ADOLESCENT HEALTH & BODY IMAGE: A FOLLOW-UP STUDY

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ABSTRACT

The purpose of this study was to understand the views and perceptions of health and body related issues among grade 11 students, five years after participating in a program: “Understanding Body Image: Helping Students Make Informed Decisions.” The program was designed to address the concerns of young people regarding their body shape with the goal of preventing body dissatisfaction.

Thirteen students agreed to participate in the follow-up study. Qualitative methods, consisting of two one-hour in-depth semi-structured interviews were used to gain an understanding of how young people perceive their own health and body image and secondly to understand what influences their health practices, beliefs and attitudes.

Overall, the participants were aware of the components of a healthy lifestyle. They identified friends/peers, parents, school, TV, magazines and the Internet as sources which provided them with health information and played a role in the students’ perceptions of a healthy lifestyle. The findings from the study also showed that the participants were very aware of the various sources of pressure that exist regarding body weight and shape. Although they identified various sources of pressure, the media was the most prominent source of pressure discussed. Despite the awareness of these pressures and the knowledge of society’s unrealistic “ideal” body type, the students continued to feel dissatisfied with their current body size and shape.

The grade 11 students in this study recalled the program they took in grade 6 and the activities which they participated in. Overall, they felt that the program provided them with useful information regarding healthy lifestyles behaviors. However, they reported that their ability to transfer the knowledge they gained into
practice now as a teenager was somewhat limited. Also, the views and perceptions of the students in this study were similar to those they had after they participated in the intervention in grade 6. Although observation and focus group discussions with the students in grade 6 from the earlier study showed that this knowledge transferred into some positive behavior changes, the findings from this study indicated that the behaviors were not carried out over long periods of time and that the students had difficulty maintaining healthy lifestyle behaviors.

The overall findings from this study highlight the need for continued health education throughout the student’s schooling years. It also suggests that intervention programs need to teach students convenient and practical ways to incorporate healthy lifestyle behaviors into their own lives as they move from elementary into secondary school. This is particularly important as young people make the transition into high school when the pressures to ‘be popular’ or ‘look good.’ have escalated. The need for intervention(s) in grade 8 may be especially crucial since this is the time when students are getting ready for a major life change.
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CHAPTER 1 – INTRODUCTION AND REVIEW OF LITERATURE

1.1 Introduction

It has been estimated that 85% of women and 40% of men are dissatisfied with their bodies (Saskatchewan Health, 2000). This dissatisfaction has been identified as a primary risk factor for the development of disordered eating behaviors (Cattarin & Thompson, 1994), possibly resulting in an eating disorder (Shisslak, Crago, & Estes, 1995). To deal with the increasing prevalence of this health concern, primary prevention initiatives have been encouraged. The promotion of such strategies is strengthened by the literature which suggests that body dissatisfaction is a primary risk factor in the development of disordered eating behaviors and possibly eating disorders (Killen, Taylor, Hayward, Haydel, Wilson, Hammer, Kraemer, Blair Griener & Strachowski, 1996; Killen, Taylor, Hayward, Wilson, Haydel, Hammer, Robinson, Litt, Varaday, & Kraemer, 1994). In addition, there are negative physical and psychological effects associated with disordered eating behaviors and eating disorders which could be prevented by the initiation of preventative measures (Neumark-Sztainer, 1996; Rosen & Neumark-Sztainer, 1998). There is also a high cost associated with treating individuals who have these conditions and the low success rate associated with these disorders and behaviors highlight the importance of promoting primary prevention strategies (Steinhausen, 1995).
It is well established in the literature that primary prevention programs should be implemented prior to puberty (Buddeberg-Fischer, Klaghofer, Gnam, & Buddeberg, 1998; Irving, DuPen, & Berel, 1998; Killen, Taylor, Hammer, Litt, Wilson, Rich, Hayward, Simmonds, Kraemer, & Varaday, 1993; Mann, Nolen-Hoeksema, Huang, Burgard, Wright, & Hanson, 1997; Moreno & Thelen, 1993; Neumark-Sztainer, Butler, & Palti, 1995; Paxton, 1993; Santonastaso, Zanetti, Ferra, Olivotto, Magnavita, & Favaro, 1999; Shisslak, Crago & Neal 1990; Smolak, Levine & Schermer, 1998). Some researchers suggest that these interventions be introduced around the ages of approximately 9-11 years. This recommendation has been based on the findings which have shown that by junior high and high school, those individuals who go on to develop eating disorders have already begun to demonstrate body dissatisfaction and weight control behaviors which mark anorexia nervosa and bulimia nervosa (Smolak, et al. 1998). Research further suggests that if children of this age group are the target group for interventions then a school setting is the best environment for delivery of the programs (Moreno & Thelen, 1993; Neumark-Sztainer, 1996; Smolak, et al. 1998). The rationale for using a school-based approach is that schools house a large captive audience. They also provide an established learning environment and offer opportunities for positive peer interaction (Rosen & Neumark-Sztainer, 1998).

The content of school-based intervention programs has been based upon the reduction of risk factors associated with disordered eating and eating disorders. Researchers have identified many risk factors that may play a role in the development of disordered eating and eating disorders (Keel, Klump, Leon, &
Rosen and Neumark-Sztainer (1998) have organized these factors into three broad domains: personal, socioenvironmental and behavioral. Of these risk factors, personal domain risk factors such as negative body image and body dissatisfaction have been identified as primary contributors in the development of disordered eating and eating disorders (Cattarin & Thompson, 1994). Recent reviews have indicated that the development of a positive body image may combat against these primary risk factors and may be attained through an intervention program (Huon, 1994; Neumark-Sztainer, 1996; Rosen & Neumark-Sztainer, 1998). Given this, targeting body image through primary prevention intervention programs is warranted.

The identification of the risk factors for disordered eating and eating disorders has initiated the development of various primary prevention programs (Buddeberg-Fischer et al. 1998; Irving et al. 1998; Killen et al. 1993; Mann et al. 1997; Moreno & Thelen, 1993; Neumark-Sztainer et al. 1995; Paxton, 1993; Santonastaso et al. 1999; Shisslak et al. 1990; Smolak et al. 1998). These prevention programs have targeted elementary students, junior high, high school and college-aged students. Overall, the researchers involved have found that intervention programs are successful at increasing knowledge, may be successful at changing attitudes regarding weight, shape and eating and may be successful at changing behavior or behavioral intentions (Shisslak, Crago, Estes & Gray, 1996).

Throughout these studies there has been a consistent recommendation for follow-up studies of the participants involved in the prevention programs (Moreno
& Thelen, 1993; Smolak et al. 1998). However, to date there have been only a small number of studies which have been evaluated longer than two years after the intervention took place (Killen et al. 1993; Neumark-Sztainer et al. 1995; Paxton, 1993; Santonastaso et al. 1999). The purpose of this study was to carry out a long-term follow-up to understand the views and perceptions of health and body related issues among grade 11 students, 5 years after participating in a program aimed to promote a positive body image and prevent disordered eating and eating disorders.

1.1.1 The Program in Grade 6: “Understanding Body Image: Helping Students Make Informed Decisions.”

The program, targeting pre/early adolescent boys and girls, was designed around the theoretical decision-making model as outlined by the provincial health curriculum (Saskatchewan Education, 1998). Phase one of the program, “Extend Knowledge Base” reinforced knowledge the students already possessed, expanded on it, and taught them to collect and evaluate additional information. It has been suggested that students who expand their knowledge and learn to gather and evaluate information are likely to make a commitment to adopting health-enhancing behaviors. Knowledge around issues such as growth and development, proper nutrition, and physical activity were explored in this step of the resource.

Phase two of the program, “Making an Informed Decision”, drew students' attention to the social realities that may prompt them to put into practice what they have learned by stressing informed decision making. In this respect, it was important that the students were able to identify their options and the short and long-term consequences of their choices. They learned the role of family, peers, and
community members as a support network that could be called upon to help them resist negative pressures that may end in health-risking behaviors. Specific topics such as the power and influence of the media and the weight loss and fitness industry were the focal points of this phase of the program, with various activities including the use of peer leaders, group work, videos, creative writing, and group discussions.

Phase three of the program, “Carry Out Action Plan”, focused on carrying out action plans and gave students a chance to practice the knowledge and skills they need if they wish to implement their action plans in daily life. Students learned to use various approaches to evaluate their progress and review their action plans. Through the development of critiquing and decision making skills provided in the program, the students were able to carry out their intended action plans through acting and role-playing.

The overall goal of the program was to encourage students to become aware of the factors that influence their body image and to make educated decisions with respect to their attitude and behavior regarding body image. The program was designed have students take personal responsibility for their own health and achieved this by having the students practice the skills of locating information, deciding what was fact or opinion, and practice making decisions based upon an accurate information base. Through this process the students became accustomed to listing alternatives available and checking those alternatives against expectations of family and school. Through this process the students would begin to understand
that the best decisions are those that have the most positive consequences on the wellness of self.

The resource included a series of 5 lessons: Physical maturation, nutrition and physical activity, power of the media, critiquing skills and decision-making skills. Each lesson provided background information related to the topic and a series of activities for students to participate. The purpose of these activities was to move beyond the delivery of information; and as such incorporated the use of peer leaders and student role playing, creating an interactive environment.

1.1.2 Research Question

What are the views and perceptions of health and body related issues among grade 11 students, 5 years after participating in an intervention: “Understanding Body Image: Helping Students Make Informed Decisions?”

1.1.3 Research Sub-Questions

1. How do young men and women perceive their health and the components of health?

2. Where do young people get information related to their health and body image?

3. What influences young people’s health and body image?

4. How do young people perceive their own bodies?

5. What role does the school play in educating students in regards to health and body image issues?

6. What role did the program in grade 6 “Understanding Body Image: Helping Students Make Informed Decisions” have in the students’ perceptions of a healthy lifestyle?
7. How do the views and perceptions of body related issues among grade 11 students compare to when they were in grade six?

1.1.4 Definitions

**Disordered Eating:** Disordered eating, for the purpose of this project, will include behaviors such as: restrictive dieting, meal skipping, bingeing and purging (vomiting or laxative use).

**Body Image:** Mental picture of one’s body and the associated thoughts, feelings, judgments and behaviors (Rice, 1993).

**In-depth Interviewing:** an open-ended or unstructured method of interviewing participants to find out what their experiences are and the meaning they make of those experiences (Seidman, 1998).

**Anorexia Nervosa:** a severe eating disturbance characterized by an intense fear of gaining weight or becoming fat. Individuals with this condition refuse to maintain a normal body weight, develop a mental distortion of body image and see themselves as fat when they are emaciated, and impose a self-starvation pattern that becomes life threatening. There are two subtypes of anorexia nervosa: (1) restricting type, in which the anorexic does not regularly use binge eating or purging behavior and (2) binge eating/purging type, in which the anorexic does use this behavior (American Psychiatric Association, 1994).

**Bulimia Nervosa:** a severe eating disturbance characterized by episodes of bingeing and purging. During a binge the individual may feel a lack of control and therefore compensate by carrying out inappropriate purging behaviors to prevent weight gain. These behaviors may include: self-induced vomiting, the use of laxatives, enemas,
or other medications, fasting, or excessive exercise. These behaviors occur, on average, at least twice a week for extended periods of time (American Psychiatric Association, 1994).

**Primary Prevention:** The purpose of primary prevention is to limit the number of people who develop a disease by controlling the causes and risk factors for the disease (Population Health Promotion: From Issues to Action “Getting Started,” 1999).

**Students:**

Elementary school students: individuals between the ages of 9 and 11 years of age.

Junior high students: individuals between the ages of 12 and 14 years of age.

High school students: individuals between the ages of 15 and 18 years of age.

College students: individuals between the ages of 19 and 25 years of age.

**1.2 Review of Literature**

**1.2.1 Prevalence of Eating Disorders and Disordered Eating Behaviors**

It is estimated that 0.5-4% and 1-4% of the female adolescent Canadian population will develop anorexia and bulimia, respectively (Steiger & Seguin, 1999). It has become clear that this criteria represents only one extreme of a broad spectrum of eating disturbances (Shisslak et al. 1995) and that there is a greater prevalence of individuals that participate in disordered eating behaviors. For example, in a study of 869 adolescent females, 77% reported that they had wanted to lose weight in the past year, 27% reported monthly binge eating and 8% monthly vomiting. At the time of the study 47% of the girls were trying to lose weight, and of these, 19% were underweight (Grigg, Bowman, & Redman, 1996). Other
researchers have found these behaviors to be more prevalent. For example Killen, Taylor, Telch, Saylor, Maron & Robinson, (1986) found that in a sample of 823 grade 10 females, 13% of adolescent participated in purging behaviors and Crowther, Post and Zaynor (1985) found that 46% of female adolescents reported incidents of binge eating.

Although a significant amount of research has been carried out on females, males have also been found to participate in disordered eating behaviors. Killen et al. (1986) found that in a sample of 905 grade 10 males, 5% reported self-induced vomiting and 6% reported laxative use. Lachenmeyer and Muni-Brander (1988) found that 12% (n=384) of high school males reported binge eating and vomiting. There is also a similarity in the prevalence of body dissatisfaction among males and females. For example, 76% (n=77) of female dancers 13-15 years old were dissatisfied with their bodies (Thompson, A. M., 1996), compared to 69% (n=143) of males aged 16-18 (Furnham, Calnan, 1998). Of the males, 31% wanted to lose weight and 38% wanted to gain weight. The findings of Keel, et al. (1998) also suggested that disordered eating in males is quite similar to that observed in females. These finding suggest that males should also be the targets of prevention programs.

1.2.2 Physical and Psychological Consequences of Eating Disorders

Disordered eating behaviors can have a damaging effect on one’s body that can have both physical and psychological consequences. For example, dieting and meal skipping may result in vitamin and mineral deficiencies. These deficiencies can have a dramatic effect if an individual is in childhood or adolescence as growth
and development and the laying down of bone is taking place (Mahan & Escott-Stump, 1995). Laxative use may result in rectal bleeding, calcium deficiency, dehydration and electrolyte deficiencies and kidney damage. Frequent vomiting may result in damage to the teeth, throat irritation and esophageal inflammation (Mahan & Escott-Stump, 1995).

The psychological consequences of disordered eating are most frequently associated with dieting behavior. For example, dieting is associated with fatigue, difficulty concentrating, heightened irritability and worsened mood (Laessle, Platte, Schweiger & Pirke, 1996). Poor body image and dieting may also negatively affect self-esteem, which may contribute to depression (Rierdan, Koff, & Stubbs, 1987). Studies have shown that both eating and body image disturbance are positively related to certain measures of global psychological dysfunction. For example, Gross and Rosen (1988) found that depression and high social anxiety were significant predictors of eating disturbances in adolescent females.

There is a high cost and low success rate associated with the treatment of disordered eating behaviors and eating disorders. The treatment for anorexia is expensive and only 40% make a complete recovery, with approximately one-third continuing with less severe eating disturbances and 20% never recovering (Steinhausen, 1995). In order to deal with this health concern and the negative physical and psychological impact it has on individuals, researchers have made recommendations for the development of primary prevention programs. The goal of primary prevention programs is to prevent new cases from occurring and is aimed at healthy individuals. The objectives of these initiatives are to prevent the potential
physical and psychological damage that may occur when individuals participate in disordered eating behaviors or have eating disorders.

1.2.3 Development of Eating Disorder Prevention Programs

The content of prevention programs has been based on the reduction of risk factors associated with disordered eating and eating disorders. There have been various risk factors identified that may play a role in the development of these conditions such as: age, dieting behaviors, social pressures, body dissatisfaction and nutrition knowledge (Cattarin & Thompson, 1994; Keel, et al. 1998; Killen, et al. 1996; Killen et al. 1994; Shisslak, et al. 1998; Taylor, et al. 1998). In a 1998 review of the development of primary prevention strategies, Rosen and Neumark-Sztainer (1998) suggested that these factors could be organized into broad domains. These include the personal domain, socioenvironmental domain and the behavioral domain. The personal domain may include: developmental factors (age, gender and pubertal development), cognitive or affective factors (nutritional knowledge and attitudes) and psychological factors (self-esteem, body image, depression and anxiety). The socioenvironmental domain may include: sociocultural norms (regarding thinness, food preparation and roles of woman), familial factors (communication, expectations and weight concerns), peer norms and behaviors (dieting behaviors, social pressure and weight concerns) and food availability (type and amount of foods). Lastly, the behavioral domain includes: eating behaviors (fast-food consumption, nutritional variety and bingeing), dieting and other weight management behaviors (dieting frequency, types of diets and purging behaviors), physical activity or lack there of (TV viewing, sport involvement, daily activities),
coping behaviors (with dieting failures and life frustrations) and specific skills (self-efficacy in resisting social norms and skills in food preparation).

Among the psychological risk factors, body image has been identified as an important variable in the prediction of disordered eating behaviors. Leon, Fulkerson, Perry, and Cudeck (1993) found that among adolescent females negative body image and body dissatisfaction were the strongest predictors of both mild and severe eating disturbances. Similarly, Shisslak et al. (1998) found that body image was significantly associated with weight control behaviors in adolescent girls. These findings are consistent with longitudinal studies which have found that among female adolescents, body dissatisfaction was a significant predictor of eating disturbances and restrictive eating behaviors (Cattarin & Thompson, 1994). Keel et al. (1998) reported that males also expressed body dissatisfaction and engage in disordered eating behaviors in the absence of a significant weight problem.

There have been several preventative and educational approaches developed to target disordered eating and eating disorders. Recommendations from the literature has suggested that intervention programs target factors that are amenable to change (Neumark-Sztainer, 1996). Research has indicated that body image is an appropriate factor to target since one’s body image is subject to change. Specifically, a positive body image may be attained through an effective intervention program (Huon, 1994; Neumark-Sztainer, 1996). Therefore, in order to reduce the prevalence of disordered eating behaviors and eating disorders, improving body image should be a primary objective for intervention programs (Killen et al. 1996; Killen et al. 1994).
1.2.4 Theoretical Approaches used in the Development of Primary Prevention Programs

Theoretical approaches most common in the development of primary prevention programs of eating disorders include: social cognitive theory (Bandura, 1986), transtheoretical model for behavioral change (Prochaska & Velicer, 1997) and a more recently used approach is a psychoeducational approach as described by O’Dea & Abraham (2000). The social cognitive theory as described by Bandura (1986) emphasizes a behavioral component and strongly recognizes the environmental influence on an individuals decision to carry out certain behaviors. For example, there is a constant interaction between personal and environmental factors which play a role in the decisions which individuals make. An example of this is that nutrition messages may promote the consumption of milk or fruit and vegetables and young people may intend to eat these foods but if they are not available they cannot act on this intention.

The transtheoretical model for behavioral changes is a five step model which varies from the stage of pre-contemplation which indicates that individuals have no intention of taking action to maintenance in which an individual has changed a certain behavior and maintained it for a period of 6 months or greater (Prochaska & Velicer, 1997). The transtheoretical model identifies that changes is a process and will occur when the individual is willing to make the effort to carry out that behavior change.

