

**PROTECTIVE FACTORS AMONG PEER HARASSED ADOLESCENT GIRLS:
IMPLICATIONS FOR BODY DISSATISFACTION AND EATING PROBLEMS**

by

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Abstract

The first goal of the present study was to examine two forms of peer harassment, appearance teasing and sexual harassment, by male and female peers, as they relate to body dissatisfaction and eating problems in young adolescent girls. The second goal was to assess whether social support, intelligence and coping style functioned as protective variables (moderators) in the relationship between peer harassment and both body dissatisfaction and eating problems. The Peer Harassment Inventory and the Coping with Peer Harassment Inventory, both developed for this study, along with questionnaires that assessed body dissatisfaction, eating problems, self-esteem, depression, social support, and intelligence were administered to 383 females in grades 6, 7, and 8. Questionnaires were completed during regular class periods and took approximately 60 minutes. Hierarchical regression analysis revealed that after accounting for the effects of physical characteristics, appearance teasing by both male and female peers was predictive of body dissatisfaction, accounting for 28% of the variance. A combination of physical characteristics, peer harassment, and protective variables accounted for 62% of the variance in body dissatisfaction. In the prediction of eating problems, appearance teasing and sexual harassment by male peers accounted for 30% of the variance beyond the effects of physical characteristics. A combination of physical characteristics, peer harassment, protective variables, body dissatisfaction, and psychological distress accounted for 55% of the variance in eating problems. Social support appeared to moderate the negative impact of boy harassment on eating problems, whereas a tendency to appraise boy harassment more negatively was associated with increased eating problems. These findings are discussed in terms of implications for prevention strategies.

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Introduction

A recent meta-analysis of 222 body image studies found that women are more dissatisfied with their bodies than their male counterparts, and this gender discrepancy has increased over time (Feingold & Mazzella, 1998). The pervasiveness of body dissatisfaction among women has prompted some authors to coin the term “normative discontent” to describe this phenomenon (Rodin, Silberstein, & Striegel-Moore, 1985). In addition, eating disorders occur predominantly among females. According to the Diagnostic and Statistical Manual of Mental Disorders (1994), approximately 90% of individuals with Anorexia Nervosa and Bulimia Nervosa are female. Research on adolescent girls also shows that body dissatisfaction and weight concerns are common among this age group. For instance, Surrey (1991) found that 83% of girls who thought they were too fat actually fell within the normal weight range for their height. Similarly, Childress and colleagues found that 30% to 40% of junior high school girls reported that they are concerned about their weight (Childress, Brewerton, Hodges, & Jarrell, 1993). A study by the Canadian Teachers’ Federation (1990) found that 80% of young women “worried a lot” about their appearance (as cited by Larkin, Rice, & Russell, 1996). A growing body of literature has emerged depicting an association between body image and teasing experiences. This study attempts to build upon these observations by examining other forms of interpersonal experiences: specifically, sexual harassment and its potential association with body image among girls. In addition, the present study also attempts to shed light on possible factors that may potentiate or moderate body image problems in

girls.

Adolescent Body Image

Adolescence appears to be a critical time for the development of body dissatisfaction and eating problems (Surrey, 1991). According to Striegel-Moore and Cachelin (1999), eating disorders typically begin in adolescence, with the first signs of eating disorders emerging during early adolescence. Larkin et al. (1996) state, “the level of body image disturbance in adolescent females is alarmingly high and far exceeds the body dissatisfaction of young men” (p. 8). In addition, a strong relationship between body dissatisfaction and eating disordered behaviours such as dieting, fasting, purging, and use of laxatives, diuretics, and diet pills has been identified during adolescence (e.g., Attie & Brooks-Gunn, 1989; Cattarin & Thompson, 1994; Fabian & Thompson, 1989; Leon, Fulkerson, Perry, & Cudeck, 1993). Evidence from longitudinal research suggests that body dissatisfaction precedes eating disturbances (Attie & Brooks-Gunn, 1989; Cattarin & Thompson, 1994; Stice & Agras, 1998; Thompson, Covert, Richards, Johnson, & Cattarin, 1995). For instance, Attie and Brooks-Gunn (1989) investigated eating disordered behaviour, body dissatisfaction, maturational status, family relationships, and psychopathology among a sample of adolescent girls before and after a 2-year period. Body dissatisfaction at baseline emerged as the only significant predictor of increased eating disordered behaviour at follow-up. Thompson et al. (1995) also used a combination of covariance structure modelling and longitudinal analysis to investigate predictors of eating disturbance. The pattern that emerged from their two cross-sectional

and one longitudinal analyses suggested that body image preceded eating disturbance.

Until recently, a developmental perspective on body image development and eating disorders has been lacking. According to Attie and Brooks-Gunn (1989), “the absence of developmentally oriented research in this area is unfortunate, given that eating problems typically have their onset during early to middle adolescence, are strongly gender- and class-related, and are closely tied to the biological and psychosocial changes that occur during the adolescent period” (p. 70). Several investigators have since attempted to understand the development of body dissatisfaction and eating problems from a developmental perspective. This requires the study of the development of body image and eating problems “in the context of challenges confronting individuals during this life phase” (p. 70). One intriguing developmental theory recently espoused is called the negative verbal commentary hypothesis (Thompson, 1992). The essence of this hypothesis is that weight-related teasing can have a deleterious impact on young girls developing body image.

Negative Verbal Commentary

The negative verbal commentary hypothesis is based on a substantial body of research that supports a relationship between childhood teasing and body dissatisfaction. According to Thompson et al. (1999), “the clear-cut negative impact of receiving negative information about some aspect of one’s appearance is one of the best supported areas in body image research” (p. 152). Researchers have investigated the relationship between teasing and body image in both adult and adolescent populations. Attention will now turn

to a review of the major findings.

Studies of Adults

Three studies surveyed adults about teasing experiences in their youth (Cash, 1995; Grilo, Wilfley, Brownell, & Rodin, 1994; Rieves & Cash, 1996; Thompson & Psaltis, 1988). In the first study of its kind, Thompson and Psaltis (1988) found that college females who reported a history of weight-related teasing tended to exhibit higher levels of body dissatisfaction. Cash (1995) replicated these findings in an investigation of 111 female college students. In his study, Cash found that 72% of the sample reported experiencing appearance-related teasing in childhood. Of these, 71% believed that the teasing had negatively affected their current body image. Seventy percent admitted that they sometimes think about these past teasing experiences. The women who recalled the most frequent, enduring teasing and who experienced the most distress during the teasing tended to be most dissatisfied with their bodies. Rieves and Cash (1996) found similar results. A large survey of over 4,000 men and women by Psychology Today found that 44% of women and 35% of men endorsed "being teased by others" when they were asked the question "what shaped your body image when you were young?" (Garner, 1997).

Grilo, Wilfley, Brownell, and Rodin (1994) investigated the relationship between childhood weight-related teasing and adult body dissatisfaction in a sample of obese women. Their findings were consistent with results from normal weight adults: Women who experienced more frequent teasing in childhood had higher levels of body dissatisfaction. In addition, women who reported early-onset obesity, defined as prior to

the age of 18, reported more frequent appearance- and weight-related teasing in childhood, and greater body dissatisfaction in adulthood. The researchers suggest that women with early-onset obesity may be at risk for developing body image problems due to more frequently being the target of weight-related teasing. While causal interpretations are impossible due to the correlational nature of the study, these findings do suggest a link between early-onset obesity, a history of weight-related teasing, and adult body dissatisfaction. Grilo et al. (1994) suggested that teasing should be examined at specific developmental periods such as childhood and adolescence, as these may be critical periods for the development of body image and eating disturbances.

The above studies on adults reveal a clear association between recollections of teasing in childhood and body dissatisfaction. However, firm conclusions about causality cannot be made due to the correlational nature of this research. In addition, the studies are retrospective accounts of experiences that transpired over a decade or more. Studies surveying adolescents about teasing experiences may be less influenced by the potential for retrospective bias.

Studies of Adolescents

Three studies surveyed adolescents about teasing experiences (Cattarin & Thompson, 1994; Fabian & Thompson, 1989; Thompson et al., 1995). Fabian and Thompson (1989) investigated the relationship between teasing and body image in a sample of early adolescent girls ages 10 to 15. Frequency of teasing and the amount of emotional distress experienced during the teasing was associated with higher levels of

body dissatisfaction, more eating disordered behaviour, higher levels of depression, and lower self-esteem.

Cattarin and Thompson (1994) followed a sample of 210 adolescent females for a 3-year period in an attempt to identify predictors of body image, eating disturbance, and psychological functioning. They assessed two types of body image: body-site dissatisfaction (from the Eating Disorders Inventory, Body Dissatisfaction subscale; Garner et al., 1983), and general appearance satisfaction (from the Self-Image Questionnaire for Young Adolescents; Peterson, Schulenberg, Abramowitz, Offer, & Jarcho, 1984). At the 3-year follow-up, teasing at baseline significantly predicted general appearance dissatisfaction, accounting for 6% of the variance. However, teasing was not predictive of body-site dissatisfaction or eating disturbance. Body-site dissatisfaction at the time of the initial assessment significantly predicted eating disturbance at the 3-year follow-up. Cattarin and Thompson (1994) recommended that future research examine the “mechanisms that underlie a possible effect (of teasing) on overall, but not site-specific, body dissatisfaction” (p. 122). Moreover, because only modest amounts of variance in body dissatisfaction and eating disturbance were explained, the authors stressed the importance of future research including other factors that are hypothesized to be involved in body image development.

More recently, Thompson et al. (1995) used a combination of covariance structural modelling and longitudinal analysis in an investigation of the development of body dissatisfaction. They surveyed 210 adolescent girls ages 10 to 15. Results from a

covariance structure model showed that the relationship between level of obesity and body dissatisfaction was indirect and mediated by teasing history. Teasing, on the other hand, had a directional effect on both body dissatisfaction and eating disordered behaviour. In Study 2, Thompson et al. (1995) investigated 196 adolescent females, ages 13 to 18. Again, level of obesity did not have a unique impact on body image: its effect was mediated by teasing history. Despite the statistical significance of these findings, the researchers noted that only small portions of variance in teasing, body dissatisfaction, and eating disordered behaviours were accounted for. They concluded that “there may be other variables that have yet to be studied that should be included in subsequent research in this area” (p. 231). Thus, other forms of interpersonal feedback, aside from weight-related teasing, may be important risk factors for the development of body dissatisfaction (Cash, 1995; Cattarin & Thompson, 1994; Thompson et al., 1995).

Sexual Harassment and Body Image Development

As previously mentioned, the negative verbal commentary hypothesis has been proposed to account for the association between weight-related teasing and body image development (Thompson, 1992). The basic tenet is that negative weight-related messages can have a deleterious impact on body image development. Recently Thompson has suggested that appearance-related messages fall along a continuum from “light-hearted teasing to extremely pejorative comments that border on sexual harassment” (p. 152). Interestingly, sexual harassment has not received much attention in the context of body image development to date. Sexual harassment has been described by Larkin and

Popaleni (1994) as a form of interpersonal feedback experienced by adolescent girls.

They referred to sexual harassment as “part of the continuum of male violence that affects and restricts the lives of young women” (p. 219). Their research suggests that sexual harassment may be related to several negative mental health outcomes in the lives of adolescent girls: poor self-esteem, reduced sense of physical and psychological security, and loss of self-identity. Similarly, Weiner and Thompson (1997) examined forms of overt and covert abuse and found them to be associated with body image, eating problems, depression, and self-esteem in a sample of adult women. Covert abuse consisted of behaviours such as unwanted sexual comments or unwelcome exposure to sexual material. The qualitative research of Larkin and Popaleni (1994), and more recently the research of Weiner and Thompson (1997), provides some initial insight into the relationship between sexual harassment and psychological health. However, empirical evidence is needed to examine the relationship between these two constructs among adolescent girls. Larkin et al. (1996) noted that “researchers have yet to seriously consider the link between sexual harassment, body image issues, and eating problems as they explore the cultural factors that account for young women’s loathing of their own bodies” (p. 14). This sentiment is echoed by Thompson et al. (1999), who stated “we are just beginning to focus on the full range of abusive experiences; a continuum model, with its inclusion of covert forms of abuse, may illuminate the effect of sexual harassment, appearance harassment, and inappropriate sexualization on the developing body image” (p. 245). As such, an important goal of this study is to extend the body image research to

examine the relationship of sexual harassment to body image and eating problems among a sample of adolescent girls.

