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The Body Image and Eating Habits of Young Girls in a Rural Ontarian Elementary School Using the Comprehensive School Health Program

By

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Abstract

The purpose of this study was to develop a better understanding of the body image, eating habits, and health perceptions of girls in a rural Ontarian elementary school using the Comprehensive School Health program. A case-study design was used for this project. Two interviews were conducted with the principal and with the 6th grade teacher. In addition, two focus groups were held with the girls of the 6th grade. The focus groups consisted of group discussions with the girls, the administration of the Collins Body Figures Scale (Collins, 1991), as well as a shortened version of the Children's Eating Attitude Test-26 questionnaire (ChEAT-26) (Maloney, McGuire, & Daniels, 1988). The results showed that there were very few health education initiatives related to body image and nutrition for the grade 6 class of the school, and suggested that the girls had healthy eating habits and low levels of body dissatisfaction.

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ABSTRACT

The purpose of this study was to develop a better understanding of the body image, eating habits, and health perceptions of girls in a rural Ontarian elementary school that has adopted two of the components of the Comprehensive School Health program. A case-study that integrated qualitative and quantitative methods was used for this project. Two interviews were conducted with the principal, and with the 6th grade teacher of the school. In addition, two focus groups were held with the girls of the 6th grade. The focus groups consisted of group discussions with the girls, the administration of the Collins Body Figures Scale (Collins, 1991), as well as a shortened version of the Children's Eating Attitude Test-26 questionnaire (ChEAT-26) (Maloney, McGuire, & Daniels, 1988). The results showed that there were some initiatives that have been done at the school and others that were still on-going such as daily physical activity. There were very little initiatives related to body image and nutrition at the school. Furthermore, the components related to nutrition and body image in the Health and Physical Education curriculum (Ministry of Education and Training, 1998) were not being addressed. Overall, although it was obvious that there were very few health initiatives at the school, the case of this school can be considered to be a typical one (Lynagh, Schoefield & SansonFisher, 1997). On the other hand, the girls were found to be well aware of what it means to be healthy. The majority of them had healthy lifestyles, viewed extreme diet behaviours as inappropriate, and thought that healthy eating and exercise were crucial for healthy weight loss. In addition, the results of this study suggested that the girls had very low body dissatisfaction, and low levels of disordered eating patterns.

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CHAPTER I

INTRODUCTION

Schools are considered to be important settings in which the health promotion for children can take place. Furthermore, comprehensive school-based health promotion programs enable children to develop knowledge and skills for a lifetime (Kwan, Petersen, Pine, & Borruta, 2005). Hence, schools are being invited to adopt the Comprehensive School Health program. The Comprehensive School Program is defined as an integrated set of planned, sequential, school-affiliated strategies, activities, and services designed to promote optimal, physical, emotional, social, and educational development of students (Allensworth, Wyche, Lawson, & Nicholson, 1995). This approach involves moving beyond practices that rely mainly on classroom-based health education models to a more comprehensive approach for health promotion that focuses both on the behaviors and the environment (Deschesnes, Martin, & Hill, 2003). Therefore, the Comprehensive School Health program was the conceptual framework used in this study.

Eating habits and body image of young children have received a lot of scholarly attention in the last decade. In specific, healthy eating habits were found to contribute widely to the overall health, intellectual development, and performance of children at school (Taras, 2005). On the other hand, there has been increased awareness about the high prevalence of negative body image and the eating problems among children (Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006). In particular, high levels of body dissatisfaction and disordered eating patterns were found in children in Canada (Buchanan, 2006; Cook, MacPherson, & Langille, 2007; Jones, Bennett, Olmsted, Lawson & Rodin, 2001; McVey, Davis, Tweed, & Shaw, 2004). In spite of such findings, there is an absence of studies that investigated the body image and eating habits of girls within the Comprehensive School

Health program in the literature. Therefore, this study attempted to address this major gap. The theoretical frameworks that were adopted for the study of the body image of girls in this study were the Perceptual Theoretical Framework as well as the Socio-cultural Theoretical Framework.

The purpose of this study was to develop a better understanding of the body images, eating habits, and health perceptions of girls in a rural Ontarian elementary school that has adopted two of the components of the Comprehensive School Health program. The first research question was: What are the body images, eating habits, and health perceptions of the girls of a rural Ontarian elementary school? Consequently, the two sub-research questions were: (1) How do these girls perceive their health? (2) How do these girls perceive their body image and eating habits? The second research question: How does this school promote health in its environment? Consequently, the two sub-research questions were: (1) What does this school do to incorporate health initiatives into its environment? (2) What does the teacher of the 6th grade do to address body image and eating habits in his class?

A case-study design that integrated quantitative and qualitative methods was used for this research. The data collection methods included interviews, focus groups, and two standardized tests, the Collins Body Figures Scale (Collins, 1991), and a shortened version of the Children's Eating Attitude Test-26 questionnaire (ChEAT-26) (Maloney, McGuire, & Daniels, 1998). A school that fulfilled two of the eight components of the Comprehensive School Health program was selected. These two criteria were: A planned health education throughout the curriculum and a healthy environment throughout the school. After having selected a school, interviews were conducted with the principal and with the teacher of the 6th grade classroom. In addition, forty-five minutes focus groups with the girls of the sixth grade took place. These focus groups entailed group discussions, the administration of the

Collins Body Figures Scale (Collins, 1991), and the administration of a shortened version of the ChEAT-26 questionnaire (Maloney et al., 1988). All interviews were recorded, transcribed, and then analyzed using NVivo7 software. Consequently, there was coding and categorization of the data obtained. Then, I identified the emerging themes and developed conceptual maps that summarized the relations between these themes. Regarding the quantitative data obtained from the shortened version of the ChEAT-26 questionnaire, they were analyzed according to a specific scale developed by Maloney et al. (1988). On the other hand, the results of the Collins Body Figures Scale were compiled, then a set of descriptive statistics was produced, and finally tendencies were identified.

This study has some limitations. Firstly, the results of this study cannot be transferred nor generalized to other elementary schools in Ontario. This is due to the nature of the study, which is a case-study. Secondly, I was unable to interview other significant individuals in the community such as parents, relatives, and friends of students. The latter would have provided the study with more variety and richness. Thirdly, a limitation of a study that involves humans is participant bias, as it can threaten the validity of the data obtained.

However, this study will contribute to the advancement of knowledge in many ways, mainly by addressing some of the limitations of previous research. Firstly, this study looked at the issue of body image and eating habits of girls in an original way, within the Comprehensive School Health program. Secondly, it contributed to the development of a better understanding of the body image, eating habits, and health perceptions of young girls in a rural Ontarian elementary school. Furthermore, the school under study was a rural one. Hence, investigating the body image and eating habits of young girls in rural contexts, as well as the health profile of a rural school was unique. Thirdly, this study used a variety of data collection methods, which provided this study with richness in depth and in scope.

Fourthly, this study involved triangulation of methods that were used to investigate the body image, eating habits, and health perceptions of young girls. The three different methods involved were the focus groups, the shortened version of the Children' Eating Attitude test questionnaire (Maloney et al., 1988), and the Collins Body Figures Scale (Collins, 1991). In addition, there was triangulation of the sources of information used to investigate the health initiatives at the school. These sources consisted of the principal of the school, the teacher of the 6th grade, and the girls of the 6th grade. Triangulation is an important research strategy that increases the validity of a research project (Mathison, 1988). Therefore, using both, data triangulation and methodological triangulation contributed to the richness and significance of this study.

CHAPTER II

RESEARCH CONTEXT

This chapter consists of a review of the recent literature related to this study. The keywords used were: health promotion, schools, comprehensive school health, girls, body image, and eating habits. This chapter is divided into 5 sections: (1) Comprehensive School Health program, (2) Health Perceptions of Children, (3) Body Image in Children, (4) Nutrition in Children, and (5) Socio-cultural influences on Body Image and Eating Habits of Children. In the first section, there is a review of concepts and definitions related to the Comprehensive School Health program, as well as the health objectives and learning expectations of the Health and Physical Education curriculum for students of the 6th grade. In addition, there is a presentation of school-based studies related to the promotion of health, healthy eating, and body image in general, and also within the Comprehensive School Health program. In the second section, there is a review of the studies on different health perceptions of children. In the third section, there is a review of the literature on body image in children. In specific, there is a presentation of the theoretical frameworks used for the study of body image in this research. Then, there is a review of studies that have been done on the body image of children globally, with emphasis on the studies conducted in Canada. Finally, there is a review of studies that examined gender and age differences in regards to body image in children. The fourth section consists of a review of the literature on nutrition in children. There is a presentation of population-based studies that were done on the eating habits of children. Then, studies that looked at dieting and disordered eating patterns of children are presented. Finally, in the fifth section, there is presentation of studies on the influence of the socio-cultural factors such as media, parents, peers, and the rural context on the body image and eating habits of children.

It is important to note two points. First, throughout this chapter, there is emphasis on the Canadian context, when Canadian data is available. Second, there is employment of two conceptual frameworks for the purpose of this study. The first is the Comprehensive School Health program. The second is a combination of the Perceptual and the Socio-cultural Theoretical frameworks for the study of body image. Therefore, this literature review has been conducted in the light of these two frameworks.

Comprehensive School Health Program

Since the Ottawa Charter in 1986, and the Jakarta Declaration in 1997, numerous health promotion initiatives have been initiated in schools (World Health Organization, 2007a, 2007b). As a result, Ministries of Education have initiated educational reforms and changed school curriculum to integrate health promotion into the classrooms. First, this section will consist of a review of concepts and definitions related to health promotion in schools, with emphasis on the Comprehensive School Health program. Second, there is an exploration of general health promotion initiatives in schools, then of those that are specifically related to the Comprehensive School Health program. Third, there is a general review of studies on the promotion of healthy eating habits in schools, then of those that are specifically within the Comprehensive School Health program. Fourth, there is a presentation of studies on the promotion of positive body image in school settings. Finally, the specific objectives of the Health and Physical Education Curriculum of the Ministry of Education and Training of Ontario (1998) are explored, with emphasis on those for grade 6 students.

Concepts and Definitions

Health promotion approaches in schools take different forms such as the Comprehensive School Health program or Healthy Schools, the Health Promoting School framework, and the Coordinated School Health framework. In specific, Comprehensive

School Health and Healthy Schools are the Canadian terms, while Health Promoting School is the term used in Europe, Latin America, and Western Pacific. Finally, the Coordinated School Health is the American term (Anonymous, 2007). However, the two most commonly used terms in the literature are: Comprehensive School Health and Health Promoting School.

The Health Promoting School framework aims at achieving healthy lifestyles for the whole school population by developing supportive environments that encourage the promotion of health. It offers opportunities for the provision of a safe and health enhancing social and physical environment (Deschesnes et al., 2003). The Health Promoting School is identified by 5 principles: (1) formal health curriculum, (2) school ethos (the social and physical environment), (3) policies and practices of the school, (4) school health services, and (5) school-home-community interaction (Booth & Samdal, 1997; Parsons, Stears & Thomas, 1996).

On the other hand, the Comprehensive School Health program is defined as an integrated set of planned, sequential, school-affiliated strategies, activities, and services designed to promote optimal, physical, emotional, social, and educational development of students. The Comprehensive School Health program is supportive of families and is determined by the local community based on community needs, resources, standards, and requirements (Allensworth et al., 1995). The Comprehensive School Health program consists of eight components: (1) planned sequential health education across the whole curriculum, (2) school-based health services, (3) the school environment, (4) physical education at school, (5) food services, (6) counselling services, (7) health promotion among school staff, and (8) school/community integration of health promotion efforts (Allensworth & Kolbe, 1987).

This study was conducted in a school located in Ontario, Canada. As a result, the Comprehensive School Health program had been adopted. Since the formation of the Canadian Association for School Health in 1988, the Comprehensive School Health program was endorsed by the Ministry of Education of Ontario as well as more than 20 organizations in Canada such as Health Canada, the Canadian Association of School Trustees, the Canada Federation of Teachers, the Canadian Public Health Association, the National Association for Nursing & Medicine, as well as UNESCO, and UNICEF (Anonymous, 2007).

A common feature of the Health Promoting School framework and the Comprehensive School Health program is the need to move from the traditional health education sessions in classrooms to a more comprehensive integrated view that focuses on children's behaviours and their environment. However, none of the school-based health promoting programs reviewed by Lynagh, Schoefield & SansonFisher (1997) applied all the components of a Health Promoting School framework. Furthermore, Deschesnes et al. (2003) discussed that schools that adopted the Comprehensive School Health program and the Health Promoting School framework were still focusing on the development of individual skills of students rather than directing attention to the involvement of parents and communities. Similarly, in other studies, authors found that the components related to the school environment and parent/community involvement are absent (Brener, Dittus, & Hayes, 2001; Kolbe, Kann, & Brener, 2001). Therefore, the selective criteria for this school did not require that the school have fully adopted the Comprehensive School Health program. Instead, only the following two components of the Comprehensive School Health program were used when recruiting schools: (1) planned health education throughout the curriculum, and (2) a healthy environment throughout the school.

Health Promotion in Schools

Several studies have investigated the promotion of health of students through school health programs (Booth & Samdal, 1997; Deschesnes et al., 2003, Flay, 2002; Grunbaum, Gingiss, Orpinas, Baty, & Parcel, 1995; Hausman & Ruzek, 1995; Hurrelmann, Leppin & Nordlohne, 1995; Kwan et al., 2005; Lynagh et al., 1997; St. Leger, 2004; Reniscow & Allensworth, 1996). Furthermore, many studies have looked at the integration of school-based health promotion programs in different countries such as Australia (Booth & Samdal, 1997; McBride, Midford & Cameron, 1999; Mitchell, Palmer, Booth, & Davies, 2000), Canada (Macdonald & Green, 2001; Potvin, Cargo, McComber, Delormier, & Macaulay, 2003), the United Kingdom (Fox, Cooper & McKenna, 2004); Brazil (Moyses, Moyses, Watt, & Sheiham, 2003), China (A. Lee, Cheng & St Leger, 2005; ShiChang et al., 2004), Japan (Kobayashi, Jimba, Okabayashi, Singhasivanon, & Waikagul, 2007), Germany (Hurrelmann, Leppin & Nordlohne, 1995), and Scotland (Inshley, Mudloon, & Currie, 2007).

In summary, these studies showed that there were many health initiatives that were on-going in schools. There was change to the curriculum of the schools in some cases, and in other cases, there was change in policies and organizational structures in order to facilitate the implementation of initiatives. In addition, families and communities were involved at some schools. The health initiatives in these schools were related to nutrition, physical activity, health education curriculum, tooth brushing, sexual health, increasing teachers' knowledge of health issues, smoking, alcohol, drug awareness, involvement of parents and communities, and safety measures.

Comprehensive School Health Initiatives

The Canadian Consensus on the Comprehensive School Health was published in 1990. The Consensus provided a framework for policies, programs, and practices in the area of health promotion in school settings. The main recommendations for schools were a need for a shared vision and purpose at each school, and each one should develop its own consensus statement that suits its needs and environment. In addition, there is need for coordination between programs delivered by agencies, professionals, the school, and the community in accordance with the following four principals: (1) Effective teaching and learning in relation to health, (2) Accessible youth friendly health services, (3) Supportive social environment, and (4) Healthy physical environment including cafeterias and playgrounds (Anonymous, 2007).

Many Comprehensive School Health initiatives are actually happening in provinces across Canada. In British Columbia, for example, Action Schools! BC is a socio-ecological model that was developed to create a school environment where children are provided with more options and with a supportive community and environment to make better health choices (Naylor, Macdonald, Reed, & McKay, 2006). As a result, Naylor et al. (2006) found that the environment in schools in British Columbia improved, and that the model helped in enhancing the conceptual use of knowledge of students. In Manitoba, as part of the 2002-2004 school plans, students, staff, and communities were asked to participate in a Comprehensive School Health program that incorporated physical, social, intellectual, and emotional well-being components. The Comprehensive School Health plan consisted of a 3-year plan, which involved a variety of activities and initiatives such as daily physical education, a monthly calendar of events related to health and physical education, yoga classes, 15 minutes of fitness every second day, community involvement programs,

providing of milk at lunch hours, and many other similar initiatives (Pellaers, 2004). In Alberta, specifically in Calgary, the Comprehensive School Health program consisted of a partnership between the Calgary Board of Education, Calgary Catholic School District, Rocky View School Division, and Calgary Health Region. It provided the opportunity for cooperation among different stakeholders within schools in order to address health issues. Furthermore, each school developed a model that suited the needs of its environment. For example, one school demonstrated commitment to school health, while another formed a health committee that consisted of students, staff, public health nurses, and parents to develop action plans related to health (Macleod, n.d.). In Ontario, specifically in London, the Middlesex-London Health Unit worked towards the implementation of a Comprehensive School Health model in its school health programs. There was a specific focus on the integration of public health nurses in roles that go beyond their traditional ones. They were encouraged to consider new ideas in relation to partnerships and collaborations with schools (Mitchell, Laforet-Fliesser, & Camiletti, 1997). Mitchell et al. (1997) found that schools that established healthy school committees reached great benefits. Furthermore, the nurses concluded that their knowledge of the school communities was enhanced.

