model was too global and did not consider how his model might have affected people at different stages in their lives (Harter, 1978). However, Harter considers developmental trends at all ages. Harter created perceived competence scales to accommodate three different age groups, early childhood (ages 4-7), middle and late childhood (ages 8-13) and adolescence (ages 14-18). Harter proposed that these three age groups perceive competence in different ways. For example, young children view competence as a more singular factor crossing areas such as school, sports, and social. In middle and late childhood there is a greater understanding that competence can be divided into different domains such as social acceptance, behavioral conduct, academic and physical appearance. During adolescence in addition to the domains listed in middle to late childhood this age group also considers close friendship, romantic relationships and job competence to be important components of competence (Horn, 2008). It is important to note that sources of information to assess physical competence changes throughout the age groups. For example parents significantly affect children's and early adolescent's competence perceptions, affect and motivation. However, peers

and close friends are the most important source of support as a person reaches late adolescence and adulthood (Horn, 2008).

Harter's competence motivation theory is an appropriate model to apply when studying sport, physical activity and physical education. Strong findings support the various constructs and demonstrate the solid relationships that exist in Harter's model. This can be seen through the associations "between perceived competence and cognitions, affect and behavior; developmental trends in perceived competence; and influence by significant adults and peers on competence motivation" (Horn, 2008, p.127). Despite its comprehensive and multidimensional ideas this model stills needs to be explored further. Horn (2008) suggests since engagement in sport and physical activity decreases significantly during adolescent years this would be an important period to investigate factors that will increase participation. Findings from these studies may also assist in determining reasons for disengagement in physical education among female adolescents.

<div align="center">Grounded Theory</div>

Disengagement in physical education among female adolescents cannot be explained solely by one or two factors. For example, the curriculum, the teacher, the social aspect, having fun, and perceived competence are all issues that affect an individual's desire to participate or not in physical education. Given the multifaceted nature of understanding disengagement, a flexible theory to guide this study such as grounded theory was necessary.

Grounded theory is the most frequently used research method in the qualitative field (Morse et al., 2009). Since its creation this method has been used in a variety of

social science domains including psychology, nursing, education, and gender studies (Glass & Strauss, 2007). The main concept behind grounded theory is that one creates a theory instead of examining an existing one (Patton, 2002). As a result, grounded theory is the exact opposite of traditional research where a study beings with the research and development of a hypothesis. Instead the first step to grounded theory begins with the data collection process. Once various analytical procedures have taken place then this provides the basis for the creation of a theory/hypothesis (Charmaz 2000). This method puts great emphasis on inductive reasoning and applying a constant comparative approach (Patton, 2002). Grounded theory allows the researcher to direct most of the attention on the data collection. More specifically, this model acts as a guideline for collecting, examining, and conceptualizing qualitative data to create a theory (Charmaz, 2001). By allowing the researcher to form an alternative theory, new meanings of the topic being studied can be considered (Patton, 2002). In other words "grounded theory is a way of thinking about the data…so that the end result is a theory that the scientist produces from data collected by interviewing and observing everyday life" (Morse et al., 2009, p.18). The following pages will describe the various methodological techniques of grounded theory.

Sampling Size

Proper practices in grounded theory begin during data collection. There is no golden rule regarding the size of the sample (Bryant & Charmaz, 2007). Instead, seeking additional participants ceases once saturation is achieved. Saturation occurs when all information required to understand the phenomena has been revealed (Johnson &

Christensen, 2004). That is, if additional interviews do not disclose any new information, then the researcher can stop collecting data (Bryant & Charmaz, 2007).

Sampling Techniques

Grounded theory follows four key sampling approaches: convenience sampling, purposeful sampling, theoretical sampling, and theoretical group sampling (Bryant & Charmaz, 2007). Convenience sampling refers to a sample of individuals who are accessible and/or likely to participate in the study (Johnson & Christensen, 2004). From a grounded theory perspective this approach provides the researcher with an overview of the phenomenon by establishing the extent, the limitations, and what direction the study is heading (Bryant & Charmaz, 2007). One of the main limitations of convenience sampling is a lack of variability within the participants. Consequently, this may restrict the researcher from seeking additional information because it is believed saturation has been reached. Although convenience sampling may not be the ideal sampling technique, researchers often use it due to its practicality (Johnson & Christensen, 2004). Grounded theorists believe that researchers can start with convenience sampling but should also apply additional sampling strategies within the same study (Bryant & Charmaz, 2007).

Once researchers have a general indication of what direction the study is taking, purposeful sampling can then be used (Bryant & Charmaz, 2007). This type of sampling refers to a group of individuals who fit the characteristics of what is being studied. In this case, the researcher will try to find participants who are experiencing the phenomenon (Johnson & Christensen, 2004). Since this technique is a nonrandom sampling method, it has limitations similar to convenience sampling. Nonetheless, this method allows participants to provide rich descriptions of the experience under study.

To gain a greater understanding of the emerging categories and theory, theoretical sampling is used. Participants are sought from specific responses shared and that are significant to the study (Bryant & Charmaz, 2007). In addition, participants may be asked to clarify certain categories or complement information regarding the relationship between two categories.

The final method of sampling in grounded theory is called theoretical group interviews. Although the goal is similar to that of theoretical sampling the difference is the data collection process takes place through group interviews. This method is considered important as "these groups are intended to provide the final missing pieces of the puzzle, polish data collection, complete processes of saturation, or provide any other information that the researcher requires" (Bryant & Charmaz, 2007, p.241). This final technique should lead to saturation. Consequently, if no new information is being revealed, the researcher can move to data analysis.

Memo Writing

During data analysis memo writing is an important methodological procedure (Charmaz, 2000). Memo writing or memoing is a useful means of writing down information and ideas during data analysis. More specifically, the researcher writes memos about what they are discovering from the data (Johnson & Christensen, 2004). Examples of memos can include ideas about categories, relationships, or themes that may be emerging through the data. Finally, it is important to write memos throughout the study as it allows the researcher to investigate, clarify, and hypothesize developing themes.

Constant Comparative Method

Although grounded theory is known for establishing new theory from the data, this cannot be achieved without forming categories. However, in order to discover these categories the development of clear methodological procedures are established (Strauss & Glaser, 1967). A particular practice applied during the data analysis is a method known as constant comparative (Johnson & Christensen, 2004). This approach creates a continual exchange within the researcher, the data, and the emerging theory. The constant comparative method begins with a process known as coding.

Coding

There are three types of coding techniques: open coding, axial coding and selective coding. Open coding is the first step of the coding process. The researcher reads all the transcripts line by line. Relevant words and phrases are highlighted which allows the identification of emerging concepts (Johnson & Christensen, 2004). Line by line coding reduces the possibility of missing any important information and "forces the researcher to verify and saturate categories" (Bryant & Charmaz, 2007, p. 275). During this process constant comparison is also applied. The researcher alternates between data collection, coding, and memoing in order to avoid gathering unnecessary information. In other words, if no new data is emerging (saturation) then data collection regarding that specific category no longer continues. Within the comparative method "the researcher compares data with data, data with categories, and category with category" (Charmaz, 2008, p.517). Comparisons are first made by studying each transcript separately and comparing responses given within the same individual. This is followed by verifying transcripts from different participants and allowing categories to be compared. In

following these different steps the researcher examines both the similarities and differences within the same participant and between different participants (Giacobbi, Hausenblas, & Fallon, 2003).

After open coding is complete axial coding begins. In axial coding concepts are developed into categories (Johnson & Christensen, 2004). At this stage the researcher focuses on one category at a time. Similar to open coding, similarities and differences are examined (Giacobbiet al., 2003). By exploring and organizing the various categories within the data, more specific explanations regarding the phenomena begin to materialize (Johnson & Christensen, 2004). These steps lead the researcher into the final coding stage known as selective coding. The main objective of selective coding is to provide rich descriptions of the data in order to develop a theory. This process begins by integrating the information gathered during open and axial coding in order to gain a greater understanding of the central themes. In continuing to analyze the data with a greater focus on the central theme, the researcher is able to provide the basis for the grounded theory. Since this is the final stage of coding it is imperative that the data be rechecked to ensure errors were not made (Johnson & Christensen, 2004). Finally, findings should be compared with previous research (Giacobbi et al., 2003) to determine if further ideas should be incorporated into the research. Coding is completed when theoretical saturation is achieved (Johnson & Christensen, 2004).

It is clear that testing already existing theories and hypotheses provide important information. On the other hand, in following a grounded theory approach this may allow researchers to identify new themes. These new concepts may help in making links

between already existing theories. Finally, grounded theory can be extremely important for areas of study that lack theoretical development (Giacobbi et al., 2003).

Summary

Physical activity can be defined as "body movement produced by muscle action that increases energy expenditure." (McArdle, Katch, & Katch, 2001). Research findings previously mentioned demonstrate the numerous health benefits associated with physical activity. Regular physical activity helps to reduce certain diseases, improves physiologic function, helps maintain a healthy body weight, and improves psychological well-being.

With regards to disease prevention, being physically active can assist in reducing the risk of cardiovascular disease, type 2 diabetes, and certain cancers such as breast, colon and prostate cancers (WHO, 2007; Thune et al., 1997). Concerning physiologic function, being physically active can help strengthen muscles and the cardiovascular system (World, Health Organization, 2007). This may be extremely important for older adults since they are more susceptible to hip fractures and arthritis (Centre for Disease Control & Prevention, 2008). According to Statistics Canada (2006) the percentage of Canadians who are overweight has risen significantly in recent years. In 1978, the rate of obesity was at approximately 14% and in 2007 it has increased to approximately 25% among adults 18 years and older (Public Health Agency of Canada, 2009). This emphasizes the importance of physical activity since sedentary behaviors are related to obesity (Statistics Canada, 2006). Finally, physical activity helps to improve mental health by decreasing the chances of depression and can be seen as an effective means of managing stress (World Health Organization, 2007; Greeberg et al., 2004).

Although it is clear that physical activity is extremely important in helping to maintain a healthy lifestyle, rates of physical inactivity remain high. For instance, 56% of the Canadian population is considered to be inactive (CFLRI, 2004). When separating the Canadian population into groups, adults are less likely to be active as they get older and women are not as active as men. While this should definitely be of concern, a greater focus should be towards adolescents. Although physical activity rates among Canadian teenagers has risen from 35% (1994) to 41% (2000) these rates are still very low (CFLRI, 2004). Also, adolescents become less active as they get older and the gap between males and females broadens (CFLRI, 2004). With an increase in sedentary behavior and the prevalence of overweight and obesity, there is a growing need to promote physical activity among our youth population.

One way to promote physical activity among adolescents is in school (Dowda et al., 2001). Physical education can be seen as a means to develop and learn new motor skills, cooperate with others, seek enjoyment and discover activities that lead to lifelong participation (Sallis & McKenzie, 1991). While it is argued that physical education is not offered frequently enough to significantly increase levels of physical activity among our youth surprisingly there seems to be a lack of interest to participate. Numerous studies have discovered that enrollment rates in physical education have significantly decreased over the years (NCES, 1996; Allison & Adlaf, 2000). In addition, the enjoyment of physical education decreases with age, although teenage boys seem to enjoy this class more than girls (CFLRI, 2004).

According to Garn and Cothran (2006) factors affecting physical education participation seemed to revolve around the concept of fun and enjoyment. Participants

felt that the teacher, personal competence and spending time with peers affected their perceptions of fun in physical education class. This study addressed the concerns of both male and female adolescents, however, there seems to be lower rates of enjoyment and participation among female adolescents (Bain, 1995; Ennis, 1999; Hastie, 1998). Reasons for disengagement among the female adolescents may be explained by looking at the curriculum. While the curriculum is supposed to accommodate both males and females it is believed that this is not the case. Many researchers argue that the curriculum continues to focus on competition and caters only to those who are highly skilled (Amour, 1999). For this reason, girls may be losing interest in physical education.