A more recently used approach in the prevention of disordered eating and eating disorders is a self-esteem approach (O’Dea & Abraham, 2000). This
1.2.5 Prevention Programs Among College-Aged Students

Among college aged students there have been a small number of primary prevention programs that have been developed (Martz & Bazzini, 1999; Martz, Graves, & Sturgis, 1997; Springer, Winzelberg, Perkins & Taylor, 1999). Among these studies of college-aged students, only one demonstrated favorable effects on body satisfaction and disordered eating behaviors (Springer et al. 1999). Others have shown little or no effect on indicators such as body image and dieting behaviors. In order to address the limited success of these programs, future endeavors include targeting high-risk groups, finding methods to increase/encourage participation and using a peer-leading approach.

Mann et al. (1997) delivered a program which aimed to prevent new cases of eating disorders from arising (primary prevention) and encourage those who already have symptoms to seek treatment (secondary prevention). The program that consisted of a 90-minute discussion between two students with a history of disordered eating. In the first part of the program, students delivered information regarding eating disorders, such as prevalence, signs of a eating disorder and prevalence. In the second part they spoke about their personal experiences with the disorders such as how the disorder began, a description of their symptoms and what
their treatment was like. Data was collected from an intervention and control group at baseline, four weeks and twelve weeks after the implementation of the program. A total of 113 students aged 17-20 years completed questionnaires at baseline and at the follow-up times. Results indicated that students who participated in the intervention group reported slightly more symptoms of disordered eating than those who did not participate in the intervention. Although these effects disappeared after 12 weeks, the researchers felt that more effective interventions may be delivered if researchers did not combine primary and secondary prevention into one program.

The investigators suggested that the information provided may have inadvertently promoted symptoms such as laxative use, bingeing and vomiting which they aimed to prevent.

The results of primary prevention efforts with college students may suggest that interventions may be more successful if delivered to younger age groups and in a school-based setting. This is also supported by literature which has shown that some females between the ages of 13-18 have already begun to demonstrate the behaviors that mark anorexia and bulimia nervosa (Killen et al. 1994; Killen et al. 1996). The rationale for using a school-based setting is that schools are an excellent site for such programs in that they house a large, captive audience that may be potentially at risk of developing disordered eating. They also provide an established learning environment and offer opportunities for positive peer interaction (Rosen & Nuemark-Sztainer, 1998).
1.2.6 Prevention Programs Among High School Students

Neumark-Sztainer et al. (1995) developed a program for high school females that was intended to change knowledge, attitudes and behaviors related to nutrition and weight control. The program also aimed to improve body and self-image and promote greater self-efficacy in dealing with social pressures regarding excessive eating and dieting. The intervention consisted of 10 sessions delivered over a period of 10 weeks. The lessons provided information on healthy food choices, physical activity, critical thinking related to the media and positive body image and self-esteem. A total of 126 girls, mean age of 15.3 years, participated in the intervention group and 143 girls in the control group. Data was collected from each participant at baseline, 6 months and two years after the delivery of the intervention. Results indicated that the program was effective at preventing the onset of unhealthy dieting and binge eating. The program was also shown to be effective at increasing nutritional knowledge, but had no effect on body image or self-esteem. At the two-year follow-up the measures of unhealthy dieting, bingeing behaviors and nutritional knowledge showed similar, but non-significant changes. The researchers believed that continuing education or booster sessions may have improved the results from the 2-year follow-up.

Media literacy programs have also been developed in an attempt to prevent disordered eating behaviors. These programs teach young men and women to think critically about the images they see in the media, therefore, preventing the internalization of social beauty standards, body dissatisfaction and disordered eating behaviors (Irving et al. 1998). In 1998, Irving et al. developed a media literacy
program which targeted a group of 41 females, aged 15-16 years of age. Of these, 24 participated in the program and 17 in the control group, which did not participate in the intervention. The program was led by a high school peer leader and consisted of an introduction and discussion regarding the standard of beauty portrayed in the media. A fifteen-minute video, "Slim Hopes," was shown and then a discussion regarding the realism and reinforcement of media images occurred among the participants. A questionnaire which assessed body satisfaction and attitudes towards the media was given after the video and discussion. Results supported the researcher’s hypothesis that a brief media literacy program would initiate critical thinking about appearance-related media issues in high school females. The intervention group also reported lower perceived realism of media images and less internalization of the popular standard for beauty. The intervention and control group, however, did not differ on awareness of beauty standards, desirability of being slender and holding positive expectations of thinness. Although the short-term results were positive, the researchers questioned the long-term effects and thus recommended long-term follow-up for studies aiming to teach women to become more critical of the media and prevent internalization of beauty standards portrayed by society. They also suggested targeting younger groups since by adolescence young women have already begun to equate thinness with attractiveness.

1.2.7 Prevention Programs Among Junior High Students

O’Dea & Abraham (2000) evaluated a randomized and controlled study which aimed to improve the body image of young adolescents. Four hundred and seventy students, 396 females, aged 11-14 years of age participated in the study
which consisted of nine lessons. These lessons focused on: dealing with stress, building a positive sense of self, positive self-evaluation and relationship and communication skills. Evaluation of the program indicated that the students who participated in the program significantly improved their self-esteem and social acceptance and physical appearance became less important. At 12 months following the intervention body image and attitude changes were still present among the participants.

Killen et al. (1993) delivered a primary prevention intervention similar to that of Neumark-Sztainer, and targeted 11-13 year old females as opposed to high school aged females. A total of 931 students participated and were randomly assigned (within grade and class) to an intervention or control group. The intervention involved 18 lessons that provided information on the harmful effects of unhealthy weight regulation, education concerning healthy eating behavior and skills training for resisting social pressures. Nutritional knowledge was assessed at baseline, 7, 14 and 24 months and The Eating Disorder Inventory (EDI) was given at baseline, 18 weeks, 14 months and 24 months. Results indicated that there was an improvement in nutritional knowledge up to the 18-week point, but no differences between the intervention and control group on the measures for eating attitudes or unhealthy weight regulation practices at any test point.

An intervention delivered and evaluated by Paxton (1993) found similar results to that of Neumark-Sztainer et al. (1995) and Killen et al. (1993). The goals of the intervention were to reduce moderate and extreme weight loss behaviors, disordered eating and poor body image. The intervention was targeted at grade nine
females, mean age of 14.1 years, and consisted of 5 lessons delivered over a five-week period. The lessons covered such areas as nutrition and weight loss behaviors, dieting, different body shapes and sizes and the "ideal" female body. One hundred-twenty five females participated in the intervention, while twenty-four served as controls. Data was collected at baseline, four weeks and eleven months. The results indicated that there were no changes in eating attitudes or behaviors, but an increase in body dissatisfaction was observed across all subjects at the one-year follow-up.

Unlike the programs delivered to junior high school students by other investigators (Killen et al. 1993; Paxton, 1993), Moreno and Thelen (1993) delivered a brief intervention that consisted of a 6.5 minute video and a 30 minute discussion about eating disorders to a group of junior high students aged 12-15 years. A total of 82 students participated in the intervention and 74 participated as controls. Data collected at two days and one month after the delivery of the presentation showed that there was an increase in knowledge of dieting, body weight and purging. Similar to the results of other researchers (Killen et al. 1993; Mann et al. 1997; Neumark-Sztainer et al. 1995; Paxton, 1993), there were no differences between the intervention and control groups in eating attitudes or dieting behaviors.

1.2.8 Prevention Programs for High-Risk Individuals

The efforts of primary prevention programs have also been assessed as to their effectiveness on high-risk individuals in high school. Buddeberg-Fischer et al. (1998) carried out a prospective study to examine the effects of health promotion lessons on disturbed eating behaviors of males and females aged 14-19. High-risk
individuals were those who scored greater than or equal to 10 on the Eating Attitudes Test (EAT-26). Only females were assessed due to a small sample size of high-risk males. Analysis of the high-risk females indicated there was a statistically significant improvement in their scores over time, especially in the physical well-being measure. Analysis of the low and high-risk intervention groups combined did not show these improvements. These findings are similar to those of Killen et al. (1993) who analyzed the effect of their intervention on high-risk females (aged 11-13), defined as one who had a score greater than 57 on a measure for weight concern. A total of 122 students or 13% of the total sample (n=931) were considered at high risk for the development of an eating disorder. This measure was a self-reported one developed by the research group at the time of the study. Analysis of the data indicated there was a greater improvement in knowledge related to growth and development, healthy weight regulation principles and cultural attitudes towards weight and nutrition among the high and low-risk intervention group combined. However, there were no changes in eating attitudes or weight regulation behaviors.

Contrary to the findings of Buddeberg-Fischer et al. (1998) and Killen et al. (1993), Santonastaso et al. (1999) found that the intervention they delivered was more effective for low risk individuals with a mean age of 16.1 years. The high-risk subjects were defined as those who had a score greater than 30 on the EAT-40, and the low risk group a score less than 30. Twenty-eight participants (9.1%) of the total intervention group (n=308) were considered high risk. The intervention consisted of a two-hour session once a week over a period of 1 month. The sessions involved delivery of information related to: growth and development, body image concerns,
self-esteem, personal relationships, pressure to be thin and attitudes towards food over a 1 hour period. The second hour was a discussion led by a psychiatrist and psychologist specializing in eating disorders. There were no significant differences between the high-risk intervention and control group subjects. However, there was a decrease in body dissatisfaction and bulimic attitudes among the low risk subjects. It is possible that more intensive intervention strategies may be needed for groups that may be at higher risk of developing disordered eating behaviors or eating disorders. Also, intervention efforts may be more successful, regardless of students’ risk, if elementary school students are the primary target (Moreno & Thelen, 1993; Paxton, 1993; Smolak et al. 1998).

1.2.9 Prevention Programs for Elementary School Students

Overall, the intervention studies carried out to date with high school and junior high school students have indicated that prevention programs are successful at increasing knowledge and may be successful at changing attitudes regarding weight, shape and eating as well as changing behavior or behavior intentions (Shisslak et al. 1996). As a result of these studies researchers have suggested that prevention programs may be more successful if they are introduced in elementary school classrooms (Moreno & Thelen, 1993; Paxton, 1993; Smolak et al. 1998). It is suggested that interventions introduced after the elementary school years may not be as effective because those who go on to develop eating disorders have already begun to demonstrate those behaviors marked by anorexia and bulimia nervosa (Killen et al. 1994, Killen et al. 1996). Also, by targeting younger
populations, healthy attitudes about eating could be presented before unhealthy attitudes, which are less easily changed, are acquired (Moreno & Thelen, 1993).

Smolak et al. (1998) carried out an intervention targeting elementary school males and females, ages 10-11 years. This intervention was designed to encourage healthy eating, exercise and body satisfaction, while aimed to discourage extreme weight loss behaviors, such as extreme caloric restriction or excessive physical activity. Eleven classrooms participated in the study, eight of which received the intervention. Three classrooms served as controls. The intervention consisted of 10 lessons that covered the following: growth, nutrition for growth, myths about fat, body shape: tolerance and differences, positive body image, eating and exercising for you and your health, dieting, media literacy, and what’s for lunch? Data was collected using a questionnaire that the researchers developed, based on the content of the intervention. Testing was carried out before the intervention and post-testing occurred from one to four months after the completion of the program. Evaluation was based on changes in knowledge, attitudes and behaviors of the subjects. The results of the intervention indicated that the intervention was successful at imparting knowledge regarding the information provided in the lessons. Negative attitudes towards overweight people were also decreased, but body esteem was not affected and no behavior changes such as exercise, fruit and vegetable consumption and weight reduction attempts, occurred as a result of the curriculum.

A pilot study was conducted in 1997 aimed to change food and body related attitudes of elementary school females (Huon, Roncolato, Ritchie & Braganza, 1997). One hundred students, mean age 10.8 years, participated in an intervention
that provided lessons on developmental changes, self-esteem, messages in the media and from peers and healthy food choices. The students were assessed at 10 weeks before the intervention, immediately before and immediately after the intervention and 10 weeks after the intervention. Results suggested that, although there were improvements regarding eating attitudes, there were no changes in nutrition knowledge, drive for thinness or body satisfaction.

In 1996, a program “Understanding Body Image: Helping Students Make Informed Decisions” was developed by academics at the University of Saskatchewan (College of Kinesiology), representatives from Sask. Sport Inc., the provincial governing body for sport, and teachers from the local school system. The program was developed in response to the need for primary prevention efforts in elementary school classrooms in the province of Saskatchewan and targeted elementary students of middle to high socio-economic status because of the increased prevalence of dissatisfied body image and eating disorders found in this population (Braithwaite, 1996). The pre to early adolescent age group was chosen as the target group for the program based on research that suggested targeting this age group in order to be more successful in preventing disordered eating behaviors (Killen et al. 1994, Killen et al. 1996).

The primary goal of the intervention was to encourage students to become aware of the factors that influence their body image and to make educated decisions with respect to their attitude and behavior regarding body image. The content focus was supported and recommended in the literature, based on early findings that showed negative body image is a primary risk factor for the development of
disordered eating (Cattarin & Thompson, 1994; Keel et al. 1998; Shisslak et al. 1995; Taylor et al. 1998;). To target the development of a healthy body image, the program addressed factors such as growth and development, media and social pressures regarding dieting, proper nutrition and physical activity, weight loss and fitness industries, critical thinking and decision-making skills related to body image and social beauty standards. These topics were covered through a series of lesson plans that included activities, discussions and role playing over a period of three weeks. Thirty-nine students, 11-12 years of age participated in the program. The effects of the intervention were evaluated one week before the intervention and two weeks and four months after the delivery of the program, using qualitative methodology which involved direct observation, semi-structured interviews with students, and conversational, open-ended interviews with the teachers.

At two weeks and four months after program delivery there was a difference in the knowledge, attitudes and practices among the students. For example, a noticeable increase in the students’ awareness of various growth and development issues was observed which they also reported helped them deal with social pressures regarding body size and shape. The students were also more aware of the changes which occurred during puberty and the familial resemblance that exists as a result of genetics. The students were able to explain that there are differences among people because of the timing of their growth spurt and that everyone has a different body shape due to genetics and their lifestyle. Following the implementation of the program the students were also more aware of the media influence on society and became more critical of how people and models are used to assist in selling.
products. As well, they were more aware of the pressures regarding social beauty standards portrayed by the media. At two weeks and four months after the program the students were also very aware of the importance of adopting a healthy lifestyle. They often referred to Canada’s Food Guide to Healthy Eating and participation in regular physical activity as a means of being healthy. At two weeks following the program it was also observed that some of the students had made changes in their eating and exercise behaviors and remembered the number of servings that they were to eat in a day. At four months after the program students still referred to Canada’s Food Guide to Healthy Eating but all did not refer to specific details of the guide at this time. At this point they also revealed that having a healthy lifestyle was related to health benefits rather than body shape concerns reported in the pre-intervention phase. Collectively, the results indicated that this program enhanced awareness and helped to instill healthy lifestyles, positive attitudes and positive behavioral intentions regarding body image issues, possibly reducing the likelihood that disordered eating behaviors may occur (Braithwaite, 1996).

Although these findings are promising, it is important to understand what role the program played in influencing the student’s perceptions of a healthy lifestyle and a healthy body image. Secondly, it is important to explore other potential influences and experiences that may play a role in the development of healthy lifestyle behaviors and a healthy body image. Therefore, the purpose of this study was to carry out a long-term follow-up to understand the views and perceptions of health and body related issues among grade 11 students, 5 years after participating in a program “Understanding Body Image: Helping Students Make
Informed Decisions" which aimed to promote a positive body image and prevent disordered eating and eating disorders.
CHAPTER 2 – METHODS AND PROCEDURES

2.1 Research Design

“Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants and conducts the study in a natural setting.”

(Creswell, 1998, p. 15)

Qualitative methodologies are useful when attempting to understand or explain one’s feelings, attitudes, intentions and behaviors (Morse & Field, 1995). Over the past 20 years, the use of qualitative methodologies in the health sciences has become more prevalent. Researchers are using qualitative methodologies to develop nutrition resources for adolescents (James, Rienzo & Frazee, 1997) and gain a greater understanding of the factors that influence food choices among adolescents (Neumark-Sztainer, Story, Perry & Casey, 1999). Qualitative methods have also been helpful in gaining a greater understanding of perceptions of a healthy lifestyle as well as the potential barriers to healthy eating and physical activity among adolescents and adults (Croll, Neumark-Sztainer & Story, 2001; Stathi, Fox, & McKenna, 2002). Although the complexity of body image has been previously studied using quantitative methodologies, researchers are using interview-based studies to understand how young girls perceive their bodies and pressures regarding body size and shape (Tiggemann, Gardiner & Slater, 2000; Wertheim, Paxton, Schutz & Muir, 1997)
Health programs are most often evaluated by assessing the change in the knowledge, attitudes and behaviors of the participants. However, researchers, who have used quantitative methods, such as questionnaires have found that there are potential sources of inaccuracy when using self-reported data (Paxton, 1993; Shisnlak, et al. 1998). For example, participants may provide responses which they perceive to be more acceptable. Therefore, results of questionnaires may not reflect the actual knowledge and attitudes that the participants have, nor the behaviors that they exhibit. Qualitative methods, however, can help to identify the change of attitudes or beliefs on a subject, and provide explanations for behavior and attitudes (Britten and Fisher, 1993).

2.2 Ethics

Ethical approval from the University of Saskatchewan, Saskatoon Catholic Schools, Saskatoon Public School Division, the study participants and their parents or guardians occurred prior to data collection. A copy of this application can be found in Appendix A.

When the principals, vice principals and guidance counselors initially met with the study participants they explained the purpose of the study and provided the students with consent forms to be signed by themselves and a parent or guardian. It was also made clear at that time that participation in the study would not affect their grades in any way. When I met with the students individually I took the time to explain the purpose of the study, asked for permission to tape the interviews and explained that their names would not appear in any published results.
Confidentiality In the present study, there are no names or identifying factors used throughout the document. This was achieved with the use of pseudonyms. A master list of the participants' names and their assigned pseudonyms was stored separately from the audiotapes and transcripts. All of the participants were informed of this procedure before their participation in this study. They were also informed that any comments, direct words and/or quotations from the transcripts may be published in the final report. Participants were given the opportunity to review the final transcripts and sign a release form to acknowledge that the transcripts accurately reflected what they said or intended to say.