Promotion of Healthy Eating in Schools

Healthy eating behaviours in children contribute widely to their overall health, intellectual development, and performance at school (Taras, 2005). Furthermore, there has been increased awareness of the impact of dieting and negative body image on obesity and the development of eating disorders in young children (Spear, 2006). Hence, the importance of promoting healthy eating and positive body image in students in schools is highlighted. In this sub-section, there will be a review of reports and studies that have looked at the

promotion of healthy eating in schools in general, independently of the Comprehensive School Health program.

Across Canada, a nation-wide initiative that aims at promoting healthy eating and active living in schools has been taking place. The initiative is entitled "Eat Well, Play Well" and was created by the Dieticians of Canada. This program mainly targets parents, school leaders, and other community leaders that can have an impact on the eating habits of children. In addition, primary and secondary students are targets of this initiative. The objectives are to portray dieticians as a key source of nutrition advice; support teachers and educators in providing an environment that helps in establishing and maintaining healthy eating habits of students; advocate healthy eating policies; promote nutrition education in schools; advocate to schools and governments the need for quality physical education in schools; provide schools and governments with resources and tools on how to establish environments that are supportive of healthy eating and active living. In addition, this initiative aims to provide nutritional advice to parents to promote healthy eating habits among their children. At the student level, this initiative aims at promoting the benefits of healthy eating and physical activity. In addition, it aims at providing students with practical suggestions to meet the requirements of healthy eating and of an active lifestyle (Dieticians of Canada, 2003).

Similarly, in the US, The American Dietetic Association (ADA), the Society for Nutrition Education (SNE), and the American School Food Service Association (ASFSA) (The Society for Nutrition Education, 1995) stated that comprehensive nutrition services must be provided to all pre-school and school students in the United States. These nutrition services should consist of nutrition education, provision of nutritious meals in the school environment, and involvement of the family and community (Briggs, Safaii & Beall, 2003).

According to the American Dietetic Association and American School Food Service Association (1995), classroom lessons about healthy nutritional practices are not enough to induce change. Students should have access to healthy food choices in the cafeterias of schools and their surroundings. In other words, comprehensive nutrition services do not only provide students with knowledge and skills to build healthy eating habits, but also with a healthy environment that promotes positive body image, enhances motivation, and provides services and access to healthy food.

Several studies specifically looked at the integration of nutrition education in schools. Nutrition projects took different forms and targeted different aspects of eating habits of students. However, the majority of them focused on the promotion of fruits and vegetables consumption in students in the US (Baranowski et al., 2003; Bere, 2004; Davis et al., 2000; Eriksen et al., 2003; Hendy, Williams, & Camise, 2005; Klepp et al., 2005; Lowe, Horne, Tapper, Bowdery, & Egerton, 2004; Levine et al., 2002; Reynolds et al., 2000). The interventions consisted of changes in the curriculum to include health education, offering of fruits and vegetables at school, showing of educational videos, parent activities, involvement of parents in fruits' consumption programs, cafeteria marketing and education, and involvement of the food industry. For example, Hendy et al. (2005) examined the effectiveness of the "Kids Choice" lunch program, which consisted of giving token reinforcement to encourage students to eat fruits and vegetables. Another project was the "Pro Children Project". It consisted of the employment of different educational strategies to motivate European students to consume fruits and vegetables. It also targeted parents and the school environment (Klepp et al., 2005). Levine et al. (2002) reported the "Team Nutrition" project, which is an educational and promotional initiative that was sponsored by the US department of Agriculture's Food and Nutrition service (USDA). All the schools involved in

this project implemented the majority of the components of a nutrition intervention. In addition, links with the media and the community were established. Another form of nutrition education that was integrated into a school environment was the "HI5 project" (Reynolds et al., 2000). This project examined the effects of a school-based nutrition intervention that aimed at increasing fruits and vegetables consumption in students. The project consisted of three components. The first component was the classroom component, where there was employment of educational lessons and activities that involved students and their parents. The second one was the parent component, which consisted of a session where parents were introduced to the project and were involved in educational activities with their children. The third component was the food service component, and consisted of educating food service managers and workers on the promotion of fruits and vegetables consumption in children. The results of this project showed that the HI5 initiative had a strong effect on the consumption of fruits and vegetables in students and their parents. Hence, the importance of nutrition education interventions is highlighted.

Other studies discussed the feasibility of different educational and nutritional techniques employed in schools. For example, Liquori, Kosh, Contento, & Castle (1998) examined the feasibility and effectiveness of the "Cookshop Program", which encouraged students to consume minimally processed whole grains and vegetables through cooking classes. The results of this study showed that cooking experiences and eating food with peers were effective strategies in nutrition education.

Finally, some studies showed that students who had access to the school's cafeteria, where foods are high in fat and calories, consumed less fruits and vegetables, compared to students who received meals served at schools (Cullen, Eagan, Baranowski, Owens, & de

Moor, 2000; Cullen et al., 2004). Hence, the influence of the school environment on the eating habits of students is highlighted.

Promotion of Healthy Eating within the Comprehensive School Health Program

Very few studies have examined how healthy eating can be addressed through the Comprehensive School Health program. However, a recent publication in the Canadian Journal of Public Health showed that many Comprehensive School Health initiatives related to nutrition are on-going in schools across Canada (Anonymous, 2007). Examples of such programs are: Discover Healthy Eating, the PEI Healthy Eating Alliance, Drop The Pop, and Health Eats Newbites. Discover Healthy Eating was developed by Toronto Public Health and offered training for teaching activities in accordance with the Health and Physical Education curriculum (Ministry of Education and Training, 1998). The PEI Healthy Eating Alliance is a program that supported the implementation of school nutrition policies and provided all elementary schools with School Healthy Eating toolkits. Drop the Pop is a territory-wide campaign that first started in Nunavut. It encouraged K-12 students to adopt healthier drink choices. Finally, Healthy Eats Newsbites is a newsletter on healthy eating, which is sent to elementary staff three times a year.

Promotion of Positive Body Image in Schools

Many studies have assessed the efficacy of school-based initiatives that aimed at promoting a positive body image and preventing eating disorders (Daigneault, 2000; Ghaderi, Martensson, & Schwan, 2005; Kater, Rohwer, Michael, 2000; McVey et al., 2004; McVey, Liberman, Voorberg, Wardrope, & Blackmore, 2003; PokrajacBulian, ZivcicBecivevic, Calugi, & DalleGrave, 2006). All of these studies, except for the one conducted by Ghaderi et al. (2005), showed that the initiatives had a positive impact on the body image of students and were successful in reducing dieting patterns.

Two of these studies were conducted in Canadian schools (McVey et al., 2004; McVey et al., 2003). For example, McVey et al. (2004) evaluated the effectiveness of a school-based program that aimed at improving body image satisfaction and global self-esteem. The participants in this study consisted of 258 grade 6 Canadian girls. Both intervention and control groups completed questionnaires before the program, after the program, 6 months afterwards, and again 12 months afterwards. The results showed that the intervention was successful in improving body image satisfaction, global self-esteem, and in decreasing dieting attitudes.

In summary, the studies reviewed in this section underlined the effectiveness of school-based programs that address the body image of young girls. However, it is important to note that there is an absence of studies that looked at the promotion of positive body image within the Comprehensive School Health program. Only one study examined such an issue within the Health Promoting School framework (O'Dea & Maloney, 2000). The researchers examined how the Health Promoting School framework could address the problem of laxative abuse at the McKillop's Girls High School by promoting positive body image among students. Focus was on the curriculum, the community, and the school environment. In specific, through the curriculum, there was exploration of the societal expectations of females and critical examination of the messages transmitted by the media. In addition, students, teachers, parents, and community leaders brainstormed on ways to influence others in adopting healthier attitudes towards their bodies. In regards to the school environment, there was a critical analysis of the attitudes of the teachers and staff towards their own bodies. There was also examination of the health messages transmitted through health classes in order to make sure they were consistent with other health initiatives happening at the

schools. Finally, regarding the community, training of teachers and staff in relation to eating and body image problems took place.

Health Objectives and Learning Expectations of the Health and Physical Education Curriculum of 1998

The purpose of the Health and Physical Education curriculum of 1998 is the promotion of health and physical activity (Ministry of Education and Training, 1998). The main philosophy behind this curriculum is that students should understand how physical activity and an appropriate lifestyle can affect their personal well-being and learning capacity (Ministry of Education and Training, 1998). Furthermore, it aims at stimulating children to adopt these healthy habits. The learning expectations of the health and physical education curriculum are: (1) to develop an understanding of the importance of physical fitness, health, and well-being and the factors that contribute to these, (2) to develop a personal commitment to daily vigorous physical activity and positive health behaviours, and (3) to develop the basic movement skills students require to participate in physical activities throughout their daily lives.

The Health and Physical Education curriculum is organized around three major strands which are: (1) healthy living, (2) fundamental movement skills, and (3) active participation. The healthy living strand includes healthy eating, growth and development, personal safety and injury prevention, and awareness regarding substance use and abuse. The fundamental movement skills strand includes locomotion, travelling, manipulation, and stability. Finally, the active participation strand includes physical activity, physical fitness, and safety.

Grade 6 students are of particular interest to this study, as the literature showed that body image issues and eating problems are relevant to their age group. Therefore, there will

be a presentation of the specific learning expectations for the grade 6 students, while relating them to the three principal strands of the Health and Physical Education curriculum (Ministry of Education and Training, 1998). In regards to the first strand "healthy living", students of the 6th grade are expected to explain: how body image and self-esteem influence eating practices, identify the major parts of the reproductive system, use basic prevention and treatment skills, and identify the influences of media, parents and peers on the use of cannabis. In regards to the second strand "fundamental movement skills", students of the 6th grade are expected to perform movement skills that are required in various sports and physical activities such as games, gymnastics, dance, running, and basketball, and demonstrate the principles of movement while combining different body shapes and movements during physical activities. In regards to the third strand "active participation", students of the 6th grade are expected to participate on a regular basis in physical activities to maintain/improve their physical fitness levels, apply living skills in physical activities and describe the benefits of using such skills, follow safety procedures when performing physical activities, and begin to take responsibility for their safety (Ministry of Education and Training, 1998).

Specifically, the learning expectations related to nutrition and body image, which were situated under the "healthy living" strand, are directly related to this study. In fact, the Health and Physical Education curriculum (Ministry of Education and Training, 1998) does concentrate on issues of nutrition and body image within schools. However, it would be interesting to investigate whether these issues are actually being addressed in schools. Hence, the importance of this study is highlighted.

Health Perceptions of Children

Little research has been conducted on how youth perceive health (Beaudoin, Mathis, & Fraser, 2004). In their study, Beaudoin et al. conducted focus groups in order to develop a better understanding of how grade 9 students perceive the concepts of "being healthy" and "being fit". The participants consisted of 53 girls and 33 boys. The results of this study showed that students focused on physical activity, healthy eating, and social, psychological, and intellectual health when expressing their views of a healthy person. In addition, they viewed "being fit" as being healthy, maintaining physical appearance, and feeling good. The authors concluded that students had a good understanding of what it meant to be healthy and fit.

In addition, some studies examined different views of children and adolescents in regards to health such as perceptions of healthy eating, barriers to healthy eating, perceptions of their own lifestyles, and their knowledge of fruits and vegetables consumption (Edwards & Hartwell, 2004; Exel, Graaf, & Brouwer, 2006; Monge-Rojas, Garita, Sanchez, & Munoz, 2005; Reynolds et al., 2004; Reynolds, Yarosh, & Franklin, 2002).

In specific, Monge-Rojas et al. (2005) studied young adolescents' perceptions of a healthy diet and the factors they perceived as barriers to healthy eating. Students perceived the unavailability of healthy foods at school, inadequate food choices at home, as well as peer influences as barriers to healthy eating. The participants also viewed a healthy diet to consist of a variety of foods such as rice, beans, meat, milk, vegetables, and fruits.

Other studies investigated the knowledge of children in regards to fruit and vegetables consumption (Edwards & Hartwell, 2004, Reynolds et al., 2000). These studies yielded different results, as the knowledge of children in each study varied. For example, Edwards & Hartwell (2004) studied the knowledge of children aged between 8 and 11 years

old in regards to fruits and vegetables consumption. In addition, the authors investigated how the children perceived healthy eating. They found that children recognized fruits in a more clear way than vegetables. In relation to healthy eating, they believed that healthy eating consisted of a balanced diet, and included the consumption of fruits and vegetables. These results were consistent with those of Monge-Rojas et al. (2005), where students viewed a healthy diet to include a variety of foods.

On the other hand, in another study, Exel et al. (2006), employed a discourse analysis to assess how Dutch female youth aged between 12 and 15 years old perceived their own health, eating behaviours, overweightness, as well as other health related issues. The authors found that some of the participants felt very healthy, did not feel they had to change anything in their lifestyle, were very active, enjoyed physical activity, ate what they wanted, and put blame on overweight people for not being healthy. However, other participants worried far more about their health, engaged in fewer sports and enjoyed them less, watched what they ate, and thought that overweightness as genetic. Overall, it was common that some youth seemed to be more or less uninterested in their future health, while others were very involved with their health, eating behaviours, and the way they looked.

In summary, very little is known about how children perceive the concepts of health and healthy eating. Therefore, more research is needed in this area.

Body Image in Children

The pursuit of thinness in women is becoming a worldwide issue. Furthermore, the media is sending consistent messages about the ideal female body size, which is a very thin figure. These messages affect individuals of all ages, including children. Given the importance that is accorded to thinness in women, the prevalence of body image issues and disordered eating in young females has been rising.

A good deal of research has been done on body image in children. In this section, there will be focus on the conceptual frameworks used in this study, the prevalence of body image in pre-adolescents around the world, as well as gender and age differences.

Conceptual Framework

Many theoretical frameworks have been used in studies on body image. The most common ones are the Perceptual Theoretical Framework, the Developmental Theoretical Framework, and the Socio-cultural Theoretical Framework.

The Perceptual Theoretical Framework emphasizes the accuracy of one's perception regarding one's size. There are three main theories that are related to this framework. The first one states that the inaccuracy of people's perceptions of their bodies is due to visual deficits. The second theory believes that one's perception of one's body does not change at the same rate of their body size. Finally, the third one states that the extent to which one overestimates his/her size is indirectly proportional to their actual size (Thompson, 1996).

The Developmental Theoretical Framework focuses on childhood experiences. Some of the studies that adopted the Developmental Framework investigated experiences of teasing during pubertal years, while other ones looked at the maturation process of individuals (Thompson, 1996).

The Socio-cultural Theoretical Framework discusses the role of society and culture in the experiences of individuals. Cultural influences can come from family, friends, and the media. Hence, studies that investigated the influence of social and cultural factors on the development of negative body image and eating disorders are considered to be representative of the Socio-cultural Theoretical Framework.

This study attempted to develop a better understanding of the girls' individual perceptions of health, their bodies, and their eating habits. Furthermore, it examined the

influences of parents, peers, and media on these perceptions. Hence, this study represented both the Perceptual Theoretical Framework as well as the Socio-cultural one.