Measurement of Appearance Teasing and Sexual Harassment

Expanding the investigation of negative verbal commentary to sexual harassment requires the development of appropriate psychometric instruments that quantify the sexually harassing experiences of youth. A review of the current research suggests that such instruments are presently lacking. According to Thompson et al. (1999), there are eight existing measures that operationalize appearance-related feedback. The three most commonly used measures include the Physical Appearance-Related Scale, the Perception of Teasing Scale, and the Feedback on Physical Appearance Scale.

Thompson, Fabian, Moulton, Dunn, and Altabe (1991) developed the Physical Appearance-Related Teasing Scale (PARTS) to assess retrospective accounts of teasing in childhood. It was developed in response to the psychometric limitations of the assessment of teasing in previous studies (i.e., previous studies used two Likert-scale items to assess weight-related teasing). The PARTS was limited in that it did not differentiate teasing directed at large versus small body parts and the source of teasing was not assessed. Thompson, Cattarin, Fowler, and Fisher (1995) revised this measure and renamed it the Perception of Teasing Scale (POTS). This scale improved on the PARTS by including a non-weight teasing scale (competency), and assessing the teasing source (i.e., parents vs. peers).

Tantleff-Dunn, Thompson, and Dunn (1995) developed the Feedback on Physical

Appearance Scale (FOPAS), a 26-item scale that assesses “a more subtle form of appearance-related communication” (Thompson et al., 1999, p. 164). The FOPAS assesses a wide variety of appearance-related feedback, however, sexually harassing experiences are not included in this questionnaire.

The PARTS, POTS, and FOPAS have been designed to measure adult recollections of teasing experiences from their childhood and are not standardized on children or adolescents. Of the existing appearance-related feedback measures, only the Rejection Experiences Interview (Vernberg, Ewell, Beery, Freeman, & Abwender, 1995) is standardized on youth. The Rejection Experiences Interview asks that participants indicate how frequently they have been teased, hit or pushed, threatened with physical harm, or left out of a desired peer activity. However, the Rejection Experiences Interview is limited as the items do not assess weight-related teasing and sexually harassing experiences among youth. In order to study the experiences of youth, it would seem particularly important to develop an instrument that taps their experiences. This is one goal of the present study: to design and report upon the psychometric properties of a harassment instrument that is standardized on the adolescent population.

Protective Factors in the Development of Body Image

As reviewed above, weight-related teasing, and perhaps sexual harassment, are risk factors for the development of body image problems in young women. The question arises, are there factors that protect adolescent girls from the negative sequelae normally associated with peer harassment? Attention has recently been drawn to the existing gap

in our knowledge regarding possible protective factors involved in the development of eating disorders. For instance, Striegel-Moore and Cachelin (1999) stated, “surprisingly little research has studied risk and protective factors for eating disorders from a developmental perspective” (p. 87). They further noted that in contrast with a strong focus on understanding risk variables in eating disorders, researchers generally have been “silent on the question of how to conceptualise protective factors” (p. 88).

The strength of association between appearance teasing and body dissatisfaction appears to be modest at best (Thompson et al., 1995). This may result from differences in how children cope with the teasing. Research tells us that substantial individual differences in the levels of problems associated with risk variables are due, at least in part, to differences in resources and coping methods used by children and adolescents (Compas, 1987). Existing body image research has yet to examine factors that may account for the high variability in body dissatisfaction among teased individuals. With the exception of a few studies that investigated the level of emotional distress in response to teasing (Cash, 1995; Thompson & Psaltis, 1988), little is known about how young people cope with peer harassment. The presence of protective factors such as good intellectual functioning, social support, and coping style may be critical to understanding the relationship between peer harassment and the development of body image problems.

Protective factors are skills, personality attributes, and social supports that serve to ameliorate or lessen the negative impact of the risk factor (Rutter, 1990). Such protective factors may be (a) characteristics of the individual (e.g., good intellectual

functioning), (b) supportive family relationships, or (c) supportive extrafamilial relationships (e.g., bonds to prosocial adults outside the family) (Masten & Garnezy, 1985).

Protective factors can be conceptualised using the main effects model or the interaction model, also referred to as the stress-buffering model. The main effects model holds that factors are protective if they are linked to positive adjustment or lack of pathology in both normal children and children at risk (Cohen & Wills, 1985). A more restrictive view of protective factors is the interaction model. Also known as the stress-buffering model, this model defines factors as protective only if they are associated with positive adjustment in high risk conditions and not associated with adjustment at low risk conditions. Three commonly cited protective factors include perceived social support, level of intellectual functioning, and coping style. These factors will be discussed in turn.

Social Support

An individual's perception of the level of support they have in their relationships and their perceptions of closeness to their support network members is known as perceived support (Wolchik, Sandler, & Braver, 1987). This type of support has been found to be associated with well-being (Sarason, Shearin, Pierce, & Sarason, 1987). Research suggests that support from parental and peer sources have a differential impact on adjustment (e.g., Reid, Landesman, Treder, & Jaccard, 1989). Whereas parental support appears to play a protective role, support from peers has generally been unrelated to positive mental health outcomes (Sandler, Wolchik, MacKinnon, Ayers, & Roosa,

1997). Research has not yet examined the effects of perceived support as it relates to peer harassment, body dissatisfaction, and eating problems. Such is one purpose of the present study.

Intellectual Functioning

Unlike level of perceived support, intelligence does not appear to be related to better psychological outcomes among children in general, but good intellectual functioning appears to be very important for children exposed to adverse circumstances (Masten & Coatsworth, 1998). Several reasons have been proposed for the protective mechanism of intelligence. One theory is that more intelligent children may possess better information-processing skills that equip them to better cope with adversity. A second theory is that children with better intellectual functioning may be more skilled at solving problems or protecting themselves from problems. A third hypothesis is that intelligent children may attract more support from teachers, and that the presence of social support accounts for the protection. Fourth, it has been suggested that higher intellectually functioning children may possess better self-regulation skills that assist them in coping with the emotional demands of stressful events (Masten & Coatsworth, 1998). The present study will investigate whether the level of intellectual functioning will moderate the relationship between peer harassment and both body dissatisfaction and eating problems.

Coping Style

A high degree of variability exists in how children cope with stressful situations.

While some cope effectively, others experience severe, long-lasting, detrimental effects (Wilson & Gottman, 1996). This variability may result from differences in the child's available resources, as well as the manner with which the child copes with the stressor (Compas, Malcarne, & Fondacaro, 1988). Lazarus and Folkman (1984) have defined coping as "the process of managing demands that are appraised as taxing or exceeding the resources of the person" (p. 283). Simply put, coping is a response to a stressful situation (Endler & Parker, 1990). In general, coping mechanisms involve attempts to directly alter a stressful situation, and/or to reappraise a stressful situation in an effort to avoid feeling threatened (Folkman & Lazarus, 1985). All cognitive and behavioural efforts made to manage stress are considered coping, regardless of whether the outcome is positive or negative.

Coping strategies have been categorized in various ways, but researchers generally agree on a fundamental distinction between problem-focused and emotion-focused coping (Ayers, Sandler, West, & Roosa, 1996; Billings & Moos, 1981, 1984; Carver, Scheier, & Weintraub, 1989; Endler & Parker, 1990; Folkman & Lazarus, 1985). Problem-focused coping involves attempts to alter or change the source of the stress (e.g., altering the relationship between the individual and the environment). In contrast, emotion-focused coping is aimed at managing the emotional distress associated with, or resulting from, the stressor (e.g., cognitively reframing the stressor) (Folkman & Lazarus, 1980; 1985). Avoidance coping, which includes attempts to not think about the stressor or to avoid encountering the problematic situation, has been considered a type of coping strategy by

some researchers (Endler & Parker, 1990).

Although the distinction between problem-focused and emotion-focused coping has been useful, recent investigations suggest that a narrower-band classification may be more beneficial in understanding the relationship between coping and mental health problems. For instance, using confirmatory factor analysis, Ayers et al. (1996) identified four dimensions of coping: (a) active coping, (b) avoidance, (c) distraction, and (d) support seeking. The researchers concluded that this four-factor model was a more accurate descriptor of children's coping than the broad-based problem-focused versus emotion-focused categorization. In their model, "active coping strategies" involved both problem-focused (e.g., altering the situation) and emotion-focused (e.g., positive thinking) behaviours. Distraction strategies involved performing an activity to take one's mind off the problem (e.g., listening to music), while avoidance referred to cognitive efforts to suppress thoughts regarding the problematic situation. Despite the many classification systems have been developed, it appears that the problem-focused versus emotion-focused coping categorization is the most widely agreed upon by researchers.

Research suggests that no single style of coping is adaptive in all types of stressful situations (Compas, 1987). The type of stressor and the circumstances involved are important determinants of the effectiveness of the coping response (Wills, Blechman, & McNamara, 1996). Nevertheless, certain coping strategies among children that tend to correspond with either positive or negative mental health outcomes have been identified (Sandler et al., 1997). Active coping strategies such as problem solving and positive

reappraisal of the stressor are often associated with lower levels of emotional and behavioural problems (Ayers et al., 1996; Compas et al., 1988; Ebata & Moos, 1991). In contrast, avoidant coping behaviours tend to be associated with negative mental health outcomes among youth (Ayers et al., 1996; Ebata & Moos, 1991; Sandler, Tein, & West, 1994).

An important goal of the present study is to determine whether perceived social support, intelligence, and coping style are related to body dissatisfaction and eating problems among adolescent girls. Another goal is to determine whether social support, intelligence, and coping style moderate the relationship between peer harassment and both body dissatisfaction and eating disordered behaviour. This line of research may shed light on the protective nature of social support, intelligence, and coping style with respect to peer harassment. In turn, this information may be useful for the development of prevention programs aimed at adolescent body dissatisfaction and disordered eating behaviour.

The Present Study

Research has clearly delineated a link between appearance teasing and body dissatisfaction in adolescents. This study sought to extend this research by examining another form of interpersonal feedback, sexual harassment, as it relates to body dissatisfaction, eating problems, and psychological distress. In addition, the sex of the harasser was examined to investigate whether teasing or sexual harassment by male versus female perpetrators differentially relates to body image and eating problems. The

first hypothesis was that peer harassment involving both appearance teasing and sexual harassment, by both male and female perpetrators, would be positively associated with body dissatisfaction, eating problems and psychological distress. The second hypothesis was that appearance teasing and sexual harassment would account for significant portions of variance in both body dissatisfaction and eating problems, beyond that accounted for by age, body mass index, and facial attractiveness. In order to address these hypotheses, a questionnaire was developed for this study to assess a wide range of peer victimization experiences including appearance teasing and sexual harassment.

Protective factors involved in the relationship between peer harassment and both body dissatisfaction and eating problems have yet to be examined in the published research. Child development research informs us that perceived social support, intellectual functioning, and coping style are important factors that may lessen or ameliorate the negative effects caused by risk factors. Although protective mechanisms have been widely studied, there is yet no published studies that have examined protective factors associated with ameliorating the risk associated with the development of body dissatisfaction and eating problems. Thus, another major goal of this study was to explore the relationships among the proposed protective factors of social support, intelligence, and coping style, and body dissatisfaction and eating problems. Of particular interest was whether social support, intelligence, and coping style would moderate, or buffer, the relationship between peer harassment and both body dissatisfaction and eating problems. The third hypothesis was that social support, intelligence, and coping style

would be associated with body dissatisfaction and eating problems (the main effects model). A fourth hypothesis was that social support, intelligence, and coping style would moderate the relationship between peer harassment and both body dissatisfaction and eating problems (the interaction model). In order to address this hypothesis, a questionnaire was developed to assess coping styles utilized when experiencing peer harassment.