2.3 Procedures

2.3.1 Sampling

This study is a follow-up of an intervention, “Understanding Body Image: Helping Students Make Informed Decisions,” that was carried out in 1996 in two grade 6 classrooms. Sampling procedures in 1996 were carried out using purposeful sampling to determine the two classrooms that would participate in the study. Purposeful sampling selects information-rich cases for in-depth study (Patton, 1990). The criteria for participation in the 1996 study were based on existing literature and discussion with experienced knowledgeable experts in the field (Braithwaite, 1996). At the time of the intervention in 1996, the criteria for participation included: 1) grade 6 classrooms, 2) classrooms in a middle to upper socio-economic area, 3) classrooms with regular access to health and/or physical education classes, 4) classrooms with teachers of the same gender and, 5)
classrooms with teachers who had at least 3 years of teaching experience with this age group of students. Both of the classrooms met this criteria.

The above criteria was established based on literature which has shown that eating disorders are more prevalent among individuals of middle-high socioeconomic status and that in order to prevent these disorders, interventions must be delivered between the ages of 9-11 years or grade 6 (Braithwaite, 1996). Since the intervention focused on issues such as nutrition, physical activity and general health, it was also important that the participants have access to health or physical education classes. Lastly, it was important that the teachers involved have sufficient experience working with this age group and be of the same gender to establish consistency among the classrooms. The role of the teachers involved in the study was important as they were involved in the delivery of the program and their previous teaching experience was an asset in dealing with students of this age group.

In order to contact the 39 individuals that participated in the 1996 study, the Saskatoon Catholic and Public School Divisions were contacted and asked to access schools records which provided information on the students’ whereabouts at that time. These records provided information on the specific high schools that the students were attending. A total of 23 students were traced through the records. The Superintendent of Education (Saskatoon Catholic Schools) and Deputy Director of Division Services (Saskatoon Public School Division) contacted the principals of the schools where those students were attending and assisted in recruiting the students for the follow-up study. With the assistance of the principals, vice-principals and guidance counselors in 2001, a total of 13 students, 8 females and 5
males, participated in the 2001 follow-up study. See Chapter 3 (Results and Discussion) for a profile of the participants.

2.3.2 Data Collection

The primary instrument used when collecting data in a qualitative study is the researcher. As Streubert and Carpenter (1999) point out, the researcher reports in a rich literary style and will report the experiences from the perspectives of the people. Since the instrument for data collection in this study was myself, it is beneficial to the reader to know who I am. I have a Bachelor of Science in Nutrition from the University of Saskatchewan and have recently completed a dietetic internship. I am presently working as a dietitian. My background in Nutrition has made me a strong advocate of prevention programs, particularly in disease prevention and the role that nutrition plays in enhancing health. I was impressed by the field of Nutrition and interested in its integral role in preventing diseases and other conditions, as well as how it could enhance our health. It was a combination of my undergraduate education and personal experiences, both with myself and with individuals who have had or still have disordered eating behaviors and poor body image, that brought me to this thesis topic. Furthermore, the emotional and mental consequences of a poor body image and disordered eating made me interested in preventing these conditions. I have seen young men and women miss out on many important parts of their lives, relationships have been destroyed, and depression has occurred due to negative body image and disordered eating. I strongly believe that interventions at a younger age would have had a strong impact on these individuals’ life experiences. I also believe that ongoing feedback from participants is necessary.
to ensure success when developing health programs. Therefore, it was my wish to participate in a research project that aimed to understand how young men and women perceive their own health and body image after their involvement in a primary prevention program.

2.3.3 Interviews

Interviews provide access to the context of people’s behavior and thereby provide a way for researchers to understand the meaning of that behavior. Furthermore, interviewing provides a necessary, if not always completely sufficient avenue of inquiry if the researcher’s goal is to understand the meaning people involved in education make of their experiences (Seidman, 1998, p. 4-5).

In-depth interviewing allowed me the opportunity to gain a greater understanding of how young people perceive their own health and body image and explore the factors that may have influenced their health and body image. As Patton (1990) points out, interviewing allows us to find out things we cannot directly observe. Therefore, we can ask questions about feelings, thoughts and intentions as well as behaviors that took place at some previous point in time.

An in-depth semi-structured interview format was used to collect the data. The interview guide was developed using similar questions to those asked in the 1996 study. The questions were designed to explore how young people perceive their own health and body image. Therefore the interview questions focused on issues such as nutrition, physical activity, potential influences on ones health, body image issues and pressures regarding weight and shape.

Two individual interviews took place with each participant. This was advantageous as it provided me with an opportunity to verify and clarify responses as well as ask the participants to further explain some of their responses. The study
in 1996 used focus group interviews to collect information from the participants. Due to the nature of the follow-up study and the sensitive issues discussed (such as body image), I decided to conduct individual interviews rather than focus group interviews. Individual interviews are most common when dealing with issues of the body, self-esteem and self-image (Eder & Fingerson, 2002, p. 192). One individual that continued to miss our second interview and did not want to meet a second time. Therefore, with his permission, I used only the data from the one interview which took place. An interview guide, using a semi-structured format was used during the interview. It was prepared to make sure that similar information was obtained from all participants by covering the same material and that the purpose of the study was achieved (Patton, 1987). Using such a guide is advantageous because it makes sure the interviewer has carefully decided how to best use the limited time available in an interview situation (Patton, 1987). The interview guide for this study is found in Appendix B.

The interviews were conducted over lunch hour, after school or during study breaks to avoid disrupting scheduled class time. While visiting the schools to pick up consent forms, there were many students that explained that due to involvement in extracurricular activities, schoolwork and other commitments they were unable to participate. Therefore, they were unable to find time to participate in interviews for the follow-up study.

With the permission of the participants, all of the interviews were audiotaped. I explained to the participants that if at any time they wished to have the tape recorder shut off, their request would be granted. At the completion of each
interview, I reviewed what had been discussed and paraphrased the discussion that occurred. This was helpful in making sure that the participants' perspectives and viewpoints were accurately documented and interpreted. I transcribed and reviewed the first interview before meeting with the participant a second time. This allowed me the opportunity to ask further questions related to some topics and verify some of their responses.

2.4 Data Analysis

Data analysis is an ongoing process in qualitative research and requires continuous reading and interpretation of the data (Erlandson, Harris, Skipper, & Allen, 1993). Content analysis, which involves the process of identifying, coding, labeling and categorizing patterns in the data was used to analyze the interview material (Patton, 2002). The analysis of interview material may be done using computers or manually with the use of file folders. For example, when completing computer analysis, the computer is designed to pull out themes of data that are entered into the program (Kvale, 1996). File folder analysis involves the investigator manually searching for themes in the data (Bogdan & Biklen, 1982) and is used only when the investigator is involved in the data and knows it very well. The file folder method was the best choice for this study because I was the only person involved in data collection, transcription and analysis of the data.

The process of data analysis began upon the completion of each interview. When the interview was completed I would write a 1-2 page summary of the interview and make note of any further questions I had regarding the participants’ responses to the questions. From that point I would transcribe and continuously
read the interviews. While reading these interviews, I made notes and comments in the margins that identified recurring thoughts, ideas and reactions of the participants. These units may be phrases, sentences or paragraphs. This process is referred to as coding and involves noting what is interesting and labeling it (Seidman, 1998). When I identified these units I began a process of “cut and paste.” The unit of data was cut from the interview transcript and placed into a corresponding file folder or category. This unit of data was given an identifier so I could trace it back to the original transcript. I also gave each student a pseudonym and number. Therefore, when reading the transcript their quotes are read as: (7-2-9). This would indicate that the quote came from participant 7 during the second interview on page 9. If the pseudonym is stated, I provided only the page and interview.

The next step involved utilizing and developing categories. Using categories involves working with the data to find “units” of information. These units are defined as chunks of meaning that come out of the data itself (Lincoln & Guba, 1985) and involve putting similar units of information into broader headings. As suggested by Lincoln & Guba (1985) the researcher should use a series of guidelines when developing categories. For example, be aware of the number of people who mention something or the frequency with which something arises in the data. This guideline was used when asking questions regarding influences on body image or where the students get their health information. Secondly, categories can be determined by identifying issues that the audience perceives to be important. This guideline was useful when the students talked about their own body image and

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the pressures they felt regarding weight and shape. Lastly, Lincoln & Guba (1985) suggest that it is important to identify unique categories and categories which highlight areas of inquiry not otherwise recognized. In reviewing the transcripts, I found that concepts emerged from the data which were unique to this group of students. For example, the comments the students made regarding the transition from elementary to high school was stressful for the students. Although transitions to University or post-secondary education has been studied, the transition from grade 8 (elementary school) to grade 9 (high school) has not been thoroughly studied. As I completed the process of coding and the development of categories, I developed the themes.

A theme is a concept or recurring message found in the data (Eisner, 1991). A theme may also be referred to as a structural unit of data (Streubert & Carpenter, 1999) and when working with the data, themes may appear as a cluster of ideas. Therefore, the categories determined prior to the development of themes is a major step as these categories will often fit into similar themes (Eisner, 1991). The process of combining categories to develop themes involves reviewing the content in each of the categories and identifying common ideas and concepts.

2.5 Building Trustworthiness

"Qualitative research is trustworthy when it accurately represents the experience of the study participants" (Streubert & Carpenter, 1999, p. 333). The following techniques, as outlined by Lincoln and Guba (1985, 1990) are used to establish trustworthiness: credibility, transferability, dependability, confirmability and authenticity. Although these methods were developed almost 20 years ago,
these techniques continued to be used and are published in recent text books which focus on qualitative methodologies (Patton, 2002; Streubert & Carpenter, 1999).

Credibility is demonstrated when the participants recognize the reported research findings as their own experience (Streubert & Carpenter, 1999) and therefore involves activities which increase the likelihood that credible findings will be produced (Lincoln & Guba, 1985). Lincoln and Guba (1985) suggest carrying out member checks to make it more likely that credible findings and interpretations will be produced. In the present study, I paraphrased the conversation that took place during the first interview at the beginning of the second. This allowed me to reflect on the participants’ responses and ask further questions or ask for clarification if needed. I paraphrased the second interview at the end of the second meeting. When I paraphrased the interviews the participants were given the opportunity to verify their responses and add any additional comments they had at that time. The following is an example of a member check from an interview with one of the participants:

Wendie: ...I had asked if anything had influenced your body image and you said that things like that don’t really affect you

Melissa: ...well it does...it does still bother me sometimes...just like seeing someone who is thinner that you and think oh well I am fat or something, just that kind of thing (1-14).

I also gave participants an opportunity to review the transcript. There was only one student that wished to review his transcript. He returned it without any additions or changes. Peer debriefing was also used to ensure credibility and occurred on a
regular basis with my supervisor Dr. Karen Chad. This process provided me with an opportunity to discuss any emotions or feelings I had during the interviews and data analysis period. It also helped me to identify and discuss emerging findings from the data.

Dependability is met by ensuring credibility and is accomplished by using an auditor. Similar to a business scenario, this individual examines the process by which the accounts (i.e., the data) were kept and examines the product (i.e., the results). The auditor was chosen according to the suggestions of Lincoln & Guba (1985):

...he or she must be sufficiently sophisticated to act in such a role. Probably sophistication is most needed in the methodological arena, but knowledge of the substantive arena should not be minimized. The auditor must be someone who has sufficient experience to be trustworthy, whose judgements can be accepted as valid, and who is a disinterested party. At the same time, the auditor must be sufficiently close in peer status to the auditee that one does not dominate the other (p. 326).

The auditor was chosen at the midpoint of the study at which time the data had been reviewed and analyzed and the results were being written. This is a good time for entry for the study since early entry may cause the auditor to become too involved in the study, leading the auditor to become coopted, or become too involved in the study (Lincoln & Guba, 1985). The auditor chosen for this study is pursuing a Master’s degree in Health Promotion and had therefore taken several courses related to qualitative methodologies. She is also a pediatric dietitian who has had experience participating in the pilot testing of measurement tools used in a disordered eating prevention program.
During the audit, the auditor looked at all of the methodological decisions, researcher bias, completeness of data collection, the extent to which the researcher endeavored to find negative as well as positive data and the sampling processes (Lincoln & Guba, 1985). As Lincoln and Guba (1985) suggest, she looked at the analytical techniques used, the appropriateness of category labels and interpretations, and the possibility of alternatives. In this study a modified audit was carried out. It included only sections of the data rather than everything that had been collected. The auditor was given the data, as well as any information which included any decisions made during the study and the subsequent analysis. See Appendix B.

Confirmability ensures that the data and the subsequent interpretations and results of the study are true and have not been impacted by researchers own feelings or biases (Lincoln & Guba, 1990). This is can be accomplished using an audit trial, as described above and by keeping a reflexive journal. I used a reflexive journal which is a diary that investigators use on a daily basis, or as needed to record a variety of information about self and method (Lincoln & Guba, 1985). As suggested by Lincoln and Guba (1985) three sections were kept in my journal. This included: a log of day-to-day activities which is similar to appointments on a calendar, a personal log of several entries which may include entries such as the evaluator’s state of mind, biases, emerging hypothesis and questions, frustrations and anxieties and a log that outlined all methodological decisions.

Transferability refers to the study findings and the likelihood that the findings of meaning to others in similar situations (Streubert & Carpenter, 1999).
Therefore, the reader is involved in deciding if the research "fits." As Lincoln and Guba (1985) have stated: "it is...not the naturalist's task to provide an index of transferability; it is his or her responsibility to provide the data base that makes transferability judgement possible on the part of the potential appliers" (p. 316).

Authenticity refers to the mechanism by which the qualitative researcher ensures that the findings of the study are real, true or authentic (Lincoln & Guba, 1990). "Authenticity is achieved when the researcher utilizes fairness which refers to the extent to which different constructions and their underlying value strictures are solicited and honored within the evaluation process" (Lincoln & Guba, 1990, p. 245-246). This is possible by involving stakeholders in the process of evaluation and secondly by a process of open negotiation to discuss any concerns regarding the collection of information throughout the study.
CHAPTER 3 – RESULTS AND DISCUSSION

3.1 Introduction

The purpose of this study was to carry out a long-term follow-up study to understand the views and perceptions of health and body related issues among grade 11 students. These students participated in a program “Understanding Body Image: Helping Students Make Informed Decisions,” five years earlier, in 1996. The two sets of interviews that took place with the participants acted as the foundation for the discussion of themes that emerged from the data. These questions were designed to explore how young men and women perceive their own health and body image as well as the potential influences and pressures regarding health and body image issues. From the analysis of these interviews, three themes emerged: (1) Healthy Lifestyles; (2) Healthy Body Images and (3) School-Based Interventions and Experiences. All of the names of the participants have been changed and pseudonyms have been provided for each of the participants.

3.1.1 Profile of Participants

Given the conversations and observations that took place prior to and during the interviews, I was able to gain a greater awareness of who my participants were. A total of 13 students, 8 females and 5 males participated in the interviews. All of the students had received health education in elementary school. Once the students
reached high school, they participated in a minimum of two physical education classes (in grade 9 and 10) and one lifestyles class, as these are core classes which must be completed. Many students stated during the interviews that they chose not to take Physical Education in grade 11 and 12 because they wanted the opportunity to take other science and math courses to prepare them for post-secondary education.

They all discussed having a wide circle of friends, including males and females, and each of them considered their high school education an important step in planning for their future. For example, many discussed attending post-secondary education. In terms of their lifestyles, about half of the students played on school sports teams or were involved in sporting activities within their community. Three of the students were employed part-time, two participants were smokers, and one made a brief comment which suggested that she had used drugs and alcohol.

3.2 Theme 1
Healthy Lifestyles

During the interviews, the participants discussed their understanding of health, as well as the components that determine health. They described a multidimensional definition of health and were knowledgeable about nutrition and physical activity. At this time, the students also talked about the types of foods they eat and the type of physical activity they participate in. The discussions with the students regarding healthy lifestyles led to the development of several subthemes. These included: (1) What is a healthy lifestyle? (2) Health Information; (3) Healthy Eating; (4) Active Living, and (5) What influences young people’s health?
3.2.1 What Is A Healthy Lifestyle?

According to the World Health Organization, “health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946, p. 100). There is also an understanding that balancing each of these factors is an important aspect in pursuing a healthy lifestyle (Saskatchewan Institute of the Prevention of Handicaps, 1999). The participants in the present study were aware that health is multidimensional and is comprised of various components. For example, when asked to define health the students described the importance of physical and emotional safety, “it’s staying safe, not getting into trouble or endangering yourself” and positive lifestyle habits, “not drinking and smoking” (13-1-3). Melissa (1-3) also explained the importance of physical activity and eating right, “it (health) is physical fitness, taking care of yourself....physically eating right and getting enough exercise.” The students also described health as an absence of illness, “like if you are not sick you are healthy” (3-1-2).

A positive mental outlook was also identified as an important component of health, “talking about what you feel...and not letting everything hold you down too much. Like school work and stuff, don’t let it get to you” (6-1-3). At the time of the follow-up study the students also talked about feeling good about one’s self and the importance of positive mental and emotional health, “I think that sometimes kids my age get depressed because they let themselves think bad things...so then they aren’t mentally healthy....so if you think positive things then you will be happy but if you think negative stuff then of course you won’t be happy” (8-1-3). Kim explained the role of stress in young people’s emotional health, “emotional
health...if you are happy with yourself and if you are under stress then you are not very emotionally healthy” (1-3). At the time of the intervention in grade 6, the students stated similar definitions of health. For example, eating healthy food, exercising, and being happy with yourself were components that the students thought contributed to a healthy lifestyle (Braithwaite, 1996).

These findings are similar to those of Rosenbaum and Carty (1996) who found that health for adolescents meant well being, absence of illness, being fit, dealing with problems and taking responsibility for their health. They discussed engaging in behaviors such as: eating nutritious foods, being active, avoiding smoking and drugs and having a positive self-esteem to achieve and maintain a healthy lifestyle (Rosenbaum & Carty, 1996).

3.2.2 Health Information

The student’s understanding of health and the components that determine a healthy lifestyle came from a variety of sources. They stated that family members, friends, doctors, coaches, health class/school, magazines, TV and the Internet were all sources of health information. For example, Kim explained that she got her health information from YM and Teen People. However, she also talked about other sources of health information:

And sometimes a lot comes from TV as well cause even though I don’t realize it, you still see the images of celebrities and stuff and you think that they look healthy so you feel that you should look like them too, even though they might not necessarily be healthy. And sometimes like that other day I was at the doctors office and I was
looking at some pamphlets, so sometimes like that kind of stuff. And even friends and when I got into soccer you learn stuff from your trainer or coaches and stuff. Health information from TV, I don’t know (it’s) like what your supposed to look like...TV and magazines is sort of how to stay in shapes and how to get in shape and stuff. And from sports it’s like how to stay in shape for the activity that you are doing and then from my friends it’s just like general stuff. (1-3/4)

Health information, specifically nutrition related information comes from a variety of sources such as media, doctors, dietitians, teachers and parents (Borzekowski & Rickert, 2001). However, inaccurate nutrition information may be delivered through sources such as untrained health professionals and the Internet. There was one student in this study that talked about the diet he was following from a Reflexologist:

Shawn: You are supposed to take vitamins and minerals right...cut out all sweets, sugar is bad I guess she said and mainly, no potatoes or fruits.