Prevalence of Body Image Concerns in Children

Research on body image of children has been conducted in various countries around the world such as Australia (Haines, NeumarkSztainer, Lynnell, 2007; Lowes & Tiggemann, 2003; McCabe & Ricciardelli, 2005; Mildred, Paxton, Wertheim, 1995; Rolland, Farnill, & Griffiths, 1997), Brazil (Pinheiro & Giugliani, 2006), China (Li et al., 2007), Croatia (AmbrosiRandic & Tokuda, 2004; K. Lee, Sohn, Lee, & Lee, 2004), Israel (Apter et al., 1994; Safir, Flaisher-Kellner, & Rosenmann, 2005), Mexico (Ayala, Mickens, Galindo, & Elder, 2007; Salazar, Martinez, & Perez-Mitre, 1999), Sweden (M. Halvarsson, Lunner, Westerberg, Anteson, & Sjoden, 2002), Japan (AmbrosiRandic & Tokuda, 2004; Hawks, Madanat, Merrill, Goudy, & Miyagawa, 2003; Kaneko, Kiriike, Ikenaga, Miyawaki, & Yamagami, 1999), Canada (Buchanan, 2006; Cook, MacPherson, & Langille, 2007; McCreary Centre Society, 2003; Public Health Agency of Canada, 2002), and the United States (Adams et al., 2000; Hawks et al., 2003; Markey, Tinsley, Ericksen, Ozer, & Markey, 2002; Molloy & Herzberger, 1998; Mukai & McCloskey, 1996; Wood, Becker & Thompson, 1996). These studies show that body image issues are reaching children in all geographical locations and can be considered to be a worldwide issue.

In specific, the studies conducted in Canada showed that body image issues were prevalent of rising concern. For instance, Buchanan (2006) investigated the prevalence of body image dissatisfaction in school-aged adolescents in Manitoba, Canada. The participants in their study consisted of 1181 males and 1125 females from grades 5 to 12. The authors found that the majority of the female students perceived themselves as too big. Similarly, the majority of males viewed themselves as too small or too large. In another study, Cook et al.

(2007) examined the prevalence of weight-related concerns and disordered eating patterns among adolescent girls from 4 rural schools in Nova Scotia. The participants filled in self-reported questionnaires. The results showed that half of the 1133 participants saw themselves as not being the "right" weight. Similarly, in a health survey done by the McCreary Centre Society (2003), it was found that 57% of underweight adolescent girls from British Columbia, Canada thought they were at a healthy weight. In addition, 22% of girls that were at a healthy weight, thought that they were overweight. Also, in a cross sectional study done by Health Canada (2002), 30 % of girls in the 6th grade thought they should lose weight, however this percentage increased to 45 % for girls in the 9th grade. Hence, the results of these studies are consistent with other studies that show high levels of body dissatisfaction in children and adolescents.

Gender Differences

In regards to gender differences and body image, the results of the reviewed studies yielded inconsistent results. Many studies revealed that girls had more body dissatisfaction than boys (Adams et al., 2000; Duncan, Al-Nakeeb, Neirll, & Jones, 2006; Kostanski, Fisher, & Gullone, 2004; K. Lee et al., 2004; Lowes & Tiggemann, 2003; Pine, 2001; Public Health Agency of Canada, 2002). For example, Duncan et al. (2006) administered a body figure scale to 276 girls and boys aged between 11 and 14 years old. The authors found that boys had less body fat, higher daily energy expenditure, and less body dissatisfaction than the girls. Similarly, in another study conducted by Adams et al. (2000), 1,597 children between grades 4 and 7 completed two questionnaire surveys. One of the main findings of this study was that males expressed less personal concerns about their weight, and thus were less likely than females to engage in weight loss behaviours. Therefore, the results of this study are

consistent with those of Duncan et al. (2006) in showing that body image issues are more prevalent among girls.

On the other hand, other studies showed that levels of body dissatisfaction were equivalent in both girls and boys (Ayala et al., 2007; Berger, Schilkel, & Strauss, 2005; Erling & Hwang, 2004; McCabe & Ricciardelli, 2005; Pinheiro & Giugliani, 2006, Vogele & Woodward, 2005). For example, Erling & Hwang (2004) studied 515 10-year old girls and 445 10-year old boys. The results of this study showed that only 31 % of the girls and 33% of the boys who perceived themselves as fat were actually overweight. Hence, the authors concluded that body dissatisfaction was equally prevalent in both boys and girls. These results were consistent with the findings of Berger, Schilkel, & Strauss (2005) who examined the eating attitudes of 230 male and female students aged between 8 and 12 years old. The participants filled in a standardized test that aimed at assessing their eating attitudes. The results showed that 53 % of the girls, as well as 42 % of the boys preferred a thin ideal body image. In addition, 19 % of the girls and 18 % of the boys were trying to lose weight at the time of the investigation.

In summary, it is not clear whether girls are more dissatisfied with their bodies than boys, or if the levels of body dissatisfaction are equal. However, due to limitations in time and resources, the present study will focus on developing a better understanding of body image in girls of the 6^{th} grade exclusively.

Age differences

Some longitudinal research has examined the changes in body dissatisfaction in children and adolescents over time (Davison, Markey, & Birch, 2003; Gardner, Friedman, Stark, & Jackson, 2000; K. Halvarsson, Lunner & Sjoden, 2000; M. Halvarsson et al., 2002, K. Lee et al., 2004; McCabe, Ricciardelli, & Holt, 2005). These studies were consistent in

showing that body dissatisfaction appeared in children as young as 5-year olds, and was found to become more significant with age. For example, McCabe et al. (2005) examined the changes over time in body image and strategies to lose weight among 199 boys and 213 girls aged between 8 and 11 years old. The children were followed over 16 months, and filled in questionnaires at two different times. The results of this study showed that overweight girls and boys had lower levels of body image and higher levels of dieting patterns over time. In another study done by Davison et al. (2003), the authors examined the development of weight concerns and body dissatisfaction in 182 girls aged between 5 and 9 years old. The results of this study were consistent with those of other studies in showing that weight concerns and body dissatisfaction increased with age.

Nutrition in Children

In this section, there will be a review of two groups of studies. Firstly, there will be presentation of population-based studies that examined the eating habits of children. Secondly, and more specifically, there will be a review of population-based studies that looked at dieting and disordered eating patterns of children.

Eating Habits of Children

Several studies have examined the eating habits of children and adolescents (Bidgood & Cameron, 1992; Brady, Lindquist, Herd, & Goran, 2000; Cohen, Evers, Manske, Bercovitz, & Edward, 2003; Finch, Sutherland, Harrison, & Collins, 2006; French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001; Hackett, Gibbon, Sratton, & Hamill, 2002; Lytle, Seifert, Greestein, & McGovern, 2000; Minaker et al., 2006; Vereecken, De Henaw, & Maes, 2005; Veugelers, Fitzgeral, & Johnston, 2005). Five of the reviewed studies were conducted in Canadian locations such as Alberta, Manitoba, Nova Scotia, and Ontario (Bidgood & Cameron, 1992; Cohen et al., 2003; Minaker et al., 2006; Vereecken et al.,

2005; Veugelers et al., 2005). All of the reviewed studies on eating habits of children showed that the participants had more or less unhealthy eating habits. Moreover, the older the children, the less healthy their eating habits were. For example, in their study, Lytle et al. (2000) investigated the change in eating patterns and food choices of 281 students as they moved from grades 3 to 8. The authors found that as the students grew older, their consumption of breakfast, fruits, vegetables, and milk decreased. On the other hand, their consumption of soft drinks increased.

The Canadian studies were also consistent in showing that a majority of children and adolescents did not consume nutritionally balanced or adequate diets. For instance, Veugelers et al. (2005) examined dietary habits and risk factors for poor diets among 5th grade students in Nova Scotia. For that purpose, the authors asked 5200 students and their parents to fill in questionnaires. The results showed that about half of the children did not meet the recommendations for the intake of milk products, fruits and vegetables, and grain products. Furthermore, the majority (74%) did not meet the requirements for the intake of meat products. Similarly, Bidgood & Cameron (1992) investigated the prevalence of missing meals and the dietary inadequacy among primary school children in Southern Ontario, Canada. As a result, 639 children, 614 parents, and 43 teachers completed surveys regarding the children's eating habits. The results showed that 44 % of the students consumed inadequate amounts of fruits and vegetables. Moreover, meal missing patterns and inadequate diets were observed among all students from different socio-economic backgrounds. In addition, the Public Health Agency of Canada (2002) conducted a cross-national study on the health behaviours of school-aged children in Canada, and produced a report, which was also based on the data from the World Health Organization's collaborative. Overall, the report showed that over three-quarters of the students consumed fruits and

vegetables in grade 6. However, the percentages gradually decreased by grade 10. Similarly for the consumption of fruits and vegetables, the consumption of breakfast decreased with age, since students had more control over what they ate.

Overall, there is a lack in the presence of comprehensive data on the food habits and eating habits of Canadian children. Although there is some data that describes food practices of Canadian children, it is important to acknowledge the gaps in our understanding of these practices. Therefore, there is an urgent need for additional research in this area (Dieticians of Canada, 2003).

Dieting and Disordered Eating Patterns in Children

Many studies have investigated dieting and disordered eating patterns in children (Berger, Schilkel, & Strauss, 2005; Cook et al., 2007; Edmunds & Hill, 1997; Field et al., 2001; Field et al., 2003; Jones et al., 2001; Kansi, Wichstrom, & Bergman, 2005; K. Lee et al., 2004; Mcvey, Tweed, & Blackmore, 2004, 2005; Public Health Agency of Canada, 2002). Four of these studies were conducted in Canada (Cook et al., 2007; Jones et al., 2001; McVey et al., 2004, 2005).

The results of these studies were consistent in showing that dieting and disordered eating patterns were prevalent in children and were starting to develop in early ages. Furthermore, these studies showed that these behaviours were found to increase with age, and were more prevalent among girls. For example, Edmunds & Hill (1997) investigated the eating patterns of 12-year old children. The authors found that dieting patterns such as fasting and dietary restraint were prevalent among 20 % of the girls and 8 % of the boys. In another study done by Field et al. (2003), 8203 girls and 6769 boys aged between 9 and 14 years old completed two questionnaires. The results showed that 25 % of the girls and 13.8

% of the boys were frequent dieters. Furthermore, frequency of dieting among girls increased with age.

Similarly, the Canadian studies showed consistent results. For example, McVey et al. (2005) examined the prevalence of dieting and disordered eating patterns among 2279 girls aged between 10 and 14 years old in Southern Ontario. The participants completed self-reported questionnaires. The authors found that 29% of the girls were trying to lose weight and 10% had scores greater than the clinical threshold for disordered eating. In another study conducted by Jones et al. (2001), the disturbed eating attitudes and behaviours of a large school-based population were studied. The participants consisted of 1739 adolescents aged between 12 and 18 years old from Toronto, Ottawa, and Hamilton. The authors found that more than 27% of the participants had disordered eating patterns. Similarly, in their study, Cook et al. (2007) examined the weight-related concerns, and unhealthy weight-control behaviours among adolescent girls from 4 rural schools in Nova Scotia, Canada. The authors found that 60% of the girls were trying to lose weight and 16% of the girls were trying to control or lose weight by engaging in disordered eating behaviours.

Other studies investigated the link between body image and disordered eating patterns. The results were consistent in showing a direct relationship between negative body image and the development of disordered eating patterns (Kaneko et al., 1999; Markey & Markey, 2005; McKinley et al., 2005; Neumark-Sztainer et al., 2006; Rasnake, Laube, & Lewis, & Linscheid, 2005; Sharif & Yassin, 2005). For example, in their study, McKinley et al. (2005) aimed at developing a better understanding of the views of children about food and nutrition. For this purpose, the researchers did focus groups with 106 children aged between 11 to 12 years old. The study showed that one of the main barriers to healthy eating was body image and weight concerns. Specifically, some of the girls talked about throwing away

their food, going to the hospital because of extreme thinness, and stopping to eat. In another recent study, Neumark-Sztainer et al. (2006) examined the relations between body satisfaction and weight-related behaviours among adolescents over five years. The authors found that girls with lower body dissatisfaction had higher levels of dieting, unhealthy weight control behaviours, and disordered eating patterns such as binge eating. Therefore, it was concluded that there is a significant link between body dissatisfaction and disordered eating patterns.

Socio-cultural Influences on Body Image and Eating Habits

Socio-cultural factors play an important role in the lives of children, particularly in the development of their body image and eating habits. Hence, this section will entail a review of the literature on the role of media, parents, and peers. In addition, as this project is a case study of a rural school, studies that are related to body image, eating habits, and health promotion in schools in rural contexts are reviewed.

The Role of Media

Media images of women promote a very thin ideal. In other words, media is constantly transmitting implicit messages about the ideal body which is extremely thin. These messages are reaching all age categories, including young girls (Clark & Tiggemann, 2007).

The majority of the studies that were reviewed in this section were consistent in showing the significant influence media had on the body image and eating behaviours of young females (Berger et al., 2005; Clark & Tiggemann, 2006, 2007; Cullen, Baranowski, Rittenberry, & Olvera, 2000; Dohnt & Tiggemann, 2005a, 2006a, 2006b; Field et al., 2001; Murnen, Smolak, Mills, & Good, 2003; Ricciardelli, McCabe, Holt, & Finemore, 2003; Sands & Wardle, 2003).

For example, in a study done by Murnen et al. (2003), a strong relationship was found between the responses of girls to media pictures, awareness, internalization of media images, and their body esteems.

The researchers concluded that girls strongly related the images of very thin ideals in media to their feelings about their own bodies. In another study done by Clark & Tiggemann (2007), 256 girls aged between 9 and 12 years old completed questionnaires on exposure to television and magazines, peer conversations, appearance schemas, and body dissatisfaction. The results of this study showed that increased exposure to media was directly related to body dissatisfaction and dieting behaviours among the girls. Similarly, in their study, Sands & Wardle (2003) had 356 girls aged between 9 and 12 years old complete measures of body dissatisfaction, awareness and internalization of the thin ideal as well as maternal attitudes and behavior. As a result, the authors found that media exposure was related to awareness and internalization of media messages.

Surprisingly, one of the reviewed studies found that the exposure to media was not directly related to body dissatisfaction in young girls, and did not have an effect on the internalization of media messages (Clark & Tiggemann, 2006). The researchers discussed that this contrast with the other studies could be explained by methodological differences in measurement of media exposure. Furthermore, the study was cross-sectional, and only more longitudinal research can provide solid causal conclusions.

One study specifically showed a direct link between exposure to food advertisements and food preferences in children (Gamble & Cotugna, 1999). The authors aimed at analyzing current trends in television advertising targeting children. For this purpose, the authors evaluated hours of videotaped children programs of American channels. The contents of the advertisements were compared to the Food Guide Pyramid and USDA Child Nutrition

criteria. The results of this study showed that the nutritional quality of the food commercials were poor as they promoted a high fat and low fiber diet.

In Canada, the marketing of food products for children is regulated by voluntary and legislated means. The Canadian Code of Advertising Standards is the principal instrument of advertising self-regulation in Canada. The latter code is used as a guide to advertisers and food companies when preparing the content of commercial messages, helping them recognize the special characteristics of the children audience. Furthermore, all food advertisements must comply with the Food and Drug Act and the Guide to Food Labelling and Advertising, which support Health Canada's Guidelines for Healthy Eating and Canada's Food Guide to Healthy Eating (Advertizing Standards Canada, 2007).

The Role of Parents

Relative to the amount of research that has been conducted on adolescent girls, there is little research on the role of parents in the development of body image issues and disordered eating patterns among pre-adolescent girls. In what follows, the studies that were found are presented.

The majority of the studies reviewed in the literature showed that pre-adolescents were mostly influenced by their mothers' perceptions rather than their fathers. Only one of the reviewed studies showed that pre-adolescent girls and boys who thought that the lack of fat was important to their father were more likely to become chronic dieters (Field et al., 2001). On the other hand, all other studies found that the body image, dieting behaviours, and weight-related perceptions of mothers had a significant influence on the body image and eating habits of their children, specifically daughters (Byely, Archibald, Graber, & Brooks-Gunn, 2000; Cullen et al., 2000; Hill & Pallin, 1998, Keery, Einsberg, Boutelle, Neuzmark-Sztainer, & Story, 2006; Lowes & Tiggeman, 2003; Patterson & Fogatch, 1995; Ogden &

Steward, 2000; Ogly & Damhorst, 2003; Smolak, Levin & Schermer, 1999). For example, Byely et al. (2000) examined the perceptions of pre-adolescent girls of maternal dieting behaviours and the relation of body image concerns with familial and peer pressures. The participants consisted of 77 white girls and their mothers. Self-report measures were used. This study showed that the girls' perceptions of family relations and the mothers' perceptions of their daughter's weight had a significant impact on the dieting behaviours of girls. Similarly, in another study done by Smolak et al. (1999), the authors examined how the parents' comments regarding the children's weight affected their behaviours and body esteems. The researchers found that comments specifically made by the mothers seemed to have a powerful influence on their children's weight-related behaviours. Similarly, Cullen et al. (2000) studied parent modeling and suggested that dieting patterns within families were powerful in influencing children, as they would imitate the behavior of their parents.

