The Relation between Body Image Satisfaction and Self-esteem to Academic Behaviour in Adolescents and Pre-adolescents by Charulata Gupta

University of Manitoba

June 10, 2011
**Introduction**

Puberty is a period of major transition in forming a positive attitude towards one’s body image and self esteem among adolescents. Harter (1999) found that adolescents' global self-esteem correlated most highly with physical appearance, followed by scholastic competence, social competence, behavioral conduct, and athletic competence. Adolescence is an important period for forming views about oneself and socio-cultural ideals. Harter refers to this process as the “construction of the self” as individuals are discovering who they are and how they fit into the world during this stage (p. 3). Some of the challenges associated with self construction are accounted for by the many rapid physical and emotional changes that mark the transition from childhood to adulthood (Harter). With the beginning of puberty, physical appearance, body image, and self-esteem become vital to the overall self image of an adolescent. These physical and emotional changes could impact critical outcomes on overall self esteem and developing academic behaviours necessary for academic success among adolescents.

As a junior high educator for the last 14 years, I have found out that most programs and studies that focus on body image satisfaction during adolescence are for females. Adolescent boys are getting sidelined and we are failing to realize that programs are needed for adolescent boys as they also are facing body image disturbances and are concerned about their body shape and size. Most studies also show the relation of body image satisfaction to self-esteem, eating disorders or academic achievement among adolescents or adults. In our fast paced society, body image dissatisfaction is beginning to sprout among during elementary students as well. My purpose is to explore the relation between body image satisfaction and self-esteem to academic behaviour in pre-adolescent and adolescent girls and boys.
In this study I will examine:

1. To what extent body image (independent variable) is correlated to academic behaviour (dependent variable)?
2. To what extent self esteem (independent variable) is correlated to academic behaviour (dependent variable)?
3. To explore the relation between body image and self esteem (independent variables) and determine how the two will predict academic behaviour (dependent variable) using series of multiple regression?
4. Are their any differences or similarities in the correlation between these variables among Grade 5, Grade 8, and Grade 10 students?
5. Are there any gender differences (mediator variable) among Grade 5, Grade 8, and Grade 10 students?

**Significance of study**

The presence of body image dissatisfaction among adolescents is high. Our society today portrays a very twisted image of beauty for men and women of all ages. When adolescents view these images they get torn between their own actual body image and their perceived body image and the result is often devastating. A recent Canadian study done by Boyce, Craig, Elgar, Freeman, Janssen, King, McCuaig Edge, Mclagan, Pickett, Saab (2008) found that 36 % – 50 % of the adolescents from Grade 6-10 are not satisfied with their body size. Pressure and unrealistic expectations from media, peers, and society leads the adolescents to believe that they must go through any hurdles to make themselves look what the media wants them to look like and not what they already are.
This study will have implications for parents, educators, and counsellors for the development of healthy and successful adolescents. Preventative strategies need to be developed that can be used to promote positive body image satisfaction and self-esteem among adolescents. Parents need to understand the importance of modeling healthy eating habits during childhood. Besides meeting all the basic human needs, parents also need to successfully meet all the needs such as physical, emotional, intellectual, etc. of their child so that they will grow up to have a healthy body image and positive self esteem. Both parents and educators need to address the issues regarding body image and self esteem as soon as they see it coming and not to brush it off as “part of growing up”. Parents and educators need to intervene and help the adolescents develop positive image about them and further enhance their self esteem. It is important to note that body image dissatisfaction and lower self-esteem is difficult to treat once established and therefore schools need to implement primary intervention and prevention programs among the elementary school children. This dissatisfaction, if gone unnoticed, can also lead to eating disorders to attain the desired weight, lower self esteem, and it can also hinder their academic behaviours that are crucial for performance at school.

School is an important place for the social development of adolescents. The goal of education is not only to teach the curriculum but to help the adolescents cope with their social and psychological problems. Schools need to build young citizens who will contribute positively to the society and become comfortable with who they are and not what the society wants them to be. It is crucial for school counsellors to have a comprehensive understanding of body image and impart this knowledge to the adolescents so they can develop a positive body image. School counsellors need to bear in mind that body image dissatisfaction is associated with poor self-esteem, onset of eating disorders, obsessive thinking about ones weight and appearance, self
mutilation, onset of poor life style such as smoking and drinking and many more social problems. All of this could also lead to poor academic behaviours, low grades, and eventually early school dropout. Counsellors can use psycho-educational interventions in school counselling and could focus on presenting and reinforcing a critical stance toward body image standards. The practical significance is to train the school counsellors to use various preventative, therapeutic, and creative techniques into their daily counselling practices. Programs that emphasize the strengths of the adolescents and pre-adolescents and enhance resiliency among them work better than trying to find a quick fix for the problem. It takes time to slowly dust off all the layers of emotional distress. Helping the adolescents and pre-adolescents cope and teaching them to make healthy choices rather than labeling them with negative descriptors is a better alternative.