Method

Participants

The participants in this study were 383 female students. Thirty-one percent were in the sixth grade ($n = 117$), 32% in the seventh grade ($n = 123$), and 37% in the eighth grade ($n = 143$). The ages ranged from 10 to 14 years, with a mean age of 12.16 ($SD = .90$). The mean age was 11.09 ($SD = .34$) for grade six girls, 12.06 ($SD = .32$) for grade seven girls, and 13.12 ($SD = .35$) for girls in grade eight. The students were from 14 public schools in urban (76%) and rural (24%) regions of a Northwestern Ontario community. Regarding ethnicity, 83% were Caucasian, 9% Aboriginal, and the remaining 8% were Asian or African-American.

Scale Development

Two questionnaires were developed for the present study. The Peer Harassment Inventory (PHI) was developed to assess student-to-student harassing experiences. The Coping with Peer Harassment Inventory (CPHI) was created to assess coping responses to a hypothetical peer harassment scenario.

The first stage of scale development involved a class discussion with 28 girls in grade eight. Discussion participants were asked to respond to the following questions: (a) Can you give examples of peer harassment? (b) What are the most common types of peer harassment? (c) What effect does harassment about body weight have on kids like you? (d) What are some of the ways kids handle teasing about their weight? (e) How would you deal with someone constantly teasing you about your weight? Participants generated 28 peer harassment items and 42 possible coping responses to peer harassment.

Additional harassment items were derived from various resources on adolescent sexual harassment, bullying, and teasing (e.g., Strauss, 1992; Whitney & Smith, 1993).

Supplemental coping items were drawn from the coping literature (e.g., Carver et al., 1989; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

The next stage of test development involved distributing the original item pool to a subset of the discussion participants for constructive feedback. Seven students were asked to review the items and evaluate them for readability, appropriateness, completeness, and to provide suggestions for improvement. The feedback was incorporated into the questionnaire items.

The third stage of test development involved the development of a vignette depicting a peer harassment scenario. The peer harassment vignette and the two questionnaires were then assembled into a booklet. Fifteen psychology graduate students evaluated the content of the questionnaires for readability, redundancy of items, and missing content. Several items were deemed redundant or inappropriate due to elevated

language and were eliminated. Other items were modified or eliminated due to poor face validity. The final number of items for the Peer Harassment Inventory was 36. However, to allow for an investigation into possible differences in body dissatisfaction and eating problems as a function of sex of the perpetrator, the set of 36 items was duplicated: one set assessed harassment by boys, and the other measured harassment by girls. The female perpetrator items began with the stem “a girl (or girls),” whereas the male perpetrator items began with the stem “a boy (or boys)”. The items were randomly ordered to prevent response bias. In its final form, the Peer Harassment Inventory consisted and 72 items (Appendix A). The Coping with Peer Harassment Inventory consisted of 70 items (Appendix B).

Measures

Body mass index. Weight in kilograms and height in meters were used to calculate body mass index (BMI) using Quetlet’s index (W/H^2).

Personal Information Questionnaire. This self-report questionnaire assessed the participant’s age, birthdate, ethnicity, height, and weight (Appendix C).

Facial attractiveness. During the height measurement of each participant, the researcher and an assistant made independent facial attractiveness ratings on a 10-point scale ranging from 1 (very physically unattractive) to 10 (very physically attractive). Interrater reliability was .81. The two ratings were averaged to create a facial attractiveness rating for each participant.

Body dissatisfaction. In order to maximize the measurement of body

dissatisfaction, two measures were administered with the intention of combining these scales into one single indice of body dissatisfaction. The Eating Disorders Inventory – Body Dissatisfaction Scale (EDI-BD; Garner, Olmstead, & Polivy, 1983; Appendix D) was used to assess the participant's level of dissatisfaction with several specific body parts (e.g., hips, thighs, stomach). This 9-item standardized scale has been validated on adolescent samples and found to have internal consistencies of .90 (Thompson et al., 1994) and .91 (Shore & Porter, 1990).

The Concerns for Shape and Weight Scale – Affective subscale (CSAW; Davis, 1993; Appendix E) was used to assess the participant's feelings about her body. This 18-item scale targets the affective component of body image, unlike the EDI-BD that assesses dissatisfaction with specific body parts. The affective dimension reflects the extent to which one projects negative affect onto the body. Items are rated on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scale scores indicate greater degrees of body image dissatisfaction in the affective domain. Internal consistency has been demonstrated with an alpha coefficient of .94.

Eating problems. The Children's Eating Attitude Test (CHEAT; Maloney, McGuire, Daniels, & Specker, 1989; Appendix F) is a 26-item self-report instrument that assesses attitudes and behaviours associated with anorexia nervosa and bulimia nervosa. This measure has been standardized on adolescents and evidences good reliability and validity (Maloney, McGuire, & Daniels, 1988; Maloney et al., 1989). Items are rated on a 6-point Likert scale ranging from 1 (never) to 6 (always). Higher scores indicate greater

levels of eating disturbance.

Psychological distress. Depressive symptomatology was assessed with the Children's Depression Inventory - Short Form (CDI-S; Kovacs, 1985; Appendix G), a 10-item self-report instrument for school-aged children ages 8 to 17. For each item, participants are asked to rate the presence and severity of their depressive symptoms over the past two weeks on a three-point scale (0 = absence of symptom, 1 = presence of mild symptom, 2 = definite symptom). Total scores may range from 0 to 20, with higher scores indicating more severe depressive symptomatology. The internal reliability for the CDI has been reported to be in the range of .71 to .89. Similarly, the test-retest reliability appears to be good. The validity of this measure has been established (Kovacs, 1992).

The Rosenberg Self-Esteem Inventory (RSEI; Rosenberg, 1979; Appendix H) is a 10-item self-report scale designed to provide a unidimensional measure of global self-esteem. It has been widely used and has demonstrated good reliability and validity (Keith & Bracken, 1996). Items are rated on a 4-point Likert scale, ranging from 1 (strongly agree) to 4 (strongly disagree). Higher scores on the RSEI indicate greater self-esteem.

Social resources. The Social Resources section of the Life Stressors and Social Resources Inventory – Youth Form (LISRES-Y; Moos & Moos, 1994; Appendix I) is designed to assess the availability of social resources for youth ages 12 to 18 years of age. Four domains of social resource were used for the present study. Five common items rated on a 5-point scale are used to measure social support from mother, father, teachers, and friends. Internal consistencies for the Social Resource scales range from .73 (Friend

Scale) to .93 (Parent Scale).

Intellectual functioning. The High School Personality Questionnaire – Intelligence Scale (HSPQ; Cattell, Cattell, & Johns, 1984; Appendix J) was used as a brief measure of general intellectual ability. This scale correlates .65 with the IPAT Culture Fair Intelligence Test (Cattell, Pichot, & Rennes, 1961), and slightly more with traditional verbal intelligence tests (Cattell et al., 1984). Higher scores on the Intelligence Scale indicate a greater ability for abstract thinking and high general mental capacity.

Peer harassment. As previously described, the Peer Harassment Inventory (PHI; Appendix A) is a 72-item measure of current and past (within the last year) peer harassment experiences. Thirty-six items measure harassment by male perpetrators and 36 identical items measure harassment by female perpetrators. Psychometric properties of this instrument will be discussed in the Results Section.

Coping with peer harassment. As previously described, coping was assessed with the Coping with Peer Harassment Inventory (C-PHI; Appendix B). This questionnaire presents a scenario depicting an adolescent girl experiencing harassment by a group of her peers. Harassing incidents in the vignette include (a) having her body rated on a rating scale of 1 to 10, (b) being called names such as “fat,” and (c) being teased about a specific body attribute. Participants were instructed to imagine that they are the girl in the scenario. A list of 70 coping items is presented and the respondent rates the frequency with which she would engage in these specific behaviours. The psychometric properties of the CPHI are discussed in the Results Section.

Procedure

School board approval was obtained to conduct this investigation. Principals from 14 local public schools were contacted and invited to participate in the study. All but one principal provided access to their students for participation. Next, the researcher contacted the teachers of each grade 6, 7, and 8 class to obtain approval for their class participation. All teachers agreed to allow their students to participate. The researcher then visited individual classrooms and presented a brief overview of the study to the female students. A letter for parents describing the study along with a parental consent form was distributed to each female student (Appendix K). Students and parents were informed that the purpose of the research was to learn more about factors that influence the development of body image among adolescent females. The letter to parents stated that the researcher was available to answer any questions, and parents were given the opportunity to request more information or to decline their child's participation. There was an 85% response rate. Reasons for exclusion from the study included lack of signed parental consent, absenteeism, or limited knowledge of the English language (one participant).

The data was collected in 29 different testing sessions over a 2-week period by the researcher and an assistant. The sessions were during regular class periods and were approximately 60 minutes in length. The mean number of participants per session was 13. The parental consent forms, which were required for study participation, were collected before the distribution of questionnaires. The researcher read aloud the

instructions for the questionnaire booklet, which included an explanation of anonymity and confidentiality (Appendix L). Participants then signed a consent form before beginning the questionnaires (Appendix M). The researcher asked that participants refrain from any discussion of the study material during the testing session. The questionnaires were arranged in the booklet in the following order: Personal Information Questionnaire, Rosenberg Self-Esteem Inventory, Children's Depression Inventory, High School Personality Questionnaire – Intelligence Scale, Concerns with Shape and Weight Scale, Eating Disorders Inventory – Body Dissatisfaction Scale, Children's Eating Attitudes Test, Life Stressors and Social Resources Inventory – Youth Scale, Peer Harassment Inventory, Coping with Peer Harassment Inventory. Ninety-one percent of the participants completed the questionnaire booklet. Of the 9% who did not complete (defined by not finishing the last seven items of the CPHI), 5% were in grade 6, 1% were in grade 7, and 3% were in grade 8. There was relatively equal representation from the different schools.

Upon completion of the questionnaire booklet, participant's weight and height were measured. Shoes were removed prior to weighing and measuring. The research assistant measured the participant's weight using a set of bathroom scales that were calibrated prior to each testing. The scales were placed in a secluded area of the room and were shielded by a cardboard partition approximately 4 feet in height to ensure complete privacy. Next, the assistant measured participant's height with a standard metal retracting tape fastened to the wall.

The researcher returned to each class approximately one month after assessment. A one-hour presentation was given by the researcher on teasing and sexual harassment and students were debriefed about the study. Parents were sent an information sheet that discussed issues related to body image and eating disorders among adolescents girls (Appendix N). Included on the bottom of the information sheet was a note thanking the parent(s) for allowing their daughter to participate in the study. Parents were encouraged to contact the researcher if they had any questions regarding the study. None in fact did. Teachers were given an information sheet describing issues related to teasing and sexual harassment (Appendix O).

Treatment of Data

All variables were examined for accuracy of data entry, missing data, and fit between their distributions and the assumptions of multivariate analysis (see Appendix P). The minimum and maximum values, means, and standard deviations of each variable were inspected for plausibility. Implausible entries were corrected.