Parents also have other important roles in influencing their children's eating habits. Several studies found that parents can influence their children's eating patterns, physical activity level, body satisfaction through controlling the accessibility to food, food socialization practices, and parenting style (Davison, Markey, & Birch, 2000; Hanson, Neumark-Sztainer, Einsenberg, Story, & Wall, 2005; Hearn et al., 1998; Kratt, Reynolds, & Shewchuk, 2000). For example, in the study of Neumark-Sztainer et al. (2004), parents reported that fruits and vegetables were available at meals, while milk was not in most cases. In sum, the authors concluded that the availability of healthy foods at home was directly correlated to healthy eating habits of the children. In his study, Birch (1999) discussed that giving specific foods such as fruits and vegetables as rewards resulted in increased preference for the foods. On the other hand, if a child was asked to eat a certain type of food in order to obtain a reward contributed to a decrease in the liking for the food for which the

reward is offered. Hence, the importance of the influence of parenting styles was highlighted in this study.

The Role of Peers

Although many studies found significant relationships between peer influences and body dissatisfaction in adolescents, very few studies explored these relationships in pre-adolescents. In what follows, I will present the studies that were found and reviewed.

All of the reviewed studies except for one were consistent in showing the influence of peers on the development of body dissatisfaction in young children (Dohnt & Tiggemann, 2005a, 2005b, 2006a, 2006b; Phares, Steinberg & Thompson, 2004; Wardle & Watters, 2004). In their study, Dohnt & Tiggemann (2005b) explored the role of peer influence in the development of body dissatisfaction and dieting awareness in young girls. The main finding of their study was that there was a strong link between the girls' perceptions of how their peers' were dissatisfied with their body and their own body dissatisfaction. The results of this study were consistent with the results of three other studies that were done by the same authors (Dohnt & Tiggemann, 2005a, 2006a, 2006b). These studies found that girls' perceptions of their peer's body dissatisfaction preceded their own levels of body dissatisfaction and dieting awareness. Hence, it was concluded that peer influences were considered to be significant predictors of body dissatisfaction.

On the contrary, one of the reviewed studies showed that peer influences were negligible (Field et al., 2001). The researchers aimed at assessing the influence of peers, parents, and the media on weight concerns and dieting behaviours of children. The participants consisted of 6770 girls and 5287 boys aged between 9 and 14 years old. Significant relationships were found between parents' influences, media pressure and weight concerns and dieting, but did not prevail when analyzing peer influences.

In summary, the majority of the studies found that peer influences were significant and contributed to the development of body dissatisfaction and dieting patterns in young children.

Rural Context

Very few studies have looked at health promotion in rural schools, as well as body image and eating habits of girls in rural contexts. In what follows, I will present the studies that were found and reviewed.

Some of the studies looked at the weight status, body image and dieting behaviours of students in rural areas (Welch, Gross, Bronner, Dewberry-Moore, & Paige, 2004; Guiney & Furlong, 2000; Jackson, Rashed, & Saad-Eldin, 2003; Newman, Sontag, & Salvato, 2006; Packard & Krogstrand, 2002). All of the reviewed studies were conducted in the US, except for the one conducted by Jackson et al. (2003) that was conducted in Egypt.

The results of these studies were inconsistent. Jackson et al. (2003) found that a larger percentage of urban Egyptian girls aged between 11 and 19 years old wanted to be very thin compared to rural girls of the same age. Furthermore, the majority of the girls who took diet pills and reported intentional vomiting lived in urban areas. Also, rural girls did not want a thin body as much as the urban girls did, and were less concerned about having a larger body. On the other hand, Packard & Krogtrand (2002) found that more than half of the rural girls that participated in the study (n=333) reported one or more weight concern and dieting behavior, and the whole sample wanted to be thinner. The authors discussed that these findings suggested that rural living may have an impact on the body image and eating habits of rural girls by affecting sources of food, differences in lifestyles and leisure activities. Also contrary to the findings of Jackson et al. (2003), Welch et al. (2004) found

that urban students aged between 9 and 11 years old had a higher ideal body image than suburban and rural ones, and were more satisfied with their bodies.

In regards to eating habits, rural students in grade 9 consumed more servings of "high fat" and "high sugar" foods that urban students did. In addition, they consumed higher intakes of calcium and milk products (Minaker et al., 2006).

In regards to physical activity, Australian children that lived in rural areas were found to be physically active at school. Boys tended to engage in more moderate to vigorous activities than girls. Furthermore, the students participated more actively in morning physical activity sessions than afternoon sessions. At school, most of the physical activity periods were divided among fitness lessons, development of skills, and games (Barnett, Van-Beurden, Zask, Brooks, & Dietrich, 2002).

Other studies investigated various health perceptions of rural and urban children (Monge-Rojas et al., 2005). In their study, Monge-Rojas et al. (2005) found that rural students perceived the unavailability of healthy foods at school and at home, as well as peer influences as barriers to healthy eating. In specific, rural students emphasized the absence of quality foods at home as a main barrier to healthy eating. In addition, the students perceived a good diet to include a variety of foods such as rice, beans, meat, milk, vegetables, and fruits.

Gaps of the Literature

In summary, several gaps were found in the literature. First, the majority of methods used in the reviewed studies were quantitative ones, while interviews and focus groups would have provided the research on body image and eating habits of girls with more depth and richness. Therefore, this study addresses this gap by using a number of methods, including interviews, focus groups, and standardized measures. Second, assessing dieting

behaviours using questions such as "Have you ever tried to lose weight?" is unstable, especially with children (Halvarsson et al., 2000). This study addressed this gap by asking more open-ended questions during the focus groups. Third, there is an absence of studies that investigated if the body image and eating habits of girls are being addressed within the Comprehensive School Health program. This study will address this gap by examining at whether the school under study is addressing the issues of body image and nutrition of its students.

Research Questions

The purpose of this study was to develop a better understanding of the body image, eating habits, and health perceptions of girls in a rural Ontarian elementary school that has adopted two of the components of the Comprehensive School Health program. The first research question was: What are the body image, eating habits, and health perceptions of the girls of the 6th grade of a rural Ontarian elementary school? Consequently, the two sub-research questions are: (1) How do these girls perceive their health? (2) How do these girls perceive their body image and eating habits? The second research question is: How does this school promote health in its environment? Consequently, the two sub-research questions are: (1) What does this school do to incorporate health initiatives into its environment? (2) What does the teacher of the 6th grade do to address body image and eating habits in his class?

CHAPTER III

METHODOLOGY

Research Design

This project is a case-study, as it focused on one school that has adopted two of the components of the Comprehensive School Health program. Since very few of the schools integrated all the components of the Comprehensive School Health program and the Health Promoting School framework (Brener et al., 2001; Deschesnes et al., 2003, Kolbe et al., 2001; Lynagh et al., 1997), this study did not require that the school have adopted all components of the Comprehensive School Health program. Instead, the selective criteria for the school consisted of two of the components of the Comprehensive School Health program. The two criteria were: (1) planned health education throughout the curriculum and (2) a healthy environment throughout the school. The reason these two criteria were selected is because they were the ones that schools were adopting most (Lynagh et al., 1997).

Data collection

Participants

The participants in this study consisted of the principal of the school and the teacher of the 6th grade, as well as the girls of a sixth grade class.

The principal has been an educator for twenty years. However, he has been the principal of the school for the past two years. On the other hand, the teacher has been a teacher for 3 years. He taught French for two years, and is currently the teacher of the 6th grade class for the first time.

The principal was interviewed, as he occupies the highest hierarchal position at the school and is considered to be an important decision-maker. Furthermore, the principal is the gatekeeper and leader of the school, and provides key administrative support. Therefore,

interviewing the principal was considered to be key in developing a global understanding of the health profile of the school.

On the other hand, the teacher of the 6th grade was interviewed, as he was responsible for the teaching of Physical Education for grade 6. Furthermore, the teacher is in daily interaction with the students. Therefore, interviewing him was crucial in order to develop a clear picture of what was happening in his class in regards to health education.The interviews were around 20 minutes long each

Finally, focus groups were chosen to be done with only girls of the 6th grade for many reasons. Although a large number of studies showed that body image issues and disordered eating patterns are more significant in girls than in boys, many others showed that they are equivalent in both genders. However, this study focused on girls exclusively, due to limits in time and resources. Furthermore, many studies showed that these issues are starting to appear in children at very early ages. Hence, studying girls of the sixth grade, aged between 10 and 12 years old, is appropriate in order to investigate how they develop their body image, eating habits, and health perceptions. The focus groups were around 45 minutes each.

Ethics approval was obtained from the University of Ottawa Ethics Board as well the Ottawa-Carleton District School Board (See Appendix I). After obtaining ethics approval, consent forms were sent to the parents of the girls, the girls of the 6th grade, the principal, the physical education teacher, and the teacher of the 6th grade of the selected school (see Appendix I).

Methods

Focus groups- Two focus groups were conducted with the grade 6 girls. These focus groups entailed group discussions, the administration of the Collins Body Figures Scale (Collins, 1991), as well as the administration of a shortened version of the ChEAT-26

questionnaire (Maloney et al., 1988). The focus groups served to address the first research question of this study: What are the body image, eating habits, and health perceptions of the girls of the 6th grade of a rural Ontarian elementary school? In specific, the questions of the focus groups were about girls' perceptions of "being healthy", their perceptions of their bodies and ideal body types, their eating habits, and of those of people in their surroundings. In addition, there were some questions that were related to nutrition rules set at school and at home (see Appendix C).

The Body Figures Scale of Collins (1991) - This measure consists of seven male or female pre-adolescent figures ranging from very thin to obese. Each one of these figures has a score ranging from 1 to 7. The girls were asked to circle which body figure represented their current size, which one they wanted to look like, and the one they thought their peers perceived them as (see Appendix D).

Shortened version of the ChEAT-26 questionnaire of Maloney et al. (1988) - There was also administration of a shortened version of the ChEAT-26 questionnaire to the girls. The ChEAT-26 questionnaire, developed by Maloney et al. (1988), is a scale that is composed of 26 items on a Likert scale ranging from always to never. It is used to assess food preoccupation, bulimic and anorexic behaviours as well as weight management behaviours in children (see Appendix F). However, due to time constraints and ethical issues, some questions were omitted. The questions that were omitted were ones that were suspected to raise sensitive issues in children such as vomiting (see Appendix E).

Interviews- Interviews were conducted with the principal and with the teacher of the 6th grade. Interview guides were developed and used to gain a better understanding of the health initiatives happening at the school, specifically those related to nutrition and body image. The interviews served to address the second research question of this study: How

does this school promote health in its environment? In specific, the questions of the interview for the principal entailed questions about the vision of the school, the health initiatives at the school, the reaction of students to these health initiatives, involvement of parents and community, and health concerns that are being addressed. At some points, probing on body image and nutrition took place (see Appendix A). On the other hand, the questions of the interview for the teacher of the 6th grade were related to the curriculum of the 6th grade, the addressing of health issues in class, specifically body image and nutrition, his involvement in health initiatives, and reaction of students to these initiatives (see Appendix B).

Data Analysis

All interviews were recorded, transcribed, and then analyzed using the NVivo7 software. Consequently, there was coding and categorization of the data obtained. Then, I identified the emerging themes and developed a conceptual map that summarized the relations between these themes. The quantitative data obtained from the shortened version of the ChEAT-26 questionnaire were analyzed according to a scoring system that is specific to the test (Maloney et al., 1988). Each item of the ChEAT-26 has six responses varying from "always" to "never". The "always", "very often" and "often" responses were scored as 3, 2, 1 respectively. On the other hand, the three other choices were scored as zero. The total scores can range between 0 and 78. Maloney et al. (1988) explained that a score above 20 suggests the presence of an eating disorder. However, this scoring system was adjusted accordingly since a shortened version of the ChEAT-26 was used for this study. Finally, to analyze the data generated by the Collins body image scale, there was compilation of results and production of a set of descriptive statistics. Then, there was identification of significant tendencies.

Methodological issues

Validity and Reliability of Quantitative Methods

The ChEAT-26 questionnaire is considered to have acceptable reliability and validity scores. Maloney et al. (1988) administered the test to 318 children aged between 8 and 13 years old. The test-retest reliability correlation was 0.81 and the Cronbach's alpha was found to be 0.76. The latter values indicate that the ChEAT-26 has acceptable internal reliability. In summary, the ChEAT-26 was found to be a promising instrument for the measurement of disordered eating behaviours in middle aged school-girls. However, it is important to note that the validity and reliability of the ChEAT-26 questionnaire are compromised in this study, as the questionnaire was shortened. However, the shortened version of the ChEAT-26 questionnaire is only used for descriptive purposes in this study.

The Collins Body Figures Scale (Collins, 1991) also has acceptable test-retest reliability as well as acceptable validity scores. The test-retest reliability coefficients for figure selections were respectively 0.71, 0.59, and 0.38 for "Self", "Ideal Self" and "Ideal Child" figure selections. On the other hand, the criterion-related validity coefficients were as follows: "Pictorial Self and Weight" = 0.36; "Pictorial Self and BMI"=0.37 (Collins, 1991). However, the Collins Body Figures Scale (Collins, 1991) is only used for descriptive purposes in this study.

Trustworthiness of the Study

Several precautions were taken to ensure trustworthiness of the study, specifically the credibility and authenticity. First, attention was paid to contact a well established school with an experienced and knowledgeable principal and teacher. Second, the interviews were as long as the interviewees permitted them to be, in order to gather significant amounts of data that reflect the actual perceptions of the participants. Third, I tried to acknowledge my biases

and not let them affect the responses of the interviewees as well as the young girls. Fourth, there were inter-rater reliability checks for the categorization of the data between myself and my supervisor.

Limitations

This study has some limitations. Firstly, the results of this study cannot be transferred nor generalized to other elementary schools in Ontario. This is due to the nature of the study, which is a case-study. Secondly, I was unable to interview other significant individuals in the community such as parents, relatives, and friends of students due to limits in time and resources. The latter would have provided the study with more variety and richness. Thirdly, another limitation of this study is participant bias, as humans are involved.

Significance of the study

This study will contribute to the advancement of knowledge in many ways, mainly by addressing some of the limitations of previous research. Firstly, this study looked at the issue of body image and eating habits of girls in an original way, within the Comprehensive School Health program. Secondly, it contributed to the development of a better understanding of the body image, eating habits, and health perceptions of young girls in a rural Ontarian elementary school. Furthermore, the school under study was a rural one. Hence, investigating the body image and eating habits of young girls in rural contexts, as well as the health profile of a rural school was unique. Thirdly, this study used a variety of data collection methods, which provided this study with richness in depth and in scope. Fourthly, this study involved triangulation of methods that were used to investigate the body image, eating habits, and health perceptions of young girls. The three different methods involved were the focus groups, the shortened version of the Children' Eating Attitude test questionnaire (Maloney et al., 1988), and the Collins Body Figures Scale (Collins, 1991). In

addition, there was triangulation of the sources of information used to investigate the health initiatives at the school. These sources consisted of the principal of the school, the teacher of the 6th grade, and the girls of the 6th grade. Triangulation is an important research strategy that increases the validity of a research project (Mathison, 1988). Therefore, using both, data triangulation and methodological triangulation contributed to the richness and significance of this study.

CHAPTER IV

RESULTS

This chapter is divided into five sections: (1) School context, (2) Interview results, (4) Portrait of the health initiatives at the school, (4) Focus group results, and (5) Portrait of the girls of the 6th grade. In the first section, there is presentation of general information about the school such as its location, number of students and staff, as well as available information on ethnicity of students and the socio-economic profile of the school. In the second section, the results of the interviews conducted with the principal and with the teacher of the 6th grade are presented. In the third section, there is representation of a figure that lays out the health initiatives at the school. In the fourth section, the results of the focus groups with the girls of the 6th grade are presented. This section also includes the results of the Collins Body Figures Scale (Collins, 1991), as well as those of the shortened version of the ChEAT-26 questionnaire (Maloney et al., 1988). Finally, in the fifth section, there is representation of a figure that summarizes the health views, body image, eating habits, and physical activities of the girls.