**Body image in adolescence**

Body-image may be conceptualized as a multidimensional construct that represents how individuals think, feel, and behave with regard to their own physical attributes (Muth & Cash, 1997). Muth and Cash talk about two facets of body image attitude and they are evaluation (satisfaction or dissatisfaction with one’s physical attributes) and affect (experience of discrete emotions). Body image is central to adolescent girls’ self definition, because they have been socialized to believe that appearance is an important basis for self-evaluation and for evaluation by others (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Pubescent girls are becoming intensely anxious and dissatisfied with their naturally developing, fuller bodies (Kater, Rohwer, & Londre, 2002). Yanover and Thompson (2008) write that the body image dissatisfaction might lead to high level of school absenteeism due to social anxiety regarding one’s appearance. Kater, et al. and Furnham & Calnan, 1998 found that body image concerns are rapidly increasing among boys too. Athletic abilities are found to define boys’ popularity and self-confidence and
thus, preadolescent boys report the desire to gain weight by increasing their muscularity (McCabe & Ricciardelli, 2004).

The onset of puberty entails bodily changes that, on average, move girls further away from societal standards of female beauty (Clay, Vignoles, & Dittmar, 2005). Young women desire to be perfect when it comes to their physical appearance, and describe their perfect ideal as tall, extremely thin, and slender (Parker, Nichter, Vuckovic, Sims, & Ritenbaugh, 1995 and McCabe & Riccardelli, 2005). Unfortunately, this ideal is unattainable to the vast majority of women, contributing to depression, low self-esteem, and eating disorders. Worry about body image has become so prevalent among adolescent girls that it has become an expected part of puberty (Kater, et al., 2002). Males, on the other hand, are more likely to increase the size of their body parts and want to have a V-shaped masculine physique with broad shoulders (Furnham & Calnan, 1998 and McCabe & Riccardelli, 2001, 2004). Athletic abilities defined boy’s popularity (Coyl, 2009). When the boys achieve their desired physical changes, they are able to move closer to achieving the lean and muscular body as endorsed by western society (McCabe, Ricciardelli, & Finemore, 2002). Research done by (Drewnowski & Yee, 1987 and Furnham & Calnan) has indicated that about 50% of adolescent boys desire to be smaller and 50% want to be larger. Females on the other hand wanted to be smaller (Drewnowski & Yee and Furnham & Calnan). Both adolescents and pre adolescents are torn between their own actual body image and their perceived body image as a result of messages they get from various sources. The results are often drastic leading to lower self esteem, dieting behaviours, self harm, substance abuse, etc.

**Body Types and Body Image Satisfaction**
Dohnt and Tiggemann (2006) say that the desire for thinness is prevalent among women and adolescent girls and has been extended to include young girls also. Girls as young as 5-7 years are dissatisfied with their body size, desire to be smaller, and some have also attempted to diet (Collins, 1991; Kelly, Ricciardelli, & Clarke, 1999; Poudevigne, O'Connor, Laing, Wilson, Modlesky, & Lewis, 2003). Smolak, Levine, and Shermer (1998) write that in the past decade, this problem has affected a growing number of preteen children as well. Dissatisfaction with body shape and size and the desire to be thinner has become the norm for women and girls in American and Western societies (Kater et al., 2002; Tiggemann, 2005). Parkinson, Tove´e & Cohen-Tove´e (1998) found out that girls of all ages want to be leaner than their perceived current shape. Recent research has explained that the most common source of this self-absorbed preoccupation to become thin is the subjective experience of "feeling fat" or fear of "becoming fat", regardless of actual size (Kater et al.). All these studies further confirm that females want to thinner due to cultural and societal pressures.