Wendie: So did you follow that for quite a while?

Shawn: I did for 3 or 4 months...I missed my old food but I still kind of stick to it, I try to keep out some of the stuff but I will have a treat every now and then kind of thing. (2-4)

With my background in nutrition and dietetics, Shawn’s comments concerned me because he was following a diet provided by an individual that did not have any accredited training in the area of nutrition. The diet he was following restricted
foods from the grain products and fruits and vegetables group. As recommended by Health Canada, a balance of all food groups as described in Canada’s Food Guide to Healthy Eating is necessary to optimize health and reduce the risk of chronic disease (Health Canada, 1990). Although Shawn told me that he was not visiting the Reflexologist anymore, the information given to him may play a role in the nutrition choices he makes in the future. For example, he may limit or omit foods from specific food groups. This discussion reaffirmed that schools must continue to provide reliable health information to students but they also need to provide education which focuses on increased awareness regarding sources of inaccurate information.

The sources of health information identified by the students in this study are reflective of others in their age group. In a recent study of 412 grade 10 students magazines (43.5%), parents (45.2%), television (27.7%), health class (35.4%) and the Internet (34%) were the primary sources used to find information related to diet, nutrition and exercise (Borzekowski & Rickert, 2001). When the students in the present study were in grade 6 they also felt they received the majority of their health information from school, along with parents and health professionals. Although, magazines, television and the Internet were not mentioned as sources of health information during the intervention in grade 6, they did identify magazines and television as a source of pressure regarding body size and shape. Regarding the Internet as a source of health information, the students may not been fully exposed to the Internet at the time of the study in grade 6 or access to the Internet in schools or at home may have been limited.
Overall, the students in this study were critical of the health information they were presented with. They discussed e-mail and Internet as potential sources of unreliable health information, "I got this one e-mail...and they said lose 10lbs in a certain amount of weeks and I sort of questioned that, like even if I did follow that, would that work or not" (5-1-4). Media, specifically the marketing of diet products, was also identified as a source of inaccurate and unreliable source of health information:

You generally tend to think that those (marketing of diet products) aren't real, that they don't work that there is something behind them or that they are just trying to scam you. Like the odd one might work, but for every one that works there is going to be five that are just trying to get your money and don't actually do what they are supposed to do. (2-5)

There has been some concern regarding the retrieval of health information from sources such as the Internet. In a recent review authors discussed potential problems when looking for health information on the Internet. These included: lack of regulation regarding information presented on the Internet, inaccurate, misleading or dangerous information, risk promoting messages (sexual risk taking) and the inability of consumers to critically evaluate information they review (Cline & Haynes, 2001). In response to these concerns health promotion experts have begun to use the Internet as well as the media to deliver valid and reliable health information on issues such as nutrition, smoking, safe sex and physical activity. These initiatives deserve special attention given the high number of young people
using the Internet to gather health information. For example, a recent study suggested that 49% of grade 10 students accessed the Internet for health information such as: diet, fitness, exercise, sexually transmitted diseases and sexual behavior. Overall, the students surveyed felt that the information they received from the Internet was of high value (Borzekowski & Rickert, 2001). Therefore, interventions need to focus on providing students with the skills required to make decisions regarding information provided on the Internet as well as to provide them with access to websites with reliable and valid health information.

3.2.3 Healthy Eating

Components of a healthy lifestyle, specifically healthy eating, figured predominantly in the students’ discussion about health. In general, the students discussed Canada’s Food Guide to Healthy Eating and the various principles outlined in the guide. Overall, they were aware that there are four food groups and that it is important to eat foods in moderation and to limit one’s intake of “junk food.”

When the students discussed Canada’s Food Guide to Healthy Eating they pointed to the key concepts highlighted in the guide. These include: moderation, eating a variety of foods and limiting the amount of sugar in one’s diet. For example, the participants mentioned eating lots of fruits and vegetables and grains (9-1-4) and not eating too much sugar, candy and junkfood (6-1-3). In this respect, the students’ discussion revolved around the importance of balance in one’s diet. As John explained:
Don’t eat too many things, there is such a thing as too much of a
good thing or whatever so I mean have a balance. If you’re going to
eat a whole bunch of meat, well then you probably have to cut down
and eat more fruits and vegetables, you don’t want to eat all this meat
and have little vegetables. (2-4)

Although the students expressed general knowledge about nutrition, there
were a few comments made during the interviews that indicated the students did not
fully understand some of the important recommendations in Canada’s Food Guide
to Healthy Eating. Specifically, it appeared that the students were not fully aware of
the recommended servings for their age group, as well as what comprised a serving
from each of the food groups. Based on this lack of understanding it was not
surprising that the students communicated that Canada’s Food Guide to Healthy
Eating was unrealistic:

John: Like where do you fit in like 6 cups of milk and like 10
servings of bread I don’t know?

Wendie: So did you find it difficult to maintain?

John: Well yeah, you try but it’s kind of hard I mean you have to
have 6-10 servings of fruit a day and we only have maybe 8
bananas and 5 apples, we’re going to run out of fruit pretty
quick. (2-3)

Although the students communicated a general knowledge and
understanding of Canada’s Food Guide to Healthy Eating, the above comments
suggest that students need to learn how to apply the nutrition information to their
own bodies. For example, some students may not fully understand some concepts in the guide or how to apply these concepts to their daily lives. In a study carried out by James et al. (1997), a group of 13 male and 16 female high school students, aged 14-15 participated in a focus group study. The focus group consisted of 6-8 students each and included both males and females. These participants expressed similar concerns regarding the practicality of the food guide and explained that although they were familiar with the Food Pyramid they wanted more emphasis on serving sizes. For example, the students wanted to know what constitutes a healthy meal and discussed the need for more information regarding the amount of food from each food group they should be eating rather than being told what they should and should not eat.

During our discussion of healthy eating, some students discussed specific nutrition concepts that went beyond Canada’s Food Guide to Healthy Eating. For example, Nicole told me that she was a vegetarian and found it hard to balance the protein in her diet (1-3). She also mentioned the importance of carbohydrates in one’s diet for energy (1-10). Lynn discussed the importance of drinking lots of water and consuming vitamin C, of which she used oranges as an example, in preventing colds (2-1). This indicates that some high school students may be interested in learning about nutrition and applying this knowledge to their specific needs. Similarly, James et al. (1997) found that grade 9 students were interested in learning more about vegetarian diets, organic foods, nutrition facts and fallacies and eating to keep fit and healthy.
Prior to the delivery of the program in grade 6, the students spent time discussing healthy eating. However, their conversations surrounded dieting, types of diets and where they learned of different diets. After receiving the information from the Body Image Module in grade 6, the students spent more time talking about concepts such as variety, balanced eating and minimal junk food intake. This is similar to the knowledge the students had in the present study. They too felt that healthy eating involved eating from all of the food groups, emphasizing balance and variety and limiting ones intake of junkfood. At the time of this follow-up study the students discussed dieting as an unhealthy lifestyle behavior. With the exception of the meal plan that Shawn received from the Reflexologist, none of the students discussed following a strict diet at the time of the study.

**Dieting and Diet Pills.** Dieting and the use of diet pills were discussed when students talked about healthy eating. Overall, both the males and females in this study did not seem interested in dieting and expressed the importance of healthy eating and physical activity in obtaining a healthy body weight:

Kristie: If you eat the right food and you exercise then you shouldn’t worry about the way you look or how much you weigh because it’s not important, cause if you eat healthy...like a lot of people are unhealthy and they eat right and they exercise but they have you know the thing in their head that they need to look a certain way and so they still want to lose more weight or whatever. (2-9)
At this time some of the students also talked about information they have received regarding different diets. This information generally came from e-mail or TV. Overall, they were aware that these diets were unhealthy and that it was unrealistic to put their young bodies on restrictive plans:

Lynn: Well like you can see some ads and just now right away that they are trying to get away with trying to sell you something that isn’t going to work, like some low fat, or no fat diet where all you eat only, like all you eat is chicken…..like you can’t survive off one kind of food cause you know that the different foods give you different nutrients, and you’re not going to get all of your nutrients from one food. (9-2-6)

The attitudes that the students had towards dieting and diet pills was encouraging primarily because studies indicate that adolescents do participate in unhealthy weight reduction practices. In a study of 869 females aged 14-16 years of age, 46% reported skipping meals and 22% crash dieted which included behaviors such as fasting, using diuretics, laxatives or slimming tablets or smoking cigarettes (Grigg et al. 1996). A recent study indicated that 44% of females and 18% of males stated they were dieting or needed to lose weight (Health Canada, 1999).

Although the students in the present study were not interested in dieting and diet pills, preventative efforts still need to focus on the harmful effects of dieting when students are in elementary school. Early intervention may assist in preventing students from using diet pills and engage students in critical thinking regarding the use of diet pills. Perhaps the students’ participation in the intervention or earlier
experiences and participation in nutrition education programs played a role in their attitudes towards dieting.

What do young people eat? The participants in the present study talked about eating a variety of different foods. For example, bagels, muffins, juice and cereal were the main breakfast items and chicken, pasta dishes, fish salads, perogies, potatoes, rice and steak were foods that they talked about eating for supper. Overall, the students had a tendency to eat two meals at home (breakfast and supper); lunch was eaten at school or in a fast-food restaurant. Jason explains:

For breakfast I will usually just have a muffin and a glass of orange juice and for lunch I will have fries or sandwich that my mom usually makes which I usually throw away....and for supper we usually have a nutritional meal like corn and rice and always vegetables....I usually snack on chips...I always have an apple before I go to bed. (1-7)

Heather also explains, “breakfast, I usually have a bagel or croissant and orange juice....for lunch I actually buy at the cafeteria because it’s easier....I don’t like the fries....like if they have a taco or something like that I will buy it or sandwich or soup” (1-7).

Although the students in this study were aware of the importance of eating breakfast, many still continued to go without, “sometimes I eat breakfast, sometimes I don’t, it depends how late I am for school” (13-1-6). In regards to eating breakfast, Melissa stated, “I don’t have time actually I would have time but I really don’t make time for it” (1-8).
Despite the importance of breakfast, there is a decline from elementary to high school in the number of young people that eat breakfast and the number of females eating breakfast is decreasing much more than that of males (Health Canada, 1999). Although some schools do have breakfast programs, nutrition education programs still need to communicate the importance of breakfast, as well as practical ways to incorporate this important meal into the day (Hoelscher, Evans, Parcel & Kelder, 2002). In order to meet the needs of students, some nutrition education programs are now focusing on foodservice components, such as breakfast programs. They also include home components which involve parents and guardians to increase the likelihood that interventions will be successful at promoting positive behavior changes (Hoelscher et al. 2002).

Fast food was a regular food choice for the students and consumption seemed to occur more often at lunch than breakfast or supper. For example, at some point during the school week students would either eat at the cafeteria or go out for lunch. There was only small number of students that talked about bringing a bagged lunch. When the students talked about their school cafeterias it was apparent that there was a variety of healthy foods offered including fruit, vegetables, bagels, sandwiches and soups. Despite this, few students made these choices and chose items such as chicken fingers, grilled cheese, french fries, chocolate bars and chips. When the students talked about going out for lunch they usually chose fast food places such as Burger King, Taco Time or McDonalds.
Convenience and availability of time were two of the main reasons that the students in this study chose certain foods. For example, Kristie explained that it is sometimes difficult to eat healthy when you are busy at school:

Kristie: I try to eat fairly healthy. Like I am so busy....sometimes it is hard...like you have to bring your own food if you want to eat healthy, like if you bring money to buy something from the vending machine it is all unhealthy....during the fall my eating habits are probably not as good as they are the rest of the year because I am so busy and I don’t have a lot of time.

(1-6)

Convenience and availability of time regarding food and food preparation are common barriers for individuals of this age group. Some literature suggests adolescents are aware that this impacts their ability to make healthy choices and are therefore interested in learning how to make quick healthy meals. For example, among 13 males and 16 female grade nine students involved in a focus group study (4 groups consisting of 6-8 students) the participants made it clear that fast food was quick, easy and tastes good and that healthy foods take too long to cook (James et al. 1997). Therefore, incorporating practical suggestions for healthy eating should be a primary component of nutrition education programs.

Social time and the opportunity to interact with friends and peers were often reasons for going to restaurants to eat. None of the students went alone and it was often a scheduled activity. For example, John explained that his friends usually planned to go to McDonalds on either Mondays or Fridays (1-6). Nicole also talked
Nicole: Like with my friends I will eat bad just because we are not going to go and cook a healthy meal.

Wendie: Okay, so what is eating bad then?

Nicole: Fast-food like McDonalds and stuff like that, or just going to grab a chocolate bar and chips instead of sitting down and having like an orange or something. Like the influence of the people I am around, my friends, I don’t eat as healthy as I do with my family because my mom will try harder to make meals that are healthier cause when your talking and stuff and trying to go and do something, sitting down and planning out a healthy meal or grabbing an apple is not at all appealing as going to get something. (2-10)

Nicole’s comments suggest that peer interaction during meal times is important to young people. Therefore, to encourage healthier behaviors, teaching young men and women to make healthier choices and educating young people regarding pressures to eat certain foods should be a priority in the development of primary prevention interventions.

Overall, the participants in this study were aware that healthy eating is necessary to maintain and achieve a healthy lifestyle. However, the discussion of health behaviors, such as eating fast food and skipping breakfast indicated students were aware of the importance of proper nutrition behaviors but did not practice what
they knew. For example, when Nicole and I talked about what kinds of foods she usually ate she explained that she and her friends “ate horribly.” She then went on to explain: “just fries like everyday....now that we have our licenses it has been awful because we will go for lunch....and now we will go to McDonalds everyday and just it gets sort of sickening when you added it all up” (1-4/5). They were also aware that skipping breakfast was an unhealthy behavior yet some participants continued to do so: “I don’t usually eat breakfast I know it’s bad” (9-1-6). Perhaps the strongest comment came from Melissa who stated, “like I know what’s right and wrong but I don’t actually practice it” (2-3).

These comments reflect the findings from a recent study. Croll and Neumark-Sztainer (2001) found that despite adequate knowledge regarding healthy eating, young men and women find it difficult to follow healthy eating recommendations and frequently consume food that they perceive to be unhealthy. These students also found that lack of time and limited availability were barriers to healthy eating.

The behaviors of the students in this study are also similar to those observed throughout North America. Overall, young people are not eating breakfast and eating increased amounts of fast food, highly processed food, beverages high in sugar and caffeine and decreased amounts of fruits, vegetables and dairy products (Neumark-Sztainer, Story, Resnick & Blum, 2002). These behaviors may increase the likelihood of conditions such as osteoporosis, obesity, type 2 diabetes and heart disease (Health Canada, 1990). Thus, school-based nutrition education starting early in life is essential to promote lifelong healthy eating (Perez-Rodrigo &
Aranceta, 2001). These programs assist to provide nutrition information and the development of skills and behaviors related to food. Perez-Rodrigo and Arcanceta (2001) suggested that it is important that these programs focus on preparation, storage and social and cultural aspects of food and eating, as well as enhanced self esteem and body image since all of these areas help to influence healthier food choices. Although these education programs exist and include many of these components, students such as those in the present study, have yet to fully understand and apply all of the concepts that these programs discuss. Perhaps more time needs to be spent educating young people on application of what they have learned to their own specific needs. This would allow the student to make more specific choices based on their own bodies which may help prevent them from feeling overwhelmed by nutrition guides.

3.2.4: Active Living

Physical education classes act to encourage students to develop a lifestyle that contains a significant amount of physical activity and gives the student an opportunity to interact with their peers, learn new skills, develop team-working skills and achieve various personal goals (Carroll & Hostetter, 1996). At the same time physical activity works to lower the individual’s risk of lifestyle related diseases such as cardiovascular disease, certain forms of cancer and diabetes (Jonas, 1995). Secondly, regular physical activity plays a role in the development of a positive self-esteem and positive body image. Individuals who participate in physical activity have decreased depressive symptoms and are less anxious than
individuals who do not participate in regular physical activity (Paluska & Schwenk, 2000; Scully, Kremer, Meade, Graham & Dudgeon, 1998).

The students in this study were aware that physical activity can promote positive mental health, "I think it’s a lot easier to keep yourself physically active and you feel better about yourself, you have a better self image. You feel more confident in what you can do" (9-1-3/4). Many of the participants also talked about physical activity as a means to reduce the stress they feel in their lives, "For me it’s like a peace of mind, it just helps you think and relax" (6-1-7). Dean explained that physical activity helped to deal with the pressures and stresses in everyday life, "peer pressure and everything else. You can just list off it off you know it’s just the kind of stuff that life hands you and when your active you kind of forget about that. You kind of run it away" (1-6).

Although the students were aware of the importance of physical activity for health, few discussed consequences of inactivity. Furthermore, there were only a small number of students that talked about the role of physical activity in lifestyle related diseases. One of the students explained, "if you ate a lot of cholesterol you might have a good chance of getting a heart attack...you gotta watch what your eating but at the same time you have to stay active" (12-2-5).

What types of activities do young people participate in? At the beginning of each interview I asked a few questions to establish a rapport with the participants. For example, I asked what a typical day was for themselves and what they do in their spare time. Many of the students talked about physical activity at this time. For example, Heather explained, “a typical week day right now, get up, come to
school at 7:00am, shoot baskets for an hour” (1-3) and Shawn told me that he usually bowls, reads and walks in his spare time (1-2).

At the time of the study over half of the students were involved with school teams, club teams or played organized sports such as hockey or curling outside of the school. Carla talked about the many hours she spent practicing for school teams: “coming to school having like 2 ½ hours of basketball, I don’t know I don’t play volleyball that much in the week before Christmas but we will be playing volleyball like five times a week plus basketball we play five times a week after Christmas” (1-3). John and Lynn also talked about their involvement with a local track club and the amount of work they do to train for the sports they are involved with. Lynn explains, “I like team sports, I’m involved in a lot of team sports and I’m involved in one individual sport and I love it....I pole vault with the track club, I skate, I play volleyball inside and out of school” (1-1).

When the students in the present study were in grade 6 many of them talked about exercising to lose weight and to look a certain way. However, after the program took place less students reporting exercising as a reason to lose weight and more discussed exercising for fun, to stay in shape and for health benefits (Braithwaite, 1996). During the follow-up interviews in grade 11 many of the participants discussed exercising to lose weight and stay in shape. For example, they talked about its role in helping them to lose weight, maintain their weight and build muscle. Shawn explained that he exercised to feel better about the way he looked, “looking better and feeling better about myself, not being embarrassed to take my shirt off and go on the beach” (4-2-13). Jen explained that she became
interested in lifting weight because “I want to lose weight really bad,” (1-4) and Jason talked about working out at the gym to, “build some muscle....and try and stay in shape as best we could” (1-5).