Missing Data

A maximum of 30% of missing items per psychometric variable was required for inclusion in the analyses. In cases where the participant had missing items not exceeding 30% of the total, their missing item score was prorated on the basis of existing item scores (Tabachnick & Fidell, 1989). Regarding the HSPQ – Intelligence scale, missing scores were assigned a value of zero as per scoring protocol. However, if the entire HSPQ – Intelligence scale was not completed, the scale was considered missing and

excluded from analyses. The total social resource score was excluded from analyses if three or more of four of the subscales were missing (e.g., mom, dad, friend, teacher support). The missing values of the CPHI were not replaced with the item mean of the participants available answers, as it would be meaningless to average items that comprise various coping styles. As such, the group mean for each item was used to replace the missing values.

In cases where the participant refused to be weighed, self-reported weight was used. This was considered acceptable as the correlation between “actual” and “reported” weight for the sample was $r = .90$. Missing values for actual weight was replaced with self-reported weight in 36 cases (9% of the total sample). Table 1 contains the numbers of participants for which missing data was replaced, as well as the total number of cases that were used for analyses.

Creation of Indices of Body Dissatisfaction and Psychological Distress

The correlation between the two body image measures (CSAW and EDI-BD) was strong; $r = .80$, $p < .001$. As such, a summative score using respective z -scores was calculated. The resultant variable was assigned the label “Body Dissatisfaction”. Similarly, the correlation between self-esteem (RSEI) and depression (CDI-S) was strong; $r = -.70$, $p < .001$. A summative score using respective z -scores (reversing the sign of the self-esteem score first) was calculated and labeled “Psychological Distress”.

Table 1

Information Regarding Missing Data

Variables	Number of Subjects Missing Data	Final Number of Subjects in Analyses
CSAW Negative Body Affect	11	372
EDI Body Dissatisfaction Scale	6	377
Children's Eating Attitude Test	10	373
Rosenberg Self-Esteem Inventory	2	381
Children's Depression Inventory	0	383
PHI Boy Sexual Harassment Scale	6	377
PHI Boy Appearance Teasing Scale	6	377
PHI Girl Sexual Harassment Scale	6	377
PHI Girl Appearance Teasing Scale	8	375
CPHI Negative Cognitive Appraisal Scale	45	338
CPHI Seek Adult Support Scale	45	338
CPHI Positive Cognitive Appraisal Scale	45	338
CPHI Drastic Weight Reduction Scale	45	338
CPHI Retaliation Scale	45	338
CPHI Emotional Expression Scale	45	338
LISRES Mom Support Scale	45	338
LISRES Dad Support Scale	61	322
LISRES Friend Support Scale	39	344
LISRES Teacher Support Scale	37	346
HSPQ Intelligence Scale	50	333
Age	1	382
Facial Attractiveness	16	367

Results

The results are presented in five sections. In the first section, the factor analysis and internal consistency analyses of the Peer Harassment Inventory and the Coping with Peer Harassment Inventory are presented. In the second section, means, standard deviations, and alpha coefficients for the remaining variables are described. In the third section, the hypotheses that appearance teasing and sexual harassment would be positively associated with body dissatisfaction, eating problems, and psychological distress, by both male and female perpetrators, was assessed. In the fourth section, hierarchical regression analyses are performed to investigate the importance of peer harassment once physical attributes are accounted for, and to examine the importance of protective variables beyond the effects of physical attributes and peer harassment. In the fifth section, the moderating effects of social support, intelligence, and coping style between peer harassment and both body dissatisfaction and eating problems are tested.

Peer Harassment Inventory

The Peer Harassment Inventory was developed to measure the constructs of male- and female- perpetrated appearance teasing and sexual harassment. Exploratory factor analysis was performed on the newly created PHI to assess whether the scale was comprised of these factors and to test whether the items loaded on the hypothesized factors. To enable further analyses based on the sex of the perpetrator, two separate factor analyses were performed. The first factor analysis was based on the boy

harassment items (36 items), and the second factor analysis was performed on the girl harassment items (36 items). Additional item analyses were performed to test whether the items correlated most highly with their designated scale (see Appendix S).

The first factor analysis using principal components method with varimax rotation was performed on the 36 items that assess harassment by boys. Based on a scree test, a two-factor solution that accounted for 49% of the variance was extracted. All items loading on the factors had coefficients greater than .30. The first factor consisted of 20 items and accounted for 34% of the total variance. As predicted, this component appeared to measure boy sexual harassment (BSH). The second factor consisted of 16 items and accounted for 16% of the total variance. This factor appeared to be related to boy appearance teasing (BAT). See Appendix Q for rotated factor loadings and item descriptions.

The second factor analysis using principal components method with varimax rotation was performed on the 36 items assessing harassment by girls. Again, the scree test was used to determine the number of dimensions that would explain most of the variance, which was again two. The first factor, which accounted for 27% of the total variance had 20 items and appeared to measure girl appearance teasing (GAT). The second factor, which accounted for 10% of the total variance, had 16 items and reflected girl sexual harassment (GSH). See Appendix R for items and factor loadings. Based on the factor analysis, four scales were developed for use in further analyses. For item consistency with the Boy Harassment Scale, four items that loaded slightly higher on

the first factor (Appearance Teasing) of the Girl Harassment scale were included in the second scale (Sexual Harassment). These items were (a) “a girls or girls made comments about how my body looked” (item 66), (b) “a girl or girls made comments about my breasts or buttocks” (item 3), (c) “a girl or girls stared at me to the point of discomfort” (item 1), and (d) “a girl or girls called me sexually offensive names” (item 49).

Additional item analyses showed that item 3 and item 49 correlated slightly higher with the Girl Sexual Harassment scale (see Appendix S).

In summary, the four subscales comprising the PHI are (a) Boy Appearance Teasing (BAT), (b) Boy Sexual Harassment (BSH), (c) Girl Appearance Teasing (GAT), and (d) Girl Sexual Harassment (GSH). The range on the BSH and GSH scales was 0 to 80. The range on the BAT and GAT scales was 0 to 64 (see Table 2 for means and standard deviations for each scale). To examine the internal consistency of these four scales, Cronbach’s alpha was calculated using SPSS Reliability program. Cronbach’s alpha coefficients were acceptably high, ranging from .82 to .94 (see Table 2).

Coping with Peer Harassment Inventory

An exploratory factor analysis was conducted to examine the factor structure of the newly created CPHI. The 70 items of the Coping with Peer Harassment Inventory were factor analyzed using principal component analysis with varimax rotation.

Participants with more than seven missing values on the CPHI were excluded from the analysis, resulting in 338 participants being retained for analysis. The scree criterion method was used and suggested a 6-factor solution. The first factor accounted for

Table 2

Means, Standard Deviations, and Cronbach's Alpha Coefficients of the Peer HarassmentInventory and the Coping with Peer Harassment Inventory

Variable	Cronbach's Number			<u>M</u> (<u>SD</u>)	<u>N</u>
	alpha	of items	Range		
Peer Harassment Inventory					
Boy Sexual Harassment	.94	20	0 – 80	14.75 (15.57)	377
Boy Appearance Teasing	.90	16	0 – 64	7.68 (9.47)	377
Girl Sexual Harassment	.82	20	0 – 80	9.06 (7.86)	377
Girl Appearance Teasing	.90	16	0 – 64	6.65 (8.33)	375
Total Harassment	.96	72	0 – 288	37.25 (33.30)	383
Coping with Peer Harassment Inventory					
Negative Cognitive Appraisal	.93	21	0 – 84	30.42 (18.03)	338
Seek Adult Support	.85	11	0 – 44	16.33 (9.62)	338
Positive Cognitive Appraisal	.85	11	0 – 44	13.99 (8.83)	338
Drastic Weight Reduction	.85	8	0 – 32	4.57 (5.96)	338
Retaliation	.72	5	0 – 20	5.98 (4.93)	338
Emotional Regulation	.74	6	0 – 24	15.49 (5.27)	338

Note. Higher scores indicate a greater degree of the variable.

19.6% of the total variance and it comprised 21 items. This factor appeared related to negative cognitive appraisal. The second factor accounted for 10.5% of the total variance and it had 11 items. This factor appeared to measure seeking adult support. The third factor which accounted for 5.3% of the total variance had 11 items. This factor was named positive cognitive appraisal. The fourth factor accounted for 4.3% of the total variance had 8 items. This factor appeared to assess drastic weight-reduction. The fifth factor accounted for 3.4% of the total variance had 5 items. This factor was labeled retaliation. The sixth factor accounted for 3.0% of the total variance had 6 items. This factor appeared to measure emotional expression. Appendix T lists the factors and rotated factor loadings for each item on the CPHI.

Based on the factor analysis, the following six scales were developed for use in further analyses: Negative Cognitive Appraisal, Seeking Adult Support, Positive Cognitive Appraisal, Drastic Weight-Reduction, Retaliation, and Emotional Expression. Initially, items with factor loadings of $>.30$ were included. Internal consistency analysis resulted in 7 items being excluded due to item-to-total correlations below $.30$. The internal consistency of the scales ranged from a high Cronbach's alpha of $.93$ for the Negative Cognitive Appraisal scale to a moderate Cronbach's alpha of $.72$ for the Retaliation scale (see Table 2).

The identified six factors of the CPHI can be designated as either emotion-focused or problem-focused attempts at coping with harassment. Problem-focused coping is intended to change the stressor in some way and includes attempts to alter the stressful

relationship between the individual and the environment. Consistent with this conceptualization, the drastic weight reduction scale (i.e., changing self), retaliation scale (i.e., changing harasser) and seeking adult support scale (i.e., changing harasser) all constitute problem-focused coping attempts. When confronted with peer harassment, drastic weight reduction is problem-focused as the individual attempts to alter the stressful situation by changing herself: specifically, her body. Retaliation is similarly problem-focused in that threats or actual violence to the harasser is an attempt to stop the harassing behaviour. Seeking adult support is problem-focused in situations where telling the adult is done with the intention of having them intervene and stop the harassment.

On the other hand, emotion-focused coping behaviours are attempts to regulate the emotional states associated with the stressor and they do not attempt to change the stressful environment. Emotional regulation may include cognitive reframing, focusing on the positive aspects of the self or the situation, or avoidance (Compas, 1987). The scales of the CPHI that are considered emotion-focused include the Negative Cognitive Appraisal scale, the Positive Cognitive Appraisal scale, and the Emotional Expression scale. Negative cognitive appraisals include negative judgments about the self, blaming self for the harassment, and a tendency to deny or avoid the stressful situation.

Conversely, positive cognitive appraisals include positive judgments about the self, holding the perpetrator responsible for the harassment, and cognitive reframing of the situation. The emotional expression scale includes items such as talk to a friend about my feelings, demand they stop bothering me, and write about it in my journal.

Description of Variables

In addition to the previously reported statistics for the PHI and the CPHI, means, standard deviations, and Cronbach's alpha coefficients were calculated on all other variables (see Table 3). With the exception of the HSPQ – Intelligence Scale, the internal reliability for the variables was very good, ranging from .80 to .97. Pearson correlation coefficients were computed among the study variables and are presented in Appendix U.

Relationships among Peer Harassment, Body Dissatisfaction and Eating Problems

The first hypothesis was that appearance teasing and sexual harassment would be positively associated with body dissatisfaction, eating problems, and psychological distress. Correlational analyses were conducted separately for male and female perpetrators of appearance teasing and sexual harassment to allow for an examination of the effects of the sex of perpetrator. Results showed that appearance teasing by both boys and girls, as well as sexual harassment by both boys and girls, were all significantly associated with body dissatisfaction, eating problems, and psychological distress (see Table 4).