Mishkind, Rodin, Silberstein & Striegel-Moore (1986) say that boys as young as 5 years old prefer the mesomorphic body type which is the V-shaped figure with broad shoulders and slim waist rather than ectomorphic (thin) or endomorphic (fat). Men and adolescents who meet this ideal mesomorphic body type are considered to be more attractive and also receive social acceptance and benefits (Labre, 2002). Folk, Pedersen, & Cullari (1993) found that boys in Grade 6 were more dissatisfied with body weight than boys in Grade 3 and that there was a strong association between body dissatisfaction and a negative self concept, particularly for boys in Grade 6. Another study done by Parkinson, Tove´e & Cohen-Tove´e confirmed that younger boys (Grades 4–5) desired a larger body than their current shape and older boys (Grades 7–8) desired a leaner shape than their perceived current body shape. These studies indicate that as
boys get older and move closer to adolescence, they become more aware of the socio-cultural ideal for males and strive for a mesomorphic body type (Furnham & Calnan, 1998; Pope, Olivardia, Gruber, & Borowiecki, 1999 and McCabe & Riccardelli, 2004). McCabe & Riccardelli (2004) and McCabe, Riccardelli, & Finemore (2002) further state that high level of body dissatisfaction among boys lead to even split between wanting to lose weight and wanting to gain weight. This young generation forgets one important concept – just as two people do not have the same finger prints, they are not meant to have the same body types either. Adolescents are too busy pleasing others and constantly worry about what others are thinking about them rather than worry about school. Everyone is unique on their own and they should respect that fact without having to go through extreme turmoil to alter the way they look.

**Age of Physical Development of Adolescents**

The age of physical development during adolescence plays a role in the emotional and social development of an adolescent and has an effect on their body image satisfaction. Girls are usually encouraged to look “pretty” at a very early age to enhance their self-worth and boys on the other hand are encouraged to be “strong”. Petersen and Crockett (1985) believe that adjustment during the adolescent years is affected by the timing of pubertal changes. Girls who mature early, have more academic and behavioural problems than their peers who mature later but they are more popular among the boys during early adolescence (Spencer, Dupree, Swanson, & Cunningham, 2007). On the other hand, boys benefit socially from the increased growth spurt and muscle development at the onset of puberty (Coyl, 2009). During late adolescence, the early-maturing girls have lower self-esteem than those who mature later and weigh more and are shorter when their pubertal growth is complete (Spencer et al.). Drewnowski & Yee (1987) write that men's desire to gain weight and increase muscle size is a direct result of the pressures society
places on males to be physically fit and athletically successful. According to the deviance hypothesis, early or late maturation places the adolescent in a socially "deviant" category, because of their status to the rest of the peer group, and confers either social advantages or disadvantages (Petersen & Crockett, 1985).

**Body Image and Disturbed Eating Behaviours**

Yanover and Thompson (2008) & Lawerence and Thelen (1995) write that the body image dissatisfaction might lead to disturbed eating behaviours and has acute, detrimental effects on academic performance, especially, in the areas of cognitive tasks and problem solving abilities. Adolescent and preadolescent girls typically desire to lose weight, even when they are of normal weight for their age (Coyl, 2009; McCabe & Ricciardelli, 2005). A negative view of one’s body has been linked to increased incidences of the development of disordered eating behaviours (Fabian & Thompson, 1989; Gray & Ford, 1985; Lawerence & Thelen, 1995; Leon, Carroll, Chernyk, & Finn, 1985). A longitudinal study of 12–15-year-old girls has confirmed that bodily changes during adolescence such as development of breasts, increase in body fat, fuller bodies, etc. are associated with increased concerns about weight and eating habits (Attie & Brooks-Gunn, 1989). Coyl says that increase in fat, which is considered normal, due to pubertal changes also heightens the risk for poor body image and dieting behaviours among girls. Body dissatisfaction is also related to binge eating behaviours in adolescent boys (Johnson, Grieve, Adams & Sandy, 1999 and Ross & Ivis, 1999). This dissatisfaction with body image may further lead to high level of school absenteeism due to social anxiety regarding one’s appearance (Yanover & Thompson, 2008). Adolescence should be looked as a carefree time for enjoyment and celebration and not as a time for having body image concerns, lower self esteem, and other related disorders.
Body Image and Media