During the follow-up interviews in grade 11 the students also emphasized participating in physical activity to become healthier and more fit, “But going to the gym, I do it just to be healthier and to have all the parts of health, like cardiovascular and muscular strength...just to be more in shape” (2-2-1). Although the participants talked about improving their appearances, some students were not interested in attaining the ideal image. As Dean explains, “I would like to be in better shape. I am not looking for the better abdominals or the better body just (to get) in better shape and a bit more active and stuff” (1-7).

In the present study, enjoyment of activities, opportunity to interact with friends and competitiveness also provided a rationale to participate in physical activity. As Nicole explains, “the roller blading and the horses are just for fun sort of thing and it’s an activity I do, and it’s like even if it didn’t have any benefits as far as exercise goes I would still do it” (2-2-1). Todd enjoyed playing basketball with his friends because “it’s fun, let’s us interact, talk” (1-4). Kristie also commented that, “like the stuff I do, the reason I do whatever physical activity I do is because it’s fun and I enjoy doing it so. I wouldn’t do a whole lot if I didn’t have fun doing it” (1-5).

Ability to physically improve in sports was of primary importance to some participants. For example, Heather explains why she exercises regularly, “I play sports because I enjoy sports, I exercise because it makes it easier to play sports...it
does keep me more fit and keeps me from getting overweight....I don’t really love the exercise I love playing the sports, I exercise so it’s easier when I play sports” (1-5/7). Some students also talked about competitiveness in sports. As Lynn stated, “I like meeting new people and staying active, learning new things, I like to push myself physically to get stronger, better, faster, more refined (1-5/6).

Cardiovascular fitness, flexibility and muscular strength are all components of physical fitness. Only one of the students talked about these specific principles. One of the reasons for this may be the lack of resources or education materials received by the students. For example, all of the students were aware that Canada’s Food Guide to Healthy Eating exists because they received copies of the resource on several occasions throughout elementary and high school. However at the time of the study there was no physical activity guide available for this age group of students. The Canadian Guide to Physical Activity for Children and Youth (Health Canada, 2002) was released following the collection of data in the present study. It will be important to see if the guide may play a role in the level of knowledge in regards to physical activity for elementary and high school students.

The reasons these students provided for participating in physical activity are common for individuals of their age group. These include: improving skills, having fun and an opportunity to interact with their friends (Gould, 1987). None of the students in this study identified exercising to prevent lifestyle-related diseases later in life. One of the reasons the participants felt this way may be because the students feel they are not at risk of these diseases at this time in their life. Other researchers have suggested that health and nutrition are a low priority to many adolescents and
they do not feel it is necessary to change at a young age since the future is so far away. Also, adolescents is a time when there are many changes in young peoples social lives which results in more independence and an increase in the need for acceptance from peers which can result in changes to nutrition and health behaviors (Story, Neumark-Sztainer & French, 2002).

To date, health promotion efforts have been focusing on educating elementary and high school students as to the importance of daily physical activity. In a larger study conducted by Health Canada in collaboration with the World Health Organization, between 1990 and 1998 more students engaged in intensive physical activity (>4 hours/week) but that significantly fewer students are exercising on a regular basis (Health Canada, 1999). Therefore, health researchers are concerned about the potential harmful effects of inadequate physical activity (Dovey, Reeder & Chalmers 1998). For example, participation in regular physical activity has been promoted due to its favorable effects on health and includes a reduced risk of chronic diseases such as osteoporosis and hypertension, cardiovascular disease, certain forms of cancer and diabetes (Jonas, 1995).

Through discussion with the participants I discovered that many were physically active and lead active lifestyles. All of the students mentioned being involved in some form of physical activity. For some this meant being a part of a team or club, for others it meant snowboarding, horseback riding, playing frisbee, bowling, roller blading, and walking their dogs. Although participation in any type of physical activity is promoted, Canada’s Guide to Physical Activity for Youth recommends that individuals participate in some moderate and vigorous activity.
These types of activities are linked to health benefits such as achieving a healthy weight, building strong bones and muscles, strengthening of the heart muscle and improvement in self-esteem (Health Canada, 2002). Therefore, it is necessary to stress the importance of moderate and vigorous activity as outlined by the guides.

3.2.5: What Influences Young Men and Women’s Health?

Family members, peers and the media (TV, movies and magazines) play an important role in the development of lifestyle behaviors (Story et al. 2002). This subtheme focuses on the influence of family members, peers and coaches in the health knowledge, attitudes and practices of young people. The influence of the media was mainly in relationship to body size and shape and will be further explored in theme 2.

In general, the participants’ parents reinforced the knowledge they had about health. As Lynn explains, “My parents have kind of guided me as to what is right and wrong...they are always encouraging me and stuff like that” (1-9). Parental encouragement influenced the participants to eat more fruits and vegetables, cut down on junk food, eat breakfast, choose lower fat options and participate in regular physical activity. Kristie explained, “Like one of the girls in my class was on a diet once...so I was like well why would you do that, and my mom said well some people want to lose weight right...as long as you eat the proper amount of each food group and you are healthy and you exercise properly, it shouldn’t matter what you look like” (2-9). Heather also talked about her mother’s influence regarding physical activity at a young age, “Well like the dancing when I was young, my
mom wanted me to do it, she liked the whole ballet thing so I stayed in it plus I had nothing that I wanted to do more, and then in grade 5 when I determined yeah I liked basketball more, then I gave up dancing for that because it’s what I wanted to do” (2-5/6).

Experiencing a family members’ disease increased some of the students’ awareness of different health issues. They talked about aunts, uncles, cousins and grandparents experiences with conditions such as heart disease, arthritis, and anorexia nervosa. The students communicated a general understanding and increased awareness of the different diseases and the importance of health. Some students explained that their families changed their lifestyles as a result of health problems their family members were experiencing. Dean talked about the triple heart bypass that his uncle experienced and the role it played in his family’s awareness of the importance of healthy eating, “my mom really got interested in health and nutrition because everybody in her family died because they didn’t really eat healthy at all” (2-7). Shawn also described the influence his anorexic cousins had on his perception of healthy weight loss, “if you want to lose weight you should do it the right way, not starve yourself, I look at my cousin…she just screwed up her whole body” (1-6).

Parents have the ability to influence the health knowledge and behaviors of their children and play a significant role in the development of a positive self-esteem and positive self-image. Recent literature indicates that parental influence is present through childhood and adolescence. However, during adolescence, young men and women have more control in their lives and the decisions they make (Hern
& Gates, 1998). For example, during childhood parents are the primary influence in terms of their children's food habits and choices (Koivisto-Hursti, 1999). Studies that have focused on the factors affecting adolescent food choices indicate that parental influence exists but it is not as great as it is in childhood and is of secondary importance to the adolescent (Neumark-Sztainer et al. (1999). In terms of physical activity, parental influence, through emotional support and parental involvement was found to play a strong role in the physical activity behaviors of adolescents (Sallis, Prochaska & Taylor, 2000; Vilhjalmsson & Thorlindsson, 1998).

Among the female participants, some talked about friends or peers that had an eating disorder and how this influenced their understanding of a healthy lifestyle. For example, Carla talked about her friends' opportunity to model, "I know one of my friends became bulimic because she wanted to become a model and they told her that, she is so skinny as it is, she is like a little toothpick, and they told her to lose a couple pounds and she couldn't because she couldn't lose anymore so she just stopped eating altogether and then when she would get hungry and eat and then she would throw it back up, it was just gross and is was so sad to see someone do that to themselves when they are so skinny as it is" (2-5). Carla's comments reflected the others female participants thoughts and feelings. They were all aware that eating disorders existed, the signs of eating disorder and the consequences and could not understand why someone would put themselves through such events.

Overall, the students in this study identified their close friends as a support system who assisted in making them feel happy and comfortable with themselves.
The students also understood that some individuals can influence them negatively, and as a result are not true friends. As Shawn explained, “I know my friends are friends with me, not because of the way I look” (1-9/10). They also talked about the role their friends play in making them feel comfortable about themselves. When I asked Jason why he was so comfortable with himself he replied, “I don’t really know, just people around me. Like we are all comfortable with who we are. No one is really making fun of people because you look this way or act this way” (1-8). Lynn also talked about acceptance among peers and friends, “I don’t have any friends who are like, oh I want to go on a diet cause I want to fit into this dress, or I want to be a certain size, a certain weight, you are kind of what you are by who you are with” (1-9). These comments reflected the findings of Rosenbaum and Carty (1996) who found that adolescents view care from their friends and having friends to listen and confide in as important aspects of their own health. Therefore encouraging positive peer influence and interaction is an important component of overall health and wellness.

Lastly some students discussed nutrition information they received from coaches while playing on sports teams. These students talked about making more of an effort to make healthy nutrition choices because they were aware that what they ate could affect their performance. Lynn talked specifically about receiving information on pre-competition meals from her coaches to help her performance during competition (1-4). Carla talked about emphasizing carbohydrates and cutting down on fast food, “that made me think lots about eating habits and stuff...still now I eat lots of pasta and stuff like that just cause I play so much sports so I don’t like
eating lots of greasy foods and stuff, cause they will not give me the energy I need to keep going” (1-8/9). Other research has found that adolescents consider coaches a source of health information. For example, a recent study of 412 tenth graders found that 21.4% of students used coaches or teachers as sources of information related to diet, nutrition and exercise (Borzekowski & Rickert, 2001). Therefore, providing teaching staff and coaches with resources such as Canada’s Food Guide to Healthy Eating and Canada’s Guide to Physical Activity for Children and Youth will assist in providing young people with reliable, valid and user friendly information thus helping them to make positive choices related to their health.

Overall, the students in this study were influenced by a variety of sources such as parents, family members, friends and coaches. As described above this is common for their age group. Throughout adolescence, however, it is common for these influences to change since this is a time in which young people begin to have more independence and autonomy. For example, although parents may be a primary influence for nutrition behaviors during childhood, this greatly changes during adolescence with parents have less impact (Neumark-Sztainer et al. 1999). During this time young people may also choose to participate in negative health behaviors such as smoking, drinking alcohol and using drugs (Bauman & Phongsavan, 1999). They may also feel pressured or be influenced by their peers or friends to do so. Overall none of the students discussed these negative health behaviors or talked about being directly influenced by their friends to engage in these negative lifestyle behaviors.

3.3 Theme 2
Healthy Body Images
A negative body image or body dissatisfaction is a primary risk factor in the development of disordered eating behaviors and eating disorders (Cattarin & Thompson, 1994; Keel et al. 1998; Smolak et al. 1998; Taylor et al. 1998). Therefore identifying factors which play a role in a positive body image and body dissatisfaction is of primary importance in the development and improvement of primary prevention programs (Tiggemann et al. 2000). During the interviews the participants talked about what body image is, components of a healthy body image and what influenced their own body image. The following subthemes emerged: (1) Understanding body image, (2) What influences young men and women’s body image? and (3) Pressure from the media.

### 3.3.1 Understanding Body Image

Body image is the mental picture of one’s body and the associated thoughts feelings, judgments and behaviors (Rice, 1993). Just over half of the students were aware of the term and what body image was, defining it as, “that’s how you see yourself, how you think, what kind of attitude you have towards your body” (9-1-10). The other students had heard the term prior to the interview but did not have a complete understanding of what it meant. For example, some of the participants believed that body image was a description of one’s physical characteristics. Dean explained body image as, “like short and stocky or someone who is tall and slender or somebody who is a wide build” (2-4). For the students that did not know what the term meant, I provided them with a summary of the meaning according to Rice (1993): the mental picture of one’s body and the associated thoughts, feelings, judgments and behaviors.
Once the students and I talked more about what the term body image meant we went on to discuss healthy body images. The students in this study described a healthy body image as, “being comfortable with the way you look...what you think about yourself like you are not constantly worried about, does my hair look okay, does my make-up look okay, that is not really healthy” (8-1-11). Some of the participants also described the characteristics of individuals with positive and negative body images. As Heather explains: “they are happy with what they are and they obviously don’t get down on themselves if they see somebody who is skinny or whatever. They don’t let people’s comments affect them at all.” She then went on to describe a person with a negative body image:

They take people’s comments way too much to heart and that is how they see themselves, like if someone says you look fat or something they look in the mirror and that is all they see. Or they just draw too many comparisons between themselves and others. Especially like someone who has a really negative body image would be really influenced by the media I suppose, like the skinny people in the magazines or whatever. (1-10)

The students spent time talking openly about their own body image and their feelings were mixed in terms of acceptance of their own bodies. For example, some students’ responses were similar to Nicole who stated, “I think I have a positive image, like I am pretty confident and I don’t really care what anybody else thinks...it’s just a big vicious circle of what people think really, so you just sort of bypass it” (1-10). However, for some other students it was obvious that they were
not completely satisfied with their physical appearances, “I feel good and bad about it, like I feel I am looking better yet I want to change a lot yet I know there is stuff I can’t change and I guess I am going to have to live with that, but I am not going to quit trying though” (4-2-13). When I asked Heather if she felt positively about her body at this point in her life, she responded, “Honestly, not really, it changes; sometimes I am happy, sometimes I feel depressed about it. But you know it’s not to a point, like I don’t care that much, it’s not really bad or anything it’s just I’m not completely satisfied” (1-15).

There were some students, both male and females, that talked about wanting to change their bodies, “I just want to lose weight, like I feel good about myself but I just want to lose weight” (1-1-9). Dean expressed similar feelings

I don’t feel great, but I don’t feel bad, I’m just confident or whatever, I will accept my body the way it is. Well I guess that’s kind of positive but whatever….I wish I could be more muscular, six pack kind of, I don’t see myself as the person built for that no matter how hard I weight train or how much stronger, I don’t think I will be that kind of person…that is just the way my body is built. (2-10)

One of the young women, Nicole, talked about how her feelings about her body has changed as she has grown older, “I think my body is fine….in grade 9 actually it was really important…grade nine it’s the first year, you want to impress all the older people….but the older I get I am like ah it doesn’t matter, like I am fine with my body…I am not extremely fat and I know I am not extremely skinny but I am fine, I am still really athletic…the older I get the more I just don’t care…I
realize that I have more things to worry about” (7-2-9/10). Kim talked about the complexity of her body image and the challenges she faced at this time in her life due to the pressure she feels at school and the way she compares her body to her sisters:

Right now I am satisfied, I am just satisfied like you know when you get a 60% or when you get an 80% you’re satisfied but you are not actually at your best level. And that is sort of what I feel right now and I know what I need to do but I just don’t have the will power to go out and do it. And like I find it so much easier, like tons easier when you have somebody else with you....I want to get back into shape and I want to lose weight cause like I know I am a little, not overweight but I am a little overweight for my height because I am only five feet tall and I weigh 100 pounds...and plus my sister is probably as tall as me or maybe a little shorter and she is way skinnier than me. (2-4/5)

The above comments suggest that body satisfaction may change throughout adolescence. For example, although it has been estimated that up to 85% of women and between 40 and 70% of males are dissatisfied with their bodies, it is not known how and why this level of satisfaction changes throughout one’s life (Davis & Cowles, 1991; Furnham & Calnan, 1998; Saskatchewan Health, 2000). McCabe and Ricciardelli (2001) suggested that body dissatisfaction may increase with age and therefore consistent intervention and promoting body satisfaction is of primary importance. This is also important since body dissatisfaction is associated with
negative health behaviors such as inactivity and dieting (Thompson, J. K., 1996). Since the students in this study were describing feelings of body dissatisfaction, it may be beneficial to provide follow-up or booster sessions throughout elementary and high school to assist the students in dealing with the feelings they have towards their bodies and thus help to prevent a negative body image. It may also be beneficial to focus on changes in body satisfaction among males and females throughout elementary and high school as well as changes that occur in adulthood.

### 3.3.2 What Influences Young Men and Women's Body Image?

While spending time with the students we also spent a lot of time talking about what influenced their body image. The students mentioned various influences such as family, peers/friends, the opposite sex, media, teachers and coaches. Overall, the students spent most of their time discussing family members, friends/peers, the opposite sex and the media. The students talked specifically about positive relationships and pressure that exists from family members, peers/friends and the opposite sex as the main influences on their body image. Media will be addressed in the next subtheme.

The participants were aware that positive people in their lives, friends and family, are important in order for individuals to feel good about themselves. Melissa explained the importance of positive influences from her friends and family, “I think it’s a lot about how other people around you treat you too, like if you have people who are constantly putting you down, then you starting thinking what is wrong with me. But like if you have good influences I think that is what does it….I know I have had a couple of friends here and there that just constantly put me down,
but I realized this and I am not friends with them anymore” (2-10). Lynn expressed similar feelings, “it depends, your family could influence, your friends, your teachers, like it could go either way a positive or a negative influence on how you see yourself. If you were surrounded by a lot of people who were bothering or pestering you, then you might not see yourself in a good light” (1-10).

When the students talked about these influences, they talked about the impact of negative comments and criticisms in regards to their bodies, made by friends, family or the opposite sex. For example Melissa explains, “Like my mom.... if she was to constantly tell you that you were fat or your dad or something then you would start believing them and you wouldn’t feel good about yourself and that would influence you a lot” (1-12). Two of the students talked specifically about pressures they felt from the parents and how this made them feel negatively about their body at times. Heather made recurring comments about her level of satisfaction with her body:

You know I am not ailing to be 40lbs underweight, anorexic you know like even as skinny as magazines or whatever....like if you look at me versus someone, like this one girl who is on the soccer team and track team and is really fit. I am not going to get to be like that, but I know that I am far enough away from that, that I should at least be closer....I am satisfied with what I am but I am not thrilled with it, like I could be better. (10-2-11/12)
When I probed to find out why she felt this way about her body she responded, "like it's more my personal opinion and well to give a specific example, my mother feels the same way."

There was one individual that discussed the influence her petite sister had on her. She discussed how her parents used to tease her about this and how it eventually began to hurt her feelings. She explains, "Well my sister is skinnier than I am and like I think it used to sort of bug me before, because like my parents would just tease me but I think it began to hurt me but like now it's just, I just know, she has always been more petite and so it did influence me before but it doesn't really influence me anymore, but I think it will always be at the back of my head anyway" (5-1-8). Shawn talked about a similar situation he experienced with his grandmother, "I had a grandma who did a lot of damage I guess you could say. I was always too fat for her. She would always comment if I ate a little bit more... it's really tough when you 5 years old and you think your grandma likes you but she doesn't" (1-10). Familial factors such as expectations, communication of weight concerns and behaviors of family members during meals have been identified as risk factors for the development of disordered eating behaviors. Ideally, prevention programs would assist students such as this by employing a comprehensive and integrated school-based program which included a referral system, individual counseling and outreach activities (Rosen & Neumark-Sztainer, 1998).

During the interviews there were a small number of young women that talked about the pressure they received from their mothers which supports the
evidence suggesting that mothers are a primary influence on their daughter’s body image. This comes primarily in the form of feedback regarding weight loss and muscle tone (McCabe & Ricciardelli, 2001). Given these results it may be suitable to include parents in intervention programs. For example, Wertheim et al. (1997), suggested that since some parents are concerned about their own body weight and shape and are subject to misinformation regarding body weight and shape, including parents in prevention programs may improve outcomes.