Researchers are starting to become more aware of the growing need to focus our attention on determining reasons for disengagement among female adolescents in physical education. So far determinants for disengagement among females adolescents are a sports-based curriculum, a focus on competition and winning, a lack of opportunity to learn and improve on skills, a lack of choice in activities and how physical education is seen as invaluable (Garett, 2004; Flintoff & Scraton, 2001; Gibbons & Humbert, 2008). This demonstrates how determinants to disengagement in physical education are multifaceted and cannot be explained by one or two factors.

Studying matters that are associated with physical education may help us to gain a greater understanding as to why there are high rates of disengagement among female adolescents. As a result, it is important to identify the social psychological factors that affect physical activity and sport participation. A theory that is often applied in the sport and physical activity domain is the Harter's competence motivation theory (1978). One of the reasons for its popularity is because the model is multi-dimensional and

developmental. This construct proposes that feelings of competence and self worth affect various emotional states, which are the main determinants of motivation (Weiss & Williams, 2004). Therefore if an individual has gained confidence, feels skilled and notices improvement then this will lead to positive affect. However, this alone will not lead to competence motivation. Social influences are an important construct in the competence motivation theory. Parents, coaches and peers need to provide positive reinforcement and feelings of approval as this will positively influence perceptions of competence and affective states. These positive affective states and high perceptions of competence result in high levels of competence motivation. This is considered to be the key element in motivating an individual to remain engaged. This example is considered to be a perfect scenario, however, not all situations have this outcome. Harter was aware of this fact and consequently, considered experiences that result in both success and failure (Harter, 1978).

Harter's competence motivation theory is multidimensional and an all encompassing model whereby influence by significant others, motivational orientation and perceived competence are key concepts (Weiss & Williams, 2004), As a result, this theory is seen as a sound model to apply in the physical activity and physical education domains.

Since determinants to disengagement among adolescent females seems to be a complex matter it may be difficult to solely rely on a single model such as Harter's competence motivation theory. Grounded theory is an inductive process whereby a new theory emerges from the data rather than working with an existing one (Patton, 2002). Consequently, by applying grounded theory this may assist in the discovery of new ideas.

Grounded theory enables the researcher to follow strict guidelines during the data collection process. The main focuses of grounded theory revolve around the sampling techniques, memo writing, constant comparative method and coding procedures.

In reviewing the literature this allowed to gain a greater understanding of the purpose of this study, which is to establish the key determinants that influence the disengagement of physical education participation among female adolescents. In addition, a review of Harter's competence motivation theory and grounded theory helped to develop and understand the methodological procedures required in order to perform this research.

References

Active Healthy Kids Canada (n.d.). *Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth 2009*. Retrieved July 20, 2009 from http://www.activehealthykids.ca/ecms.ashx/ReportCard2009/AHKC-Longform_WEB_FINAL.pdf

Allison K.R., & Adlaf E.M. (2000). Structured opportunities for student physical activity in Ontario elementary and secondary schools. *Canadian Journal of Public Health, 91,* 371-375.

Amorose, A.J., &Horn, T.S. (2000). Intrinsic motivation realtionships with collegiate athtles' gender, scholarship status, and perceptions of their coaches' behavior. *Journal of Sport and Exercise Psychology*, 22, 63-84.

Armour, K. (1999). The case for body-focus in education and physical education. *Sport, Education and Society 4,* 5-15.

Azzarito, A., & Solomon, M.A. (2005). A reconceptualization of physical education: the intersection of gender/race/social class. *Sport, Education and Society*, 10, 25-47.

Babkes, M.L. & Weiss, M.R. (1999). Parental influence on cognitive and affective responses in children's competitive soccer participation. *Pediatric Exercise Science, 11,* 44-62.

Bauman, A.E. (2004). Updating the evidence that physical activity is good for health: An epidemiological review 2000-2003 *Journal of Science and Medicine in Sport 7, Supplement:* 6-19.

Brown, B.A., Frankel, B.G., & Fennell, M.P. (1989). Hugs or shrugs: Parental and peer

influence on continuity of involvement in sport by female adolescents. *Sex Roles,*

20, 397-409.

Bryant, A. & Charmaz, K., (2007). *The sage handbook of grounded theory*. London:

Sage Publications.

Canadian Fitness and Lifestyle Research Institute (2004). *Physical Activity and Sport*

Monitor: Local opportunities for physical activity and sport: Trends from 1999–

2004. Retrieved July 3 2007, from

http://www.cflri.ca/eng/statistics/surveys/pam2004.php

Canadian Fitness and Lifestyle Research Institute (2005). *The cost of physical inactivity*.

Retrieved July 3 2007, from http://www.cflri.ca/

Casperson, C.J., Powell, K.E., & Christenson, G.M., (1985).Physical activity, exercise,

and physical fitness: definitions and distinctions for health-related research.

Public Health Reports, 100, 126-131.

Center for Disease Control and Prevention (December, 2008). *Physical Activity for*

Everyone. Retrieved July 15, 2009 from

http://www.cdc.gov/physicalactivity/everyone/health/index.html

Charmaz, K. (2000). Qualitative interviewing and grounded theory analysis. In J.

Gubrium & J. Holstein (Eds.), *Handbook of interview research: Context and*

method (pp. 675-694). Thousand Oaks, CA: Sage Publications.

Charmaz, K. (2008). Grounded theory in the 21st century. In N.K., Denzin & Y.S.

Lincoln (3rd Ed.). *Strategies of Qualitative Inquiry*. Thousand Oaks, CA: Sage

Publications.

Chen, A. & Ennis, C.D. (2004). Goals, Interests, and Learning in Physical Education. *The Journal of Educational Research, 97*, 329-339.

Coakely, J. (1994). *Sport in Society: Issues and Controversies*. Toronto: McGraw Hill Ryerson.

Corbin, C.B., & Pangrazi, R.P. (2003). *Guidelines for appropriate physical activity for elementary school children: 2003 update*. Reston, VA: NASPE Publications.

Dewar, A. (1990). Oppression and privilege in physical education: struggles in the negotiation of gender in a university programme. In D. Kirk and R. Tinning (Eds) *Physical education curriculum and culture: Critical issues in the contemporary crisis*, (pp. 67-100). London: Falmer Press.

Donatelle, R.J., Davis L.G., Munroe A.J., & Munroe, A. (2001). *Health: The* Basics *(2nd Ed.)*. Scarborough, ON: Pearson Education.

Dowda, M., Ainsworth B.E., Addy, C.L., Saunders, R., & Riner, W. (2001). Environmental influences, physical activity, and weight status in 8- to 16- year-olds. *Archives of Pediatrics & Adolescent Medicine, 155,* 711-717.

Eccles, J.S. (1993). School and family effects of the ontogeny of children's interests, self-perception, and activity choice. In J. Jacobs (Eds), *Developmental perspectives on motivation: Nebraska symposium on motivation, 1992*. Lincoln, NE; University of Nebraska Press.

Fairclough S.J. & Stratton, G. (2006). A review of physical activity levels during elementary school physical education. *Journal of Teaching in Physical Education, 25*, 239-257.

Fleischmann, K.E., Hunink, M., Kuntz, K.M., & Douglas, P.S. (1998). Exercise

echocardiography or exercise SPECT imaging? A meta-analysis of diagnostic test

performance. *The Journal of the American Medical Association, 280,* 913-920

Flintoff , A. & Scraton, S., (2001). Stepping into active leisure? Young women's

perceptions of active lifestyles and their experiences of school physical education.

Sport, Education and Society, 6, 5-21.

Fredricks, J.A.., & Eccles, J.S. (2003). Parental influences on youth involvement in

sports. In M.R. Weiss (Ed), *Developmental sport and exercise psychology: A*

lifespan perspective. Morgantown, WV: Fitness Information Technology.

Friedenreich, C.M., & Orenstein, M.R. (2002). Physical activity and cancer prevention:

etiologic evidence and biological mechanisms. *The Journal of Nutrition, 132,*

3456S-3464S.

Garett, R. (2004). Negotiating a physical identity: Girls, bodies and physical education.

Sport, Education and Society, 9, 223-237.

Garn, A.C. & Cothran D.J. (2006). The Fun Factor in Physical Education. *Journal of*

Teaching in Physical Education, 25, 281-297.

Giacobbi, P.R., Hausenblas Jr. H.A., & Fallon, E.A., (2003). Even more about exercise

imagery: A grounded theory of exercise imagery. *Journal of Applied Psychology,*

15, 160-175.

Gibbons, S.L. & Gaul, C.A. (2004). Making physical education meaningful for young

women: Case study in educational change. *AVANTE,* 10, 1-16.

Gibbons, S.L. & Humbert, L. (2008). What are middle-school girls looking for in physical

education? *Canadian Journal of Education 31,* 167-186.

Glaser, B.G. & Strauss, A.L. 1967. The discovery of grounded theory. Chicago: Aldine.

Gould, D. (1982). Sport Psychology in the 1980's: Status, direction and challenge in youth sports research. *Journal of Sport Psychology, 4,* 203-218.

Greenberg, J.S., Dintiman, G.B., Oakes, B.M., Kossuth, J.D., & Morrow, D. (2000). *Physical fitness and wellness (Canadian Ed.).* Scarborough, ON: Pearson Education

Gregg, E.W., Cauley, J.A., Seeley, D.G., Ensrud, K.E., & Bauer, D.C. (1998). Physical activity and osteoporotic fracture risk in older women. *Annals of Internal Medicine, 129,* 81-88.

Greyson, J.F., & Colley, A. (1986). Concomitants of sport participation in male and female adolescents. *International Journal of Sport Psychology, 61*, 311-318.

Gould, D. (1982). Sport psychology in the 1980's: Status, direction and challenge in youth sports research. *Journal of Psychology*, 4, 203-218.

Harter, S. (1978). Effectance motivation reconsidered, Toward a developmental model. *Human Development*, 21, 34-64.

Hassmen, P., Koivula, N., & Uutela, A. (2000). Physical exercise and psychological well-being: A population study in Finland. *Preventive Medicine, 20,* 17-25.

Hastie, P.A. (1998). The participation and perceptions of girls within a unit of sport education. *Journal of Teaching in Physical Education, 17*, 157-171.

Horn, T.S., (2008). *Advances in Sport Psychology* (3rd Ed). Champain IL: Human Kinetics.

Johnson B. & Christensen, L. (2004). *Educational research quantitative, qualitative and mixed approaches (2nd ed.).* Boston, MA: Pearson Education Inc.

Katzmarzyk, P.T. & Ardern, C.I. (2004). Physical activity levels of Canadian children

and youth: Current issues and recommendations. *Canadian Journal of Diabetes,

28*, 67-78.

Kohno, K., Matsuoka, H., Takenaka, K., Miyake, Y., Okuda, S., Nomura, G., & Imaizumi,

T. Depressor effect by exercise training is associated with amelioration of

hyperinsulinemia and sympathetic over activity. *Internal Medicine, 39,* 1013-1019.

Lahti-Koski, M., Pietinen, P., Heliovaara, M., & Vartiainen, E. (2002). Associations of

body mass index and obesity with physical activity, food choices, alcohol intake,

and smoking in the 1982-1997 FINRISK Studies. *The American Journal of

Clinical Nutrition, 75,* 809-817.

Lawson, H.A. (1998). Rejuvenating, reconstituting, and transforming physical education

to meet the needs of vulnerable children, youth and families. *Journal of Teaching

in Physical Education*, 18, 2-25.