The media plays an important role in determining the ideal body image among adolescents. Magazines, toys, advertisements, clothes all portray an image for girls and boys. Girls are encouraged to be “thin and sexy” and boys are encouraged to be “big and muscular”. An Australian study examined media influences and found that 6-10 year old girls who looked at women's magazines (e.g., Woman's Day) had greater dissatisfaction with their appearance and those who watched music television shows and read appearance-focused girls' magazines (e.g., Dolly, Total Girl) predicted dieting awareness (Dohnt & Tiggemann, 2006). Anderson and Di Domenico (1992) conducted a survey of the articles and advertisements featured in the most popularly read male magazines and found that the male magazines contained more shape change articles and advertisements, and thus it would seem that males do not escape the socio-cultural pressure to achieve the ideal body shape. Another study confers that young boys and girls become dissatisfied with their bodies when it comes to media influence and social stereotypes (Labre, 2002; Dohnt & Tiggemann, 2008).

Pressure to attain the ideal body type has been used to explain the emergence and maintenance of body dissatisfaction among girls and boys (McCabe & Riccardelli, 2005). The idealized portrayals of women in Western media have a negative impact upon how adolescent girls see themselves (Clay et al., 2005). Harrison (2001) found that exposure to thin-ideal TV was associated with a rise in eating disorders in adolescent girls. American study done on adolescent girls’ show that 70% believed that magazine pictures influenced their idea of ideal body shape and 47% wanted to lose weight as a result (Field, Cheung, Wolf, Herzog, Gortmaker,
Thus, adolescent girls may be the most vulnerable to media exposure and it can negatively affect their body image (Clay et al.). The media not only emphasize that female self-worth should be based on appearance, but present a powerful cultural ideal of female beauty that is becoming increasingly unattainable (Richins, 1991). This causes dissatisfaction and desolation about their bodies among adolescents and results in detrimental eating habits. Males, on the other hand, emphasize on exercise rather than dieting to achieve their ideal body image (McCabe & Riccardelli, 2004). Due to media and societal pressures, pre adolescents and adolescents often fail to understand that images in advertisements are frequently not real. Male and female models are often made to look unrealistically attractive, thin, and/or muscular. Computer technology is used to alter the real image and create a flawless looking image. The toys (Barbie dolls, action figures) that these adolescents played with while growing up also add to the delusion that females should be thin and pretty and males should be buff.

**Body Image and Role of Parents**

Parents and parental criticism about their own children’s weight and physical limitations is the first factor in developing body image dissatisfaction. Both, mother and fathers’ attitudes towards their own bodies is correlated to body dissatisfaction among adolescents. A number of studies have implicated the role of parents in the development of body dissatisfaction and emphasizing thinness in both preadolescent boys and girls between 8–12 years of age (Smolak et al., 1999; McCabe & Riccardelli, 2005 and Phares, Steinberg, & Thompson (2004). Direct parental comments, especially mothers’ comments about their daughters’ weight, have a strong relation with their body image (Smolak et al.). Parents, especially mothers, who go on diets and are concerned about their weight, tend to encourage their adolescent daughters to be thinner thus promoting body image dissatisfaction among them. Boys also received messages from fathers to
exercise more and alter their body shape and size of their muscles (McCabe & Riccardelli, 2005). The desire and pressure to be bigger and muscular was for boys and girls had the desire to lose weight even when they were of normal weight for their age (McCabe & Riccardelli).

Parental modeling of dysfunctional eating attitudes and behavior, and parents’ influence over their children by direct transmission of weight-related attitudes and opinions, such as comments or teasing resulted in poor body image (Phares, Steinberg, & Thompson, 2004). Parents should realize that they should not impart their own unrealistic expectations on their children and should support them for what they are and not for what they want them to be. Parents need to model in front of their children that having healthy eating habits and doing regular physical activity is the preferable way to attain a desirable body image rather than dieting or skipping meals.

**Body Image and Self-esteem**

Harter (1999) write the perceptions of physical appearance and self-worth are inextricably linked, such that perceived appearance consistently emerges as the strongest single predictor of self-esteem among both male and female children and adolescents. This link is remarkably strong, with an average correlation of .65 in the US and .62 in other countries such as England, Canada, Italy, Japan, Holland, Ireland, Australia, and Greece (Harter). Physical appearance was found to be of great importance among the popularity and self confidence of girls and athletic abilities was of more importance for the popularity and self confidence of boys (Coyl, 2009). Body satisfaction is positively correlated with self-esteem among boys (Cohane & Pope, 2000). Thus, it comes as no great surprise that adolescent girls, unlike boys, who are not subjected to such unrealistic ideals show a marked decline in perceptions of their physical attractiveness from about 11 years onward (Harter). The U.S. Department of Health and Human
Services (2008), write that being overweight negatively affects children’s psychological and social well being.