The second hypothesis was that the two forms of peer harassment, appearance teasing and sexual harassment, by both male and female perpetrators, would account for a significant portion of variance beyond the effects of age, body mass index, and facial attractiveness in the prediction of body dissatisfaction and eating problems. Also of interest was whether the proposed protective factors of social support, intelligence, and coping style would account for variance in body dissatisfaction and eating problems after

Table 3

Means, Standard Deviations, and Cronbach's Alpha Coefficients of the Variables in the Regression Models

Variable	Cronbach's alpha	Number of items	<u>M</u> (<u>SD</u>)	<u>N</u>
Body Dissatisfaction				
CSAW Negative Body Affect	.97	18	43.34 (18.98)	383
EDI Body Dissatisfaction Scale	.91	9	6.44 (7.41)	383
Children's Eating Attitudes Test	.80	26	10.71 (8.64)	383
Psychological Distress				
Rosenberg Self-Esteem Inventory	.86	10	30.66 (5.69)	381
Children's Depression Inventory	.85	10	3.06 (3.49)	383
Body Mass Index	-	-	19.75 (3.87)	378
Facial Attractiveness	.81 ^a	-	7.41 (1.45)	367
HSPQ Intelligence Scale	.45	10	5.55 (1.93)	333
LISRES-Y Social Resources Scale				
Mom Support	.87	5	16.46 (4.30)	338
Dad Support	.91	5	15.14 (5.09)	322
Friend Support	.86	5	17.78 (3.18)	344
Teacher Support	.88	5	12.35 (5.19)	346
Total Support	.91	20	62.26 (13.14)	302

Note. Higher scores indicate a greater degree of the variable. CSAW = Concerns for Shape and Weight Scale; EDI = Eating Disorders Inventory. HSPQ = High School Personality Questionnaire; LISRES-Y = Life Stressors and Social Resources Inventory for Youth. ^a Interrater reliability of two raters.

Table 4

Correlations among Peer Harassment Inventory Scales and Body Dissatisfaction,
Eating Problems, and Psychological Distress

	Appearance Teasing		Sexual Harassment	
	Boy	Girl	Boy	Girl
Body Dissatisfaction	.58***	.52***	.22***	.26***
Eating Problems	.49***	.43***	.35***	.34***
Psychological Distress	.48***	.43***	.20***	.23***

* $p < .001$.

the effects of physical attributes and peer harassment were accounted for. Two separate multiple regression analyses using a hierarchical analytic approach were performed to evaluate the variance in the dependent measures of body dissatisfaction and eating problems. In each analysis, the first block of variables to be entered was physical attributes including body mass index, facial attractiveness, and age. The second block contained the peer harassment variables of Boy Sexual Harassment, Boy Appearance Teasing, Girl Sexual Harassment, and Girl Appearance Teasing. Social support, intelligence, and coping styles were added to the multiple regression analyses at step 3 in order to assess whether they predicted body dissatisfaction and eating problems beyond that accounted for by physical attributes and peer harassment. Thus, the main effects of social support, intelligence, and coping style are explored in the analyses that follow. In a later section, the hypotheses that social support, intelligence, and coping style moderate the relationship between peer harassment and both body dissatisfaction and eating problems (the interaction model) is addressed using separate multiple regression analyses. In the prediction of eating problems, a fourth block consisting of body dissatisfaction and psychological distress was entered. Once again, separate regression analyses were performed for the criterion variables of body dissatisfaction and eating problems, and each is discussed separately below.

Prediction of Body Dissatisfaction

The results of the hierarchical multiple regression analyses predicting body dissatisfaction are presented in Table 5. The block containing physical attributes of the

Table 5

Hierarchical Multiple Regression Analyses for Prediction of Body Dissatisfaction

Predictor	β	R^2	ΔR^2	T
<u>Step 1</u>		.19	.19***	
Body Mass Index	.38			6.25***
Facial Attractiveness	-.12			-1.97*
Age	-.00			-.11
<u>Step 2</u>		.47	.28***	
Boy Sexual Harassment	.09			1.29
Boy Appearance Teasing	.35			4.12***
Girl Sexual Harassment	-.13			-1.70
Girl Appearance Teasing	.25			3.00**
<u>Step 3</u>		.62	.15***	
Social Support	-.13			-2.61**
Intelligence	-.04			-1.03
Negative Cognitive Appraisal Coping	.28			4.59***
Seek Adult Support Coping	-.02			-.50
Positive Cognitive Appraisal Coping	-.08			-1.61
Drastic Weight Reduction Coping	.06			1.00
Retaliation Coping	-.02			-.51
Emotional Expression Coping	-.10			-2.00*

Note. N = 272.

* $p < .05$. ** $p < .01$. *** $p < .001$.

adolescent was entered first in the hierarchical model, followed by the second block containing peer harassment variables. In the third block, possible protective variables were added to the hierarchical model.

The specific variance related to each block is represented by the change in variance in the dependent variable (R^2 change). The significance of the effects related to each block of variables was evaluated by calculating an incremental F statistic. The increased variance in the dependent measure (body dissatisfaction), explained by the addition of each block of variables added to the regression equation, was evaluated in this manner.

Physical Attributes (Block 1). The block of variables which represented physical attributes was statistically significant, $F(3, 268) = 20.86, p < .001$, with an R^2 value of .19. Thus, physical attributes shared 19% of the variance with the dependent variable of body dissatisfaction. The most significant effects were body mass index, $t(1, 270) = 6.25, p < .001$, and facial attractiveness, $t(1, 270) = -1.97, p < .05$. Thus, higher body mass index and lower facial attractiveness were predictive of body dissatisfaction.

Peer Harassment (Block 2). The second block of variables contained two forms of peer harassment, appearance teasing and sexual harassment, by both male and female perpetrators. This block was significant, $F \text{ Inc } (4, 264) = 35.72, p < .001$, with an R^2 value of .28. This block of harassment variables shared 28% of the variance in body dissatisfaction. The significant variables in this block were Boy Appearance Teasing, $t(1, 270) = 4.12, p < .001$, and Girl Appearance Teasing, $t(1, 270) = 3.00, p < .01$. Thus,

higher levels of appearance teasing by both boys and girls were predictive of body dissatisfaction beyond the effects of body mass index and facial attractiveness. Sexual harassment did not significantly add to the prediction of body dissatisfaction.

Protective Variables (Block 3). The third block of variables, which included the possible protective factors of social support, intelligence, and coping style, was entered after the first two blocks. This block resulted in a significant increment in R^2 when predicting body dissatisfaction, $F_{\text{Inc}}(8, 256) = 12.69, p < .001$, associated with an R^2 change value of .15, and represented approximately 15% shared variance with body dissatisfaction. The variables that contributed significantly to the variance were social support, $t(1, 270) = -2.61, p < .01$, negative cognitive appraisal, $t(1, 270) = 4.59, p < .001$, and emotional expression, $t(1, 270) = -2.00, p < .05$. Thus, less social support, more use of negative cognitive appraisal coping when harassed by peers, and less use of emotional expression when coping with peer harassment was predictive of higher levels of body dissatisfaction.

Overall, 62% of the variance of body dissatisfaction was accounted for by the combination of physical attributes, peer harassment, and protective variables (see Table 5). The largest portion of variance of body dissatisfaction was accounted for by peer harassment (28%) even beyond the effects of physical attributes (19%). Protective variables accounted for an additional 15% of the variance after accounting for both physical attributes and peer harassment.

Prediction of Eating Problems

The results of the hierarchical multiple regression analyses predicting eating problems are presented in Table 6. The block containing physical attributes of the adolescent was entered first in the hierarchical model, followed by the second block containing peer harassment variables. In the third block, possible protective variables were added to the hierarchical model. Finally, in the fourth block, body dissatisfaction and psychological distress were entered. These variables were included in the fourth block based on the results of Thompson et al's (1995) covariance structural equation modelling which found that body image and psychological distress preceded eating disturbance.

Physical Attributes (Block 1). The block of variables which represented physical attributes was significant, $F(3, 267) = 7.35, p < .001$, with an R^2 value of .08, which indicated approximately 8% shared variance with the dependent variable, eating problems. The specific significant effects were body mass index, $t(1, 269) = 2.98, p < .01$, and facial attractiveness, $t(1, 269) = -2.34, p < .05$. Thus, higher body mass index and lower facial attractiveness were predictive of eating problems.

Peer Harassment (Block 2). The second block of variables, which measured two forms of peer harassment, appearance teasing and sexual harassment, by both male and female perpetrators, was entered into the regression model. This block was significant, $F(4, 263) = 32.06, p < .001$, with an R^2 value of .30, which indicated approximately 30% shared variance with the dependent variable, eating problems. The significant variables

Table 6
Hierarchical Multiple Regression Analyses for Prediction of Eating Problems

Predictor	β	R^2	ΔR^2	T
<u>Step 1</u>		.08	.08***	
Body Mass Index	.20			2.98**
Facial Attractiveness	-.15			-2.34*
Age	-.05			-.74
<u>Step 2</u>		.38	.30***	
Boy Sexual Harassment	.28			3.69***
Boy Appearance Teasing	.30			3.26**
Girl Sexual Harassment	.00			.01
Girl Appearance Teasing	.09			1.03
<u>Step 3</u>		.50	.12***	
Social Support	.06			1.11
Intelligence	-.07			-1.29
Negative Cognitive Appraisal Coping	.01			.18
Seek Adult Support Coping	.04			.63
Positive Cognitive Appraisal Coping	.07			1.16
Drastic Weight Reduction Coping	.39			5.87***
Retaliation Coping	-.09			-1.85
Emotional Expression Coping	-.05			-.83
<u>Step 4</u>		.55	.05***	
Body Dissatisfaction	.27			3.53***
Psychological Distress	.15			2.21*

Note. $N = 272$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

in this block were Boy Sexual Harassment, $t(1, 269) = 3.69, p < .001$, and Boy Appearance Teasing, $t(1, 269) = 3.26, p < .001$. Thus, higher levels of sexual harassment and appearance teasing by boys was predictive of eating problems, beyond the effects of body mass index and facial attractiveness. Sexual harassment and appearance teasing by girls did not add to the prediction of eating problems.

Protective Variables (Block 3). The third block of variables, which included the possible protective factors of social support, intelligence, and coping style, was entered after the first two blocks. This block resulted in a significant increment in R^2 when predicting eating problems, $F_{Inc}(8, 255) = 7.55, p < .001$, associated with an R^2 change value of .12, which represented approximately 12% shared variance with eating problems. The only variable that was significant in this block was drastic weight reduction coping in response to peer harassment, $t(1, 269) = 5.87, p < .001$. Thus, the use of drastic weight reduction behaviours as a means of coping when harassed by peers was predictive of eating problems.

Body Dissatisfaction and Psychological Distress (Block 4). The fourth block of variables included body dissatisfaction and psychological distress. This block resulted in a significant increment in R^2 when predicting eating problems, $F_{Inc}(2, 253) = 15.77, p < .001$, associated with an R^2 change value of .06, which represented approximately 6% shared variance with eating problems. Both body dissatisfaction, $t(1, 269) = 3.53, p < .001$, and psychological distress, $t(1, 269) = 2.21, p < .05$, were significant in this block.

In total, 55% of the variance in eating problems was accounted for by the

combination of physical attributes, peer harassment, and protective variables (see Table 6). The largest portion of variance of eating problems was accounted for by peer harassment (30%) even beyond the effects of physical attributes (8%). Protective variables accounted for an additional 12% of the variance after accounting for both physical attributes and peer harassment. In addition, the combination of body dissatisfaction and psychological distress accounted for 5% of the variance in eating problems after the effects of physical attributes, peer harassment, and protective variables was accounted for.

Moderator Analyses

There are eight possible protective factors in moderating the relationship of peer harassment with body dissatisfaction and eating problems: social support, intelligence, and the six subscales of the CPHI. The combined effect of peer harassment with each of these putative protective factors was tested by examining the interaction term in each of the eight multiple regression analyses for both body dissatisfaction and eating problems. The analyses predicting body dissatisfaction and eating problems are discussed in turn below.