School context

The context of the school in which this project took place was rural. The school had classes going from kindergarten to grade 8. The number of students registered at the time of this study was 248 students, and the staff consisted of 17 individuals including teachers, the librarians, and assistants. It is located on the Western boundary of the City of Ottawa. This school was not on the list of beacon schools in Canada, therefore we can conclude that it was not situated on the lower end of the SES ladder. I was not able to obtain further specific information on the socio-economic profile of the school due to confidentiality issues. The students were homogeneous in terms of ethnicity, as this was obvious from their physical

appearances, and was furthermore assured by the teacher of the 6th grade and the secretary of the school.

Interview results

Two interviews were conducted, one with the principal of the school, and the other with the teacher of the 6th grade at the school.

The interview guides were designed to develop a better understanding of the health initiatives that were taking place at the school, specifically of those related to body image and eating habits of students.

The results of the interviewees are presented according to the themes and concepts that emerged from the interviews. First, there is presentation of the results of the principal's interview, then those of the grade 6 teacher.

Principal's Interview Results

Health initiatives at the school

The principal talked about some health initiatives that took place at the school and others that were on-going. He said that they brought in speakers to discuss health issues such as sexuality and nutrition. For example, they recently had someone from the dairy board come and talk to the students about daily dairy requirements and their importance. The principal said: "Sometimes, we have people from different organizations like the dairy board, presenters come in sometimes." In addition, the principal talked about on-going health initiatives at the school. He said that there weren't any major health initiatives, except for the Daily Physical Activity mandate and what is addressed in the classroom in relation to health. He said: "Just the part of whatever they are taking out of the curriculum, and applying in there in the classroom I mean". The principal focused on the implementation of the Daily Physical Activity mandate at the school. He said: "We have the Ministry mandate of Daily

Physical Activity." He explained that the students did 20 minutes of physical activity every day, except for days when they had gym periods. He said: "20 minutes on the days when they don't have a regular Phys-Ed period. And our classes here get three regular Phys-Ed periods." In addition, the principal said that the teachers tried to incorporate the health components of the curriculum into their classes. He said: "The different teachers do health units and incorporate the curriculum into their classrooms".

In regards to nutrition, the initiatives were limited to what was being addressed by teachers in the classroom, in addition to the "family classes" which consisted of cooking classes for grades 7 and 8. He said: "The 7th and 8th grade classes have family classes, where the students are taught to make healthy snacks such as wraps." The principal also added that the teachers tried to incorporate the Canadian Food Guide pyramid into the family classes, and looked at the different food categories and their role in the body functioning. The principal also added that the intermediate teacher of the 7th and 8th grades has been addressing body image with the students. He said: "Body image. I know the intermediate health teacher has been doing that with the grade 7 and 8." He added that the teacher was addressing such an issue by using web-based material and some other print material and having the students reflect on their body image and on the messages the media was sending.

The principal clearly stated there were no links with the community. However, there was contact with the parents for issues related to allergies as well as individual health problems. He said: "Not so much with community". He added: "Definitely, contact with parents. For example, food allergies... We are in close contact with the parents." In addition, he mentioned that they were in contact with some public health units that provide them with support material. The principal said: "We have links with Public Health units. They provide support materials for us." In addition, the principal said that they were linked to a nurse that

came to the school once in a while. He added that she came to the school recently and did a presentation for the staff on the new material they created to share information more easily. He said: "She came in about 2; 3 weeks ago...4 weeks ago, for Christmas, did a presentation for the staff on the new materials they've created. They are looking at new format to share the information. So they created a webpage, a CD that they handed out, which they are trying to help the teachers by making it close to the curriculum."

Reactions of students and challenges

The principal talked about the reactions of the students to the health initiatives of the school. He said that they actively participated and that they were specifically enthusiastic about the cooking classes. He said: "I think they accept it well, they participate well, the class they enjoy is the family study, hands on, especially there".

The principal viewed that the main challenge was to help students carry the messages that were ingrained in them at the school. In other words, he believed that the school is doing its best to educate students on health issues. However, he was worried about them maintaining healthy habits after leaving the school. He said: "They know the information, its like most people, like adults...We know the information, but it's making the right choices after."

Teacher's Interview Results

Health components in the curriculum

The teacher of the 6th grade clearly said that the health components of the Health and Physical Education curriculum had not been addressed yet in class. He said: "We haven't started the health component yet". The teacher clearly explained that he was aware of the presence of nutrition and body image components in the curriculum, but that he did not have

the chance to address them yet. He said: "Well there is for sure like a part of the curriculum that subdivided the categories and one of them is the health, and there's the nutrition".

Health initiatives and programs

In general, the teacher talked about the Daily Physical Activity mandate of the Ministry of Education and Training in addition to some health initiatives and programs happening at the school. In specific, he referred to a hand washing initiative, different sports activities, as well as some nutrition initiatives.

According to the teacher, the hand washing initiative consisted of awareness sessions that were conducted by a Public Health nurse in addition to the distribution of posters in the school. He said: "Well, last year, we had someone come in from the Ontario Health Nurse for hand washing...So there is a hand washing initiative going on....So there are posters around..."

Regarding physical activity, the Daily Physical Activity mandate seemed to be well implemented at the school. The teacher said that the students did 20 minutes of physical activity every day. He said: "Yeah, we try to get it in 20 minutes every day". When asked about the types of physical activity they did, the teacher said the students played basketball, did races, danced, and engaged in cooperative sports games. He said: ""For daily Phys-Ed, I'm trying to do more cooperative games or games that involve less structure, so sometimes we'll go outside to play race, like we did the other day...Sometimes we do like a dance thing." The teacher also said that he tried to keep it varied, and that he used the Ontario Physical and Health Education Association (OPHEA) newsletter for ideas on different physical activities. He said: "I get a newsletter from OPHEA and I do the daily Physed...and I've gone through some of them...so it depends...It's not a structure for me..." In addition, the teacher said that there were always different sport activities at the school such as

basketball and volleyball tournaments. He said: "They do lots of sports at the school. There is a volleyball tournament going on now....There is basketball coming up next...There is always a sport either at lunch time or before school, after school...So we run sports programs all year long and I think it helps".

In relation to nutrition and body image, the teacher said that he had not been able to address the nutrition and body image components of the curriculum in class yet, but that he was willing to do so soon. He said: "Well, there is a health component in the curriculum. I just haven't got to it yet. Hopefully, the next couple of months, I'll be doing healthy eating." However, he said that nutritional issues were tackled on an individual basis. He said: "If I see someone who's eating junk all day, I'll call the parents or send them an email or something or talk to the student about what they're eating". He also gave the example of one of the girls in the class, and said that her food intake was closely being monitored due to her bulimic condition. The teacher said: "Another girl in the class has uh...I'm in pretty close contact with her parents about...She has some psychological problems...part of it is bulimia..." Finally, the teacher pointed out that the absence of a cafeteria at the school was an advantage of the school, as it contributed to less junk food consumption. He said: "Well, there is no cafeteria, and there is no vending machine...So if you look at it, in another school, a problem would be selling junk but we don't have that so..."

Views on students' health

The teacher stressed that he acknowledged the importance of addressing healthy eating among students, and that he was planning on implementing it in the classroom in the near future. Finally, he said that he viewed his class as a healthy group. In specific, he thought that very few students were overweight, very few had negative body image, and that

the majority was very athletic. He said: "For my class specifically, there aren't too many kids that are overweight." He also added: "They do lots of sports at the school".

Portrait of the health initiatives at the school

The figure below (See Figure 1) represents a summary of the different health initiatives at the school, as described by the principal and the teacher of the 6th grade.

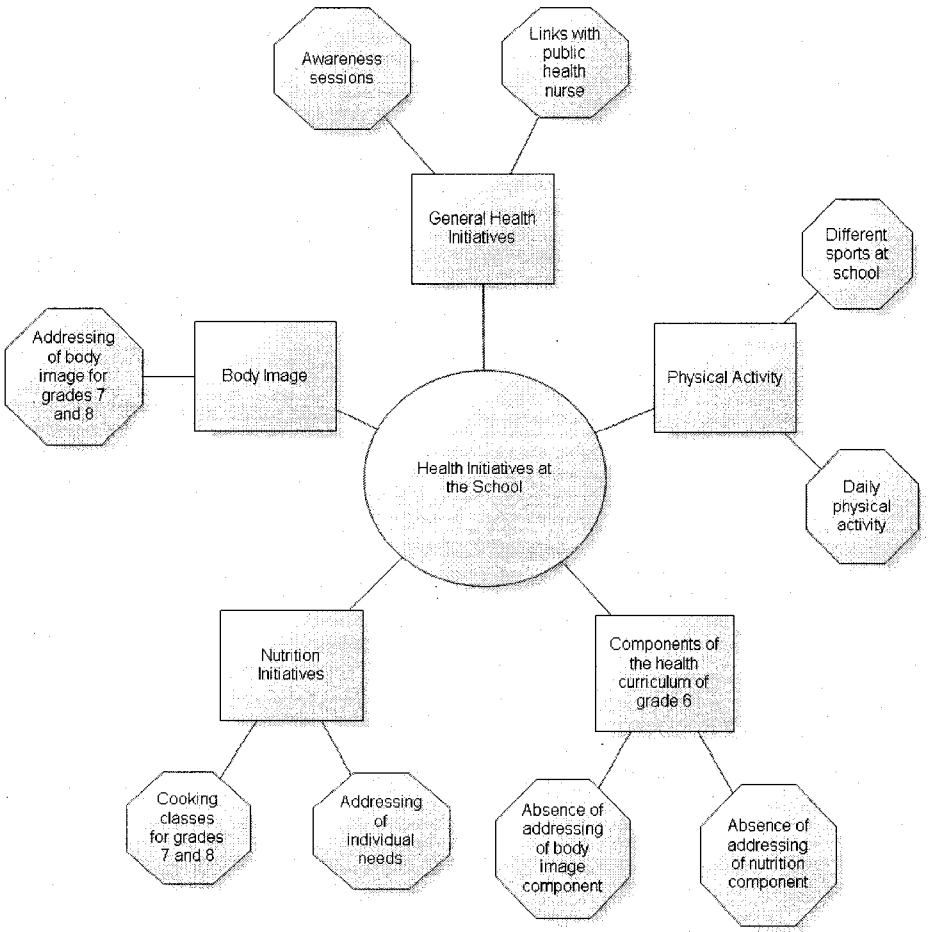

Figure 1. Portrait of the health initiatives at the school.

In summary, the health initiatives discussed by the interviewees can be categorized into 4 groups: (1) general health initiatives, (2) initiatives related to nutrition, (3) initiatives related to physical activity, and (4) initiatives related to body image. I will summarize the initiatives related to each category, then draw on some relevant points.

The main general health initiatives going on in the school were awareness sessions related to various issues such as sexuality, hand washing, drugs, and nutrition. In addition, the school had some links with public health units as well as a public health nurse that comes into the school sometimes.

Regarding nutrition, the main on-going initiative in the school was the "family program" or "the cooking classes", where students of the 7th and 8th grade were taught to cook healthy meals. In addition, the interviewees talked about addressing nutritional needs on an individual basis, and pointed out the absence of the cafeteria as an advantage of the school.

The main initiative related to physical activity at the school was the Daily Physical Activity mandate, which is required by the Ontario Ministry of Education and Training (1998). The school seemed to be implementing the Daily Physical Activity mandate properly, as the students did 20 minutes of physical activity everyday with their teacher, except for days when they had gym periods. In addition, sports activities such as basketball and volleyball tournaments happened all year long.

Finally, body image issues were addressed with students of grades 7 and 8. The physical education teacher used web-based materials and some other print material to stimulate students to reflect on issues related to body image and media pressures.

Focus Group Results

Two focus groups were conducted with the girls of the 6th grade at the school. Each focus group consisted of seven girls aged between 10 and 12 years old, which resulted in a total of fourteen girls for the whole study. The focus group guide was designed to develop a better understanding of the body image, eating habits, and health perceptions of the girls (See

Appendix C). The responses of the girls are presented according to the themes and concepts that emerged from the focus groups.

Being Healthy

The girls agreed on the importance of healthy eating, including a variety of foods such as fruits, vegetables, protein, and the daily requirements of dairy products. One girl said: "well have your servings of milk". Some of them mentioned the need to avoid junk food, while others said one should have some once in a while. One girl said: "And also, you can have junk food, but only like have one or two". In addition, the girls emphasized the importance of regular physical activity and staying fit. One girl said about being healthy: "Someone who exercises" and another girl said: "Keeps in shape". At last, one girl mentioned that being healthy can mean being nice to each other. When asked about what they did to stay or become healthy, the girls talked about eating different fruits and vegetables. One girl said: "Eating like fruits and vegetables". Another girl said: "Fruit, I eat watermelons". In addition, they seemed to be physically active. Their exercise routines included walking, running, jogging, ski, snowboarding, dancing, hockey, soccer and other physical activities. One girl said: "I do hockey and soccer". Another girl said: "I walk everyday".

Body Image

Surprisingly, the girls seemed to be happy with themselves and had high body satisfaction. In specific, they thought that an average body that is not too thin or too fat is ideal. One girl said: "Like I'd say like average...Because like you don't wanna be too big, but you don't wanna be too thin, because that's both unhealthy." Moreover, the girls did not show any preferences for specific body parts. Instead, they stressed on the importance of being happy with one's self. One girl said: "It doesn't matter. You are who you are." The

girls showed clear despise of very thin supermodels and celebrities. One girl said: "My mom got the star magazine and last year they had Jessica Simpson in it, and she was completely anorexic and I really didn't think that was good." They elaborated saying that it was very unhealthy and that they do not want to look like that. Overall, the girls were really happy with the way they looked and clearly stated that one should be happy with who she is. One girl said: "My mom would buy me special bread and I would eat healthy and go buy these little books but I just stopped cause now I'm happy... Yeah, I realized that I am the way I am so".

The Collins Body Figures Scale (Collins, 1991) (see Appendix D) was administered to the girls in order to develop a better understanding of their body image. The girls were asked three questions: (1) Which figure closely resembles your current body? (2) Which figure closely resembles your ideal body? (3) Which figure closely resembles what your friends think you look like?

Table 1

Mean Scores of the Responses of the Questions of the Collins Body Figures Scales

Self	Ideal	Perception of others	Ideal- Self
4.07	3.82	3.57	-0.18

The scores of the "self" body figures ranged between 3 and 6, with a mean of 4.07. On the other hand, the results of the "ideal" body figures ranged between 3.5 and 4, with a mean of 3.82 (see Table 1). To measure body dissatisfaction, Collins (1991) suggested subtracting the number assigned to the "Self" body figure from the number assigned to the ideal body figure. The results of "Ideal-Self" varied between -3 and 0.5. The mean of this

result was -0.17. The standard deviation ranged from 0.37 to 0.96. These results showed that the girls had very low body dissatisfaction. In addition, the results showed that the girls thought that their peers viewed them as being smaller than their perceived self and their ideal self. These latter results can also be considered as an indication of low body dissatisfaction. See detailed table of results in Appendix G.

Eating Habits

The participants also discussed their personal experiences in relation to eating habits and dieting behaviours. One of the girls mentioned stopping to eat because she was not hungry. She said: "That's happened to me before. I don't eat much because I was never hungry but my mom and dad were like you gotta eat something...and so I do...but they are like are you just not hungry or what's going on...And I'm like I'm just not hungry". In addition, another girl tried to lose weight by eating healthy. She said: "I kinda tried to lose a little bit of weight cause I used to eat a lot of junk food, so I tried not to be eating so much junk food". On the other hand, two girls wanted to build muscles in their arms and legs. One of them said: "I try to gain muscle in my legs because my legs are weak.", and the other said: "I wanna get arm muscles. Because I run like track and field and everything...I run to school and I run back from school and my leg muscles are pretty big, but I don't have a lot of arm muscles so..."

When asked about the dieting behaviours of people in their surrounding, the girls started to tell stories about people who wanted to lose weight. The majority of them exercised and ate healthily; however some of them adopted extreme measures such as consuming diet bars and shakes. One girl said: "My mom's friend...she has a friend, like we go on trips with them...she always keeps power bars and stuff, to try and stay in shape." The girls strongly disagreed with the consumption of bars and shakes for weight loss. They

thought that eating healthy foods and regular exercise were the best approach to lose weight. One girl said: "You should do it more naturally, like running every day, or eating fruit and vegetables instead of just eating the bars, cause some of the times, they may be good at certain points but then they might add on to it after if you keep on eating them every day."