Body image dissatisfaction is also associated with negative or low self esteem (Fabian & Thompson, 1989; Lawrence & Thelen, 1995; Clay et al., 2005; and Folk, Pedersen, & Cullari, 1993). Mendelson and White (1982) found that in children, as young as 7, feelings about their body were associated with their self-esteem. McCabe and Ricciardelli (2005) write that physical appearance is critical for adolescent boy and girl’s development of self-confidence. A study done in UK reported that in girls aged 11-16, experimental exposure to either ultra-thin or average-size magazine models lowered body image satisfaction and consequently, self esteem (Clay et al., 2005). Self-esteem is defined as a “positive or negative attitude toward a particular object, namely, the self” and makes the person feel that he is a person of worth (Rosenberg, 1965, p. 30-31). Rosenberg (1965) describes a person of high self-esteem as an individual, who respects himself, considers himself worthy and not better than others, recognizes his limitations, and expects to grow and improve. According to Glasser (1969) the most important aspects of self esteem are a feeling of belonging or of being needed, a sense of being accepted, and a feeling of being a competent person. On the other hand, a person with a low self-esteem shows self-rejection, self-dissatisfaction, and self-contempt, lacks self-respect, and paints a disagreeable self-picture (Glasser). When youth reach adolescence with a negative self-image, they get a feeling of “being stuck” (Morganett, 1990, Pg. 85). Because self-esteem is especially vulnerable during the period from 12 to 14 years, early adolescence is the ideal time for intervention (Simmons, Rosenberg, & Rosenberg, 1973).

A meta-analysis of self-esteem studies conducted in Western nations has confirmed that women’s self-esteem is moderately, but significantly, lower than men’s and the average gender
difference is greatest during middle adolescence peaking at around 16 years of age (Kling, Hyde, Showers, & Buswell, 1999). Clay et al. (2005) says in their research that controlling for family cohesion and stressful life event showed a pronounced and progressive drop in girls’ self-esteem from 12 to 17 years of age. Rosenberg (1965) showed that parental involvement and willingness to give adolescents autonomy and freedom are positively correlated to high self-esteem in adolescents.

The perception of appearance and self-worth are linked and perceived appearance is a strong single predictor of self-esteem among both male and female adolescents (Clay et al., 2005). According to Erickson’s theory, issues of self worth become prominent in adolescence when the major developmental task is to establish identity and coherent sense of self (Seligman, 2006). Crocker’s Contingencies of Self-Worth Theory proposes that satisfaction with body impacts on global self-esteem especially among women than for men and has been supported in young adults as well (Crocker, Luhtanen, Cooper, & Bouvrette; 2003).

Self-esteem may be another relevant variable with regards to eating disorders, thus leading to body image dissatisfaction (Lawerence & Thelen, 1995). Studies done by (Kelly et al., 1999; Lawrence & Thelen, 1995) found out that preadolescent girl who report higher levels of body dissatisfaction and dieting also reported poorer self-esteem. Another recent study done by Tiggemann (2005) and Fabian and Thompson (1989) found that adolescent girls who are heavier, perceive themselves as being overweight, and are dissatisfied with their weight might be vulnerable to developing low self-esteem.

Even though self esteem is something that cannot be touched or seen but it is always there following you like your shadow or the reflection in the mirror. Adolescents with lower self esteem have a lower worth about them and think about themselves as nobody. Once this feeling
of worthlessness takes power over their body and self esteem they start falling in this dark hole with few chances of coming out unless intervened at the right time.

**Self-esteem and Academic Behaviour**

Self-esteem affects motivation to succeed and thus self-esteem is positively related to behaviours that promote academic achievement (Liu, Kaplan, and Risser, 1992). Hattie (1992) found the average correlation between academic results (overall average marks) and self-esteem, to be of 0.34. Alves-Martins, Peixoto, Gouveia-Pereira, Amaral, & Pedro (2002) conducted a study and found that students with low level of achievement possess a self esteem that is considerably lower than that of students with a high level of achievement. A recent longitudinal study done by Schmidt and Padilla (2003) write that grades and extracurricular activities have been linked to the development of optimal adolescent functioning and are considered to be fairly reliable indicators of future well-being and success. Alves-Martins, et al. (2002) conclude that academic results play a important role in the self esteem of adolescents. Self-esteem rises as a person succeeds or is praised, thus, making self-esteem dependent on one’s perceptions of self (Harter, 1999; Schmidt & Padilla) and others (Schmidt & Padilla). Rosenberg (1965) found that self-esteem was associated with both academic achievement and extra curricular activities among adolescents.