McArdle, W.D., Katch, F.I., & Katch, V.L. (2001). *Exercise Physiology: Energy,

Nutrition, and Human Performance* (5th Ed.). Maryland USA: Lippincott Williams

& Williams.

McKenzie, T.L. (2001). Promoting physical activity in youth: Focus on middle school

environments. *Quest,, 53,* 326-334.

McKenzie, T.L., Prochaska, J.J., Sallis, J.F., & LaMaster, K.J. (2004). Coeducational and

single sex physical education in middle schools: Impact on physical activity.

Research Quarterly for Exercise and Sport 75, 446-449.

McKenzie, T.L., Sallis, J.F., Kolody, B., & Faucette, F.N. (1997). Long terms effects of a

physical education curriculum and staff development program: SPARK. *Research

Quarterly and Exercise Sport, 60, 280-291.

Morse, J.M., Stern, P.N., Corbin, J., Bowers, B., Charmaz, K., & Clarke A.E. (2009).

Developing grounded theory: The second generation. Walnut Creek, CA: Left

Coast Press.

Napper-Owen, G.E., Kovar, S.K., Ermler, K.L., & Merhrhof, J.H. (1999). Curricula

equity in required ninth-grade physical education. *Journal of Teaching in*

Physical Education 19, 2-21.

National Heart Lung and Blood Institute (May 2009). *Physical Activity and Your Heart*.

Retrieved July 20 2009, from

http://www.nhlbi.nih.gov/health/dci/Diseases/phys/phys_what.html

Osteoporosis Canada (2009). *What is osteoporosis?* Retrieved July 15 2009, from

www.osteoporosis.ca

Papaioannou, A. (1997). Perceptions of motivational climate, perceived competence and

motivation of students of varying age and sport experience. *Perceptual and motor*

skills, 85, 419-430.

Patton, M.Q. (2002). *Qualitative research & evaluation methods*. (3rd Ed.). Thousand

Oaks, CA: Sage Publications Inc.

Perry CL, Stone EJ, Parcel GS, et al. (1990). School based cardiovascular promotion: the

Child and Adolescent Trial for Cardiovascular Health (CATCH). *Journal of*

School Health, 60, 406-413.

Public Health Agency of Canada (2004). *Benefits*. Retrieved June 16 2009, from

http://www.phac-aspc.gc.ca/pau-uap/fitness/work/benefits_e.html

Public Health Agency of Canada (2009). *Obesity in Canada - Snapshot*. Retrieved

October 20, 2009, from http://205.193.86.76/publicat/2009/oc/index-eng.php#tot

Sallis, J., Simons-Morton, B.G., Stone, E.j., Corbin, C.B., Epstein, L., Faucette, N.,

Iannotti, R.J., Killen, J.D., Klesges, R.C., Petray, C.K., Rowland, T.W, Taylor,

W.C. (2002). Determinants of physical activity and interventions in youth.

Medicine & Science in Sports & Exercise, 24, 248-257.

Sallis, J.F. & McKenzie, T.L. (1991). Physical Education's Role in Public Health.

Research Quarterly for Exercise and Sport, 62, 124-137.

Standage, M., Duda, J.L., & Ntoumanis, N. (2003). A model of contextual motivation in

physical education: Using constructs from self-determination and achievement

goal theories to predict physical activity intentions. *Journal of Educational

Psychology, 95*, 97-110.

Statistics Canada (2006). Adult obesity. *Health Reports*, 17, 1-25. Retrieved July 15th,

2007 from www.statscan.ca.

Strauss, A., & Corbin J. (1998). *Basics of qualitative research: Techniques and

procedures for developing grounded theory* (2nd ed.). Newbury Park, CA: Sage

Thune, I., Brenn, T., Lund, E., & Gaard, M. (1997). Physical activity and the risk of

breast cancer. *The New England Journal of Medicine, 336*, 1269-1275.

Tinning, R. (1990). *Ideology and physical education: Opening Pandora's box*. Geelong,

Australia: Hyperion Books.

Van Wersch, A., Trew, K., & Turner, I. (1992). Post-primary school pupils' interest in

physical education: Age and gender differences. *British Journal of Educational

Psychology, 62,* 56-72.

Wannamethee, S.G. & Shaper A.G. (2001). Physical Activity and the prevention of

cardiovascular disease: An epidemiological perspective. *Journal of Sports*

Medicine 31, 101-114.

Weinberg, R.S. & Gould, D. (2003). *Foundations of sport and exercise psychology* (3rd

Ed.). Champaign, IL: Human Kinetics Publishers.

Weiss, M.R., Corbin, C., & Pangrazi, B. (2000). Motivating kids in physical activity.

President Council on Physical Fitness and Sports, Research Digest, 3, 1-6.

Weiss, M.R., & Duncan, S.C. (1992). The relationship between physical competence and

peer acceptance in the context of children's sport participation. *Journal of Sport*

and Exercise Psychology, 14, 177-191.

Weiss, M.R., & Ferrer-Caja, E. (2002). Motivational orientations and sport behavior. In

T.S. Horn (Ed.), *Advances in sport psychology* (2nd ed.) (pp.101-183).

Champaign, IL: Human Kinetics.

Weiss, M.R., & Knoppers, A. (1982). The influence of socializing agents on female

collegiate volleyball players. *Journal of Sport Psychology*, 4, 267-279.

Weis, M.R., & Smith, A.L., (2001). Friendship quality in youth sport friendships:

Measurement and validation. *Journal of Sport and Exercise Psychology*, 21, 145-

166.

Weiss, M.R., & William, L. (2004). The why of youth sport involvement: A

developmental perspective on motivational processes. In M.R. Weiss (Ed.),

Developmental sport and exercise psychology: a lifespan perspective (pp. 223-

267). Morgantown, W.V: Fitness Information Technology.

Weiss, M.R., Ebbeck, V. & Horn, T.S. (1997). Children's self-perceptions and sources of competence information: A cluster analysis. *Journal of Sport & Exercise Psychology*, 19, 52-70.

World Health Organization (2007). *Physical Activity and Youth*. Retrieved June 26 2007, from

http://www.who.int/moveforhealth/advocacy/information_sheets/youth/html.

World Health Organization (2007). *Physical Activity*. Retrieved June 26, 2007 from

http://www.who.int/dietphysicalactivity/pa/en/index.html.

World Health Organizatin (1998). Health and health behaviour among young people, WHO policy series: Health for children and adolescents, issue 1. Retrieved June 26th, 2007 from www.hbsc.org.downloads/Int_Report_00.pdf

Zimmerman F, Christakis D, & Meltzoff A. (2007). Television and DVD/video viewing in children younger than 2 years. *Archives of Pediatric and Adolescent Medicine, 161*, 473-479

Determinants of Disengagement of Adolescent Females in Physical Education:

A Grounded Theory Analysis

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Abstract

This study investigated the key determinants that influence the disengagement of physical education participation among female adolescents. Harter's competence motivation theory was applied to initiate the study and guide the interview questions. Through self-identification, seven young females were asked to answer a series of open-ended questions pertaining to their high school physical education experience. Grounded theory was used as a methodological model. The following themes emerged from data analysis: (a) Social influences in physical education, (b) Teaching and Learning, (c) Perceived Competence, and (d) Out of School Environment. From these four themes determinants of disengagement included the teachers' lack of enthusiasm and caring, peers being unsupportive, a sport-based curriculum that was viewed as repetitious, lack of choice in activities, a competitive climate, negative perceptions towards physical education, peer comparison and a fear of embarrassment and humiliation. Results provide insight as to how curriculum designers and teachers can make high school physical education more appealing for all female students.

Résumé

Cette étude a examiné les déterminants clés qui influencent le désengagement de certaines adolescentes face à la participation aux cours d'éducation physique. La théorie de la motivation par la compétence de Harter a été appliquée pour entreprendre l'étude et diriger les questions d'entrevue. Par l'auto-identification, nous avons demandé à sept adolescentes de répondre à une série de questions ouvertes se rapportant à leur expérience en éducation physique au secondaire. La théorie à base empirique a été utilisée comme modèle méthodologique. Suite à l'analyse des données, les thèmes suivants sont ressortis: (a) les influences sociales en éducation physique, (b) l'enseignement et l'apprentissage, (c) la perception de la compétence et (d) le milieu non-scolaire. Plusieurs causes de désengagement ont été ciblées, y compris: le manque d'enthousiasme et d'intérêt des enseignants, le manque de soutient des pairs, un programme d'études basé sur le sport jugé répétitif, le manque de choix dans les activités, un climat compétitif, une perception négative de l'éducation physique, la comparaison entre pairs et la crainte d'être embarrassée et humiliée. Les résultats démontrent comment les concepteurs des programmes d'études et les enseignants peuvent rendre l'éducation physique au secondaire plus intéressante pour les étudiantes.

Determinants of Disengagement of Adolescent Females in Physical Education: A
Grounded Theory Analysis

Physical activity can be defined as "body movement produced by muscle action
that increases energy expenditure" (McArdle, Katch, & Katch, 2001, p.871). Such
physical activity enhances or maintains physical fitness and overall health (National
Heart Lung & Blood Institute, 2009). There are many benefits to being physically active;
strengthening muscles and the cardiovascular system, boosting the immune system,
improving mental health, and decreasing chances of depression (World Health
Organization, 2007). Regular physical activity also decreases heart disease,
cardiovascular disease, and Type 2 diabetes (Springer, Kelder & Hoelscher, 2006).

A growing concern among health officials is the increased rate of physical
inactivity (Public Health Agency of Canada, 2004). "Globally, physical inactivity is
estimated to cause 10-16% of cases of breast cancer, colon cancer, rectal cancer, diabetes
mellitus and about 22% of ischaemic heart disease" (World Health Organization, 2007).
According to the World Health Organization (WHO), physical inactivity leads each year
to an estimated 1.9 million deaths worldwide (2007). Canadians also display low rates of
physical activity. For instance, a survey in 2000-01 revealed 56% of Canadians 20 years
and older were considered inactive, 24% were moderately active, while only 20% were
active (Canadian Fitness & Lifestyle Research Institute, 2004).

Some researchers believe one way to ensure lifelong physical activity is to
promote it among children and youth (Katzmarzyk & Ardern, 2004). This may provide
immediate gains for these age groups and increase health benefits in later years. For
example, physical activity among children and youth contributes to building strong
muscles and joints, bone growth, controlled body weight, reduced body fat, efficient

functioning of the heart and lungs, development of movement and co-ordination, and prevention and control of anxiety and depression (WHO, 2007).

Traditionally, it was thought that children and youth were more active and healthier than adults (Katzmarzyk & Ardern, 2004). In Canada however, only 27% of teenage boys and 14% of teenage girls receive enough physical activity today to meet the international guidelines for optimal growth and development (Canadian Fitness & Lifestyle Research Institute, 2004). Also, adolescents become less active as they get older and the gap between males and females broadens; 44% of boys 15-19 years are inactive compared to 63% of girls 15-19 years (Canadian Fitness and Lifestyle Research Institute, 2004). With an increase in sedentary behavior and prevalence of overweight and obesity there is a growing need to promote physical activity among our youth population (Katmarzyk & Arden, 2004).