The girls also talked about nutrition rules at school and home. There was only one nutrition rule at school. The girls were not allowed to bring peanuts to school, as some students were allergic to them. At home, many rules were set, especially by mothers. The girls were always asked to eat dinner, and were allowed limited amounts of desert or treats afterwards. One girl said: "We have to have room for our supper...and then after supper, we'll have ice cream and then that's it for the night". In addition, the majority of the girls had to eat fruits and vegetables. One girl said: "If you don't finish your vegetables or fruits at dinner or lunch or anything like that, you don't get to leave the table until you finish them...and you just don't eat the things you like". Another girl said: "I have to eat fruits and vegetables". Some girls said they were allowed to eat junk food occasionally, on weekends or when their grandparents come over. One of the girls said: "and then Thursdays, Fridays, Saturdays, and Sundays, it's like pop and whatever and then we are back on schedule on Mondays...". Another girl said: "The only time we may, well sometimes we usually get one or two cookies from our thing our aunt got us for Christmas...but usually for baked desert like cheesecake or something, it's only when my Granpa comes on every Sunday".

A shortened version of the ChEAT-26 questionnaire of Maloney et al. (1988) was administered to the participants in order to investigate if they had disordered eating patterns. As a result, the girls were asked to answer thirteen questions related to eating behaviours and attitudes (see Table 2).

Table 2

Mean Scores of Results of the Shortened Version of the ChEAT-26 Questionnaire

Question													Total
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	
0.29	0.07	0.57	0	0.79	0.07	0.21	0.64	0.14	0.21	0.29	0.21	0	3.5

Maloney et al. (1988) suggested that a score above 20 indicates that the individual has severe disordered eating patterns as well as vulnerability to develop an eating disorder; a score between 0-9 indicates that the individual is not disturbed; and a score between 10 and 19 indicates that the individual is moderately disturbed. Given that the shortened version of the ChEAT-26 questionnaire used in this study was composed of 13 questions, the scores utilized by Maloney et al. (1988) were divided into two to indicate possible tendencies. Consequently, for the purpose of this study, it can be considered that a score between 0 and 4.5 indicates that the participant is not disturbed; a score between 5 and 9.5 indicates that the participant is moderately disturbed, and a score above 10 indicates the participant has disordered eating patterns.

Due to the shortening of the original ChEAT-26 questionnaire (Maloney et al., 1988), it is important to note that the validity and reliability of the ChEAT-26 questionnaire are compromised. Therefore, the shortened version of the ChEAT-26 questionnaire is only used for descriptive purposes in this study.

In particular, the scores of the participants showed that 2 girls were moderately disturbed, as their total scores were 6, and 7. In addition, one girl had disordered eating patterns, as her total score was 19. However, the rest of the girls (n=11) did not show any

disturbance. The mean and the standard deviation of the total scores was, respectively, 3.5 and 4.97. Specifically, the questions that had high scores were the following: (Q3) I am aware of the energy (calorie) content in foods that I eat, (Q5) I cut my food into small pieces, and (Q8) I think about burning up energy (calories) when I exercise. For each of these questions, two of the girls responded "always". However, it is interesting to note that there is a high possibility that these questions were misunderstood by the girls, as they asked for clarification for these specific questions during the focus groups. Therefore, it can be suggested from the results of the shortened version of the ChEAT-26 questionnaire that the majority of the girls do not have disordered eating patterns. See detailed table of score results in Appendix H.

Physical Activity

The girls talked a lot about physical activity. In specific, they discussed the Daily Physical Activity they do every day with their teacher. One girl said: "Yeah. We started 20 minutes every day..." In addition, they elaborated on numerous sports and physical activities they practice on their own. Examples of these included: hockey, skating, skiing, walking, jogging, dancing, soccer, and many other sports and physical activities. Furthermore, they repeated many times that they thought that regular physical activity is a main component of a healthy lifestyle, as well as an appropriate way to lose weight. One of the girls said: "I try to do more swimming instead of staying inside and watching TV. I usually walk around the block if it's nice, and if it's not too snowy, I go for a bike ride."

Health Initiatives at the school

The girls clearly said that there is an absence of initiatives related to nutrition and body image this year. However, they mentioned that they have learnt about the Food Guide Pyramid in the 5th grade, and that they will be involved in cooking classes in the upcoming

year (7th grade). One girl said: "Yeah, we went through the food guide pyramid...yeah we did that in the 5th grade". Another girl said: "We do have a cooking room and grade 7 and 8 get to bake". In regards to physical activity initiatives at the school, the girls only mentioned the 20 minutes of Daily Physical Activity that they did with their teacher every day.

Portrait of the girls of the 6th grade

The figure below (See Figure 2) represents a summary of the health perceptions of the girls of the 6th grade. More specifically, it consists of a representation of their body image, eating habits, and physical activities.

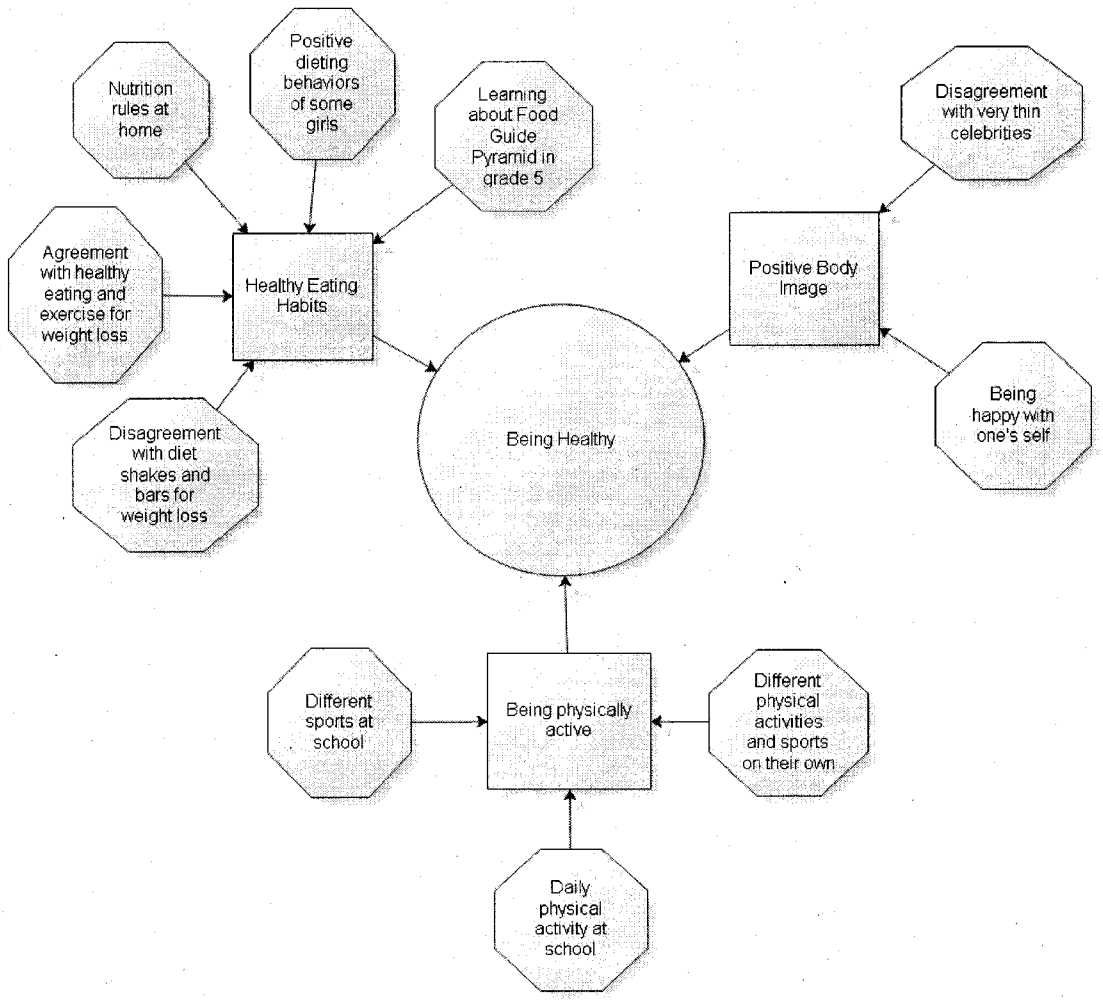

Figure 2. Portrait of the health perceptions, body image, eating habits, and physical activity of the girls.

In summary, we can observe that the girls have healthy eating habits, positive body image, and are physically active. Therefore, it can be concluded that the girls of the sixth grade are healthy in their views and practices.

CHAPTER V

DISCUSSION

Health Initiatives at the school

When addressing the issue of health at the school, the Comprehensive School Health program was the conceptual framework that was adopted for this study. The Comprehensive School Health program, which consists of an integrated set of planned, sequential, school-affiliated strategies, activities and services designed to promote optimal, physical, emotional, and social and educational development of students (Allensworth et al., 1995), did not completely guide the research inquiry in this study. As Lynagh et al. (1997) found that schools were challenged by the integration of all components of the Health Promoting School framework, and as many other studies (Brener et al., 2001; Deschesnes et al., 2003; Kolbe et al., 2001) found that schools were still focusing on the development of individual skills rather than adopting a holistic approach and integrating parents and communities, the selective criteria for this school did not require that the school have fully adopted the Comprehensive School Health program. Instead, the following two components of the Comprehensive School Health program: (1) planned health education throughout the curriculum, and (2) a healthy environment throughout the school were the selection criteria for the school. Therefore, we can consider that the Comprehensive School Health program did not fully lead this study. Instead, it shaped it and gave direction for the selection of the school and for the design of the interview guides.

Overall, the results of the interviews showed that very few health initiatives have happened and are on-going at the school. However, based on the studies of Brener et al. (2001), Deschesnes et al. (2003), Kolbe et al. (2001), and Lynagh et al. (1997), this school can be considered to be a typical one. In specific, Lynagh et al. (1997) did a literature review

on schools that have adopted the Health Promoting School framework. The results mainly showed that the implementation of the "Health Promoting School" was very challenging. In fact, none of the reviewed schools incorporated the 5 components of the framework. More specifically, developing personal skills was found to be the component that was mostly implemented, which is consistent with the school in this study. As the interviewees revealed, they often addressed nutrition and body image issues on an individual basis. Furthermore, health policies, incorporating a supportive environment, and reorienting services were the least incorporated components in the reviewed school-based studies by Lynagh et al. (1997). This is also consistent with the school in this study, as there was no involvement of a supportive environment or of implementation of health policies. Similarly, Deschesnes et al. (2003) discussed that attention was still addressed to the development of personal skills rather than the integration of a holistic approach in schools that have adopted the Comprehensive School Health program and the Health Promoting School framework. Furthermore, Brener et al. (2001) and Kolbe et al. (2001) found that the components linked to the school environment, as well as the involvement of parents and communities are still very limited.

Overall, we can say that the school under study is a typical one, and it may be in need for more funding and support in order to establish more solid health initiatives, as well as more interactive relations with its surrounding community. This observation led to a number of questions. To what extent are schools responsible for the health education of students? Are Ministries of Education and governmental associations being too demanding when it comes to health education in schools? Given that girls in this study had healthy lifestyles and positive body image, and were health aware, could it be that their schools are doing more than enough in regards to health education? On the other hand, as the literature showed that

the majority of children had unhealthy eating habits, and that a lot of them had body dissatisfaction, different questions arise: How can schools go beyond basic health education of students? How can they accomplish the integration of all components of comprehensive health programs? What are the main barriers they are facing? How can these barriers be overcome? The answers of these questions would significantly help in the improvement of health education programs in schools and consequently the health of students. Hence, the importance of conducting further research studies in this area is outlined.

Health Perceptions of Girls

How did the girls in this study perceive health? The girls thought that the main foundations of being healthy were proper nutrition, physical activity, and social health. In specific, proper nutrition consisting of a diet that includes fruits, vegetables, protein, dairy, and junk occasionally; physical activity consisting of various sports and daily physical activity at school; and social health consisting of being nice to each other. These results are consistent with the results of the study done by Beaudoin et al. (2004), where students perceived that "being healthy" consisted of physical activity, healthy eating, and social, psychological, and intellectual health. Furthermore, and in regards to healthy eating, the results of this study were consistent with other studies in the literature, where children perceived a healthy diet to be balanced and include a variety of foods. Overall, we can say that the girls were aware of what it meant to be healthy, and of what the main foundations of a healthy lifestyle were. However, are these perceptions translating into action? In regards to the girls in this study, we can say that their actual lifestyles were healthy, and thus reflected their health perceptions respectively. On the other hand, the literature showed that children were well aware of what "healthy eating" consisted of, however, the majority of children in

the studies had unhealthy eating habits. Therefore, it would be interesting to further investigate the differences in health perceptions and health behaviours of children.

Body Image of Girls

The theoretical frameworks that were used for the study of the body image of girls in this study were the Perceptual Theoretical Framework as well as the Socio-cultural Theoretical Framework. Under the light of these two theoretical frameworks, I was hoping to better understand the perceptions of the girls regarding their own bodies, the accuracy of these perceptions, as well as the role of socio-cultural factors such as the family, peers, and media in influencing their perceptions of their bodies. Therefore, these two theoretical frameworks guided this research inquiry from the start until the end. Furthermore, they played an important role in the shaping of the research questions, the methodology, as well as data analysis techniques.

What is the body image of the girls in this study? The focus groups as well as the Collins Body Figures Scale (Collins, 1991) were consistent in showing that the girls did not have body dissatisfaction. The girls thought that one should be happy with one's self, and that an ideal body is neither too fat nor too thin. Furthermore, they showed despise towards very thin models and actresses.

Interestingly, the results of this present study are inconsistent with the studies in the literature. The majority of reviewed studies on body image around the world, including Canada, showed that body dissatisfaction was highly prevalent among young girls, and was an issue of raising concern. More specifically, girls wanted to be thinner than they were, and viewed a very thin body to be an ideal one. Consequently, several questions arise. Why are the girls in this study different in regards to their body image? Does their age group have an influence on their body satisfaction? Can it be that the trend of high body dissatisfaction

observed in the literature is just delayed for these girls? Does the rural context they are in contribute to their body satisfaction? And if yes, how can this be explained? Are rural girls raised and socialized differently in rural settings? Is less importance accorded to the physical appearance of females in rural contexts? Are peers less critical in rural contexts? Is the rural community in general more lenient when it comes to issues related to the physical appearance of the body?

However, it is important to note that the reviewed literature yielded inconsistent results on the influence of the rural context on body image of young girls. While Jackson et al. (2003) found that the Egyptian rural girls had less body dissatisfaction than urban girls, Packard & Krogtrand (2002) found than more than half of rural girls in their study had weight concerns. The questions raised above are important to address, since there are no clear answers yet. Therefore, there is need for more research on the body image of young girls in rural schools in Ontario, and on how rural contexts can influence these girls.

Eating Habits and Disordered Eating Patterns of the Girls

What are the eating habits of the girls in this study? The shortened version of the ChEAT-26 questionnaire (Maloney et al., 1988) showed that two of the girls had moderate scores, while one girl had a high score. Such interpretations are consistent with studies in the literature that showed that around 20-30% of girls that participated in studies had disordered eating patterns (Jones et al., 2001; McVey et al., 2005). However, as this study used triangulation of methods, the information obtained from the various sources suggested different interpretations of results. First, the message the girls conveyed to me was dislike of very thin models and their eating habits, as well as disagreement with the consumption of diet bars as a mean to lose weight. Although two of the girls talked about attempts to lose weight, they tried to by adopting healthy behaviours such as healthy eating and exercise.

They also focused on being happy with oneself. Second, the teacher of the 6th grade believed that the students of his class were healthy and thought that they did not have negative body image. Third, there is a high possibility that some of the questions were misunderstood by the girls, as they asked for clarification during the focus groups. As a result, I would question the validity of certain questions of the ChEAT-26 questionnaire. Although the ChEAT-26 questionnaire has acceptable validity scores (Maloney et al., 1988), is it possible that the social reality related to issues of body image and nutrition has changed for young girls since the development of the questions of the ChEAT-26? Could it be that some of these questions are not valid anymore? In sum, basing myself on the responses of the girls in this study, the view of the teacher of the 6th grade, and the possibility of misunderstanding and invalidity of some of the questions of the ChEAT-26 questionnaire, it can be suggested that the girls did not have disordered eating patterns.