Some of the students talked about the pressures that exist from peers and friends, “if your friends are all skinny and you’re not or if your friends are all in shape and they like to do sports...and you don’t, I think that can affect you” (5-1-8/9). Peer pressure was also identified as an influence on body image, “just on the topic of peer pressure it’s the biggest reason people want to be skinny....I have to look a certain way...I have to try and be skinny or as attractive as I can that kind of thing. It’s not really a realistic goal” (11-2-11). The students also talked about comparing their bodies to friends and peers, “on TV and magazines it’s like they are real but you perceive them as not real human beings...but if its your peers you actually see it and you know them kind of thing”(6-1-11).

In similar studies, peer pressure and influence from friends has been related to drive for thinness and body satisfaction. For example, Tiggemann et al. (2000) found that young women believed that being thin meant they would receive more positive attention from their peers and that thinness related to confidence. In an earlier study, young females reported that comparison to immediate friends, popular girls and other girls at school was related to pressures to be thin (Wertheim et al.)
Overall, these studies suggest that peer influence may play a large role in body satisfaction among adolescents.

Some of the students also talked about experiences they have had that have made them more aware of the potential influence of others around them in terms of their own body image. Many of the students talked about how easy it is to be influenced by the body shapes and sizes that you see around you on a daily basis.

John talked about seeing young men that had muscular physiques and how it affects young men:

John: He looks like he is maybe 20 and he has the biggest upper body on a guy that size that I have ever seen. I wouldn’t want to strive to that, like he looks good but a bit of a fanatic.

Wendie: So does seeing young people like that at your school and around you, does that influence you?

John: Oh it would, definitely, maybe if that became the norm because you would feel left out and you would want to look like that too. (1-12)

Melissa talked similarly about young women, “like personally like yeah everybody is different sizes and stuff. It has never really affected me like at school and stuff….well it’s just like you see somebody who is thinner than you and think oh well I am fat or something just that kind of thing” (1-13). Others talked about the environment that exists in high school, “people in high school are really critical…like everybody just seems to be criticizing you and you never know what
is being said about you, and something has to be said about you because you are not
the only one that won’t be spoken about” (2-1-6).

In a recent focus group study of females with an average age of 16, the
participants revealed similar thoughts and feelings to the participants in this study.
For example, the young women in the study talked about wanting to be thin to fit in,
therefore not being singled out. They also discussed the attention one gets for being
skinny. However, discussion with the participants suggested that the desire to be
thin did not necessarily mean that the young women were dissatisfied with their
bodies. For example, when asked whether wanting to be thin meant being
dissatisfied with their bodies, a challenging discussion occurred among the
participants. Some believed that if you wanted to be skinny or thin, this meant body
dissatisfaction, while others believed that higher expectations for oneself, whether it
be a slimmer body, making more money or living in a larger home was only natural
(Tiggemann et al, 2000). This information is contrary to what researchers have
believed for many years. For example, previous researchers (Altabe & Thompson,
1996; Fallon & Rozin, 1985; Tiggemann 1996) believed that wanting to be thinner
suggested body dissatisfaction. Therefore, interview research among young females
must continue to assist in providing an explanation for the development and
existence of body dissatisfaction.

Other research confirms the influence of peers and friends as potential
influences on the body image of young men and women (McCabe & Ricciardelli,
2001; Tiggemann et al. 2000; Wertheim et al. 1997). When participating in the
program in grade 6, the students also identified peers, friends and family members
as potential sources of pressure regarding body weight and shape. For example, in grade 6, the females spent time talking about their "skinny" friends and how this made them too want to be slimmer (Braithwaite, 1996). This pressure or influence is not uncommon among young people. For example, in a study of 622 males and 644 females aged 12-16, males with a low BMI were encouraged by their peers to increase weight and muscle tone. However, among females, regardless of BMI, peers influenced each other to decrease weight (McCabe & Ricciardelli, 2001).

Teasing from peers and family members were also discussed as potential influences on body image. Jen talked specifically about being teased about her weight when she was in elementary school; "I remember, I used to weigh like 200 pounds in grade 8 I was just so gross...all the kids used to make fun of me and stuff and I was just like yeah whatever, now I need to lose weight but it's not for anyone else, it's for myself, I don't really care what anybody says to me anymore. Well I care, but not like a whole lot, it shouldn't really bother me anymore, sometimes it does but I don't let it go too far" (1-10). Carla talked about being teased by her brother:

My brother always used to call me fat and stuff and I would always get mad at him if that counts for anything...it bothered me sooooo much...everything that he said to me was that I was fat, stuff like that and he is younger too so it was so annoying. It made me self conscious but then it kind of evened out when my friends were like no you're not, don't
worry about it you’re fine, your body image and stuff like that. (7-2-9)

Overall, all of the students were aware that teasing can be a negative influence on one’s body image. Some of the students went on to talk about being teased by their peers and classmates, “like I was bugged as a kid as being fat or whatever and chunky and stuff by some people get bugged as being ugly or four eyes and stuff. So, like for me I didn’t really let if affect me too much, but yeah it does affect you even though you sometimes don’t want to admit it” (11-2-5).

Shawn explained that during elementary and high school he was teased by some of his classmates, “it was more negative back then (elementary school)....it wasn’t bad teasing by any means though but it was you know the odd comment you hear it and feel stupid or bad about it and what not” (2-11/12).

Teasing at a young age may play a role in the development of a negative body image, which may in turn lead to the development of disordered eating behaviors (Lunner, Wertheim, Thompson, Paxton, McDonald & Halvarsson, 2000). In an interview study of adolescent females, some young women stated that they had been teased by their friends, boys, boyfriends, popular girls or brothers (Wertheim et al. 1997). Therefore, when developing intervention programs it may be helpful to address issues such as teasing and negative feedback in the form of teasing (Lunner et al. 2000).

The young women in this study also talked about comments that the opposite sex makes, “opinions that other people have, especially guys. If guys have an opinion and you hear it, lots, like you are probably going to change....people’s
opinions even though you say they don’t have an effect, of course they have an effect” (7-1-12). Other research supports the influence of males on the body image of females. For example, in studies examining sociocultural pressures to be thin, females identified that they wanted to be thinner to look attractive, to get attention, and to look good for boys (Tiggemann, et al. 2000; Wertheim et al. 1997). Although the young women in this study talked specifically about how young men could influence their body image, the males did not talk about how the females could influence their body image. This may suggest that females are more concerned with the opinions that males have regarding their weight and shape. Overall, including both males and females in intervention programs and discussing the potential influence of the opposite sex on body image may help to address this issue (Wertheim et al. 1997).

3.3.3 Pressure from the Media

The participants in this study stated that the women portrayed in the media were tall, skinny and had big breasts and that the males were more muscular. Lynn explained, “they are always the perfect figure, perfect height” (1-7) and John added that the images he saw were “rippled, fake, impossible” (1-7). It was interesting to hear that some females found that the images portrayed in the media were starting to change:

Kim: Well I think more in the past magazines emphasized on like that really skinny model look right but I think nowadays they are becoming like they are not so much on the one extreme. I think they are going more into the middle and you don’t find as many super
skinny models, you find people who are just you know like normal weight. But I still think they have lots of super skinny girls, and that is what people strive to look like and on television it seems like everybody is so made up, like everybody is perfect. And, but then again they are also having people with their own sitcoms who are bigger, you know what I mean so that is being more accepted into the media culture, media society. (1-7)

While discussing the body shapes and sizes in the media the students talked about their awareness regarding the techniques used to alter the images that are seen on TV and in magazines. For example, the students discussed technology such as airbrushing as ways to change the appearance and body shape and size of people in the media (5-2-4,2-2-2). One of the male students also discussed a situation in which he was watching an infomercial on TV, “Well if you see a guy who is huge or something and maybe just like two weeks ago he was a slob or whatever…those weight infomercials, like how you turn into this in two weeks, that’s fake” (12-2-7). Some of the students also recognized that these images were used to sell different products. Heather mentioned that, “if they are trying to sell something, it’s usually skinny, perfect body, perfect skin, perfect hair, you know like that and for guys it’s really macho and buff. And well of course good looking, good skin, good hair all that” (1-5). Prior to the delivery of the program in grade 6, the students felt that all of the models were skinny, thin and muscular images (Braithwaite, 1996).

However, it was not until after the delivery of the program that the students became more aware of the technology used to alter the images they see in the media. Given
the above discussions with the participants, the information given to the students may have had some influence on the way in which they perceive the media.

Overall, the students communicated to me that they felt the images they see on TV and in magazines are unrealistic. The participants also discussed how continuous viewing of these images may make young people more likely to accept them as the ideal. Furthermore, the students were aware that what they see on TV and in magazines are very different from what they see in their everyday lives:

Dean: We see so many pictures of these people that we might start to think that is real. That is not real. We go see the average people and if you count the average people and what their bodies look like, no you won’t find every one is a Heidi or a Cindy Crawford or as skinny, Tom Cruise macho or whatever. Not everybody is like that though. But that is what people portray as healthy and they think that maybe it’s healthy to be like those models and everything. (1-10)

Nicole also discussed how the media is different from what she sees at school everyday, “you realize you walk, like walk through the school and you won’t probably find one person who actually looks like that. Like there is probably one in a million people, it doesn’t weigh that heavy one me just because I know it’s not very realistic” (2-1). Melissa expressed a similar attitude towards images she sees in shopping stores, “you are always seeing women with perfect bodies or you go into a store and they have mannequins, and like nobody can fit into those clothes” (2-5).
The students in this study were aware that the media may influence one’s body image:

Kristie: A lot of people are unrealistic, a lot of people are way smaller than people in real life, skinnier, taller, always the prettiest people. I think it sometimes makes kids my age feel like they aren’t normal, cause that is what you are seeing all the time. Normal is what you see all the time and the majority of people so if you see all those people on TV and you think that is what is normal, but really it’s not. So lots of people think they’re not normal cause they don’t look like that. (8-1-7/8)

Some of the young men in the present study also felt that females are more likely to be influenced by what they see in the media, “you will see this perfect person and you will say, like if you were a girl, you would say I want to be her, but you can’t and then you feel bad about it. But it could be the same with some guys. Guys don’t really care how they look though, that just what I have noticed” (3-1-11).

Despite the perception of pressures on women to be thin, some literature suggests that males may also feel pressure regarding weight and shape. Contrary to the drive for thinness experience by females, most males want to be heavier and more muscular, suggesting body dissatisfaction. This study also found that females are more likely to be influenced by the media than males and that perhaps sociocultural influences regarding weight and shape are not being identified by males. However, the mean age of the male participants was 13.78 years, therefore perceived pressure may change with age (McCabe & Ricciardelli, 2001).
Some of the participants explained that the images portrayed in the media make people put themselves down and set unrealistic goals about what they should look like (9-1-13). Melissa explained that the images in magazines and on TV may, “make them (young people) think less of themselves if they are not that size, make them think that in order to be good looking you have to be that size and focus more on the outside appearances than the inside” (1-11).

There were three students who discussed a specific situation in which the images in the media may affect young women. These students talked about the potential for anorexic and bulimic behaviors, “some people strive to look like the person and sometimes they can get hurt doing that...like maybe this girl wants to look like this other girl and they may skip a few meals or even develop anorexia or bulimia or something like that” (12-1-7). After the implementation of the program in grade 6 the students also stated that striving to look like a model can result in anorexic behaviors (Braithwaite, 1996). Despite these findings many young men and women continue to participate in weight reducing behaviors (Grigg et al. 1996).

It has been suggested that school-based intervention strategies may promote potentially adverse affects. For example, by providing young people with information regarding anorexia and bulimia they may be more likely to participate in these negative health behaviors (O’Dea, 2000). In an intervention study which focused on college-aged females, Mann et al. (1997) it found that at the time of follow-up, the participants in the intervention group had slightly more symptoms of an eating disorder than did the controls. In terms of curriculum development for children and adolescents, O’Dea and Maloney (2000) suggest that recent
curriculums may have glamorized eating problems and reduced the stigma of the disorders. Thus future curriculum development should focus on societal influence, influence of the media on body image, and the responsibility of individuals to be advocates of change toward a more realistic body image (O'Dea & Maloney, 2000).

The students in this study described various feelings they have had after seeing certain images on TV or in a magazine. Overall, the students understood that there was potential pressure to look like the images they saw in the media, “I just feel that they are putting other people down, saying this is the way you are supposed to be and you’re not supposed to look any other way, that’s how I feel” (13-2-1). There was one individual who was particularly disturbed and upset at what she sees in the media. When I asked her why she felt upset she explained, “cause they expect everybody else out there to be skinny and they are not and I feel bad when I watch that because I am not skinny at all and I know it” (1-5). She later went on to say, “it doesn’t really influence me, it just makes me kind of look at them and be like oh I am so much uglier than them” (2-4).

Research suggests that the influence of the media may promote unrealistic body shape ideals that may lead to an array of problems such as unhealthy weight control behaviors and body dissatisfaction (Field, Camargo, Taylor, Berkey Roberts & Colditz, 2001; Siverstein, Perdue, Peterson & Kelley, 1986; Tiggemann & Pickering 1996). Researchers have been well aware of the potential impact of the media and thus programs and interventions aimed at health promotion have frequently contained a media literacy component or a lesson on critical thinking about the media. This enables students to critically think about sociocultural
influences and consider ways to resist these pressures. The program that the
students participated in in grade 6 also contained a media literacy component in
which they participated in activities such as analyzing magazine articles and
pictures. The program allowed the students to be aware of what the media is
presenting and helped them to distinguish between what was realistic and what was
unrealistic.

In general, at the time of the follow-up study the participants were very
aware of the influence of the media on young people’s lives. They were very critical
of what they were presented with in terms of body shapes and sizes in the media.
Despite the participants’ awareness of the techniques used in the media and the
unrealistic nature of the images, many still felt slightly influenced or pressured to
have the body shape and size that they see in the media. In a study of over 1,000
adolescent males and females, 29% of females and 26% of males reported feeling
influenced by the media (McCabe & Ricciardelli, 2001). In an earlier study of 528
females, 69% reported that pictures in magazines influenced their idea of the perfect
body shape and 47% reported wanting to lose weight because of these pictures
(Field, Cheung, Wolf, Herzog, Gortmaker & Colditz, 1999). Interestingly, when
the students were in grade 6, they identified the sources of pressure regarding
weight and shape and discussed how these sources could play a role in body
dissatisfaction. However, they did not communicate feelings of body dissatisfaction
in grade 6 to the extent they did in grade 11. Therefore throughout elementary and
high school, students need to be provided with media literacy lessons which focus
on the critical thinking skills necessary to resist potentially harmful sociocultural norms.

3.4 Theme 3
School Based Interventions and Experiences

In the last theme the participants' talked about the experiences they have had at school related to their physical, emotional and mental health. This involved interaction with peers, friends and others. Secondly, they recalled and discussed educational material received during the program in grade 6 until the time of the follow-up interviews related to media, nutrition, physical activity and body image. The following subthemes emerged: (1) Discovering A Healthy Lifestyle and (2) “The Transition.”

3.4.1 Discovering A Healthy Lifestyle

Throughout elementary and high school, young people learn about health and healthy behaviors from a variety of sources. This may include peers, family members or the media (Borzekowski & Rickert, 2001). However, the school has been identified as one of the most important means of delivering information regarding health issues such as disordered eating. This is mainly since schools provide an established learning environment, offer opportunities for peer interaction and can house a large captive audience (Rosen & Neumark-Sztainer, 1998). As described by Saskatchewan Education “the aim of Health Education is to enable students to apply health knowledge in daily life in order to increase health-enhancing behaviors and decrease health-risking behaviors” (Saskatchewan Education, 1998, pg. 1). The following subtheme explores the experiences of the participants during their media, Christian ethics, health/wellness and physical
education classes. Throughout this theme, the participants also discussed the program in grade 6.

**Nutrition Education.** Nutrition education has been a part of elementary and high school curriculum for many years and has focused on providing information regarding healthy food choices. This is important since poor eating patterns formed early in life may lead to health problems such as cardiovascular disease, cancer and osteoporosis later in life (Health Canada, 1990). The students in this study recalled learning about nutrition and healthy eating from health, wellness, home economics and physical education classes. All of the students recalled learning about nutrition at some point during elementary and high school and talked about the resources they received such as Canada’s Food Guide to Healthy Eating and activities they participated in. This included activities from the intervention in grade 6 such as keeping food journals and more advanced learning in high school regarding the physiology of nutrient digestion. During the interviews the students discussed some of these activities and most importantly what they thought about the information they were being presented with.

While participating in the program in grade 6, the students received nutrition lessons which focused on Canada’s Food Guide to Healthy Eating. The students also received information about practical suggestions for eating healthy at lunch and choosing healthy snacks. The students were also asked to analyze fast-food menus and draw comparisons to Canada’s Food Guide to Healthy Eating and create balanced meals from the menus. During the interviews in the present study some students were able to recall exact activities that took place during the program in
grade 6, while others discussed activities but were unsure of what grade they completed them in.

Overall, the students discussed learning about the food groups, how many servings of each food group they were to have and about concepts such as moderation and balance. Some of the students recalled making meals and menus based on the information they received from Canada's Food Guide to Healthy Eating, “for a week we had to try to watch our meals and do the serving thing…we had to make an ideal diet according to the food guide…we had to watch, we did it over three days and every time you did a serving of a grain product you would put a check mark there….you learn that you have to eat from each food group in order to stay healthy and everything but I guess I have always eaten what I want to kind of thing too. And it’s kind of a pain at times to watch really carefully what to eat” (4-2-1/2).

When the students and I talked about these activities I asked if this information influenced or affected them in anyway. Overall, the participants commented that the information they learned had a minimal effect on them. For example, Carla explained that she was too young to be affected by what she had learned, “I think I was too young (elementary school) to really think about it, I don’t know it was only a project to do, I didn’t really think it had a big impact on my life at all” (2-2/3).

When I probed further to find why the information was not important to the students some of them stated that they felt the information being presented to them was boring and uninteresting. As Carla explains, “we did learn a lot about the food
groups and stuff like that. But in elementary I never really took it seriously, I didn’t really care. Oh like health (personal health), big deal you know, it just wasn’t a big thing for me...so I probably didn’t remember any of it because I didn’t really care” (2-2). These quotes suggest that perhaps the young people in this study were not interested in changing their lifestyle behaviors without an immediate threat to their health. Similarly, a study done on adolescent women (Anderson, 2002) suggested that there may be other factors besides knowledge and attitude that influence health behaviors, particularly among young women.