The World Health Organization (2007) believes that schools can provide a wonderful opportunity to promote physical activity. Physical education classes allow children and youth to learn new motor skills, how to cooperate with others, have fun, and explore various sports and fitness activities for present and for future participation (Hassandra, Goudas & Chroni, 2003; Standage, Duda, & Ntoumanis, 2003). According to the Canadian Fitness and Lifestyle Research Institute (CFLRI) only 17% of Canadian children aged 6-17 have physical education five days a week and one out of five teenagers opt out of physical education (2004). In addition, the enjoyment of physical education decreases with age, although teenage boys seem to enjoy this class more than girls (CFLRI, 2004). Research by Bain (1995), Ennis (1999), and Hastie (1998) confirm that there is a lack of participation in physical education among adolescent females. This

should raise serious concern among health officials as Corbin (2002) argues "that physical education may be the only opportunity for all school-aged children to learn about the comprehensive health benefits of physical activity and the necessary motor and behavior management skills to effectively participate in a variety of sports, physical activities, and exercises." (p.132). Given the fact that adolescent girls are generally less engaged than boys in both physical activity and physical education, the Public Health Agency of Canada (2006) believes it is crucial to focus attention on promoting physical activity among this population.

It is important to understand the factors that affect girls' participation levels in physical education. However, much of the research exploring issues influencing physical activity participation does not separate boys and girls. Factors such as motivation, enjoyment and providing input in the curriculum design can play a significant role in physical activity participation. Hassandra, Goudas, and Chroni (2003) studied factors associated with intrinsic motivation in physical education and found that a wide variety of social, environmental, and individual difference have an impact on students' intrinsic motivation. These factors included family encouragement, participation in and out of school activities, the physical education teacher, classmates, and lesson content.

The Center for Disease Control and Prevention (1997) states "physical activity programs for young people are most likely to be effective when they emphasize participation in activities they enjoy". Garn and Cothran (2006) studied the fun factor in physical education by applying the sport enjoyment model. Researchers identified three key themes: teacher, task, and social. A student's relationship with the teacher either increased or decreased the enjoyment in physical education. Task referred to personal

competency. Students had fun if they felt competent when performing the task and if it had meaning to them. Finally, the social theme highlighted the idea of spending time with peers. Being able to interact and work with friends contributed greatly to the fun factor.

Some administrators and teachers strongly believe in the importance of getting input from their students when it comes to the curriculum design (Ha, Johns, & Shiu, 2003). Researchers such as Greenwood, Stillwell, and Byars (2001) studied students' physical activity preferences at the high school level by using a simple activity interest inventory. With a list of 23 different activities, results showed that basketball, bicycling, roller-skating, soccer, swimming, and volleyball were of greatest interest among participants. Hill and Cleven (2005) focused on how these choices may be influenced by ethnicity.

Reasons affecting physical education participation mentioned above are valid points to consider and contribute to further research in this field. However, it is important to also address studies that have focused solely on female youth and physical education since reasons for disengagement may not be the same for boys and girls.

Various studies have applied feminist frameworks in order to understand the relationship between females and physical education. Olafson (2002) described teenage girls' experiences in physical education following a Foucauldian and feminist framework. In applying a Foucauldian perspective this would allow the examination between power and resistance. For instance, in schools power relationships are seen between administrators, teachers and students (Olafson, 2002). Consequently, this gives rise to different forms of resistance. With this framework Olafson focused on students' resistant behaviors in physical education according to three areas; the curriculum and instruction,

peer relations and gender identity. She concluded that resistance to participate in physical education stems from three sources: institutional, social, and cultural. The curriculum and instruction defines the institutional barriers. A few participants described their physical education activities as drill based. These participants felt incapable of completing the task (e.g. doing 20 push-up, endurance runs). As a result, girls felt weak and awkward. Examples of the social and cultural barriers were pressures to look good (cultural) and being popular (social). One girl mentioned: "girls, they're expected to be graceful, always in control, be able to do basically everything". Another participant described how she felt her teacher portrayed biased standards making the girls feel inferior to the boys in the class. Finally, many participants discussed how they felt conscious about their bodies. Results demonstrate that female adolescents are faced with numerous barriers in regards to physical education participation.

A similar framework that has been applied to explain gender relations in high school physical education classes is feminist postructuralism. Feminist postructuralism provides tools that clarify and break down preconceived ideas of masculinity and femininity. Women are not seen as passive and oppressed but strong and capable of making choices (Weedon, 1997). Finally, this theory is "an alternative framework for understanding discrimination against women, identifying them as active participants historically situated in context (Azzarito, Solomon & Harrison, 2006, p.225). Azzarito, Solmon, and Harrison, (2006) applied a feminist postructuralist perspective. They concluded that girls still perceive gender barriers to their participation in physical education. One participant commented: "when we are playing basketball or something in the gym, the girls would sit on the benches and the guys would play." Researchers felt it

was important to be aware of gender stereotypes as well as provide equal opportunities for all students.

The findings from these studies play an important role in understanding ways to increase interest in physical education participation among female youth. Unfortunately, they have been largely restricted to inventories and many did not solely focus on females. Although, Azzarito et. al. (2006) and Ofalson (2002) focused on physical education and female adolescents their results may have been limited by their feminist theoretical frameworks. Their conclusions focused on gender inequalities and stereotypes. However, issues of disengagement among females in physical education are multifaceted and extend beyond the curriculum, motivation, and gender. There is a need to continue to study this issue in different contexts with different frameworks.

Using Harter's competence motivation theory (1978, 1981) may allow better understanding of motivational patterns and behaviors regarding physical activity because the model is multi-dimensional and developmental. The theory proposes that feelings of competence and self worth affect various emotional states (e.g., anxiety, enjoyment, pride), which are the main determinants of motivation. For example, if a young hockey player has confidence in herself, feels skilled, and thinks she is improving, this will increase positive feelings such as enjoyment, satisfaction, and contentment. These emotional states will lead to increased motivation in hockey which is likely to increase the desire to continue participating (Weinberg & Gould, 2003). Another factor is the influence of individuals such as parents, coaches and peers. If the parents of this young hockey player provide feelings of approval and positive reinforcement, this will positively influence perceptions of competence and affective states. This, in turn, will

result in high levels of competence motivation to continue to aspire to be successful in hockey (Weiss & Williams, 2004). While this example demonstrated a positive outcome, Harter believes that the factors mentioned (e.g. positive affect and reinforcement from significant others) are not sufficient to change one's level of competence motivation (Horn, 2008). Instead it is important to consider that "success at optimal challenges, or difficult but realistic goals, provides the greatest feelings of positive affect and intrinsic motivation" (Horn, 2008, p.118).

The previous example demonstrates what occurs during a successful mastery attempt; however not all experiences will be positive. In competence motivation theory, both successful and unsuccessful experiences are taken into account. As a result, not only does this theory consider successful and unsuccessful attempts as two separate entities, but what occurs when there is a balance of experiences that result either in success or failure. For instance, how is an individual's competence motivation affected when both positive and unsuccessful mastery attempts occur during the same activity?

Competence motivation theory is multidimensional and an all encompassing model, whereby the cognitive, emotional, physical and social aspects of the individual are considered. More specifically, influences by significant others, motivational orientation and perceived competence are key concepts (Weiss & Williams, 2004). As a result, this theory is seen as a sound model to apply in the physical activity domain. Using this theoretical framework may lead to new insights as to why physical activity rates are so low among female adolescents. For the current study, perceptions of competence, level of affect/emotion, previous physical activity experiences, and social influences will be examined.

Harter's model was used to initiate the study. Therefore the interview questions were developed by applying Harter's model. On the other hand, grounded theory was applied for the data collection and data analysis. As a result, if new ideas are discovered and do not fall under Harter's model the researcher does not have to limit such student perspectives exclusively to this theory. Grounded theory enables the researcher to develop new ideas after carefully gathering and analyzing the data. This method is an inductive process whereby a new theory emerges from the data rather then working with an existing one (Patton, 2002).

The purpose of this study was to establish the key determinants that influence the disengagement of physical education participation among female adolescents at the high school level. Previous studies have not taken a multi-dimensional approach. By applying Harter's model and grounded theory this phenomenon may be understood more clearly.

Methods

Participants

The focus of this study was to gain insight on the physical education experiences of females at the high school level. Although participants who were interviewed attended CECEP these females were asked to discuss their high school physical education experience. As a result, this would be considered as a retrospective analysis. Participants were seven female CEGEP students ranging in age from 17-21 years. All attended the same CEGEP located in a large metropolitan city in the province of Quebec but their ethnic background was quite diverse (see Table 1). Students were recruited from five different physical education classes: Pilates, weight training, fitness, games, and ultimate Frisbee. Those who were less than 18 years of age were given an additional consent form

which parents or guardians were required to sign. All females gave assent to participate in the study.

Students were encouraged to participate only if they strongly disliked their high school physical education experience and showed signs of disengagement. Examples of disengagement were explained and included sitting on the bench and talking to friends, handing notes to the teacher stating they were unable to participate, or skipping class. If a student felt this described her during high school, she was encouraged to volunteer. As a result, participants were not selected by the researcher but were self-identified and thus became a sample of convenience. A total of twelve females returned their consent forms and were interviewed. Three were part of the pilot study, two never responded after the interview to a member check, and the remaining seven were used for data analysis.

Interview Guide

Following a grounded theory approach, open-ended questions were used during the interview (Johnson & Christensen, 2004). The interview questions were divided into four sections: (1) opening questions, (2) key questions relating to (a) perceptions of competence, (b) level of affect/emotion, (c) previous past experiences, (d) social influences, (e) effort, (d) persistence, (3) concluding questions, and (4) personal information (See Appendix 1). Researchers asked additional questions if they felt it would lead to a deeper understanding of the phenomena, consistent with grounded theory (Johnson & Christensen, 2004). Each interview lasted approximately 30 to 50 minutes.

Procedure

Three CEGEPS were contacted via e-mail and phoned to request approval for the study. One CEGEP had declined while the other two had given authorization to carry out

the research project. As a result, the school was chosen based on acceptance to carry out the research and feasibility. Since the study dealt with physical education it was decided to recruit participants and conduct interviews during physical education classes. Physical education teachers were contacted to determine the best time to explain the study and conduct interviews. Wednesday was chosen since there were many physical education classes scheduled. The teachers agreed to allow 15 minutes at the beginning of their classes to explain the study. They also agreed that the students who would volunteer to participate could miss class time in order to be interviewed.

The researcher visited six classes, and each class was visited twice. The first occasion was to introduce herself and explain the study at the beginning of the class period. Although these classes were coeducational only females were requested to move to a smaller more private area away from the teacher and the males. Once the study was explained and questions answered, all females received a consent form. They were asked to return it for the following week if they fit the disengagement profile and were interested to participate. They were also asked to write down their e-mail address if they wanted a reminder to bring back their consent forms. The same protocol was followed throughout the six different physical education classes. The interviews took place at the second visit of the researcher.

Two McGill University Ph.D students in the Physical Education and Kinesiology Department agreed to assist in the interview process. Using multiple interviewers reduces biases and interviewer effects (Johnson & Christensen, 2004). Formal contact regarding the study between the researcher and two assistants, occurred three times. The first meeting was to discuss the nature of the study and interview process. This was followed

up by an e-mail of a more detailed description of the study along with the interview questions. A second meeting took place to examine the interview protocol. Finally, on the day of the interviews the researchers met an hour early at the CEGEP to confirm the interviews' location, to go over the equipment being used and to discuss any last minute questions or concerns. Each interviewer received a package including: a clipboard, pens, a tape recorder, a checklist, 5-6 copies of the interview questions, and dividers labeled with the time of the physical education class and the teacher's name.

Data collection started during the second visit at the school. At the beginning of each class period the physical education teacher reminded students about the interviews and to hand in their consent forms. Once participants came forward an interviewer would take them to one of three designated areas previously discussed and commenced the interview process. First, the interviewer would collect the consent form and look over the information to make sure it was complete and legible. The participants were reminded that she would be tape-recorded, that all the information divulged would remain strictly confidential, and that there were no right or wrong answers when responding to questions.