Moderators in the Relationship between Peer Harassment and Body Dissatisfaction

In each regression analysis, Appearance Teasing (the summative score of the Boy Appearance Teasing scale and the Girl Appearance Teasing scale) was entered in the first step, followed by the hypothesized moderating variable in the second step, and the interaction term of the Appearance Teasing scale and the hypothesized moderator in the

third step. A composite score for appearance teasing was chosen because the prior multiple regression analyses showed that of the four types of peer harassment, only the Boy Appearance Teasing scale and the Girl Appearance Teasing scale were significant predictors of body dissatisfaction beyond the effects of physical attributes. The results of the eight regression analyses are presented in Table 7. The only interaction term to emerge as significant was Appearance Teasing x Social Resources, $t(3, 339) = 2.26, p < .05$. This interaction term accounted for 1% of the variance in body dissatisfaction beyond the main effects of appearance teasing and social support. Thus, social support had a moderating effect on the relationship between appearance teasing and body dissatisfaction (see Figure 1). Specifically, under circumstances of lower levels of appearance teasing, high support appeared to buffer the negative influence of appearance teasing on body dissatisfaction.

Moderators in the Relationship between Peer Harassment and Eating Problems

In each regression analysis, Boy Harassment (the summated score of the Boy Appearance Teasing scale and the Boy Sexual Harassment scale) was entered in the first step, followed by the hypothesized moderating variable in the second step, and the interaction term of the Boy Harassment scale and the hypothesized moderator in the third step. A composite score for boy harassment was chosen because the prior multiple regression analyses showed that of the four types of peer harassment, only the Boy Appearance Teasing scale and the Boy Sexual Harassment scale were significant predictors of eating problems beyond the effects of physical attributes. In each regression

Table 7

Hierarchical Multiple Regression Analyses for Testing Moderation Effects in thePrediction of Body Dissatisfaction

Predictor	β	R^2	ΔR^2	t
<u>Social Support</u>				
Appearance Teasing	.57	.32	.32***	-8.39***
Social Support	-.27	.38	.06***	-5.73***
AT x Social Support	-.32	.39	.01*	2.26*
<u>Intelligence</u>				
Appearance Teasing	.60	.35	.35***	13.21***
Intelligence	-.02	.35	.00	-.36
AT x Intelligence	-.04	.35	.00	.76
<u>Negative Cognitive Appraisal Coping</u>				
Appearance Teasing	.58	.34	.34***	12.96***
Negative Cognitive Appraisal	.31	.42	.08***	6.75***
AT x Negative Cognitive Appraisal	-.01	.42	.00	-.08
<u>Seek Adult Support Coping</u>				
Appearance Teasing	.58	.34	.34***	12.96***
Seek Adult Support	-.15	.36	.02**	-3.32**
AT x Seek Adult Support	-.03	.36	.00	.33
<u>Positive Cognitive Appraisal Coping</u>				
Appearance Teasing	.58	.34	.34***	12.96***
Positive Cognitive Appraisal	-.31	.43	.09***	-7.28***
AT x Positive Cognitive Appraisal	-.12	.44	.01	-1.69
<u>Drastic Weight Reduction Coping</u>				
Appearance Teasing	.58	.34	.34***	12.96***

Drastic Weight Reduction	.33	.43	.09***	7.48***
AT x Drastic Weight Reduction	-.02	.43	.00	-.26
<u>Retaliation Coping</u>				
Appearance Teasing	.58	.34	.34***	12.96***
Retaliation	.01	.34	.00	.11
AT x Retaliation	-.07	.34	.00	-.78
<u>Emotional Regulation Coping</u>				
Appearance Teasing	.58	.34	.34***	-8.35***
Emotional Regulation	-.15	.36	.02**	-3.40**
AT x Emotional Regulation	.23	.37	.01	1.91

Note. AT = Appearance Teasing Scale (summative score of Boy Appearance Teasing Scale and Girl Appearance Teasing Scale) of the Peer Harassment Inventory.

* $p < .05$. ** $p < .01$. *** $p < .001$.

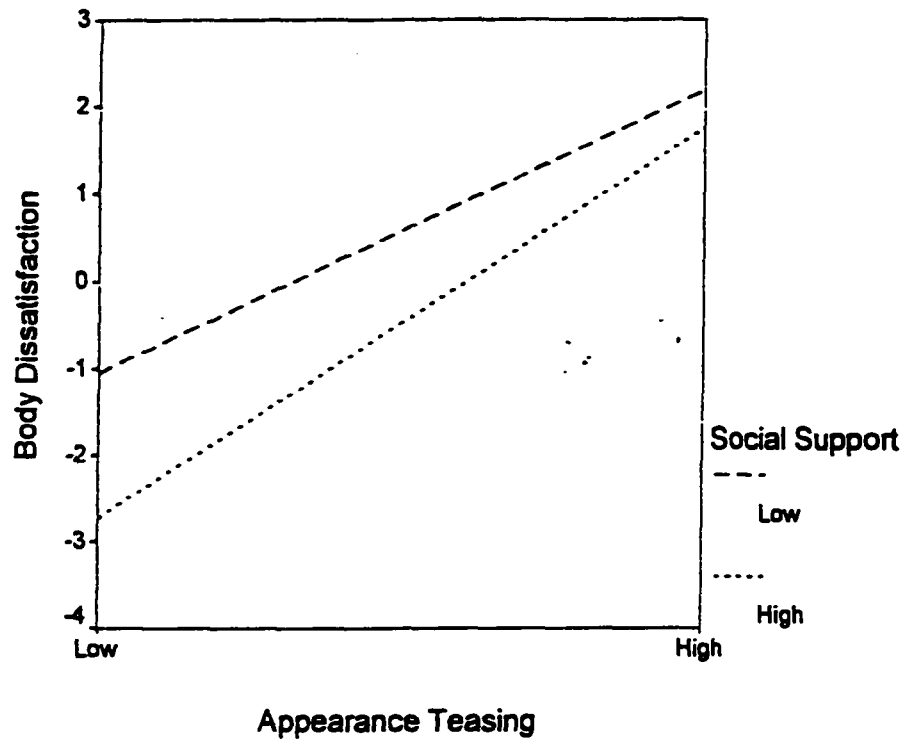


Figure 1. The association between appearance teasing and social support on body dissatisfaction.

analysis, boy harassment was entered in the first step, followed by the hypothesized moderating variable in the second step, and the interaction term of boy harassment and the hypothesized moderator in the third step. Two of the eight interaction terms emerged as significant (see Table 8). First, the interaction term of Boy Harassment x Social Support was significant, $t(1, 330) = -3.59, p < .001$. This interaction term accounted for 3% of the variance in eating problems beyond the main effects of boy harassment and social support. Thus, social support appeared to modify the relationship between boy harassment and eating problems (see Figure 2). Under circumstances of higher levels of boy harassment, high social support appeared to buffer the negative influence of boy harassment on eating problems. Second, the interaction term of Boy Harassment x Negative Cognitive Appraisal was significant $t(1, 330) = 2.84, p < .01$. This interaction term accounted for 2% of the variance in eating problems beyond the main effects of boy harassment and negative cognitive appraisal coping style. Under circumstances of higher levels of boy harassment, those girls who respond with negative cognitive appraisal are more likely to report greater eating problems (see Figure 3). This would suggest that the coping mechanism of negative cognitive appraisal might serve as a vulnerability to disordered eating in the face of boy harassment.

Discussion

The main purposes of this study were to investigate in a sample of early adolescent girls (a) the relationships of peer harassment in the form of appearance teasing and sexual harassment by both males and females to body dissatisfaction, eating

Table 8

Hierarchical Multiple Regression Analyses for Testing Moderation Effects in the Prediction of Eating Problems

Predictor	β	R^2	ΔR^2	T
<u>Social Support</u>				
Boy Harassment	.49	.24	.24***	10.29***
Social Support	-.11	.25	.10*	-2.11*
BH x Social Support	-.71	.27	.03***	-3.59***
<u>Intelligence</u>				
Boy Harassment	.49	.24	.24***	9.94***
Intelligence	-.08	.24	.01	-1.67
BH x Intelligence	-.09	.24	.00	-.61
<u>Negative Cognitive Appraisal Coping</u>				
Boy Harassment	.46	.21	.21***	9.40***
Negative Cognitive Appraisal	.24	.26	.05***	4.67***
BH x Negative Cognitive Appraisal	.36	.27	.02**	2.84**
<u>Seek Adult Support Coping</u>				
Boy Harassment	.46	.21	.21***	9.40***
Seek Adult Support	-.06	.21	.00	-1.17
BH x Seek Adult Support	-.08	.21	.00	-.78
<u>Positive Cognitive Appraisal Coping</u>				
Boy Harassment	.46	.21	.21***	9.40***
Positive Cognitive Appraisal	-.11	.22	.01	-2.25
BH x Positive Cognitive Appraisal	-.14	.23	.01	-1.48
<u>Drastic Weight Reduction Coping</u>				
Boy Harassment	.46	.21	.21***	9.40***

Drastic Weight Reduction	.45	.37	.16***	9.18***
BH x Drastic Weight Reduction	.10	.37	.00	.99
<u>Retaliation Coping</u>				
Boy Harassment	.46	.21	.21***	9.40***
Retaliation	-.08	.22	.01	1.58
BH x Retaliation	-.06	.22	.00	-.60
<u>Emotional Regulation Coping</u>				
Boy Harassment	.46	.21	.21***	9.40***
Emotional Regulation	-.07	.22	.01	-1.47
BH x Emotional Regulation	-.23	.22	.00	-1.48

Note. BH = Boy Harassment Scale (summative score of Boy Appearance Teasing Scale and Boy Sexual Harassment Scale) of the Peer Harassment Inventory.

* $p < .05$. ** $p < .01$. *** $p < .001$.

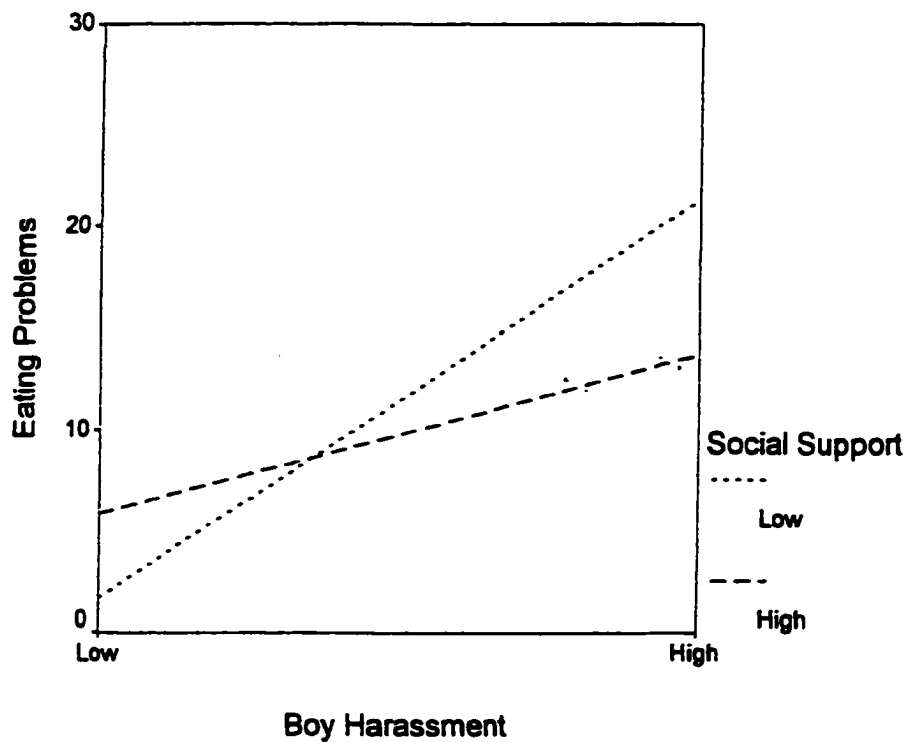


Figure 2. The association between boy harassment and social support on eating problems.