The students talked about feeling overwhelmed when they were in grade 6 by the information that was presented to them about Canada’s Food Guide to Healthy Eating. For example, Nicole recalled a time during the program in grade 6 when she was given a handout of Canada’s Food Guide to Healthy Eating and explains how she felt, “it’s just too overwhelming like when someone is saying you have to eat a certain portion of grains to be healthy and you are thinking that is so much, you just don’t bother....like we were told that an apple would be a serving but as far as everything else goes, no one really knew what was going on. And it’s too big a concept for someone so little too, like when you are in grade 6 you would rather go play than sit down and figure out how many” (2-5).

When discussing experiences related to learning about nutrition, I was interested to know if the participants applied any of the information they learned or made any changes. Some of the students talked about being uninterested in making changes. As Shawn explains, “I guess I have always eaten what I wanted to kind of thing too. And it’s kind of a pain at times to watch really carefully what to eat” (4-
2-1/2). Jason also explained that he wasn’t ready to use the information he received in his home economics class and therefore didn’t really get much from it (1-14). Carla also stated “I just didn’t really care enough I guess” (1-8).

Most of the students recalled writing food journals or making sample menus and meals based on Canada’s Food Guide to Healthy Eating. There was a consistent theme to the participants’ responses that suggested that although they learned the information and carried out an assignment about Canada’s Food Guide to Health Eating, the experience didn’t cause any consistent behavior changes.

Lynn: I remember, they used to give us a chart what we would have to take home and we would have to write down what we ate that day and we would have to do it everyday for a week and then bring it back. That way we would become conscious of what we were eating and pay attention to what we would eat and how much during the day.

Wendie: And would that affect you in any way?

Lynn: It would probably for a short period of time, maybe for a couple of weeks and then I would probably lay off or forget about it. (1-7)

Lynn’s comment reinforces the need for continued education which supports healthy behaviors. By using a coordinated health education program, one which provides nutrition programs (including a foodservice component), physical education, health services and psychological services it may be more likely that
young people would continue to practice healthy lifestyle behaviors since healthy
messages are delivered consistently (Hoelscher et al. 2002).

The school environment was the primary source of nutrition information for
the students in the present study. However, some the students also spent time
discussing their personal experiences related to their food intake and how this
influenced their food choices. For example, when I asked about where one of the
students learned about the importance of eating breakfast she responded, “pretty
much through experience. Like if you eat breakfast you feel better during the day
and school I guess....if you don’t do it you might feel tired or more drained out but
then if you do eat breakfast you feel more aware, so just kind of experience. And if
you miss a day without eating you feel like crap the next day” (1-3 & 14).

While discussing experiences related to Canada’s Food Guide to Healthy
Eating the students also talked about information they received regarding eating
disorders, body image and steroids. The students recalled a time when their
teachers had talked about eating disorders, what they were, the physical
consequences of eating disorders and signs that someone may be anorexic or
bulimic. As Lynn explained, “we just took a couple of notes on different eating
disorders and how to recognize them and stuff, like if your friend has a disorders,
how do know if you have an eating disorder and how to get help and stuff” (2-4).
Kim also talked about watching a video and that she had found it to be very
informative, “I never knew all that stuff before like I sort of had a general
knowledge about that but not that your teeth can turn yellow or brown or whatever
from the acid, the acid from your stomach that you keep throwing up. It just taught
me that regular exercise is better than like doing a whole bunch one day and not the other day, and like diets don’t always work” (1-4/5). Melissa described similar feelings:

It was just bad and wrong to do that to your body. Not healthy….like eating and going and puking afterwards, making yourself, doing it intentionally to get as thin as you want or as you think is perfect. I didn’t know what it was really that much and I don’t remember what she said that made me understand it more but I did and I thought I never want to do that I never want things like that. (1-9/10)

There were two males students that talked about learning about steroids during their physical education and lifestyles class. Both of the students talked about the side effects of using steroids and knew that they were unhealthy, “well I learned that steroids can alter your physical appearance like for you and against you cause you may get acne or boobs or something” (12-2-6). The students’ comments suggest that the information they received increased their awareness of issues such as eating disorders and steroid use among adolescents. This is important since increased awareness of these issues, such as participation in a prevention program, may prevent the likelihood that the students will participate in weight changing behaviors such as self-induced vomiting or steroid use (Buddeberg-Fischer et al. 1998; Irving, et al. 1998; Killen et al. 1993; Mann et al. 1997; Moreno & Thelen, 1993; Neumark-Sztainer et al. 1995; Paxton, 1993; Santonastaso et al. 1999; Shissslak et al. 1990; Smolak et al. 1998).
Physical Education Classes: The students talked about how learning about weight training and other forms of physical activity in their physical education class had encouraged them to become more active, “and in our gym class last year we did a half hour study of what you should do to stay fit and how you should work your exercise patterns....after he taught us that, me and J started working out and stuff and we were following the same pattern he taught us” (3-1-14). Others explained, “the class I took last year, we did a weight lifting unit...you realize that it’s not much effort and it makes you feel better so it made me want to go and do it on my own” (2-2-10). Kristie explained that she learned exercise doesn’t have to be boring or exhaustive, “they talked about how it can be fun to have exercise and there is a lot more you can do than you think....you don’t just have to go for a walk if you think that’s boring or you don’t just have to play basketball outside of school or extracurricular stuff....I realized that it’s not always running and running, it’s not like that, it can be fun too” (1-11/12).

During an interview one of the students and I talked about experiences in her physical education class. She was talking specifically about fitness testing and body composition testing that occurred. Heather was particularly upset when she had to participate in this component of her physical education class, “specifically in grade 9 and 10 gym class we did the fitness testing things and you know they weighed you and you got marked on how much you weigh basically, like whether it was in the healthy zone or what not....like I thought maybe I should weigh less, like a lot less, like I wasn’t within the really ideal range....because like I have always been sensitive about my weight cause I have never been really skinny, so that just sort of
enforced it and the part that upset me the most was the fact that it affected my mark” (1-13/14). This experience may play a role in future weight control behaviors for this participant and therefore participation in activities such as this should be optional to students.

It is suggested agreed that physical activity patterns be established early in life in order to receive health benefits and to develop positive behaviors that will continue through a lifetime (Carroll & Hostetter, 1996). Physical education classes also help to encourage students to develop a lifestyle which contains physical activity (Carroll & Hostetter, 1996). Classes give young people the opportunity to interact with peers, learn new skills, develop team-working skills and achieve personal goals. Although the students in this study were active on a regular basis it research does suggest that it is important that physical education teachers and other teachers within the school promote a positive learning environment and emphasize positive experiences in their classrooms. This may increase the likelihood that their students will continue in regular physical activity throughout their lives (Biddle & Goudas, 1996).

Over time there is a tendency for levels of physical activity to decrease as adolescent’s age. For example, in a study of 400 males and 375 females, data taken at 15 years of age and 18 years of age indicated that hours spent participating in physical activity per week decreased. For males it decreased from 11.7 hours per week at age 15 to 7.8 hours per week at age 18. Among the females, it decreased from 7.5 hours per week at age 15 to 4.3 hours per week at age 18 (Dovey et al. 1998). Given these results, coaches and teachers need to encourage physical
activity at all ages in order to allow the students to receive health benefits. This may include providing guidance about types of physical activities students may want to participate in and emphasizing activities that the students are more likely to enjoy.

**Barriers to Participating in Physical Education.** There were some students that talked about being teased during their physical education class. For example Kristie talked about hating her gym class and when I probed to find out why she explained, “kids I don’t know, would make fun of people who weren’t that good...weren’t good at sports in general you know...some of the girls in my class were into track and volleyball....they were just really quite nasty and still they are (2-5). Shawn also talked about avoiding certain types of physical activity because he was bothered by his classmates, “maybe not teasing but comments you know they make in the dressing room, don’t pass to him because he’s not going to get it so....I don’t like doing stuff and I try and avoid that kind of stuff where I have to do that. Like the nice thing about bowling is it’s you that does it, not your team and you don’t have to worry about what other people think or say, they don’t really matter” (2-5).

During the interviews some of the students talked about negative experiences in their physical education classes, acting as a barrier to physical activity. Kristie explained to me that she has always hated gym, and that she thought she was really bad at sports. She even went on to say “I thought that maybe sports really aren’t for me” (1-11). When I probed further she talked about her experience in physical education class, “like the teacher we had in grade 8 for gym
he would make us run and run and run... I am not so good at that, running forever and I don’t know then he said oh in high school you’re going to have to do this so I am preparing you and I was absolutely terrified when I walked into gym in high school” (8-2-5). Three other students stated similar comments. After discussing these experiences it was apparent that the students perceived the physical education class to be both difficult and challenging.

In terms of barriers to physical activity, some of the participants also discussed the desire to take other courses, which prevented them from taking another physical education class. As Todd explains, “I have other classes I have to catch up on... I still have to take my social and my English, my biology and I still have to finish up another class” (2-7). In general, the students explained that they did not have time in their schedules and were persistent on taking a variety of courses before graduation. Melissa explained high school is much different than elementary school “I think as you get older it gets more into academics instead” (1-7/8).

Early research from the Centers for Disease Control and Prevention (1996) showed that 48% of girls and 26% of boys did not exercise on a regular basis and participation in school based physical education programs decreased. For example, daily enrollment dropped from 42% in 1991 to 25% in 1995. Perhaps the expectation to complete other courses is playing a role in this decrease. Therefore, revision of curriculum or changing core classes is necessary to allow students to have time to include a physical education component in their school schedules.
Media Studies. The media has been repeatedly studied as to its relationship with eating disturbances and weight preoccupation (Silverstein et al. 1986; Tiggemann & Pickering, 1996). The rationale is that the media continuously promotes a thinning standard of beauty (Berel & Irving, 1998). As mentioned in theme two, subtheme 3, pressures from the media, the students questioned what they saw in the media and were critical of the images portrayed. At this time they also talked about the techniques the media used to enhance various images and that the media used images to advertise and sell products. When I probed to find out how the students knew about these techniques their responses came back to school and learning about this in class. Melissa talked about what she had learned about advertising in her Christian ethics class, “we are just looking at magazines and how they use women or dismembered parts of women to catch your attention and that it’s mostly about sex instead of what they are trying to sell…like only showing like legs or the chest and stuff like that” (2-6). Nicole recalled a time in her Wellness class when they were talking about body image and went on to explain, “there was a video that showed us how they created a person who didn’t exist just by making her on a computer. And they also showed us before pictures of models before they used like air brushing and then after to show us how it’s probably not even real at all….we didn’t know how dramatic the effects of airbrushing was so” (2-2).

The students who recalled the program in grade 6 talked a lot about the information they received about body image and the media. This is not surprising as the teachers in the 1996 study reported that the students were intrigued by the lesson delivered regarding the media.
Lynn: That whole thing we did with Kim Braithwaite, that is all we talked about was body image and the media....I remember we got into little groups and we did posters, we found pictures in magazines and we would have to say what it was depicting and how it was targeting certain people and how they would react to what they saw.

Wendie: What did you learn the most from it?

Lynn: That you can’t trust what you see. Just because you see something, it doesn’t mean you have to be that way.

Kristie recalled a similar activity she participated in during the program in grade 6, “well they have this girl, she has nothing to do with the product they are trying to sell but they are just trying to catch people’s eye cause she is so pretty…and it catches peoples eye and they look at the name of the product” (2-11).

There were many students that recalled making collages during the time they spent participating in the intervention, “well I know we did a collage…it was just different body types of the media and I think it was to realize that the media tries to get everybody the same….I can remember doing lots of sheets but I can’t remember specifically what they were. Like I know just a lot of work on sort of like training the way you think about like, trying to develop a positive way of thinking when you think about yourself like your body image” (2-2-8).

Overall, in elementary school, after the program in grade 6, the students were influenced by the information they were taught regarding the media and
thought more critically about what the media was portraying or presenting them with. This is likely due to their interest in the media at the time of the study and the content presented during the program in grade 6 as reported by the researcher and the teachers (Braithwaite, 1996). At the time of this study Carla explained, “we learned most about how the media has a huge effect on girls, especially younger girls who really don’t know any better....it does bring people to anorexia and bulimia because...like they want to be the skinniest person but it’s not really reality....I know at the time I was kind of chubby and stuff and it made me think it is okay to be who I am” (7-2-6). She later explained, “I was one of those girls that wanted to be so skinny and I wanted to be in movies, I wanted the movie kind of life, but in that class I remember we kind of had a reality, it was a big reality check and she kind of just told us, you know that’s not true and that not really reality so that was kind of an eye opener to me, so I was kind of influenced by that” (7-2-9).

Media studies has recently become a popular component of high school curriculum. Also, school-based eating disorder prevention programs and other health promotion interventions often contain media literacy components. Courses and interventions such as this focus on helping children and adolescents to read and study the media (Berel & Irving, 1998; Shisslak et al. 1996). Specifically, it helps students to question, evaluate, create, produce or respond thoughtfully to the media. This process was described by the students, “you will see commercials where they will promote stuff like this, not openly but in the way they have their commercials organized, and then you will see programs where they will talk about things like this and they say what to watch out for and how you can react and what you can do to
deal with stuff like that...you always learn that you don’t have to be a perfect 5-6 to have friends or to like yourself or to be good at something or to fit” (9-1-9).

It has been suggested that interventions which focus on the prevention of disordered eating behaviors need to be delivered at a young age (Smolak et al. 1998). While discussing classes that delivered information about the media, one student pointed out, “I basically wouldn’t see a point to taking a class like that...I have already shaped by opinion of how I am going to see things and especially now in high school or whatever nothing is going to change that” (10-2-10). Some students also felt the lessons they received in elementary school were of little benefit since he couldn’t remember them, “I remember making the collage yeah, I guess I can kind of remember that course a little bit....we obviously I didn’t get much from it if I can’t remember it” (3-1-13/14). Although his comments suggest that the intervention was not useful to him, another student's comments were very encouraging, “just because I can’t remember it, it doesn’t necessarily mean that I didn’t get anything out of it” (8-2-7).

The thoughts and feelings portrayed by the students clearly indicate the interventions related to health and wellness need to start early and be delivered consistently throughout elementary and high school. Furthermore, the students have identified the school, specifically classroom based activities, as their primary source of health related information. Overall, the students felt that the intervention in grade 6 did provide them with useful information regarding healthy lifestyle behaviors, but our discussions suggested that these behaviors were not carried out in a consistent manner. Therefore, continuing to use the school as the primary location
for the delivery of health related information is warranted but interventions must provide the skills necessary to make consistent behavior changes and these skills must be addressed by providing follow-up or booster session.

Presently in Saskatchewan, health classes are taught in elementary and junior high. However, once students reach high school the courses vary. For example, students may take Psychology, Wellness, Christian Ethics or Life Transitions. Also, Christian Ethics, which was found to spend time focusing on media awareness, is only delivered in the Catholic school system. As the students move from kindergarten to grade 12, teachers cover various aspects of healthy living such as drug and alcohol use, media awareness, self-esteem, self-image and body image, or nutrition and physical activity (Saskatchewan Education, 1998). However, although similar topics are discussed yearly, the content changes. For example, healthy eating is discussed annually but the same content is not revisited on a yearly basis. Secondly, although body image and nutrition is introduced in grade 6, in grade 7 healthy eating is an optional unit. Therefore, in order for students to retain the information taught to them and apply this information throughout childhood and adolescents, health curriculums need to be adjusted to provide booster sessions for students.

3.4.2 "The Transition"

Young men and women go through many changes and experience many events as they travel from elementary to high school. The transition from elementary to high school not only focuses on academic changes, such as pressure to attain high grades for post-secondary education, but social ones as well. This
transition is also influenced by the physical and psychological changes that occur at these ages. The students in this study talked about the social changes they experienced as they embarked on the transition from elementary to high school. Interestingly, when the program was implemented in grade 6 a subtheme emerged that involved the students’ awareness of this transition and the anticipated pressures to come as they entered high school. Their concerns at that time revolved mostly around body weight, shape and appearance (Braithwaite, 1996).

As the students talked about the changes that occurred as they entered high school it was apparent they appreciated the diversity that high school offered them. For example, there were a variety of peer groups that existed at high school versus elementary school: “when you get to high school there is a lot of other kids out there that you didn’t know about before and they think the same way you do and they like the same things you like so you are no so by yourself and all alone as you think” (8-1-10). However, some participants talked about the pressures that existed to have a certain image, “like grade 10 and 9, I was so concerned on who I was, everything revolved around my image and looking pretty and I was like oh my god do I look okay today, I was so concerned” (7-1-10/11). Kim expressed similar concerns about starting grade 9, “the older girls were always the popular groups...always like skinny and perfect” (5-1-7/8). However, when she spoke about the present she stated she wasn’t as influenced by peers at school due to maturity and more respect for herself (5-1-7/8). None of the males expressed concerns related to the peer group or popularity issues. This may be due to differences is psychosocial development experienced by males and females (Juszczak & Sadler, 1999). For
example, during early adolescence, females may be more likely to conform to peer
group behaviors and be more concerned about their self-image than males.

Secondly, the participants talked about popularity issues, "and like in high
school it was more important to be in the popular groups of people so they would do
their best to make fun of the little people just so everybody would be like oh yeah
you're cool" (3-1-9). When I probed to find out more about popularity issues
during high school I was offered some explanation. Melissa explained that, "when
you are probably about my age or a little bit less, like high school years, I think you
are more impressionable" (2-5/6). Nicole talked more specifically about the culture
that existed at high school, "well the thing is, when you get older in high school, the
pecking order increases....like where you stand with authority almost, because in
grade 9 you are utterly confused....in grade 9 I was terrified of all the bigger
people...I didn't really want to get in their way, I just didn't say anything and kept a
really low profile and now it's just I don't care....I think you dress a certain way to
conform so you are not looked at like a kid....and when you get older you're more
confident...and so you have a lot more confidence in yourself and just like I think
like the older you get, the more positive you are about yourself" (2-1-10).

Popularity and confidence have been identified as key issues for adolescents
in other interview-based studies. For example, in a study of grade 10 females,
Wertheim et al. (1997) found that popular girls exerted the most pressure to be thin.
Secondly, in a focus group study of grade 11 females, Tiggemann et al. (2000), one
participant stated, "well I know if I was thinner I would be more confident" (p. 651).
In order to deal with these issues, intervention programs need to focus on
developing confidence and positive body image in all individuals, regardless of their
weight or shape. Furthermore, since young people are knowledgeable about
pressure exerted from the media, perhaps more awareness regarding potential
pressures from peers is warranted (Tiggemann, et al. 2000).

There is a large amount of research which targets high school students
making the transition from high school to University or from high school to the
work force. Since each city/province is different in terms of when students enter
high school (grade 9 or grade 10), it is difficult to find literature which relates to the
transition which the participants in this study discussed. However, there is some
research that targets middle school students, for example, those who are entering
grade 7. In an interview study carried out in 1995, the participants talked about
some similar experiences and feelings to the students in the present study (Benfield,
1995). For example, the girls discussed loss of power and being the youngest in the
school as well as concern over wearing clothes that were not in style. Loss of power
and being the youngest people in the school were key factors for the students in this
study as well. However, the participants in this study elaborated on their experience
and discussed how this affected issues such as popularity and body-image.