According to Bickman and Rog (2009) "pilot studies serve some of the same functions as prior research, but they can be focused more precisely on your own concerns and theories." The first participant for each interviewer was used for pilot testing. Researchers met to discuss if any changes or additions should be made to the interview questions. Additional questions were added only to the personal information section. These questions dealt with parental involvement in physical activity.

Data Analysis

Two forms of interpretative validity were applied: low inference descriptors (verbatim) and participant feedback (or member checking). After all interviews were recorded the prime researcher transcribed each interview verbatim. Each participant received a written copy of her interview via e-mail. They were asked to read their transcriptions and change or add to their responses either by highlighting it in bold, italics or in color. Five out of the seven participants made changes and additions to their transcripts.

Data analysis followed a constant comparative method, which maintains a continuous interaction between the researcher, the data, and the developing theory (Johnson & Chistensen, 2004). In order to achieve this, three types of coding were performed: open coding, axial coding, and selective coding (Strauss & Corbin 1998). The researcher began the open coding process by reading each transcript line-by-line. Any words or phrases that seemed important and had the potential to create a concept were highlighted. The researcher then proceeded to form categories by picking out the most significant and frequent codes. This process is known as the axial coding stage. The final stages of analysis were done during selective coding. This coding involves creating categories which formed larger theoretical schemes (Strauss & Corbin, 1998). Memo writing was used throughout the entire process. This is an effective means for tracking ideas formed during data analysis (Johnson & Christensen, 2004). The researcher ceased coding once no new concepts were emerging from the data, a process called saturation (Somekh & Lewin, 2005).

One way to develop sound and reliable results is to incorporate inter-coder reliability (Johnson & Christensen, 2004). During the coding process a second member from the research team coded three of the seven transcripts. The first and second researcher met during the axial and selective coding phases in order to ensure there were similar findings. The two researchers continued the coding process once 100% agreement had been established among the three transcripts.

Trustworthiness

In order to ascertain valid, accurate, and reliable research, the following methods of trustworthiness were used: applying theories that are well recognized, providing honest opinions, data triangulation, member-checking and writing extensive descriptions. Trustworthiness is enhanced when using research methods that have already been used and are well recognized within the qualitative field and the current field of study (Shenton, 2004). Examples of this included the interview guide, the data collection procedures, and methods used to analyze the data. For this study Harter's competence motivation theory was applied to formulate the interview guide followed by the use of grounded theory to assist with the completion of the research.

A second approach used to establish trustworthiness was by providing honest opinions. This can be achieved by allowing individuals the opportunity to refuse to participate and by giving a clear indication that there are no right or wrong answers to the questions they will be asked (Shenton, 2004). Since the process of self-identification was used to recruit participants, no one was obliged to participate. While no one is ever obliged to participate in a study, those who did volunteer to participate were reminded during the explanation of the study, on the consent form, and at the beginning of the

interview that they could withdraw at any time. Participants were also reminded during these three occasions that there were no right or wrong answers and that we were looking for honest opinion.

Data triangulation was the third technique that assisted in creating trustworthiness. Triangulation often implies the use of multiple research methods such as focus groups, observation, and individual interviews (Shenton, 2004). Another form of triangulation is known as data triangulation (Johnson & Christensen, 2004). Although a single method was applied to collect the data multiple interviewers allowed for different perspectives to be compared and to gain a greater understanding of the research topic (Shenton, 2004; Johnson & Christensen, 2004).

Member-checking or participant feedback is having the participant examine the information from the interview. This allows the researcher to avoid misconceptions and confirm interpretations (Johnson & Christensen, 2004). Once interviews were transcribed verbatim, participants were e-mailed their transcription and asked to review their answers. As mentioned earlier five out of the seven participants made changes to their transcripts. Finally, the last technique considered to establish trustworthiness of this study was by applying extensive descriptions of the phenomenon being studied (Sparkes, 1998). This can be achieved by presenting full quotes from the participants. In doing so this allows the reader to determine the accuracy of the findings (Shenton, 2004). The results will conform to this recommendation.

Results

Four themes emerged from the data which explained disengagement from physical education: (a) Social influences, (b) Teaching and Learning, (c) Perceived

Competence, and (d) Out of School Environment. These dimensions will be discussed in greater detail below.

Social Influences

There were three main groups of individuals who played a significant role in the participants' physical education experience: teachers, friends, and classmates. The teacher played a critical role in influencing a student's participation level in several different ways. Some of the main concerns that were discussed among the participants were the importance of having a "good" teacher, the difference between having a female teacher and a male teacher and how the teacher affected the participants' physical competence level.

Participants discussed the importance of having a "good" teacher. Many of them described the different characteristics associated with a "good" versus "bad" teacher. A few of the young women did not consider their teachers to be "good" teachers. Some expressed how their "bad" teachers' behaviors limited their motivation. Below Monica shares how she felt about her teacher.

"He was not in shape and he was a little overweight. He would be like do that, do this, and it was like look at yourself before you tell us to do it…The last year I was there, there was a female teacher who just arrived, she was really into it, she was running with her class and doing everything with them, so maybe that would have changed my participation."

Monica also briefly discussed the qualities of a "good" teacher.

"I think phys ed. really depends on the teacher. For example, I participated in a class where we had the teacher I was talking about earlier and the class had a lot more energy and seemed to have a lot more fun."

Sabrina had similar feelings toward her teacher. "In the beginning my female phys ed. teacher was good but she left and the new male teacher honestly didn't care. He would just open the garage and give us free time which was not a good thing."

Participants discussed how a male teacher treated them differently compared to when they had a female teacher. For instance, Nina felt her male physical education teachers treated her differently compared to her female teachers. "When it was a male they were more like we didn't have to participate because we were girls. They would encourage us but they didn't force us." For Sophia, however, having a male or female physical education teacher did not seem to matter.

 "I don't think the fact that it was a male or female teacher affected my participation, I think if we had a better teacher it would have helped and I would have participated more… If the teacher is doing that [sitting down and doing nothing] then basically the students want to do that as well. I always felt the teacher gave grades based on how much he liked you, that is why it didn't motivate me to do any work."

During the interview it was revealed that the teacher also had an impact on their physical competence levels. For Veronica the teacher played a big role in terms of influencing her thoughts about her ability in physical education class.

"It would depend on the teacher. My male teacher was really nice and really encouraged me so that got me to try and do better. Last year my teacher, she kept

on encouraging us. She was a female and played a lot of sports so she encouraged

all the girls to get more out there and she was more strict with the class clowns and

the competition. She made it more of a fun thing…"

The participants' friends also had a great influence on whether they would participate

in the class or remain disengaged. It seemed that the girls' friends usually played a

negative role when it came to their physical education participation. For Sabrina she

often sat out because her friends sat out. "If my friends are going to go and sit down then

I will join them, I rather not do it…my friends would influence me not to do physical

education class because they would sit out." Nina had a similar response, "My friends

when they are playing I will play as well. If everyone played during phys ed. then I

would play, but if everyone sat out then I would sit out as well." Janet also seemed to do

what her friends were doing. "My friends, either they would encourage me to do more

sports and participate, or they would stay with me on the side lines and talk until our gym

teacher would tell us to participate."

The third group of individuals who were discussed during the interview process were

the classmates. The classmates appeared to contribute greatly to the class climate, much

like the teacher. Participants only discussed their classmates when it involved competitive

situations. Some of the students voiced their concerns about participating with males

while others believed that some of the girls in the class were just as much to blame when

it came to creating competitive situations.

A few female participants felt the boys focused too much on competition rather than

playing for enjoyment purposes. Monica gave the impression she did not enjoy

participating with the boys: "The boys would be like "you should have done this, you

should have done that", and it was just too competitive instead of just having fun". For some of the students, participating with males was not an issue. Nina referred to classmates, both males and females, who were overly competitive. "Yeah we always have people in the class who are really competitive so they can make you feel bad". Unfortunately, for Veronica, some of her classmates created a negative class climate not just for her, but for other individuals in her class as well.

> "Yeah I had a lot of girls in my gym class that were very competitive and that would kind of push some of us away. Last year we had class clowns that you know played sports and would yell at you if you didn't get it right. That would just discourage us not do it, especially me…There were always those few popular girls who wanted to get out there and we had this one girl in high school who was a huge class clown and all she did was competition, competition, competition. She was the joker and wanted to prove herself. Last year it wasn't as bad because the teacher would try to stop her. But other years she just kept on going and going. She was on everybody; she would say something like "oh get it right, ha ha I am just joking".

Teaching and Learning

Within the realm of teaching and learning, students expressed issues such as the curriculum, providing choice, competition, fun and enjoyment and negative perceptions of P.E. When referring to the curriculum participants discussed how many activities were sports-based and repetitive. Students emphasized that a sports-based curriculum influenced their participation, Monica said the activities that were played in her classes were: "mostly sports, hockey badminton, volleyball and soccer. Usually it was one sport per term". Some girls discussed how other activities were incorporated into their class but

unfortunately; the teacher did not allow students adequate time to learn skills due to time constraints. Isabelle "We did more soccer, basketball, that kind of stuff. We were supposed to do some yoga but it went from five classes down to two, I don't know what happened there".

Sophia gave the impression that she did not mind participating in sport-based activities but unfortunately, her class seemed to always do the same activity which lead to boredom. "Basically sport-based activities but it was the same sport. We played handball pretty much all year round". This seemed to negatively affect her participation level.

"Well, because obviously teachers give out an outline before the class starts, the outline said that every term we would do a different sport. So with that in mind I wanted to participate because I like the sports we do, but our teacher would give us one sheet about the sport for us to read about but we never played that sport. So I just got tired because instead, we played handball."

For Sophia it was not the sports-based curriculum that affected her participation but the fact that the curriculum was repetitive in nature. For some of the participants having a sport-based physical education program greatly on impacted their involvement in the class. Janet expressed how sports were something she did not enjoy and as a result this affected her participation level. "I don't really like sports. I probably would have participated more if the program was different."

Since the participants were interviewed while they were in CEGEP many of them discussed how they preferred physical education class at CEGEP because they were provided with choice. Monica said, "I prefer physical education at CEGEP because you can pick the activities you want to do instead of being told what to do." The students'

desire to have some control over their experiences in physical education was important to them.

Nina agreed, "I prefer this one I have now, 'cause we all do different things and we do what is good for us. If we can't do more then we just stop". Sophia felt the same way, "…Now we have a choice so it makes it more interesting."

When discussing the participants' classmates, a key sub-theme that was discussed was competition. Many of the interviewees did not enjoy competition. For them competition diminished the opportunity to experience fun and enjoyment. For instance Monica explained, "…it was just too competitive instead of just having fun. I am just not that competitive that is why I like to swim and run, I am just in my own world." In addition, it seemed as though sports encouraged competition. Isabelle shares her feeling of why she does not like competitive situations: "I am not a big fan of sports. I don't like the competitiveness, especially if you are on a team and you mess up, everyone blames you. I rather just do it alone."

There seemed to be a close relationship between competition and enjoyment. Experiences of fun and enjoyment were attained during less competitive situations and when the class was at similar skill level. The following was a comment from Veronica.

"Some sports I wanted to improve because I enjoyed it, like volleyball, I wanted to improve. And other stuff not really. Volleyball I like because we were not all that great. Every other sport you had someone who was really great and then you would sit there while they were yelling at you telling you what to do."

Veronica compared her physical activity experience to her high school physical education experience and she experienced a greater sense of enjoyment because there was a lot less competition.