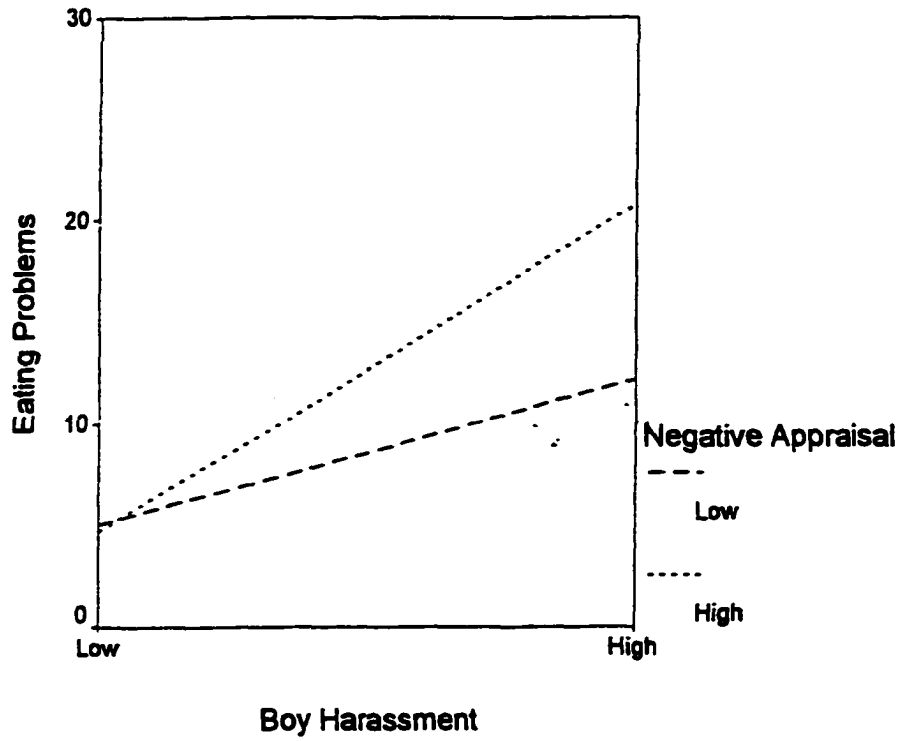


Figure 3. The association between boy harassment and negative cognitive appraisal coping on eating problems.

problems, and psychological distress, and (b) the possible moderating role of social support, intelligence, and coping style in the aforementioned associations. Ultimately, it is hoped that the information found in this study will be useful in the development of eating disorder prevention programs. The findings are discussed in detail below.

Development of Questionnaires

Two questionnaires were developed for the present study. In order to investigate the hypotheses regarding the relationship between peer harassment and body dissatisfaction, eating problems, and psychological distress, the development of a peer harassment measure was necessary. The Peer Harassment Inventory was developed to measure male- and female- perpetrated appearance teasing and sexual harassment experiences of early adolescent girls. Principal component analysis was performed to test whether the scale items loaded on the hypothesized four factors. The factor analysis on the boy harassment items suggests that this scale consists of two factors: appearance teasing and sexual harassment. Similarly, the factor analysis on the girl harassment items suggests that this scale is comprised of the same two factors. The Peer Harassment Inventory is a comprehensive assessment instrument that may be used in future investigations into appearance teasing and experiences of sexual harassment among adolescent girls. The instrument assesses the frequency of a broad range of harassment experiences and has evidenced good factor structure and excellent internal reliability. A further advantage of the PHI is that the items discriminate between male and female perpetrators of appearance teasing and sexual harassment.

An instrument for the assessment of coping with peer harassment had not been previously published. As such, the Coping with Peer Harassment Inventory was developed for the present study to assess how an early adolescent girl would cope with a hypothetical peer harassment scenario. Principal component analyses showed that this instrument was comprised of six coping factors: (a) negative cognitive appraisal, (b) seeking adult support, (c) positive cognitive appraisal, (d) drastic weight reduction, (e) retaliation, and (f) emotional expression. The findings of the principal component analysis are consistent with Compas' (1987) contention that coping styles can be considered either problem-focused or emotion-focused.

Relationship between Peer Harassment, Body Dissatisfaction, and Eating Problems

The first hypothesis was that peer harassment, in the form of appearance teasing and sexual harassment by both male and female perpetrators, would be associated with greater degrees of body dissatisfaction, more eating problems, and higher levels of psychological distress among a sample of early adolescent females. With regard to appearance teasing, this hypothesis was confirmed. Girls who received more frequent appearance teasing tended to have more body dissatisfaction, greater eating problems, and higher levels of psychological distress. This replicated the findings of earlier work that showed an association between appearance teasing and body image among adolescent girls (e.g., Cattarin & Thompson, 1994; Fabian & Thompson, 1989; Thompson, et al., 1995). It also extended the current research by including an investigation of the sex of the teaser. Similar associations were identified among appearance teasing perpetrated by

boys, and appearance teasing by girls, in relation to body dissatisfaction, eating problems, and psychological distress. This suggests that being teased about physical appearance by one's peers during adolescence may have deleterious effects on the development of body image and eating problems, despite whether the teasing is perpetrated by male or female peers. This may have important implications for the development of eating disorder prevention programs, as will be discussed in a later section.

The construct of peer harassment was also expanded in the present study to include experiences of sexual harassment. Similar to appearance teasing, it was hypothesized that sexual harassment experiences would be associated with body dissatisfaction, eating problems, and psychological distress. This hypothesis was also supported. This finding extends the current "negative verbal commentary" research by including sexual harassment as a second form of interpersonal feedback that may impact body image development and be implicated in eating problems. However, it should be noted that a closer analysis of the items and factor loadings in the principal component analyses for the Boy Harassment Scale (Appendix Q) showed that the participants' perception of the sexual behaviours was not assessed for all items. The five items that most strongly loaded on the Boy Sexual Harassment factor were (1) brushed up against me on purpose, (2) told me that I have a good body, (3) snapped my bra, (4) said sexual things about my body when I walked by, and (5) patted or grabbed by buttocks when I didn't want them to. Only 2 of the 20 items specified that the behaviour was unwanted by the participant. These items were (1) patted or grabbed my buttocks when I didn't

want them to, and (2) grabbed my breasts when I didn't want them to. Given that the participant's perception of the behaviour was not assessed, it is possible that this factor constitutes a more general form of sexual attention. To investigate this possibility, the original item development procedure was reviewed. The peer harassment items were generated by 28 girls in grade eight, in response to the question: "Can you give examples of peer harassment?" and supplemental items were drawn from the book Sexual Harassment and Teens (Strauss, 1992). Although the item development procedure confirms that the items that were generated were considered "harassment," future research is needed to clarify this issue. It would be useful for future investigations to assess the participant's perception of the sexual behaviour in order to confirm that it is indeed perceived negatively by them, rather than as a form of innocuous, or perhaps even positively valued sexual attention.

This study also revealed that sexual harassment and appearance teasing were not uncommon experiences among this sample of early adolescent girls. Ninety-nine percent of the sample reported at least one incident of appearance teasing or sexual harassment in the last year. The most common appearance teasing experiences, endorsed by over 50% of the sample, were being teased by boys about their body and being called names. Similarly, the most commonly reported forms of sexual harassment, endorsed by over 50% of the sample, included being stared at to the point of discomfort by girls, having one's bra snapped by girls, being told one has a good body by boys, being told one has an attractive body by boys, and being called pretty by both boys and girls. The least

common experiences, endorsed by less than 10% of the sample, were sexual harassment items including being compared to pictures of nude women by girls, whistled at by girls, made sexual gestures at by girls, grabbed buttocks by girls, sexual comments about body by girls, forced up against body by girls, and grabbed breasts by girls.

Protective Factors Related to Body Dissatisfaction and Eating Problems

Another important goal of the present study was to determine the moderating influence of social support, intelligence, and coping style in the relationship of peer harassment to body dissatisfaction and eating problems. Each factor will be discussed in turn below.

First, the hypothesis that social support would be related to body dissatisfaction and eating problems was supported. Girls who received more social support tended to report less body dissatisfaction and fewer eating problems. This finding is consistent with prior research that demonstrated an association between low levels of social support and eating pathology among adult women (e.g., Grisset & Norvell, 1992). Moreover, the relationship between social support and body dissatisfaction was still evident when the effects of physical appearance and peer harassment were removed. These findings support the “main effects model” of social support, which holds that social resources are beneficial whether or not the individual is under stress (Cohen & Wills, 1985). Due to the correlational nature of the present study, it is impossible to determine the functional mechanisms involved in the beneficial effects of social support. However, based on a significant body of research, it is speculated that the presence of support leads to a general

sense of well-being due to the provision of positive affect, a sense of stability, and an affirmation of self-worth (Cohen & Wills, 1985). Notably, higher levels of social support were, in fact, strongly associated with greater self-esteem and less depression in the present study.

Upon closer examination, the influence of social support on body dissatisfaction was significantly different for girls who experienced low versus high levels of appearance teasing. Social support reduced the negative effects of teasing on body dissatisfaction for participants who received lower levels of teasing. However, the same buffering effect was not found for participants reporting higher levels of teasing. Possibly, the accumulation of frequent negative feedback about one's physical appearance may render the esteem-enhancing messages from social supports ineffective. Frequently teased girls may come to accept the criticism and modify their body image to reflect this information. With continued reinforcement of their negatively modified body image, they may not accept positive messages from social supports. On the other hand, girls who are exposed to infrequent appearance teasing may be more receptive to positive feedback and esteem-enhancing messages from their support system. Because the critical messages are successfully counteracted, they may not make such negative modifications to their body image. These explanations regarding the functional mechanism of social support on body dissatisfaction at both low and high levels of appearance teasing warrants further inquiry.

Social support also differentially affected eating behaviours for girls whom experienced low versus high levels of sexual harassment and appearance teasing by boys.

For those individuals who were more frequently harassed by boys, social support partially reduced the negative effects of harassment on eating problems. However, social support did not reduce the effects of boy harassment on eating problems at low levels of harassment. Consistent with the “stress buffer” model, social support may interfere with the development of eating problems by helping to define the problem and provide a solution, by reducing the perceived importance of the problem, or by promoting more healthy coping behaviours (Cohen & Wills, 1985). Four main types of social support include a) esteem support (communicating that a person is valued and accepted), b) informational support (assistance with defining, understanding and coping with a problem, c) social companionship (leisure time spent with others), and d) instrumental support (provision of material resources) (Cohen & Wills, 1985). It is speculated that in the present study, esteem support operates in the face of boy harassment to reinforce feelings of self-worth and personal value. Additionally, informational support may assist in defining the situation as harassment and helping to find healthy, adaptive ways of coping with the harassment. In the present study, social support was positively associated with various types of coping behaviours, including positive cognitive appraisal, seeking adult support, and emotional expression, and negatively associated with negative cognitive appraisal and drastic weight reduction behaviours in the face of peer harassment. A more detailed analysis of the influence of esteem support, informational support, social companionship, and instrumental support would be warranted. Future work should differentially examine the protective utility of each type of support in the

relationship between boy harassment and eating problems.

Perhaps the most intriguing finding regarding social support was that girls who perceived themselves as most supported tended to experience less peer harassment. This finding is consistent with the “stress-prevention” model, which holds that social support operates to prevent initial exposure to stressful life events that would lead to negative mental health outcomes. As such, eating disorder prevention efforts may be more effective merely by promoting supportive relationships with friends, parents, and teachers.

Future research is needed to more precisely delineate the mechanisms involved in the protective utility of social support in the lives of peer harassed adolescent girls. Analyses of the types of social support (i.e., esteem, informational, social companionship, and instrumental) and prospective studies will allow researchers to better understand and delineate such mechanisms. It will also be important for investigators to tease out which specific sources of social support (e.g., parents, siblings, peers, other adults) best protect girls against the negative outcomes of peer harassment. Finally, the possibility exists that depressed girls may have a negative bias, leading them to perceive themselves as less supported than they really are. Future research should obtain collateral information from others (e.g., parents, teachers) regarding the participants’ level of social support to confirm if they are accurately perceiving their support system.