Therefore, it is argued that such results are inconsistent with the literature, as the reviewed studies showed that children had unhealthy eating habits and were developing dieting and disordered eating patterns at early ages. Again, many questions arise. Why are these girls different in regards to their eating habits? Does the rural context influence the eating habits and the level of disordered eating patterns in these girls? And if yes, how can this be explained? Are rural children raised to eat more natural and healthy foods? Are parents stricter about food choices in rural contexts? Is junk food less available to rural girls? Are rural girls less concerned with their physical appearance, and consequently do not attempt to follow diets to change their bodies? Are family bonds stronger in rural areas? If yes, does that help in protecting girls from the development of disordered eating patterns? Finding answers to these questions would help in developing a better understanding of the

eating habits of girls in rural contexts. Hence, the need for more research in this area is highlighted.

Socio-cultural Channels

Linking the results of the interviews to those of the focus groups, an interesting question arises: Where are the girls receiving health education? Given that very few health initiatives are happening at the school, and that the girls didn't have body dissatisfaction, had healthy eating habits, and were very aware of the main foundations of a healthy lifestyle, it is suspected that socio-cultural channels such as family, peers, the media, and the community play important roles in delivering health messages. In fact, the role of these channels is addressed in the literature. The results of the majority of the studies showed that the socio-cultural channels played significant roles in the development of body dissatisfaction and disordered eating patterns in children. Hence, the importance of targeting these channels in comprehensive school health education programs is highlighted.

The Role of Media

In regards to the role of media in the development of negative body image and disordered eating patterns, the results of this study were inconsistent with the literature. The majority of the reviewed studies on media showed the significance of its influence on the body image and eating habits of young girls. On the other hand, the results of this study showed that the girls were not influenced by the thin ideal that was promoted. On the contrary, they showed clear despise of very thin models and actresses. A question that arises is: Does the rural context contribute to the awareness of these girls and their resistance to the implicit messages of the media? Do rural girls watch less television and look at magazines less frequently? Do they relate less than urban girls to actresses and celebrities? Hence, there is need for more research on such issues in rural locales in order to answer such questions.

The Role of Peers

The Collins Body Figures Scale (Collins, 1991) showed that the girls thought that their peers perceived them as being smaller than how they actually perceived themselves and smaller than their ideal body figures. The vast majority of the reviewed studies on peer influences in the literature showed a significant relation between peers' body dissatisfaction and one's own body image. In addition, peer teasing and how peers perceived others' bodies had an impact on the body image of children. These results go hand in hand with the results of this study. In specific, the girls thought that their peers perceived them as smaller than what they thought they looked like and smaller than their ideal body figure. Hence, these perceptions may have influenced their body image, which were positive.

The Role of Parents

The influence of parents on the body image perceptions and eating habits of children has been discussed in the literature. The majority of the studies were consistent in showing that parents play an important role by influencing food choices, controlling accessibility of food, expressing their personal perceptions of their children's bodies, and acting as role models. In this study, the participants thoroughly discussed their parents' dieting experiences, as well as food-related rules related at home. The girls talked mostly about their mothers. First, they described how their mothers tried to lose weight. Their focus on mothers was consistent with the reviewed studies in the literature, as children were found to be influenced by their mothers rather than their fathers. Furthermore, the literature showed that the dieting behaviours of mothers had a significant impact on the dieting patterns of children. The latter link is evident among the girls in this study, since their eating habits went hand in hand with those of their mothers, who seemed to focus on healthy foods. Second, they talked about the different food-related rules set at home. Some studies in the literature showed that

if a child was asked to eat a certain type of food in order to obtain a reward, this may lead to a decrease in the liking for the food for which the reward is offered (Birch, 1999). In this study, the girls revealed that they were asked to eat fruits and vegetables to be able to eat desert afterwards. Hence, it would be interesting to further investigate whether such a rule would contribute to the decrease in their liking of fruits and vegetables or whether it is an effective strategy in improving the eating habits of children.

CHAPTER VI

CONCLUSION

Summary

The purpose of this study was to develop a better understanding of the body image, eating habits, and health perceptions of girls in a rural Ontarian elementary school that has adopted two of the components of the Comprehensive School Health program. The first research question was: What are the body image, eating habits, and health perceptions of the girls of the 6th grade of an rural Ontarian elementary school? Consequently, the two sub-research questions were: (1) How do these girls perceive health? and (2) How do these girls perceive their body image and eating habits? The second research question was: How does this school promote health in its environment? Consequently, the two sub-research questions were: (1) What does this school do to incorporate health initiatives into its environment?, and (2) What does the teacher of the 6th grade do to address body image and eating habits in his class?

Although the main perspective of this study was qualitative, it adopted a variety of data collection methods such as interviews and focus groups, as well as standardized measures, which are the Collins Body Figures Scale (Collins, 1991) and a shortened version of the ChEAT-26 questionnaire (Maloney et al., 1988). Using such a combination of methods was helpful in obtaining a holistic picture of the school under study, as well as an in-depth understanding of the health perceptions, body image, and eating habits of the girls of the 6th grade.

Consequently, several main ideas were concluded from the interviews that were conducted with the principal of the school and the teacher of the 6th grade. First, there were some initiatives that have been done at the school and others that were still on-going. The

interviewees revealed that some initiatives have been done such as awareness on sexuality, and other health issues, and that some initiatives were on-going such as daily physical activity, cooking classes, and addressing of body image in grades 7 and 8. Second, there was a will to initiate more health initiatives in the future. The two interviewees both acknowledged the importance of addressing the health of students, and implied that more initiatives will be done in the near future. Third, the health components related to nutrition and body image of the Health and Physical Education curriculum (Ministry of Education and Training, 1998) of the 6^{th} grade were not being addressed.

In addition, many ideas were drawn from the results of the group discussions, the Collins Body Figures Scales (Collins, 1991), and the shortened version of the ChEAT-26 questionnaires (Maloney et al., 1988). First, the girls were aware of the importance of being healthy and of what it meant to be healthy. They considered healthy eating and physical activity as the main foundations of a healthy lifestyle. The majority of the girls followed a diet that consisted of fruits, vegetables, protein, and dairy. Moreover, they were involved in many physical activities and sports. They viewed extreme diet behaviours such as the consumption of diet bars and shakes as inappropriate and thought that healthy eating and exercise were crucial for healthy weight loss. Second, the girls had low body dissatisfaction, were aware of the negative influences of media and of the unhealthy consequences of being very thin. They clearly showed despise of extremely thin actresses and celebrities. Moreover, they stressed on the importance of being happy with one's self. Third, the girls clearly expressed that there was an absence of initiatives related to nutrition and body image in class. However, they mentioned that they have been introduced to the food guide pyramid in grade 5, and that they will be involved in cooking classes in grade 7. In addition, they talked about doing daily physical activity with their teacher at school.

Recommendations

I will first start with the recommendations directed to the school, and then I will underline those addressed to the parents of the girls.

The first obvious recommendation for the school is to implement the health components of the Health and Physical Education curriculum (Ministry of Education and Training, 1998), which are related to nutrition and body image. Although the Ministry of Education and Training (1998) requires that these components be implemented, this study showed that they were not being integrated in the school under study. Therefore, it is important to comply with this requirement, which addresses important aspects of students' health. Another recommendation would be to initiate interactive nutrition and body image programs at the school, which aim at raising awareness of the students. Although the girls in this study were found to have healthy eating habits, positive body image, and low levels of disordered eating patterns, I believe it is imperative to have on-going programs that promote healthy eating habits, positive body image, and that raise awareness in regards to the messages the media is sending about the ideal body. Having such programs at the school is crucial as a means of preventing future issues related to body dissatisfaction and disordered eating patterns among young girls.

In addition, as the literature highlighted the importance of the role of parents and peers in influencing the views of children in regards to health and the body, it is important that the school establishes solid links with its surrounding community through interactive health awareness campaigns and programs. Finally, and most importantly, there is need for effective cooperation between the Ontario Ministry of Education and Training, governmental associations, schools, parents, and surrounding communities in order to attain the highest level of health for students.

On the other hand, parents have an important role in the health education of their children, and therefore should actively cooperate with the school for this purpose. A solid partnership between parents and the school should be established, and there should be continuity between the health education process at school and at home. Such cooperation would assure that children are receiving consistent health messages. Moreover, parents should educate themselves on the guidelines of a healthy diet, and integrate these guidelines into their daily lives, as well as those of their children. For example, parents can contribute through close monitoring of their lunch boxes, preparation of healthy meals at home, shopping for healthy food together, as well as many other similar strategies. In addition, since the literature showed that mothers highly influence the body image and eating habits of their girls, they should act as positive role models. Therefore, mothers should make a conscious effort to become healthier, try not to show dissatisfaction with their own bodies, and adopt healthy eating habits for themselves. Finally, there is still no consensus on the effect of setting food-related rules on the eating behaviours of children. Therefore, at the present, rather than setting restrictions and rules, parents should focus on openly discussing nutrition matters with their children to reach mutual agreements on the types and portions of food they should be eating.

In regards to methodology, the majority of studies reviewed in the literature used quantitative methodologies, while qualitative data collection techniques such as interviews and focus groups would have been very helpful in developing a deeper understanding of issues related to the school health, health perceptions, and body image of children. Therefore, the adoption of qualitative methodologies or a combination of both quantitative and qualitative ones in future studies would give a more holistic and deeper picture of schools and the health of their students.

In specific, my experience with focus groups was very positive and enjoyable. Furthermore, it served the purpose of this study very well. The girls were very cooperative and discussed proposed issues in an orderly fashion. In addition, the presence of my colleague Tracy Moore with me during the focus groups helped tremendously in the organization of the focus groups and contributed to the smoothness of the procedure. Above all, I found that the integration of the Collins Body Figures Scale (Collins, 1991) and the shortened version of the ChEAT-26 questionnaire (Maloney et al., 1988) into the focus group sessions was a unique and successful strategy, as it helped in obtaining a more complete picture of the body image and eating habits of the young girls. Overall, I really enjoyed doing focus groups and would highly recommend them as a data collection method.

Future Research Directions

This study shed the light on many new areas of research. First, although the school had very few on-going health initiatives, it was considered to be a typical elementary school when compared to others in the literature. However, it is important to note that there is still an urgent need for more solid research on the Comprehensive School Health program, and how it can be implemented in a more complete way in schools. In specific, studies should look at how parents and the community can be further involved; at the obstacles schools are facing in the implementation of the Comprehensive School Health program; at ways to overcome these obstacles. Furthermore, there is need to investigate the role of teachers in the process of health education in schools, and how they can become leaders in the integration of comprehensive health notions into their classrooms. Second, the girls in this study showed low levels of body dissatisfaction, low levels of disordered eating patterns, and healthy eating habits. Since these results are inconsistent with the reviewed literature, there is need for more research on rural schools and their students. More specifically, it would be

important to investigate the influence of the physical environments in rural areas, specifically the availability of different kinds of foods, space, popular magazines, movie theatres, and other similar influencing factors. In addition, studies on the interactive relationships between children, and their rural communities including parents, peers, and relatives would be helpful in developing a better understanding of how issues of health and body are perceived and addressed. Third, there is need for more research on how children perceive health, as it would assist in the development of more effective comprehensive health programs in school environments. Furthermore, looking at the differences between health perceptions and health behaviours of children is very important in order to understand whether what they perceive is being translated into action. Fourth, there is need for more research on the role of parents in influencing the body image and eating habits of young children, specifically on food-related rules set at home.

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APPENDIX A

Principal Interview Guide

Introduction

1) Could you tell us a little about yourself (how many years teaching experience, how many years at this school, training, etc.)?
2) What is the mandate or vision of the school?

Key questions

3) How do you address the health of children in your school?
4) Any particular health promotion programs, initiatives?
    a) Since when?
    b) How did they start?
    c) How were they implemented?
5) Who is involved? Teachers…?
    a) Links with community and parents?
    b) Other health professionals?
6) What kind of health problems, concerns or needs do you expect these initiatives to solve or help addressing?
    a) Body image and physical activity habits?
    b) Was there an assessment of these specific needs?
7) How do the children react/ take part of these initiatives?
    a) Their reaction, participation…?

Closing questions

8) After doing all this work, what do you think are the next challenges/ needs to address in your school? For children?

9) Would you like to make any additional comments or clarify anything?

APPENDIX B

Classroom Teacher Interview Guide

Introduction

1. Could you tell us a little about yourself (how many years teaching experience, how many years at this school, training, etc.)?

School Curriculum

2. What is the main focus of the curriculum of grade 6? What is mainly taught?
3. Do you address health issues such as healthy nutrition choices, body image, & self-esteem, in your class?
    a. How do students react to these?

Health Initiatives

4. Are you involved in the different health initiatives developed or implemented, in your school?
    a. How? In What?
    b. Extra-curricular activities?

Conclusion

5. To finish our interview, are there any messages that you would like to transmit to your students during the school year?
6. Would you like to make any additional comments or clarify anything?

APPENDIX C

Focus Group Guide

Warm-up questions

1. What does it mean for you to be "healthy"?
2. What do you do to become or stay "healthy"?

During our meeting today, we will be talking about three topics: nutrition, and body image.

Body image questions

3. What is the body type that you like?
    a. How does it look like?
    b. Body parts? Size?

Collins Body Image Scale

After discussing health, body size and looks, we would like to know what you think of the images on the sheet we will distribute.

Everyone get a pencil please. ***Do not write your name on the paper****. I will read one question at the time. Please write the numbers of the figures you choose beside the end of the questions.*

1. Which figure closely resembles your current body?
2. Which figure closely resembles your ideal body?
3. Which figure closely resembles what your friends think you look like?

4. If you were able to change anything about your look, what would it be
    c. Then, what would you do to change it?
    d. Do you know anyone who does anything in particular to change his or her look?
    e. What do you think about it?

Now linking all this to nutritional habits

5. Did you learn anything in particular about nutrition this year, in school?
    f. Is there any particular program in the school?
    g. Are there any rules regarding lunch boxes, snacks, etc?
    h. Have you done anything with your teacher or P.E. teacher?
6. Are there any rules at home about food choices? Do's? Don'ts?

Shortened Cheat-26 scale

We talked about body image, nutrition and physical activity. Now we would like you to fill out this sheet.

Everyone get a pencil please. ***Do not write your name on the paper****. I will read one question at the time. Please read each question carefully and circle the appropriate answer.*

We have finished our discussion.

Do you have any questions?

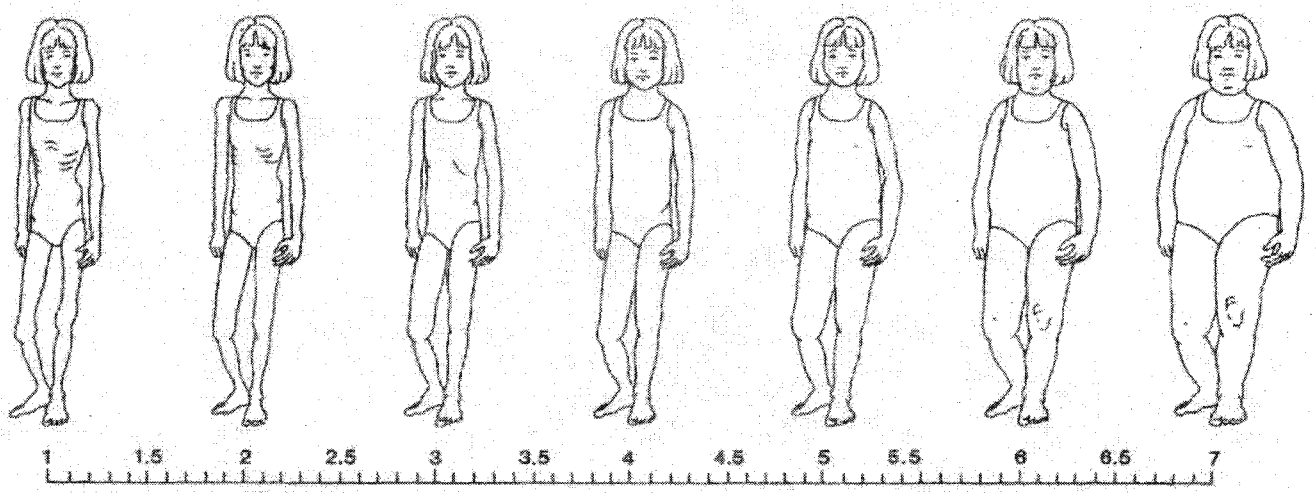
Would you like to add any comments?