> "For baseball there was no competition. Like I said, I really sucked but there was no competition, it was just teams against teams. You got a medal even though we came in last. For curling there was no competition. There it was just go do it and have fun and do whatever. But in high school for gym there was always competition. That kind of pushed me away."

In comparison to other classes offered in high school, many of the participants displayed negative perceptions towards physical education. From their point of view, physical education was not as important as the academic classes. This led students to take physical education less seriously and therefore give less effort. Sabrina said, "I gave much more effort in my other classes than gym, 'cause I care more about Math and English then Gym. Gym was seen as free time." Similarly, Nina revealed, "I worked harder in my other classes because I felt it was more important to pass French than Gym, even though I had to pass Gym."

Many of the participants reported they worked hard to achieve success in their academic classes but when it came to physical education their work ethic was very different. Sophia discussed, "Every other class I always strived for the best, I always wanted to do really well, I worked really hard and studied really hard. I would get to gym class I would sit down and do nothing." Janet had a similar opinion.

> "It was always like "oh phys ed. we don't really care about it". You have English, Math, Physics, Chemistry, it (phys ed.) just feels less important to me. You don't

have a desk and you are not writing you just play so it does not feel important…Gym was more of a social thing…Yeah I definitely gave less of an effort in phys ed. compared to my other classes. To me, gym class is a the bottom of my list."

Perceived Competence

Perceptions of competence influenced students' participation in physical education. Participants described how their skill level, a fear of embarrassment and humiliation, and their level of motivation affected their perceptions of competence.

The girls perceived ability in physical education class varied from weak to average. Veronica commented, "I was average depending on the stuff. Skating and swimming I was really good. Basketball I was average. Never below average but mainly average." For Janet it was not her skill level that seemed to affect her participation level; "I was a really good student, I was just not interested [in physical education]. I had a pretty high skill level." On the other hand, Nina felt her ability was quite weak, "I am not good. I don't like team sports 'cause I am always comparing myself to the others and I feel like "oh I am not good". So if we have to play I won't play." Isabelle also displayed low perceptions of competence in physical education class. Low skill level appeared to be associated with a fear of being humiliated or embarrassed. For instance, when Isabelle was referring to her overall ability in gym class she replied "Next to none. I am happy I passed." Because Isabelle felt her ability was so weak she felt self-conscious in the gym.

"I am always very nervous. Even if we do badminton I am nervous she is going to pair me up with someone who is at the top of their game and I am going to mess up. I am mostly worried they are going to yell at me…It is easier for me to

concentrate on what I am doing if I don't have to worry about either embarrassing myself or letting down the entire team. It is just easier."

Isabelle was not the only participant who had a fear of experiencing humiliation or embarrassment. Nina felt "embarrassed 'cause I always feel like they are watching me. If I do something wrong they will remember. Even though I know it is not true because nobody cares." Veronica also had a fear of being embarrassed. "…So once again it is that competition I don't like to do the challenges people give me because I don't want to lose and there is always that feeling of being humiliated."

The girls seemed to have varying reasons as to why they were motivated or amotivated in physical education class. Even though Monica felt her ability in physical education class was average she was not motivated to participate. She did not feel it was that important to improve in gym class. Monica replied "Not really important, not in phys ed., I didn't really care. It was not very motivating. There was no reason for me to improve. We just had to do things for an hour." Sophia had a similar answer.

"It wasn't at all [important to improve]. I was not motivated... If I really enjoyed what I was doing I was going to be more motivated to do better in it…I had fun when I participated when we played sports we all enjoyed, and it wasn't too competitive, I enjoyed it."

Out of school environment

During the interview the girls were asked about their physical activity experiences growing up. Below physical activity participation, the relationship between physical activity and physical education, and support in physical activity will be discussed. Physical activity levels among participants varied greatly. Monica was quite active

outside of school when she was younger she did artistic ice-skating, gymnastics and swimming. When she was younger she said "I enjoyed all the activities I did…at the end I didn't really like ice-skating because it was getting too stressful and too competitive…I like being active, I just really didn't like my physical education experience at high school." Sophia was also quite active.

"Starting from three years old I was an avid gymnast. From three to about 12-13 I was doing gymnastics four times a week for three hours. I was always good with physical activity. Then high school came and I didn't have time anymore so I had to leave it. Gym class was nothing compared to it."

Not everyone was as active as Monica and Sophia. For instance, Isabelle was not involved in organized sports growing up; "sports wise I didn't do any activities. We did small things in Girl Guides but when it came to sports they [her parents] left me alone on that." A few other participants who were not involved in organized physical activities growing up discussed how this had an impact on their physical education experience. Nina also did not get involved in organized sport when she was younger. Below she discussed how this affected her feelings towards physical education:

"…I didn't play any sports. All I have ever done is work out…If I was on a team when I was younger maybe I would have enjoyed it more now. I think I would have liked it more because I might have been better, it would have helped. I feel those that are better, it was because they were on teams when they were younger. I feel like everyone was on a soccer team when they were younger but not me. Maybe I would have had more confidence"

Veronica came to a similar conclusion when stating, "I did play basketball when I was younger but not for long. If I had more experience maybe it would have helped me to feel more comfortable when we played basketball in gym class." Not all the participants felt this way. For example, Janet made it clear when saying, "I don't think my past experiences influenced my experience in the present."

When asked who encouraged you to get involved in your physical activities growing up, most of the participants mentioned their parents. For Sophia "My mom put me in it. Well, actually my sister started it when she was nine and I was three so we started at the same time." Veronica also mentioned how it was her parents who influenced her physical activity participation when she was younger but stated that it was her friends who encouraged her to get involved as she got older.

> "My parents got me involved when I was little. When I was in elementary school I guess I enjoyed it, I was really bad but I enjoyed it anyways. In high school it kind of stopped because I was always that shy kid, so in elementary my parents pushed me and in high school they just stopped. Last year, I got out of my shell and that is when I started curling with my friend. I guess it depended who was there. If I had a friend I would go with them. My friend encouraged me to come out and I decided to go."

Janet discussed how she usually got involved in activities because of her cousin. "My friends always played a big part in my choice of activities, but the most important person that influenced me was my cousin…I would always follow everything she would do."

Discussion

The purpose of this study was to examine the factors that led to disengagement in physical education among female adolescents. More specifically it was to establish the main determinants that influence disengagement. A grounded theory approach to the data revealed four themes: (a) social influences (b) teaching and learning, (c) perceived competence, (d) out of school environment.

Social Influences

Social influences were identified as a key determinant towards disengagement among the participants. This theme relates directly to Harter's competence motivation theory. Since the theory guided the interview questions, it is not surprising that some of the results are in accord with this theory. Competence motivation theory pays particular attention to how significant others impact students' motivational orientations, self-perceptions, and affect (Horn, 2008). In this study, it was teachers, classmates, and peers who influenced participant involvement in physical education. The participants clearly outlined the qualities associated with a "good" teacher versus "bad" teacher. A good teacher showed enthusiasm, was involved in the class, was fair, and provided encouragement. All of these factors equated to a fun class. These findings are consistent with Garn and Cothran (2006) and Flintoff and Scraton (2001). Participants from Garn and Cothran (2006) discussed how their teacher had an immediate impact in creating fun in the classroom. This quote by one participant: "He was young and participated with us. He was fair and fun" was very comparable to that found in the current study. In the study by Flintoff and Scraton, teachers were considered to be "really good" if they provided

fair treatment to all their students, were encouraging regardless of skill level, and were approachable.

Evidently it was the qualities of a "bad" teacher that led participants to disengage from the class; lacking energy, displaying favoritism, and a of lack interest in the students. The participants felt these qualities contributed to classes being unexciting. These findings coincide with comments made by participants from Garn and Cothran (2006) revealing reduced fun was contributed by teachers' "lack of caring", not paying attention and even the teacher not coming out of their office.

Many of the participants felt that having a male or female physical education teacher was not a significant issue. However, displaying signs of favoritism had a great impact on student disengagement. Again, this supports Garn and Cothran's (2006) findings that teachers who were coaches showed preferential treatment towards the athletes in the class.

Similar to coaches, teachers provide feedback and reinforcement to their students. Previous studies revealed athletes had higher levels of enjoyment, interest and perceived competence when coaches provided a greater amount of encouragement and teaching (Armorose & Horn, 2000, as cited in Weiss & Williams, p.237). Students from the current study were probably expecting or hoping for this kind of attention from their teachers, however, some teachers were described as providing free time and sitting in their offices during the class. As a result, it is unlikely that much praise and instruction took place. This may be of great importance as Cox, Duncheon and McDavid (2009) revealed that a student's motivation in physical education is affected more by the relationship they have with their teacher than their peer relationships. It is probable that

teachers convey the value of physical education through their words and actions. As Cox and colleagues (2009) explained "if teachers communicated more information about the value of physical education compared to one's peers, it might help explain why they play a greater role in fostering students' feelings of self-determination in class." On the other hand, if teachers do not care, as described by some participants, then participants may feel the need to turn towards their classmates for attention.

Harter indicates how peers alter others self-beliefs (i.e., self-worth), emotional experiences, motivational orientations, and participation behaviors (Horn, 2008). In addition, acceptance by peers may be of greater importance than acceptance by a few close friends (Cox and colleagues 2009). Consistent with Cox et al., (2009) participants in the current study discussed how their classmates negatively affected their enjoyment in class. Some participants gave the impression that they did not like some of their classmates. It would appear it was more oftentimes peers who were competitive in nature. A possible explanation might be that participants did not feel accepted by their classmates in competitive situations. Perhaps, the participant rarely received the ball or was not encouraged by her teammates, and as a result felt rejected. This may give further reason as to why many of the participants felt compelled to disengage by sitting out with their friends. Since participants did not feel a sense of belonging with their classmates, seeking friends who also sat out may have helped them to avoid an uncomfortable situation.

Teaching and Learning

Participants felt the curriculum was largely sports-based. Although this did affect many of the girls' participation, a bigger concern seemed to revolve around the

curriculum being repetitious, having a lack of choice and being competitive in nature. The concept of repetitious activities has not been highlighted in other studies. On the other hand, repetition could be associated with lack of choice since recurring activities would imply less opportunity for other activities.

Lack of choice supports findings by Gibbons and Humbert (2008), Flintoff and Scraton (2001), and Napper-Owen, Kovar, Ermler, Merhrhof (1999) on participation in physical education. One study revealed how the "curricula lacked diversity in activities" (Napper-Owen et al. 1999). This demonstrates the importance of providing a balance between different types of activities such as team sports, individual sports, fitness, and lifetime activities. In addition, Gibbons and Humbert (2008) revealed choice was important but also that activities be relevant to the daily lives and future of teenage girls. Participants in the study by Flintoff and Scraton (2001) believed that by grade 10 their physical education experience improved greatly because there was a greater choice of activities. This can be compared to the participants in the present study as many of them indicated they preferred physical education classes offered in CEGEP due to the choices they had. Activities such as yoga and weight training demonstrate how the physical education curriculum at CEGEP are not all sports-based, therefore allowing participants to choose activities that are considered to be more meaningful.