Self concept or self-esteem is a psychological factor that has a considerable impact on the academic and social performance of a person (Hoogeveen, Van Hell, & Verhoeven, 2009; Stringer & Heath, 2008). Children who are rejected by their peers develop academic problems (Parker & Asher, 1987). Better grades and involvement in extra curricular activities also help in the prevention of negative behaviours, development of optimal adolescent functioning, and future well-being and success (Schmidt & Padilla, 2003). A recent study shows that positive self-
concept is moderately correlated with positive outcomes, including better academic performance (Stringer & Heath).

Schools offer subjects like Math, Science, etc. but what schools definitely do not offer is a course on self esteem. When students lack the confidence in themselves due to poor body image and self esteem they just stop trying to get better grades. They stop having the trust in their abilities and thus fair poorly at school hindering their own success. Even if they know the answers and know what they should do next, they just do not have the trust in themselves to do it and think that they are wrong any way so why even bother doing it. Eventually this cycle of poor body image and lower self esteem takes control over the negative self criticism and in turn affecting their academic behaviours at school necessary for success.

Method

Participants

The participants will be randomly selected from one school division in suburban Winnipeg, Manitoba, Canada. For the purpose of this study, I will recruit girls and boys from four Grade 5 classes of an elementary school, four Grade 8 classes of a junior high school, and four Grade 10 classes of a high school within the same school division. Consent will be obtained from the school division’s superintendent and the two school’s principals and teachers. After that a package containing parental consent form, three set of questionnaires, and a return self-addressed stamped envelope will be sent home with the students. They will then mail their questionnaires for analysis. The participants’ age will range from 9 - 10 years for Grade 5, 13 -14 years for Grade 8, and 15 - 16 years for Grade 10 students. I will guess that there would be about 4 - 6 sections of each grade in the school and about 25 students (girls and boys) and about 12-15 girls and 10 - 12 boys per section. This study will have 50 participants each at each of the grade
levels and thus, 150 participants in total. There would be about 1-2 students with special needs such as academic and/or behaviour in all of the classes. There would also be one student who will have extreme physical and cognitive disabilities among all the 150 participants. All of the special needs students will have a full time or part time paraprofessional attached to them.

Materials

I will obtain quantitative data from the participants on the basis of questionnaires that they will complete for body image, self-esteem, and academic achievement. I will use a modified version of the Body Shape Questionnaire (BSQ) scale for body image satisfaction (Cooper, Taylor, Cooper, & Fairburn, 1987) and The Rosenberg Self-Esteem Scale (RSE) to achieve a unidimensional measure of global self-esteem (Rosenberg, 1965). These two scales are widely used, especially for my population and have a high correlation. There does not appear to be any available existing measures for academic behaviour for adolescents. Therefore, I will design a scale and will call this scale as the Measurement of Academic Behaviour (MAB).

Body image satisfaction measure.

The Body Shape Questionnaire (BSQ) scale measure the concerns related to one’s body shape and is based upon the notion that disturbed body image is a central feature of eating disorders. (Cooper et al., 1987). This scale consists of 34 items and is widely used to assess body dissatisfaction and treatment of eating disorders (Cooper et al.). A Brazilian study done by Di Pietro and Xavier da Silveira (2008) and a Spanish study done by Espina, Ortego, Ochoa de Alda, Aleman, and Juaniz (2002) found the internal consistency of BSQ measured by Conbach’s alpha to be 0.96 - 0.97, the same as that found by the instrument’s authors Cooper, et al. (1987).

For the purpose of this study, I will use a modified version of the scale consisting of 14 items to measure concerns about body image dissatisfaction and the experience of “feeling fat”
among adolescents. It will be based on a six-point Likert scale ranging from never (1 point) to always (6 points) and will take about five - ten minutes to complete it (Appendix A). Dowson and Henderson (2001) used the modified version for their study and found the internal reliability to be 0.93. Few questions from BSQ look like, “Have you noticed the shape of other people and felt that your own shape compared unfavorably?” and “Have you felt ashamed of your body?”