Overall, the change or transition that takes place as students move from
elementary to high school was discussed by almost all of the participants. After
reviewing the current elementary and high school curriculum, there is information
regarding pressures to participate in drug, alcohol and cigarette use. However, there
is little to no information that addresses the “social” transition and pressures
regarding body weight and shape as they enter high school. Perhaps curriculum
resources, in the form of classroom presentations, videos or newsletters, may be helpful to provide this information to students who are making an important transition in their lives.
CHAPTER 4 – SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary and Conclusions

The purpose of this study was to carry out a long-term follow-up to understand the views and perceptions of health and body related issues among grade 11 students, 5 years after participating in an intervention program. The primary goal of the intervention was to encourage students to become aware of the factors that influence their body image and to make educated decisions with respect to their attitude and behavior regarding body image. Therefore, the focus of the program was on the development of informed responses to societal influences and enabling students to establish healthy patterns of eating and exercise. The questions in this follow-up study were designed to explore how young people perceive their own health and body image now and focused on issues such as nutrition, physical activity, potential influences on their health, body image and pressures regarding weight and shape. The questions were also designed to explore what role the school environment and the program in grade 6 had in influencing the students' perceptions of a healthy lifestyle.

Research Sub-Question #1: How do young men and women perceive their health and the components of health?

Overall the grade 11 students in this study were aware of the components that determine a healthy lifestyle. These included eating healthy, exercising, having a positive self-esteem and a positive body image. The students appeared to be
knowledgeable about healthy eating and participation in physical activity. However, despite adequate knowledge in these areas, they often don’t practice what they know are healthy behaviors. These findings suggest that interventions must provide students with the skills necessary to incorporate healthy eating behaviors and physical activity into their daily lives.

Research Sub-Question #2: Where do young people get information related to their health and body image?

The students discussed potential sources of health information such as TV, parents, friends/peers, school and the Internet.

Research Sub-Question #3: What influences young people’s health and body image?

The participants were very aware of the potential pressures and influence on health and body image which included media, parents, friends and peers. They were also aware that the media portrays unrealistic images and that various techniques, such as airbrushing, were used to alter images. They also talked about pressures at school, specifically pressures to be thin and popular. These pressures were more intense as the students made the transition from elementary to high school. Given the relationship between body dissatisfaction and disordered eating, identifying ways to enhance body image and teaching young people to resist sociocultural influences to be thin should be of primary importance in the development and delivery of intervention programs. Also, if body image issues are a primary concern as students enter high school, providing information related to body image issues
and healthy living in a school-based setting should be encouraged, particularly focusing on the transition from elementary to high school should be a priority.

**Research Sub-Question #4: How do young people perceive their own bodies?**

Despite the awareness of the potential sources of pressure and influence some students described feelings of dissatisfaction with their bodies. For example, seeing images in the media either made them feel bad about their bodies or influenced their decision to be slimmer or more muscular.

**Research Sub-Question #5: What role does the school play in educating students in regards to health and body image issues?**

The results of the study indicated that the school is the primary site for receiving information related to their physical, mental and emotional health. This information was received in various classes. For example, Psychology, Wellness, Christian Ethics or Life Transitions, Health or Physical Education.

**Research Sub-Question #6: What role did the program in grade 6 “Understanding Body Image: Helping Students Make Informed Decisions” have in the students’ perceptions of a healthy lifestyle?**

Many participants recalled activities they participated in during the intervention in grade 6 which provided them with the knowledge necessary to make informed decisions regarding their health and body image issues. For example, the students discussed activities related to Canada’s Food Guide to Healthy Eating and how this encouraged them to make healthy food choices. However, the students stated that these behaviors were not carried out in a consistent manner simply because they became uninterested or didn’t find the suggestions to be practical. They also talked
about the inability to continue taking physical and health education in grade 11 and 12 because they wanted to complete other courses in preparation for post-secondary education. Collectively, these results suggest that students are interested in making healthy lifestyle choices but do not have the resources or skills to do so. To assist students in making these choices consistent intervention that focuses on convenient and practical ways to incorporate physical activity and healthy eating into their lives is warranted.

Research Sub-Question #7: How do the views and perceptions of body related issues among grade 11 students compare to when they were in grade six?

As the students traveled from elementary to high school they had very similar views and perceptions of their health and bodies (Table 4.1). After the delivery of the program in grade 6 the students talked about eating a balanced diet, participating in regular physical activity and the negative consequences of extreme dieting behaviors such as those marked by anorexia and bulimia. They also talked about the media and peers as potential sources of pressure regarding thinness (Braithwaite, 1996). This knowledge is almost identical to what the students in this follow-up study communicated. The findings from the study in grade 6 also suggested that behavior changes in terms of nutrition and physical activity were evident (Braithwaite, 1996). However, during the present study it was evident that these behaviors changes were not maintained. Another important observation from the findings was that body dissatisfaction seemed to be more prevalent among the students in grade 11 compared to when they were in grade 6 (Table 4.1). This
confirms other research, which has suggested that body dissatisfaction, increases with increasing age among school age children (McCabe & Ricciardelli, 2001).

Table 4.1. Comparing Body Related issues: Grade 6 vs. Grade 11

<table>
<thead>
<tr>
<th>Grade 6</th>
<th>Grade 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledgeable about healthy lifestyle (nutrition, physical activity, positive self-esteem).</td>
<td>Knowledgeable about healthy lifestyle (nutrition, physical activity, positive self-esteem).</td>
</tr>
<tr>
<td>Knowledgeable about influences and potential pressures regarding weight and shape.</td>
<td>Knowledgeable about influences and potential pressures regarding weight and shape.</td>
</tr>
<tr>
<td>Satisfied with their bodies but feel pressure “is yet to come.”</td>
<td>Increased body dissatisfaction.</td>
</tr>
<tr>
<td>Began to put knowledge into practice.</td>
<td>Increased pressure regarding weight and shape.</td>
</tr>
<tr>
<td></td>
<td>No transfer of knowledge into practice.</td>
</tr>
</tbody>
</table>

Overall, the findings from the present study indicate that although body dissatisfaction is prevalent in high school students, they are aware of the components that make-up a healthy lifestyle and of the potential pressures that exist regarding their body image. Students are interested in making healthy lifestyle choices but do not feel they have the resources or skills to do so. These results highlight the necessity of providing consistent interventions throughout the elementary and high school years that continue to focus on providing young people with the skills and resources to find convenient and practical ways to incorporate physical activity and healthy eating into their daily lives.
4.2 Recommendations for Future Research

Throughout the time I spent with the participants in this study, analyzing the data and reviewing literature related to adolescent health and body image, there were various areas related to program development that I felt needed to be addressed:

1. **Young people need to be provided with the necessary resources and skills that will help them find practical and convenient ways to incorporate active living and healthy eating into their own lives:** The students in this study discussed various barriers to meeting physical activity and nutrition recommendations. For example, they found it difficult to apply this information to their own bodies and often found the recommendations to be overwhelming and unrealistic. They also discussed not eating breakfast or eating fast food on a regular basis despite comments which indicated they knew these were unhealthy behaviors. By providing young people with practical and convenient ways to incorporate regular physical activity and healthy eating into their own lives, they may be less likely to feel overwhelmed with these suggestions and be more likely to participate in positive health behaviors. This may include: teaching students how to prepare a healthy meal in five minutes, providing students with reliable web site addresses or cookbooks which teach them to cook a healthy meal or snack in a small amount of time or providing them with examples of types of physical activity they can do at home or outside with minimal equipment. Lastly, more time needs to be spent educating young people on application of what they have learned to their own specific needs. This would
allow the student to make more specific choices based on their own bodies which may help prevent them from feeling overwhelmed by nutrition guides and physical activity guidelines.

2. **Intervention programs should focus on ways in which students can feel positive about their bodies and also focus on the transition from elementary to high school as this is a time in which social pressures are the strongest:** Despite the students' awareness of the various pressures regarding weight and shape they continued to feel dissatisfied with their bodies. They also identified the transition to high school an important one in terms of their own body image and body dissatisfaction. While participating in the program in grade 6, the students were aware that this transition to high school would be difficult and often commented on the pressure that was yet to come. At the time of the program in grade 6, however, the students did not discuss body dissatisfaction to the extent they did when they were in grade 11. Therefore, interventions must focus on ways in which students can feel positive about their bodies and more importantly on the transition from elementary to high school. For example, students need to identify what is unique about themselves and build a positive sense of self. Secondly, they need be able to identify and manage stress which will enable them to feel good about their body. To assist in the development of a positive body image it is also important that these interventions continue to provide students with media literacy lessons which focus on the critical thinking skills necessary to resist potentially harmful sociocultural norms.
3. Early intervention and consistent delivery of health information needs to be provided to young people throughout their adolescent years: It has been established that early intervention and consistency is key in providing students with the knowledge and attitudes to develop healthy lifestyle behaviors (Juszczak & Sadler, 1999). It is also essential that this health information be delivered throughout adolescence since this is the time in which health behaviors will influence future health (Kelder, Perry, Klepp & Lytle, 1994; Lenfant, 1995). Many students made comments that suggested they learned about body image issues and healthy lifestyles in health class. This is encouraging but the topics covered in health education are not delivered in each year of study. For example, healthy eating is discussed annually but the same content is not revisited on a yearly basis. Secondly, although body image and nutrition is introduced in grade 6, in grade 7, healthy eating is an optional unit. Therefore, providing “booster sessions” in each year of school would be helpful to convey consistent messages regarding healthy nutrition and physical activity behaviors. These sessions may include current information that students come across in magazines or on television, they should also address students’ questions regarding healthy lifestyles and they must also reinforce healthy lifestyle behaviors and practical ways to engage in these types of behaviors.

4.3 Challenges in Conducting Interview-Based Research

One of the major criticisms in qualitative research is researcher bias. I, like every other individual, have had experiences that have played a role in how I examine situations that I am confronted with. These experiences may play a role in
my interpretation of the interview material. In order to effectively deal with this limitation, peer debriefing with my supervisor occurred on a regular basis and an audit trial was conducted. More details about this process can be found in Chapter 2.

4.4 Personal Reflections

The time I spent with these young men and women caused me to reflect on three key issues related to adolescent health and body image:

(1) Does wanting to be thinner mean body dissatisfaction? As I reviewed the interview material and related research I began to find conflicting answers. For example, research suggests that up to 85% of women are dissatisfied with their bodies and between 40 and 70% of males are dissatisfied with their bodies (Davis & Cowles, 1991; Furnham & Calnan, 1998; Saskatchewan Health, 2000). However, in an interview study of adolescent females, not all participants agreed that wanting to be thinner, meant body dissatisfaction (Tiggemann et al. 2000). Perhaps by combining interview-based studies and standard questionnaire, more accurate estimates of body satisfaction among various age groups can be determined.

(2) Should we be talking about disordered eating behaviors in school? There has been some research which suggests that talking about eating disorders and the behaviors surrounding eating disorders may increase the likelihood that young people participate in these behaviors (O’Dea, 2000; O’Dea & Maloney, 2000). Given these findings intervention programs may want to avoid discussing
disordered eating behaviors such as bingeing, purging, over-exercising or starving oneself to lose weight. Instead, they should focus on the media as an influence on body image, societal expectations regarding a thin body and also teach individuals to become advocates of change towards a more realistic body image (O’Dea & Maloney, 2000).

(3) Use and improve existing modules/programs/interventions: Throughout my time as a graduate student I came across hundreds of interventions. Some of these were aimed at eating disorders, body image or dieting while others focused on media literacy. Others were aimed at increasing fruit, vegetable and milk consumption or participating in regular physical activity. These interventions or programs were developed in Canada, the United States and abroad. After the delivery of these interventions/programs various recommendations and suggestions were made to improve outcomes. Despite this, while completing this project I learned of many research groups receiving money to develop a program/intervention related to healthy lifestyles, eating disorders or body image. In each of these cases, no research group used existing resources, but rather created their own. I feel it would be much more useful with both time and money to improve existing resources rather than develop new ones.

(4) Using the self-esteem approach in program development: In reviewing many articles related to the development of primary prevention interventions there were 3 models which were consistently discussed. These included the social
cognitive theory (Bandura, 1986), the transtheoretical model as described by DiClemente & Prochaska (1997) and lastly the self-esteem approach used by O’Dea and Abraham (2000). Although each of these models has shown some success in program outcomes, O’Dea and Abrahams model using a self-esteem approach has shown the most effectiveness. For example, they found that the participants had shown significant improvements in body image and attitudes towards weight and shape both immediately after the intervention and one year later. Therefore, when developing future resources researchers may want to consider this approach to improve program effectiveness.
REFERENCES


Tiggemann, M., Gardiner, M., & Slater, A. (2000). “I would rather be a size 10 than have straight A’s”: A focus group study of adolescent girls’ wish to be thinner. Journal of Adolescence, 23, 645-659.


Appendix A

Informed Consent Form
Consent Form

Students and Parent

Adolescent Health & Body Image: A Follow-up Study

Wendie Carnrike
Master’s Student
College of Kinesiology
University of Saskatchewan
Saskatoon, SK
Home: (306)

We would like to ask for your son/daughter’s assistance with a study that is being carried out in the College of Kinesiology. We are aware that your son/daughter participated in a study with their classroom teacher when they were in grade 6. This involved participating in lessons regarding nutrition, physical activity, growth and development, power of the media, weight loss and fitness industries, critiquing skills and decision making skills. The goal of the intervention was to encourage students to become more aware of the factors that influence their body image and to make educated decisions regarding their attitude and behavior regarding healthy lifestyle issues. The purpose of this project is to carry out a long-term follow up study to understand the experiences of young males and females since their involvement in the intervention. We are asking you as your son or daughter’s parent or guardian to allow him/her to participate in this study.

If your son/daughter decides to volunteer, his/her role as a participant for this study is to provide me with feedback regarding their experiences over the past five years as a result of the intervention. This will be accomplished by carrying out two individual interviews, which would last approximately 45 to 60 minutes. The type of questions that would be asked are as follows: What does the word health mean to you; Where do you get your health information from; What kinds of foods do your friends eat; Can you describe the body shapes you see on TV and in magazines; Do you think that friends and family members can influence the way that people feel about their bodies; When you were younger what kinds of things
influenced you in your life; Have you ever heard the term body image; Do you remember anything at school that influenced your body image?

The decision to participate or not to participate will not affect the grade that the student receives in any of their classes or and future services provided by the College of Kinesiology. All the information provided to me through the use of interviews will be kept confidential. Names will not be disclosed in any printed or published reports that are produced: pseudonyms will be used for all of the participants in the study.

With your permission and your son/daughter’s permission the interviews will be tape recorded to help us recall the information that was discussed. My advisor and myself will be the only individuals that will listen to these tapes. Also, if your son/daughter wants the tape recorder turned off at any time during the interview, I would be happy to accommodate their request. You or your son/daughter has the right to ask that any of the information given in the interviews be deleted from my records and to make any changes or deletions. All of the interviews will be confidential and stored in a locked office when not in use. You and your son/daughter will be given the opportunity to review the information discussed with me during the interviews. If your son/daughter wishes he/she may withdraw from the study at any time and data collected to that point will be destroyed.

It is our hope that the information that your son/daughter provides will help us understand the effect that the intervention had on their lives as well as their experiences related to the intervention. This information will also assist health educators to develop and modify existing and future programs related to the promotion of a positive body image and healthy lifestyle choices around physical activity and nutrition. Results of the study will be disseminated to teachers and health professionals through in services/ conferences/ workshops and to the academic community through scientific conferences and journals. Names of the participants will not be disclosed in any verbal, printed or published reports.

If you and your son/daughter decide that he/she would like to be a part of this project please complete the attached form. Also, please ask your son/daughter
to read this letter and indicate their consent as well. If you or your son/daughter have any questions or concerns about this study, please do not hesitate to contact either Wendie Carnrike (306 -Master's Student) or Karen Chad (966-6511-Associate Professor and Advisor) at any time.

PARENTS/GUARDIANS PLEASE READ and SIGN YOUR CONSENT

I have read and understand the purpose of this study and my daughter/son’s involvement in the study. I am aware that my daughter/son will remain anonymous throughout the study and in any written results of the data collection through participation in this project. I am aware that my daughter/son has the right to withdraw from the study at any time. I acknowledge that I have received a copy of the consent letter for my records. If I have any questions or concerns I can contact Wendie Carnrike or her research advisor, Dr. Karen Chad (966-6511). If I wish to clarify the rights of my daughter or son as a research participant I may call the Office of Research Services (966-8576).

I, __________ give permission to allow ______________ to participate in the (parent/guardian) (student) study conducted by Wendie Carnrike.

Signature ___________________________ Date ________________

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Students Please Read and Sign Your Consent

I have discussed this study and consent with Wendie Carnrike, and my parents/guardians. I understand the purpose of the study and my involvement. I understand that I have the right to withdraw from the project at any time, or ask to have any of the information that I have given eliminated from the final document.

Signature ___________________________ Date ________________
Appendix B

Auditor's Letter of Authenticity
Auditor's Letter of Authenticity

for the study entitled

Adolescent Health & Body Image: A Follow-Up Study

For the purpose of the study entitled Adolescent Health & Body Image: A Follow-Up Study a colleague was used to act as an auditor to independently examine and audit the data findings and interpretations.

In fulfilling the role of the auditor for this study, I Denise Lam attest that I was given the data in raw form and followed the data through the audit trial to the emergent themes.

(Signature of Auditor) (Date)
Appendix C

Guide for Semi-Structured Interviews
Guiding Questions for use in Semi-Structured Interviews

The reason I am here talking to you today is that I want to find out more about the health behaviors of young men and women like yourself. I will begin by asking you some general questions, then I will move on to some more specific questions about the health and lifestyle behaviors that you have.

Ice Breakers:

What elementary school did you go to? Did you like it? Was it a good place to go?
What made you choose ____ high school?
What subjects are you taking?
How long have you lived in Saskatoon?
What do you do in your spare time?

1. What does the word health mean to you?
2. Where do you get your health information from? Do you question the information?
3. What do you do in your spare time? Do you do any exercise or play sports?
4. Do your friends exercise? Why do you think they exercise?
5. Do you think guys/girls exercise for the same reasons?
6. What kinds of foods do your friends eat?
7. Can you describe the body shapes you see on TV and in magazines?
8. Do you think seeing these types of body shapes have an affect on people? In what ways? How?
9. What else influences the way people feel about their body?
10. Do you think that friends and family members can influence the way that people feel about their bodies?
11. Is there anything else that influences the way people feel about their body?
12. When you were younger what kinds of things influenced you in your life?

13. Have you ever heard the term body image? If no, I will provide the definition.
14. Do you remember anything at school that influenced your body image?
15. Given what we have discussed, do you think you will feel the same way in the future?