In this study the majority of participants discussed how they disliked competition. Garn and Cothran (2006) showed mixed results in regards to competition by revealing how students either liked or disliked it. This contrasts somewhat with the present study but is likely reflective of Garn and Cothran having participants who were undergraduates enrolled in an elective physical education class. These students were older and probably

enjoyed physical education since they chose to take the course. Competition should be a concern for younger students as Napper-Owen and colleagues (1999) showed that female participation decreases when physical education programs focus mainly on organized competitive sports. While competition does not have to be completely eliminated from the physical education program, more emphasis could be placed on other values during sport-based activities. An example is an intervention study performed by Digelidis, Papaioannou, Laparidis, Christodoulidis, (2003). It intended to change the motivational climate among 7th grade physical education students. A total of 262 students in the 7th grade who took part in the intervention program. The intervention program lasted an entire school year where 17 lessons focused on health and exercise and over 70 lessons focused on skills and games. The main focus of the study was to create a greater task-involving climate and decrease an ego-involving climate. Therefore greater emphasis was placed on factors such as personal improvement, co-operation, health improvement and exercise behaviors. The researchers instructed teachers to concentrate on teamwork, fair play, and equal opportunities for participation during a competitive activity. Students were assessed through questionnaires given at the beginning and end of the school year as well as 10 months prior to the completion of the program. Results demonstrated students who participated in the intervention program had a better attitude towards exercise and healthy eating and were less ego-oriented and more task oriented compared to students in the control group. These strategies were effective in increasing motivation which underscores that the issue is not competition per se, but the concepts and values associated with the competition.

Competition adversely affected enjoyment as expressed by participants in the current study. Fun and enjoyment are considered affective or emotional states according to Harter (Weinberg & Gould, 2003). Applying the competence motivation theory would suggest that some of the participants were in competitive situations and may have felt incompetent and/or consequently had low self-esteem, thus leading to negative affective responses. This likely resulted in a decrease in motivation or in this case, disengagement.

An important category within the theme of teaching and learning was the negative perceptions towards physical education. It was revealed by some participants that physical education did not have the same value as other academic subjects. This should be a great concern among teachers, schools, and curriculum designers. According to the participants, one of the reasons physical education is not valued is related to the grading scheme. In Quebec, students are required to receive a passing grade in core courses (i.e. Math, English, and Science) in order to move to the next grade. However, students can fail physical education and still advance at the end of the year. This poses a serious question: What kind of message is being sent to students if physical education it not considered a required course to pass? This is consistent with research by Flintoff and Scraton (2001) where adolescent females perceived physical education as "a break" from other classes. However, aside from Flintoff and Scraton (2001) this issue has been seldom addressed.

Perceived Competence

Perceived competence is the most widely researched construct in Harter's theory. Many of the participants compared themselves to other students in the class when asked about their ability in physical education. This coincides with competence motivation

theory as peer comparison is used as an evaluative tool to judge one's ability. In addition, it seemed that participants who had low levels of physical competence also had greater fear of experiencing embarrassment and humiliation. As mentioned earlier, another way individuals receive information regarding their physical competence is through teachers, peers, and friends. Physical education performance is often public whereby everyone is aware of successful and/or unsuccessful movements that occur (Fitzpatrick & Watkinson, 2003). This may explain why some of the participants had a fear of embarrassment and humiliation. These findings also support Gibbons and Humbert (2008) who noted that girls felt inadequate and uncomfortable when they were compared to more skilled classmates. Consistent with Harter's prediction, low levels of perceived physical competence is one of the determinants that lead to a decline in motivation (Weinberg & Gould, 2003). However, there are other determinants that must be considered such as social support, feelings of control over the learning, and mastery attempts (Weiss & Williams, 2004). This may explain why participants who thought their ability was average still felt a lack of motivation to participate in class.

Out of school environment

It is important to address the participants' physical activity participation outside of school as this may have contributed to reasons why these females disengaged from their physical education class. Surprisingly, many of the participants were involved in both organized and recreational activities. It is interesting that some were involved in highly competitive sport at a younger age but later discontinued due to excessive demands by coaches and the time necessary. This may explain why some of the girls discussed how they disliked competition in physical education class. Theses findings also

reveal that participants do take part in activities they enjoy and value the importance of leading a healthy and active lifestyle. Unfortunately, it seems as though physical education class was unable to fulfill these needs.

Limitations

A limitation of this study was the use of multiple interviewers. Although, Johnson and Christensen (2004) argued the benefit of using multiple interviewers, others may argue that having three researchers is not ideal. Another limitation may be that participants were interviewed while attending CEGEP which required them to reflect on their high school physical education experience. Memories of those events may have lacked accuracy. On the other hand, participants may have felt more comfortable and open to discuss those negative experiences because they no longer attended high school. Finally, the researcher was a relative beginner in qualitative inquiry. While proper preparatory training took place, it is likely that more expert techniques of interviewing could occur with more experience.

Conclusion

This study was initiated to understand the reasons for disengagement in physical education among female adolescents. This was achieved by examining perceptions and experiences of their high school physical education classes. Key determinants were revealed within all four themes, social influences, teaching and learning, perceived competence, and out of school environment. These key determinants included teachers' lack of energy, caring, and displaying favoritism, peers being non-supportive, a sports-based curriculum that was viewed as repetitious, a lack of choice, a competitive

climate/values, negative perceptions towards physical education, peer comparison, and a fear of embarrassment and humiliation. Findings revealed that it was not simply one factor that led the participant to disengage from physical education but a multitude of factors, and likely a different cluster of determinants for each person. In addition, many of the determinants related to one another. While Harter's competence motivation theory was consistent with the findings of this study other results may not have emerged if the research had been guided solely by this model. Competence motivation theory was selected because it was multidimensional but the reasons for disengagement in physical education extended beyond the predictions made by this theory.

It is evident the critical role teachers can play towards creating a positive or negative experience in physical education. Teachers not only provide feedback to their students but also promote competence, determine class climate, and decide upon the choice of activities. As a result, teachers need to be aware just how important they are in establishing a positive physical education experience for their students. While peers and friends did play a role towards disengagement, if teachers establish a class that is lively and fosters social support and acceptance, this may help to reduce the potentially negative impact of peers and friends. Such a class may also help to reduce feelings of fear and humiliation. If girls are in a class where they feel encouraged by others they may feel more inclined to make an effort since there is less fear of making a mistake. This concern also relates to the concept of competition. Females seemed to have a fear of being embarrassed during competitive activities since performance is public. If girls feel support from the teacher, peers, and friends, this may diminish the competitive nature of the activity and again decrease feelings of embarrassment and humiliation. Also, if the

activity does not appear to be as competitive, then girls may feel more inclined to participate, even if it is a sport-based activity.

Decreased feelings of humiliation and embarrassment as well as increasing motivation may also be altered if students were provided with the opportunity for practice. According to Gibbons and Humbert (2008) females lack physical competence because they have not acquired the basic skills required to participate. As a result, "attention to adequate practice time, teaching strategies that allow for sound progressions, and interesting practice tasks increase the likelihood that time spent in PE will result in improvement of skill, and ultimately more enjoyment" (Gibbons & Humbert, 2008).

Another important factor that will help to increase motivation is to address the curriculum. It is quite evident that the curriculum content is in dire need of a makeover. Teaching sports-based programs do not seem to address the needs of all students. Today, more and more females have the opportunity to choose from a wide variety of physical activities outside of school. This may increase the reasons why girls are asking for more diversity in the curriculum. By providing choice, students would be able to acquire and develop skills that are of value to them now and in the future. This further supports previous research by Gibbons and Humbert (2008) that that girls seek to participate in activities they feel are not only relevant to their daily lives, but also relevant to their future lifestyle. This was supported by the finding that these young women were reasonably active and enjoying CEGEP physical education, thus the determinants of high school disengagement were not likely based upon an inherent dislike towards physical activity.

It is clear that there are many factors that contribute to disengagement in physical education. Through knowledge and awareness many of these factors are relatively easy to address, however one factor that may be more difficult is the negative perceptions towards physical education. This will likely require a major campaign for change. In order for these perceptions to be altered it cannot occur only through modifications made by the teacher. Ministries of education as well as the school boards need to change the evaluation scheme in order to portray the notion that physical education is indeed a "core" course and an important part of the curriculum.

Future Directions

McKenzie and colleagues (2004) have addressed the issue of coeducational versus segregated physical education classes. Others may feel "some educational needs of adolescent girls might be better addressed in girls-only physical education" (McKenzie, Prochaska, Sallis, & LaMaster, 2004). Another viable solution studies have yet to explore is the division of physical education classes according to skill level. In other courses such as Math, Science, and French as a second language (FSL) it is common for students to be separated according to weak, average and strong. In addition, many sports programs divide their teams not just by age level but also by skill. For instance, in hockey those who are very skilled play for a triple letter team ("AAA"), players of average skill play for a double letter team ("AA") and players who are less skilled play for a single letter team ("A"). Separating students according to skill may help reduce feelings of humiliation and embarrassment. In addition, since the students have similar abilities the teacher may be able to respond better to their needs.

Other research needs to be performed in order to determine different ways physical education can be viewed as a valuable part of the school curriculum. Finally, according to Weiss and Stuntz (2003) much of the research has focused on adult social influences (teachers, coaches and parents) but more studies need to look at peer relationships and interactions in the physical activity and physical education areas.

It is important that research continues to be performed in this field in order to help practitioners in the physical activity and physical education domains determine new ways of increasing participation among female adolescents. However, what is crucial is that the information gained through these studies needs to be put into practice. If physical education aims to have young females adopt a healthy and active lifestyle, then significant changes are required.

References

Active Healthy Kids Canada (n.d.). *Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth 2009*. Retrieved July 20, 2009 from http://www.activehealthykids.ca/ecms.ashx/ReportCard2009/AHKC-Longform_WEB_FINAL.pdf

Amorose, A.J., &Horn, T.S. (2000). Intrinsic motivation realtionships with collegiate athtles' gender, scholarship status, and perceptions of their coaches' behavior. *Journal of Sport and Exercise Psychology*, 22, 63-84.

Azzarito, L., Solmon, M.A., & Harrison, L. (2006). "…If I Had a Choice, I Would…" A feminist postculturalist perspective on girls in physical education. *Research Quarterly for Exercise and Sport, 77*, 222-239.

Bain, L. (1995). Mindfulness and subjective knowledge. *Quest, 47,* 238-253.

Bickman, L., & Rog, D.J. (2009). *The sage handbook of applied social research methods* (2nd, Ed.). Thousand Oaks, CA: Sage Publications Inc.

Canadian Fitness and Lifestyle Research Institute (2004). *Physical Activity and Sport Monitor: Local opportunities for physical activity and sport: Trends from 1999–2004*. Retrieved July 3 2007, from http://www.cflri.ca/eng/statistics/surveys/pam2004.php

Canadian Fitness and Lifestyle Research Institute (2005). *The cost of physical inactivity*. Retrieved July 3 2007, from http://www.cflri.ca/

Casperson, C.J., Powell, K.E., & Christenson, G.M., (1985).Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Reports*,100, 126-131.

Center for Disease Control and Prevention (1997). Trends in the health of Canadian

    youth. Health Agency of Canada. Retrieved July 15th, 2009 from

    http://www.phac-aspc.gc.ca/dca-dea/publications/pdf/trendsbrochure_e.pdf

Chen, A. & Ennis, C.D. (2004). Goals, Interests, and Learning in Physical Education. *The*

    Journal of Educational Research, 97, 329-339.

Corbin, C.B. (2002). Physical activity for everyone: What every physical educator should

    know about promoting lifelong physical activity. *Journal of Teaching in Physical*

    Education, 21, 128-144.

Cox, A., Duncheon., & McDavid, L. (2009). Peers and teachers as sources of relatedness

    perceptions, motivation, and affective responses in physical education. *Research*

    Quarterly for Exercise and Sport, 80, 765-773.

Digelidis, N., Papaioannou, A., Laparidis, K., & Chrstodoulidis, T. (2003). A one-year

    intervention in 7th grade physical education classes aiming to change motivational

    climate and attitudes towards exercise. *Psychology of Sport and Exercise*, 4, 195-

    210.