**Self-esteem measure.**

The Rosenberg Self-Esteem Scale (RSE) is a 10-item Likert scale with items answered on a four point scale from strongly agree (3 points) to strongly disagree (0 point) (Appendix B). Self-esteem will be assessed through agreement with self-evaluative statements such as “On the whole I am satisfied with myself.” Rosenberg (1965) demonstrated that his scale was a Guttman scale by obtaining high enough reproducibility and scalability coefficients and had high reliability. Its test-retest correlations were typically in the range of .82 to .88, and Cronbach's alpha were in the range of .77 to .88. Clay, et al. (2005) used the RSE scale for their study to find about body image and self-esteem among adolescent girls and the internal consistency for their study was .84. Tiggemann (2005) used the similar scale for her study with adolescent girls’ body image and the internal reliability was 0.88.

**Academic behaviour measure.**

There does not appear to be any available existing measures for measurement of academic behaviour for adolescents. Therefore, I will design a scale and will call this scale as the Measurement of Academic Behaviour (MAB). The Measurement of Academic Behaviour (MAB) scale will consist of 20 items that will be measured by using a Likert scale that will range from "never" (1 point) to "always" (5 points). Questions will be used to measure students’ frequency (i.e. how often) to a countable behavior with regards to their academics. (Appendix
C. The questions from this scale will look like, “I like hard work because I see it as challenge” and "I finish an assignment by the deadline".

Procedure

I will obtain permission from the Superintendent and Principals of the two schools during late September 2011. After this I will approach the teachers and get their permission to conduct the research. This will be done by early October 2011. All the participants will be assured of confidentiality of their responses. I will assure them that the sole reason behind the study is for the purpose of my thesis for the Masters degree. The results are not meant to analyze their abilities as students and do not label them as having high or low self esteem and determining whether they have body image satisfaction or dissatisfaction. I will also explain them that the purpose is to exclusively collect their opinions and there is no right or wrong answer.

I will contact the teachers in mid October 2011 and I will begin by introducing myself to the students and explaining the purpose of the study. I will hand out the package containing parental consent form and three set of questionnaires to all the students. I will clearly instruct the students that they should not include any personal identifiers on their response sheets and they should mail their completed measures in the return self addressed stamped envelope to me for analysis.

Data Analysis

I will use a correlational design for the purpose of investigating the relationships between academic behaviour, self-esteem, and body image satisfaction. This design is appropriate given the flexibility and capacity to evaluate multiple relationships for the study (Cohen & Cohen, 1983). As the goal of my research is to measure complexities of relationships related to academic behaviour, self-esteem, and body image, I will use multiple regression analysis to determine how
body image satisfaction and self-esteem predicts academic achievement among Grade 5, Grade 8, and Grade 9 adolescents. Basic descriptive statistics such as percentages will be used to present demographic information where appropriate.

I will further use descriptive and logistic regression analyses as the statistical means with which to assess the relationships between the independent variables (body image satisfaction and self-esteem) and dependent variable (academic behaviour). This involves a combination of forward and backward regressions in which the initial regression model contains no variables except an intercept. Variables are then entered into the model one at a time and are possibly removed from the model depending on whether or not they render a statistically significant model. These steps are necessary in identifying variables that may not individually influence outcome but can become significant predictors in the presence of other variables. At the end, a model containing all the significant predictor variables will be developed.

The second piece will involve the verification of the importance of the variables within the model. The criteria for judging significance for this study will be a chi-square or more specifically, the Likelihood Ratio Test (LRT) statistic. Cutoff significance levels for entering and removing variables from the model will be set at 0.5 alpha. By using the LRT criteria, a model is refined and reduced by removing the most non-significant variables or interactions from the model.

For body image satisfaction the sum total of 34/14 items will be derived. The maximum score will be 204/84 points and minimum score will be 34/14 points. Higher scores will indicate higher levels of body image dissatisfaction and lower scores will indicate higher levels of body image satisfaction.
For self-esteem, I will sum the scores for the 10 items. The maximum score will be 30 points and minimum score will be 0 point. The higher the score, the higher the self esteem.