Thank you for taking part of our group discussion today.

APPENDIX D

Collins (1991) Body Image Scale – Girls

Please look carefully at the figures below, and answer questions 1., 2., and 3.



1. Which figure closely resembles your current body? Answer _____

2. Which figure closely resembles your ideal body? Answer _____

3. Which figure closely resembles what your friends think you look like? Answer _____

APPENDIX E

The Children's Version of the Eating Attitude Test-26 (Maloney, J. et al., 1988)

1. I am scared about being overweight.	Always	Very Often	Often	Sometimes	Rarely
2. I stay away from eating when I am hungry.	Always	Very Often	Often	Sometimes	Rarely
3. I think about food all the time.	Always	Very Often	Often	Sometimes	Rarely
4. I have gone on eating binges where I feel that I might not be able to stop.	Always	Very Often	Often	Sometimes	Rarely
5. I cut my food into small pieces.	Always	Very Often	Often	Sometimes	Rarely
6. I am aware of the energy (calorie) content in foods that I eat.	Always	Very Often	Often	Sometimes	Rarely
7. I try to stay away from foods such as breads, potatoes and rice.	Always	Very Often	Often	Sometimes	Rarely
8. I feel that others would like me to eat more.	Always	Very Often	Often	Sometimes	Rarely
9. I vomit after I have eaten.	Always	Very Often	Often	Sometimes	Rarely
10. I feel very guilty after eating.	Always	Very Often	Often	Sometimes	Rarely
11. I think a lot about wanting to be thinner.	Always	Very Often	Often	Sometimes	Rarely

12. I think about burning up energy (calories) when I exercise.	Always	Very Often	Often	Sometimes	Rarely
13. Other people think I am too thin.	Always	Very Often	Often	Sometimes	Rarely
14. I think a lot about having fat on my body.	Always	Very Often	Often	Sometimes	Rarely
15. I take longer than others to eat my meals.	Always	Very Often	Often	Sometimes	Rarely
16. I stay away from foods with sugar in them.	Always	Very Often	Often	Sometimes	Rarely
17. I eat diet foods.	Always	Very Often	Often	Sometimes	Rarely
18. I think that food controls my life.	Always	Very Often	Often	Sometimes	Rarely
19. I can show self-control around food.	Always	Very Often	Often	Sometimes	Rarely
20. I feel that others pressure me to eat.	Always	Very Often	Often	Sometimes	Rarely
21. I give too much time and thought to food.	Always	Very Often	Often	Sometimes	Rarely
22. I feel uncomfortable after eating sweets.	Always	Very Often	Often	Sometimes	Rarely

23. I have been dieting.	Always	Very Often	Often	Sometimes	Rarely
24. I like my stomach to be empty.	Always	Very Often	Often	Sometimes	Rarely
25. I enjoy trying new rich foods.	Always	Very Often	Often	Sometimes	Rarely
26. I have the urge to vomit after eating.	Always	Very Often	Often	Sometimes	Rarely

APPENDIX F

Shortened Version of the Children's Eating Attitude Test-26 questionnaire

1. I am scared about being overweight.	Always	Very Often	Often	Sometimes	Rarely	Never
2. I think about food all the time.	Always	Very Often	Often	Sometimes	Rarely	Never
3. I am aware of the energy (calorie) content in foods that I eat.	Always	Very Often	Often	Sometimes	Rarely	Never
4. I try to stay away from foods such as breads, potatoes and rice.	Always	Very Often	Often	Sometimes	Rarely	Never
5. I cut my food into small pieces	Always	Very Often	Often	Sometimes	Rarely	Never
6. I feel very guilty after eating.	Always	Very Often	Often	Sometimes	Rarely	Never
7. I think a lot about wanting to be thinner.	Always	Very Often	Often	Sometimes	Rarely	Never
8. I think about burning up energy (calories) when I exercise.	Always	Very Often	Often	Sometimes	Rarely	Never
9. I stay away from foods with sugar in them.	Always	Very Often	Often	Sometimes	Rarely	Never
10. I eat diet foods.	Always	Very Often	Often	Sometimes	Rarely	Never
11. I feel uncomfortable after eating sweets.	Always	Very Often	Often	Sometimes	Rarely	Never

12. I have been dieting.	Always	Very Often	Often	Sometimes	Rarely	Never
13. I like my stomach to be empty.	Always	Very Often	Often	Sometimes	Rarely	Never

APPENDIX G

Results of the Collins Body Figures Scale (Collins, 1991)

Table G1

Results of the Collins Body Figures Scale (Collins, 1991)

Girls	Self	Ideal	Perception of others	Ideal-Self
Girl 1	3.5	4	3	0.5
Girl 2	3.5	4	1.5	0.5
Girl 3	4.5	4	4.5	-0.5
Girl 4	4	4	4	0
Girl 5	6	3	3	-3
Girl 6	4	4	3	0
Girl 7	3.5	4	2.5	-0.5
Girl 8	4.5	4	4.5	0
Girl 9	3	3	3.5	0
Girl 10	4	4	4	0.5
Girl 11	4	3.5	4	0
Girl 12	4	4	5	0
Girl 13	4	4	3	-0.5
Girl 14	4.5	4	4.5	0.5
Standard deviation	0.70	0.37	0.96	0.89

APPENDIX H

Results of the shortened version of ChEAT-26 questionnaire

Table H1 - *Results of the Shortened Version of ChEAT-26 Questionnaire*

Girls	Question													Total
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	
Girl 1	3	1	3	0	0	0	3	3	1	2	0	3	0	19
Girl 2	0	0	0	0	3	0	0	3	0	0	1	0	0	7
Girl 3	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Girl 4	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Girl 5	1	0	3	0	1	1	0	0	0	0	0	0	0	6
Girl 6	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Girl 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Girl 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Girl 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Girl 10	0	0	1	0	0	0	0	0	1	1	0	0	0	3
Girl 11	0	0	0	0	3	0	0	1	0	0	0	0	0	4
Girl 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Girl 13	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Girl 14	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Standard deviation	0.83	0.27	1.09	0	1.19	0.27	0.80	1.08	0.36	0.58	0.83	0.80	0	4.97

APPENDIX I

Letter of Approval of the University of Ottawa Ethics Board

Le 1er juin 2007

Charlotte Beaudoin

École des sciences de l'activité physique

Université d'Ottawa

125 Université Privée, pièce 340

Ottawa, ON K1N 6N5

Objet: Construire une école en santé (dossier H 12-05-07)

Chère Madame Beaudoin,

Vous trouverez ci-joint une attestation d'approbation éthique du Comité d'éthique de la recherche (CÉR) en Sciences de la Santé et Sciences pour votre projet de recherche mentionné en rubrique. Le Comité d'éthique a accepté votre demande de prolongation d'approbation éthique.

Au cours de votre étude, toute modification au protocole ou aux formulaires ne peut être introduite sans l'approbation préalable écrite du CÉR. Vous devez aussi aviser, dans les plus brefs délais, le CÉR de tout événement ou expérience indésirables vécus par les participants.

Cette attestation d'approbation déontologique est valide jusqu'au 12 avril 2008. Veuillez soumettre un rapport annuel en avril 2008 à la Responsable de l'éthique en recherche pour soit fermer le dossier ou faire demande d'extension. Ce rapport se trouve à l'adresse suivante:

http://www.uottawa.ca/services/research/rge/rebs/fra/index.html.

Email of Approval of the Ottawa-Carleton District School Board

Hello Charlotte,

I am pleased to let you know that the project was approved with minor revisions. These revisions (mostly wording) are to be made to the information/consent letters. Perhaps the most efficient way of doing this is for either you or your students to send me electronic copies of these letters so that I indicate the changes. If the suggested changes are agreeable to you and as soon as I receive the revised consents, etc. you can begin.

I will also be sending a signed copy of the committee's decision by regular mail.

Yasmin

Yasmin Sankar Khan
Research Officer, Quality Assurance
Ottawa-Carleton District School Board
133 Greenbank Road
Nepean, ON K2H 6L3
(613)596-8211, ext. 8667

Information and Consent for School Principal

Title of research project: Building a Healthy School

Dear Sir/ Madam

You are invited to participate in the research project entitled "Building a Healthy School" conducted by Professor Charlotte Beaudoin and her two master's students Zeina Abou-Rizk and Tracy Moore, from the School of Human Kinetics at the University of Ottawa. This research project has been approved by the University of Ottawa Research Ethics Board, the City of Ottawa Research Ethics Board, as well as the Ottawa-Carleton Research Advisory Committee.

The main purpose of this research is to better understand how one's school creates, implements, and maintains initiatives to become a Healthy School. A long term objective of this research would be to contribute to the health and active lifestyle of youth.

Your participation will consist of an ***audio-taped*** interview that will last up to one hour and conducted by one of the two master's students. You will be asked how healthy initiatives are created, implemented and maintained in your school, the people involved in these initiatives, and participation of students. The date and time of this interview will be set according to your availability and convenience, during a regular school day. Please note that the interview will be recorded and transcribed. You will have access to the transcription text, and be able to add, modify or retrieve information.

Your participation is voluntary and you can withdraw from the study at any time for any reason. If you withdraw from the study, the data gathered will be discarded and not used in any documents or

publications. You will not be asked to provide any personal information. You do not have to respond to any questions that you do not wish to answer.

Your participation in this study will primarily lead to the development of a better understanding of how different health education and promotion initiatives are integrated into schools. Furthermore, we hope that this study can help schools integrate new initiatives related to health education and promotion.

The information that you share with us will remain strictly confidential. All data from individual participants will be coded so that their anonymity will be completely protected. By doing so, the information obtained cannot be associated with a specific individual. Anonymity will be respected by assuring that your name will not be mentioned during the interview, in the transcript and any reports or publications. Furthermore, the name of your school will not be published in any documents.

The only people who will have access to the data are the researchers.. Please note that the data (documents, transcripts and cassettes) will be secured in a locked filing cabinet in the office of Professor Beaudoin at the University of Ottawa.

If you wish to participate, please return a signed copy of the consent form at the end of this letter. There are two copies of the consent form: one copy is yours to keep and the second one should be returned to Professor Charlotte Beaudoin in the self-addressed envelope provided.

If you have any questions about the study, please contact Professor Charlotte Beaudoin at the address below. If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, (613) 562-5841 or ethics@uottawa.ca.

Information and Consent for Teacher

Title of research project: Building a Healthy School.

Dear Sir/ Madam,

You are invited to participate in the research project entitled "Building a Healthy School" conducted by Professor Charlotte Beaudoin and her two master's students Zeina Abou-Rizk and Tracy Moore, from the School of Human Kinetics at the University of Ottawa. This research project has been approved by the University of Ottawa Research Ethics Board, the City of Ottawa Research Ethics Board, as well as the Ottawa-Carleton Research Advisory Committee, and the principal of the school.

The main purpose of this research is to better understand how a school creates, implements, and maintains initiatives to become a Healthy School. A long term objective of this research would be to contribute to the health and active lifestyle of youth.

Your participation will consist of an ***audio-taped*** interview that will last up to one hour and conducted by one of the two master's students. You will be asked to provide information about the new curriculum, specifically the course of health and physical education as well as how it addresses health issues such as physical activity, nutritional habits, and body image. The date and time of this interview will be set according to your availability and convenience, during a regular school day. Please note that the interview will be recorded and transcribed. You will have access to the transcription text, and be able to add, modify or remove information.

Your participation is on a voluntary basis and you can withdraw from the study at any time for any reason. If you withdraw from the study, the data gathered will be discarded and not used in any documents or publications.

The information you provide will ***not*** be used to evaluate your teaching capabilities. You will not be asked to provide any personal information. You do not have to respond to any questions that you do not wish to answer.

Your participation in the study will primarily lead to a better understanding of the role of the course of health and physical education in addressing the health of youth, in particular their active lifestyle, nutritional habits, and body-esteem. Furthermore, we hope that this study can help schools integrate new initiatives related to health education and promotion.

The information that you share with us will remain strictly confidential. All data from individual participants will be coded so that their anonymity will be completely protected. By doing so, the information obtained cannot be associated with a specific individual. Anonymity will be respected by assuring that your name will not be mentioned during the interview, in the transcript and any reports or publications. Furthermore, the name of your school will not be published in any documents.

The only people who will have access to the data are the researchers. Please note that the data (documents, transcripts and cassettes) will be secured in a locked filing cabinet in the office of Professor Beaudoin at the University of Ottawa.

If you wish to participate, please return a signed copy of the consent form at the end of this letter. There are two copies of the consent form: one copy is yours to keep and the second one should be returned to Professor Charlotte Beaudoin in the self-addressed envelope provided.

If you have any questions about the study, please contact Professor Charlotte Beaudoin at the address below. If you have any questions regarding the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 159, (613) 562-5841 or ethics@uottawa.ca.

Information and Consent for Parents

Title of research project: Building a Healthy School

Dear Parent/Guardian,

Your child is invited to participate in the research project entitled "Building a Healthy School" conducted by Professor Charlotte Beaudoin and her two master's students Zeina Abou-Rizk and Tracy Moore, from the School of Human Kinetics at the University of Ottawa. This research project has been approved by the University of Ottawa Research Ethics Board, the City of Ottawa Research Ethics Board, as well as the Ottawa-Carleton Research Advisory Committee, and the principal of the school.

The main purpose of this research is to better understand how one's school creates, implements, and maintains initiatives to become a Healthy School. A long term objective of this research would be to contribute to the health and active lifestyle of youth.

Your child's participation will consist of an audio-taped focus group session conducted by one of the two master's students during which your child will be asked to voluntarily discuss issues related to physical activity, nutritional habits, and body image. At the end of the group discussion, your child will be asked to complete the Collins Body Figure Scale (1991) and a shortened version of the Children Eating Attitude Test (ChEAT-26) questionnaire. The focus group session will be conducted during a regular school day, at the physical education teacher's convenience. The maximum duration of the session will be 45 minutes. Please note that the focus group session will be recorded and transcribed.

The participation of your child can generate light discomforts, as questions will relate to sensitive issues such as body image. However, you can be assured that your child will not be forced to answer questions that cause her or him discomfort. In addition, a sheet giving the name of a free consultation clinic specializing in body image and eating disorders will be distributed to every child taking part in the study. Also, a nurse will be present during the focus groups, in the event that sensitive issues arise.

The participation of your child in this study will primarily lead to the development of a better understanding of how different health education and promotion initiatives integrated into schools can contribute to better health and active lifestyle of youth. Furthermore, we hope that this study will be helpful to other schools that wish to integrate new initiatives related to health education and promotion.

The information that your child shares with us will remain strictly confidential. All data from individual participants will be coded so that their anonymity will be completely protected. Furthermore, the name of your child's school will not be published in any documents.
The only people who will have access to the data are the researchers. Please note that the data (documents, transcripts and cassettes) will be secured in a locked filing cabinet in the office of Professor Beaudoin at the University of Ottawa.
Your child's participation is on a voluntary basis and your child can withdraw from the study at any time for any reason. If your child withdraws from the study, the data gathered will be discarded and not used in any documents or publications.

If you have any questions about the study, please contact Professor Charlotte Beaudoin at the address below. If you have any questions regarding the ethical conduct of this study, you may contact the

Consents

The information collected for this project is confidential and protected under the Municipal Freedom of Information and Protection of Privacy Act.

I have read and understood the request for my child to participate in the study about "Building a Healthy School" conducted by Professor Charlotte Beaudoin and her two master's students Zeina Abou-Rizk and Tracy Moore, from the School of Human Kinetics at the University of Ottawa. I have discussed it with child and …

_____I give permission for my child to participate and be audiotaped (voice only).

_____I do ***not*** give permission for child to participate.

Name of Parent/Guardian (please print): _____

Signature of Parent/Guardian: _____ Date: _____

Name of Child (please print): _____

Signature of Researcher: _____ Date: _____

Assent for Children

Title of research project: Building a Healthy School

You are invited to participate in the research project "Building a Healthy School" conducted at your school by Zeina Abou-Rizk and Tracy Moore. You will be asked to participate in a group discussion with your classmates to talk about health, body image, nutrition and physical activity.

Your participation in the group discussion is voluntary, and you can refuse to continue or to answer any question at anytime.

I, _____ (name of participant) agree to participate in this audio taped focus group activity conducted by Zeina Abou-Rizk and Tracy Moore.

Signature of participant: _____ Date: _____

Signature of researcher: _____ Date: _____