Ennis, C.D. (1999). Creating a culturally relevant curriculum for disengaged girls. *Sport,*

    Education and Society, 4, 31-40.

Fitzpatrick, D.A., & Watkinson, E.J. (2003). The lived experience of physical

    awkwardness: Adults' retrospective views. *Adapted Physical Activity Quarterly*,

    20,

Garett, R. (2004). Negotiating a physical identity: Girls, bodies and physical education.

    Sport, Education and Society, 9, 223-237.

Garn, A.C. & Cothran D.J. (2006). The Fun Factor in Physical Education. *Journal of Teaching in Physical Education, 25*, 281-297.

Gibbons, S.L. & Humbert, L. (2008). What are middle-school girls looking for in physical education? *Canadian Journal of Education 31,* 167-186.

Hill, G.M., & Cleven, B. (2005). A comparison of students' choices of 9th grade physical education activities by ethnicity. *The High School Journal*, 89, 16-23.

Greenwood, M., Stillwell, J., & Byars, A. (2001). Activity Preferences of Middle School Physical Education Students. *Physical Educator, 58,* 26-29.

Gould, D. (1982). Sport psychology in the 1980's: Status, direction and challenge in youth sports research. *Journal of Psychology*, 4, 203-218.

Ha, A.S., Johns D.P., & Shiu, E.W. (2003). Students' perspective in the design and implementation of the physical education curriculum. *Physical Educator, 60, 1*94-207.

Harter, S. (1978). Effectance motivation reconsidered, Toward a developmental model. *Human Development*, 21, 34-64.

Hassandra, M., Goudas, M., & Chroni, S. (2003). Examining factors associated with intrinsic motivation in physical education: a qualitative approach. *Psychology of Sport and Exercise, 4,* 211-223.

Hastie, P.A. (1998). The participation and perceptions of girls within a unit of sport education. *Journal of Teaching in Physical Education, 17*, 157-171.

Horn, T.S., (2008). *Advances in Sport Psychology* (3rd Ed). Champain IL: Human Kinetics.

Johnson B. & Christensen, L. (2004). *Educational research quantitative, qualitative and mixed approaches (2nd ed.).* Boston, MA: Pearson Education Inc.

Katzmarzyk, P.T. & Ardern, C.I. (2004). Physical activity levels of Canadian children and youth: Current issues and recommendations. *Canadian Journal of Diabetes, 28*, 67-78.

Lenskyj, H.J. (1994). Girl-friendly sport and female values. *Women in Sport and Physical Activity Journal, 3,* 35-45.

McArdle, W.D., Katch, F.I., & Katch, V.L. (2001). *Exercise Physiology: Energy, Nutrition, and Human Performance* (5th Ed.). Maryland USA: Lippincott Williams & Williams.

McKenzie, T.L. (2001). Promoting physical activity in youth: Focus on middle school environments. *Quest, 53,* 326-334.

McKenzie, T.L., Prochaska, J.J., Sallis, J.F., & LaMaster, K.J. (2004). Coeducational and single sex physical education in middle schools: Impact on physical activity. *Research Quarterly for Exercise and Sport 75*, 446-449.

Napper-Owen, G.E., Kovar, S.K., Ermler, K.L., & Merhrhof, J.H. (1999). Curricula equity in required ninth-grade physical education. *Journal of Teaching in Physical Education 19,* 2-21.

Ofalson, L, (2002). "I hate phys ed.": Adolescent girls talk about physical education. *Physical Educator, 59*, 67-74.

Papaioannou, A. (1997). Perceptions of motivational climate, perceived competence and motivation of students of varying age and sport experience. *Perceptual and motor skills, 85*, 419-430.

Patton, M.Q. (2002). *Qualitative research & evaluation methods*. (3rd Ed.). Thousand

    Oaks, CA: Sage Publications Inc.

Public Health Agency of Canada (2004). *Benefits*. Retrieved June 16 2009, from

    http://www.phac-aspc.gc.ca/pau-uap/fitness/work/benefits_e.html

Sallis, J.F. & McKenzie, T.L. (1991). Physical Education's Role in Public Health.

    Research Quarterly for Exercise and Sport, 62, 124-137.

Shenton, A.K., (2003). Strategies for ensuring trustworthiness in qualitative research

    projects. *Education for Information, 22,* 63-75.

Somekh, B., & Lewin, C., (2005). *Research methods in the social sciences*. Thousand

    Oaks, CA: Sage Publication Inc.

Springer, A.E., Kelder, S.H., & Hoelscher, D.M. (2006). Social support, physical activity

    and sedentary behavior among 6th grade girls: A cross sectional study.

    International Journal of Behavioral Nutrition and Physical Activity, 3, 1-10.

Stillwell, J.L. & Willgoose, C.E. (1997). *The physical education curriculum*. Needham

    Heights, MA: Allyn & Bacon.

Weedon, C. (1997). *Feminist practice and postructuralist theory*. Malden, MA: Blackwell

    Publishers Inc.

Weinberg, R.S. & Gould, D. (2003). *Foundations of sport and exercise psychology* (3rd

    Ed.). Champaign, IL: Human Kinetics Publishers.

Weiss, M.R., Corbin, C., & Pangrazi, B. (2000). Motivating kids in physical activity.

    President Council on Physical Fitness and Sports, Research Digest, 3, 1-6.

Weiss, M.R., & Duncan, S.C. (1992). The relationship between physical competence and

peer acceptance in the context of children's sport participation. *Journal of Sport

and Exercise Psychology,* 14, 177-191.

Weiss, M.R., & Ferrer-Caja, E. (2002). Motivational orientations and sport behavior. In

T.S. Horn (Ed.), *Advances in sport psychology* (2nd ed.) (pp.101-183).

Champaign, IL: Human Kinetics.

Weiss, M.R., & William, L. (2004). The why of youth sport involvement: A

developmental perspective on motivational processes. In M.R. Weiss (Ed.),

Developmental sport and exercise psychology: a lifespan perspective (pp. 223-

267). Morgantown, W.V: Fitness Information Technology.

World Health Organization (2007). Physical Activity and Youth. Retrieved June 26 2007,

from

http://www.who.int/moveforhealth/advocacy/information_sheets/youth/html.

World Health Organization (2007). *Physical Activity*. Retrieved June 26, 2007 from

http://www.who.int/dietphysicalactivity/pa/en/index.html.

Table 1

Participant Information

[a]Name	Age (Years)	Year of Study	Ethnicity
Veronica	17	1	English
Isabelle	17	1	Jewish / English
Nina	17	1	Haitian
Janet	18	2	French
Sophia	18	2	Italian
Sabrina	18	2	Italian / Portuguese
Monica	18	2	French

[a]Names of participants have been changed to maintain confidentiality

Appendix

Interview Guide

Opening questions
   1- How is your first year in Cegep going so far?
   2- What do you like to do during your spare time?
   3- What is your favorite subject in school?
   4- What type of extra-curricular activities are you involved in?

Background information
   5- Were you in a coed PE class or segregated PE class?
   6- Did you have a female teacher or a male teacher?
   7- What kind of activities did you do? i.e. sports based, fitness oriented, etc
   8- Do you think any of these factors (questions 5-7) may have affected your participation level? How so?
   9- Did your participation level change throughout your high school years (from grade 7 to grade 11)?

Key Questions

Perceptions of Competence
10 - How did you see your ability overall in gym class?
   - How did you compare to your peers?
   - How important was it for you to improve in gym class?
   - Who influenced your thoughts about your ability in gym class?
   - Do you feel your ability was different according to the activity you were doing?
   - Can you explain to me a situation where you felt you ability was either stronger or weaker?
   - Why do you think your ability was either stronger or weaker from other activities?

Level of Affect/Emotion
   11- How did you feel when you participated in gym class?
   12- What was it about gym class that could make your mood change? Under what circumstances?

Previous Past Experiences
   13- Tell me about your physical activity experiences growing up?
   - Whose idea was it for you to get involved?

- Can you list some past experiences you enjoyed while participating in physical activity?
- Can you list some past experiences you disliked while participating in physical activity?
- How do you think the activities you did in the past influence your experiences of physical education today?

Social Influences

14-Who do you think influences you the most when it comes to doing physical activity? Parents, Siblings, Peers, etc. Why?
- What kind of influence do they have on you? (i.e. supporting or constraining)?
- When you were at school in gym class who had the most influence on you? Why?

Effort

15-How much effort do you think you gave in gym class?
16-How did it differ from other classes you took at school? Why?

Persistence

17-There are some people who keep going even when they are challenged; others however, will choose to sit on the side. What type of person are you? Why?

_____

Concluding Questions

18-Is there anything else you would like to add?

_____

Personal Information

- How old are you?
- Do you have any siblings?
- Who do you live with?
- Did you attend only one high school?
- Are your parents physically active?

Appendices

Appendix A

Parent/Legal Tutor Consent Form

Guardian Consent Form

**McGill University
Department of Kinesiology
and Physical Education**

Adapted Physical Activity Lab
475 Pine Avenue West
Montreal, Quebec
H2W 1S4
P :514-398-4184

**Determinants to disengagement of adolescent girls in physical education:
A grounded theory analysis**

Researcher: Natalie Smith, B.Ed
Contact Information: 514-277-3970; natalie.smith@mail.mcgill.ca
Supervisor: Dr. Gregory Reid, Ph.D tel: 514-398-4184

Dear Student,

With support from McGill University I am conducting a study to gain further insight into the reasons why there seems to be a lack of interest to participate in physical education class among female adolescents. Results of this study will assist us in further understanding and developing better ways to teach physical education classes.

If you feel your daughter would be interested in participating then we are asking for your support and consent in this research. Participation involves your daughter being interviewed in the school facilitated by a trained female researcher. Information gathered during the discussion will be used for research purposes only, and although interviews will be tape-recorded, the identity of individual participants will not be revealed at any time. During the interview the researcher is looking to hear their honest opinions and as a result, there are no right or wrong answers. Following participation, the students will be asked not to discuss the information shared during the interview with other individuals. The interview questions are geared toward finding out why adolescent girls do not enjoy participating in physical education class. Agreement to participate will be obtained prior to the interview. The interview will last between 30-60 minutes and will be tape-recorded. The trained researcher will be present at all times to guide the process and answer any questions

There are no known physical risks. If any personal information is revealed that may be upsetting to the participant, then various contact information for appropriate services will be provided to her.

Results of this study will be used only in the preparation of academic research publications and presentations. The data will be kept in a secure place and no persons other than the members of the research team will have access to it. A summary of the results will be available upon request.

Even if you agree to allow your daughter to participate she is free to withdraw from this study at any time with absolutely no penalty. The decision to withdraw will NOT result in any loss of services or any other negative consequences with your academic institution. If you have any concerns about the treatment or rights of research participants, you may contact me at
514-277-3970

Yours sincerely,

Natalie Smith

I have read the above information and agree to allow my daughter to participate in this study

Furthermore, the interview will be tape-recorded
YES ◊   NO ◊

Participant's Name:_____

Parent/Guardian's Signature:_____

Researcher's Signature:_____

Date:_____

Appendix B

Participant Assent Form

Student Consent Form

**McGill University
Department of Kinesiology
and Physical Education**

Adapted Physical Activity Lab
475 Pine Avenue West
Montreal, Quebec
H2W 1S4
P :514-398-4184

**Determinants to disengagement of adolescent girls in physical education:
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514-277-3970

Yours sincerely,

Natalie Smith

I have read the above information and agree to allow my daughter to participate in this study

Furthermore, the interview will be tape-recorded
YES ◊   NO ◊

Participant's Name:_____

Participant's Signature:_____

Researcher's Signature:_____

Date:_____

_____