For academic behaviour, I will find out the sum total of the 20 items. Higher scores will indicate higher levels of academic behaviour thus leading to higher levels of academic achievement.
Appendix A

Body image satisfaction using Body Shape Questionnaire (BSQ) – Modified Version

Rate on a scale from:

Never (1), Rarely (2), Sometimes (3), Often (4), Very often (5), to Always (6)

1. Have you been so worried about your shape that you have been feeling that you ought to diet?
2. Has being with thin people made you feel self-conscious about your shape?
3. Have you noticed the shape of other people and felt that your own shape compared unfavorably?
4. Has being naked, such as when taking a bath, made you feel fat?
5. Has eating sweets, cakes, or other high-calorie food made you feel fat?
6. Have you felt excessively large and rounded?
7. Have you felt ashamed of your body?
8. Has worry about your shape made you diet?
9. Have you thought that you are the shape you are because you lack self-control?
10. Have you worried about other people seeing rolls of flesh around your waist or stomach?
11. Have you felt that it is not fair that other people are thinner than you?
12. Has seeing your reflection (e.g., in a mirror or shop window) made you feel bad about your shape?
13. Have you been particularly self-conscious about your shape when in the company of other people?
14. Has worry about your shape made you feel you ought to exercise?
Appendix B

Self-esteem using Rosenberg Self-Esteem Scale (RSE)

Rate on a scale from:

Strongly agree (3), Agree (2), Disagree (1), to Strongly disagree (0)

1. On the whole, I am satisfied with myself.
2. * At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. * I feel I do not have much to be proud of.
6. * I certainly feel useless at times.
7. I feel that I’m a person of worth, at least on an equal plane with others.
8. * I wish I could have more respect for myself.
9. * All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

* Items with an asterisk are reverse scored.
Appendix C

Academic behaviour using Measurement of Academic Behaviour (MAB).

Rate on a scale from:

- Never (1), Seldom (2), Sometimes (3), Often (4) to Always (5)

1. I go on to new work that is at a more difficult level.

2. I complete my school work on time.

3. I feel motivated to do better when the teacher praises my work.

4. I like to figure out the right answer by myself when I make a mistake.

5. I like to learn new things on my own that interest me.

6.* I would rather just do the minimum in order to pass.

7. I ask questions in class because I want to learn new things.

8. I isolate myself from distractions before I sit down to study.

9. I can figure out whether I am doing well or not before report cards are due.

10.* I get distracted easily when I am studying.

11.* I do not ask questions in class when I do not understand an assignment.

12. I help my friend/s on an assignment if they are having a hard time with it.

13.* I do not keep my notebook or binder organized.

14. I use my agenda to keep track of deadlines.

15. I ask my parents or friends for help if I do not understand certain assignments.

16. I use resources (library, computer) to get information for my assignments.

17. I finish my school work before moving on to social activities.

18.* I do not go over my notes and text book to prepare for a test.

19. I work hard because I see it as challenge.
20. I finish an assignment by the deadline.

* Items with an asterisk are reverse scored.

References


Dohnt, H., & Tiggemann, M. (2006). The contribution of peer and media influences to the
development of body satisfaction and self esteem in young girls: A prospective study.
Developmental Psychology, 42(5). 929-936.

Dohnt, H., & Tiggemann, M. (2008). Evaluating a program to promote positive body image in
young girls. The Brown University Child and Adolescent Behaviour Letter: An evaluation
of Shapesville. 3-4.

Questionnaire. Psychiatry Research. 102(3), 263-271.

weight? Psychology Med, 40, 626-634.

disorders in a sample of students in the Basque country: A pilot study. Psychology In
Spain, 6(1), 3-11.

International Journal of Eating disorders, 8, 63-74.

relationship to self-efficacy and learning behaviors. Professional School Counseling,
2(3), 194-204.

to the mass media and weight concerns among girls. American Academy of Pediatrics,
103(3), 1-5.

grade students. Perceptual and Motor Skills, 76(2), 547-553.


http://web.ebscohost.com/ehost/detail?vid=16&hid=114&sid=8cad1ec4-305d-4bde-bae8-27bff2012d63%40sessionmgr109&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d-bib22up#bib22up


Public Policy Statement: The Use of Growth Charts for Assessing and Monitoring Growth in Canadian Infants and Children. A collaborative statement from Dietitians of Canada, Canadian Pediatric Society, The College of Family Physicians of Canada, and


U.S. Department of Health and Human Services. (2008). Fact Sheet: Childhood overweight and