The hypothesis that intellectual functioning would function as a moderator between peer harassment and body dissatisfaction was not supported. As intelligence has

been denoted as one of the most important protective variables in minimizing the effects of risk in the child development literature, this finding was unexpected. However, it may be that higher intelligence simply is ineffective in protecting girls from the negative effects of peer harassment. Certainly eating disorders are widespread among female college students, suggesting that intelligence may not be protective against the development of eating disordered behaviour (Striegel-Moore & Cachelin, 1999). An intriguing line of inquiry would be the relationship between emotional intelligence, body image development, and eating problems (Striegel-Moore & Cachelin, 1999). Emotional intelligence includes self-awareness, impulse control, persistence, zeal, self-motivation, empathy, and social deftness (Goleman, 1995). Importantly, emotional intelligence may be a less stable personal attribute than general intellectual ability, thus rendering it a more viable target of prevention efforts (Striegel-Moore & Cachelin, 1999). Another possibility is that problem-solving ability, which was not measured in the present study, may be implicated in the relationships between peer harassment, body dissatisfaction, and eating problems. In other words, more effective problem-solving skills may buffer the negative effects of peer harassment on body dissatisfaction and eating problems. A third possible explanation is that the brief 10-item intelligence scale, borrowed from the High School Personality Questionnaire, may have been an ineffective assessment of intelligence for young adolescent girls. A low Cronbach's alpha of .45 suggests poor reliability of the intelligence scale in the present sample. Future work should be done to more clearly delineate the constructs of intellectual functioning and problem-solving ability as they

relate to body dissatisfaction and eating problems in the face of peer harassment.

The hypothesis that style of coping in response to peer harassment would be related to body dissatisfaction and eating problems was supported. The adolescent coping research suggests that both problem- and emotion-focused coping may be important for the successful adaptation to stress, but the importance of each may vary in response to different types of stress (Compas, 1987). After accounting for the effects of physical appearance and peer harassment, girls who cognitively appraised a hypothetical peer harassment scenario more negatively and engaged in lower levels of emotional expression tended to report more body dissatisfaction. This is consistent with Compas' (1987) coping theory that holds that coping strategies that function to regulate emotions, such as positive cognitive reframing and emotional expression, are considered important to positive adjustment.

After controlling for the effects of physical appearance and peer harassment, only drastic weight reduction as a means of coping with peer harassment predicted eating problems. More specifically, girls who responded to a hypothetical peer harassment scenario by stating that they would engage in behaviours such as secretly throwing up after meals, starving themselves, using laxatives, and skipping meals, tended to report more actual eating problems. As seeking adult support, positive cognitive appraisal, and emotional expression were not predictive of eating problems, they should not be taught in prevention programs for the purposes of reducing eating problems. However, these same coping strategies are associated with lower levels of body dissatisfaction. In turn, less

body dissatisfaction is predictive of fewer eating problems. This suggests that positive cognitive appraisal, seeking adult support, and emotional expression will have an indirect influence on reducing eating problems by lessening body dissatisfaction. Future research is needed to investigate this hypothesis.

In addition, girls who were frequently harassed by boys and who engaged in more negative cognitive appraisal in response to a hypothetical peer harassment scenario were more vulnerable to eating problems than girls who engaged in less cognitive appraisal. This finding suggests that appraising harassment by boys negatively (i.e., feeling less confident, feeling less attractive than other girls, comparing body to others), is an important factor in the development of eating disordered behaviour. Thus, the inclusion of a cognitive component in eating disorder prevention programs that focuses on reducing negative interpretations of peer harassment may be beneficial.

Practical Implications

Research shows that body image and eating disordered behaviours begin to appear in girls by the third grade and increase significantly during the transition to junior high school (Shisslak et al., 1996; Smolak & Levine, 1994). Early interventions directed at elementary school aged children are important to prevent the development of eating disorders and to promote healthy weight control behaviours (Killen et al., 1994; Shisslak, et al., 1996; Smolak & Levine, 1994). Only recently has research begun to investigate both risk and protective factors for body dissatisfaction and eating problems among early adolescents. Although researchers have identified numerous risk factors for eating

disorders, very little is known about protective factors that ameliorate or lessen the effect of risk variables. The present study is one of the firsts to address both risk and protective factors in the development of body dissatisfaction and eating problems in a sample of early adolescent girls.

The literature shows that appearance teasing is a significant risk factor for body dissatisfaction and eating problems. However, few studies have investigated protective factors that may lessen the negative effects of teasing, or other forms of peer harassment, on body dissatisfaction and eating problems. Furthermore, eating disorder prevention efforts have yet to focus on the role of adaptive and maladaptive coping strategies in dealing with peer harassment as they relate to body dissatisfaction and eating problems. Some researchers have acknowledged this often-absent component. For example, in their recommendations for goals of early prevention programs, Smolak and Levine (1994) listed "development of strategies to resist teasing, pressure to diet, propaganda about the importance of slenderness, etc." (p. 302). Similarly, Paxton (1996) suggested that prevention programs include a cognitive coping skills component to teach girls effective ways to manage teasing and weight-related comments. The findings of the present study shed light on adaptive methods of coping with appearance teasing and sexual harassment. Based on the findings of the present study, the following practical suggestions are offered for prevention programs:

1. Promote social support from parents, teachers, and friends. The importance of parental support for adolescent girls could be conveyed to parents through a

“parental seminar” on body image and eating disorders. Similarly, teachers should be informed of the important role they play in eating disorder prevention simply by providing support to the adolescent girls they teach. Regarding peer influence, Paxton (1996) states that prevention programs should capitalize on the “positive and supportive nature of adolescent friendship relations” (p. 342). Girls could be encouraged to support each other in efforts to increase their self-esteem, decrease feelings of body dissatisfaction, and replace unhealthy dieting with healthy eating behaviours.

2. Teach emotional expression as an adaptive method of coping with peer harassment. Based on the items that constitute the Emotional Expression scale, prevention programs should promote the following specific behaviours to cope with peer harassment: (a) hold the perpetrators totally responsible for their harassing behaviour, (b) talk to a friend about your feelings regarding the harassment, (c) demand that the perpetrators stop bothering you, and (d) write about your feelings regarding the harassment in a journal. The provision of a safe and supportive environment for peer harassed girls to discuss their feelings regarding the harassment (e.g., shame, confusion, anger) would likely be beneficial. As noted by Friedman (1996) “in the telling of their stories, the girls validate themselves and one another and increase their self-esteem” (p. 241).
3. Teach girls to appraise peer harassment less negatively. Based on the items

that constitute the Negative Cognitive Appraisal scale, the following strategies may be adaptive in coping with peer harassment: (a) resist internalizing the harassment (e.g., feeling ashamed, less confident, ugly), (b) resist comparing your body to other girls in your school or in magazines, (c) resist blaming yourself for the harassment, and (d) resist skipping school or other similar attempts to avoid the harassers. This information could be conveyed by including a “cognitive skills for coping with peer harassment” component in the prevention program.

It is recommended that these suggestions be corroborated with future research, as well as subjected to field trials in eating disorder prevention programs. Coie et al. (1993) emphasize the importance of such a dynamic interplay between science and practice. They state, “basic research on risk and protective factors should inform the design of preventive interventions. Field trials of these interventions, in turn, should yield insights about the causes of disorder and the developmental processes that contribute to risk or recovery” (p. 1013).

Strengths and Limitations of Study

This study makes several noteworthy contributions to the present body of literature. A comprehensive, and internally reliable questionnaire for assessing appearance teasing and sexual harassment was developed for the present study. A second questionnaire was developed for the purposes of assessing coping strategies in response to peer harassment, which demonstrated good factor structure and excellent internal

reliability. The large sample size of 383 participants and the diversity of the sample (i.e., students were from 14 different schools in both urban and rural regions of a North-western Ontario city) are strengths of the present study.

The limitations of the present study include limits of generalizability and the use of a cross-sectional design. The sample was overwhelmingly Caucasian females (83%) living in a small Northwestern Ontario city. It is unclear whether this sample would differ from adolescents living in larger cities. Also, this study examined only girls from grade 6, 7, and 8. It is unclear whether these findings would remain consistent in younger and older girls. The present study was cross-sectional, making it impossible to draw causal inferences about the relationships among the variables. Prospective studies of peer harassment, coping, intelligence, social support, body dissatisfaction, and eating disordered behaviour would provide a methodologically superior method for assessing the relationships among these variables. More research is needed similar to the longitudinal studies of Attie and Brooks-Gunn (1989), Cattarin and Thompson (1994), and Rosen, Tacy, and Howell (1990), which have delineated the causal relationships between teasing history, body dissatisfaction, and eating disordered behaviours.

Coping style was assessed in the present study using a self-report measure that asked the participant how they would respond in a hypothetical situation. This means of assessing coping style has been criticized by some researchers (e.g., Lazarus & Folkman, 1984), as it may reduce the variability in the coping strategies used by the individual because they are not reporting on the ways they actually coped in different stressful

episodes. Interview techniques and qualitative analyses may provide rich detail and insight into the experiences of adolescent girls, and would be extremely beneficial as corroborating evidence for purely quantitative research.

Future Directions

The present study attempted to integrate and delineate the relationship among several variables postulated to be involved in the development of body image problems and consequent eating problems in adolescent girls. The results of this study extend previous body image research by investigating both risk and protective factors related to body image development and eating disordered behaviours. Future research is needed to replicate the findings of the present study and to develop practical applications of this work for use in eating disorder prevention programs. In addition, research extending this work into an older adolescent population (i.e., grades 9 through 12) would be useful to assess whether the frequency and types of harassment are consistent. Future work is also needed to investigate the psychometric properties of the newly developed Peer Harassment Inventory and Coping with Peer Harassment Inventory. Prospective studies are needed to examine the role of peer harassment in the development of body dissatisfaction and eating problems. Finally, it would be useful to study a clinical sample of early adolescent females, perhaps from an eating disorder clinic, to determine whether their experiences are consistent with a nonclinical sample such as the one reported upon in the present study.

General Conclusions

The present data suggest that peer harassment in the form of appearance teasing and sexual harassment are related to body dissatisfaction and eating problems. Social support and emotional expressive coping behaviours are related to less body dissatisfaction, whereas more negative cognitive appraisal is related to higher degrees of body dissatisfaction. The same benefits of coping style were not found for eating disordered behaviour. Conversely, two types of coping were predictive of eating problems: namely, negative cognitive appraisal and drastic weight reduction. This information may be useful for the design of eating disorder prevention programs. Research shows that body dissatisfaction is directly linked to eating problems. Prevention efforts may be more effective if they focus on the prevention of body dissatisfaction in the face of appearance teasing (via successful coping strategies), rather than focusing on the eating disordered behaviour itself. Body dissatisfaction may be circumvented by teaching and encouraging girls to seek adult support, positively reframe the teasing, and use emotional expression behaviours (e.g., journaling) to cope with appearance teasing. Additional prevention gains may be made by discouraging both negative cognitive appraisals of the teasing and drastic weight reduction behaviours as means of coping. Improving the ability of youth to adapt to stressful circumstances in their lives is one of the most promising approaches to the prevention of childhood and adolescent disorders (Sandler et al., 1997). Specific suggestions for implementing the findings of the present study in eating disorder prevention programs have been outlined,

and await field trials to shed light on their effectiveness.

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Appendix A

Peer Harassment Inventory

PHI

I am interested in the ways kids treat you at school. Please read through the following list of behaviours and circle the letter(s) that best indicates how often it has happened to you within the past year.

N = Never; S = Seldom; ST = Sometimes; FO = Fairly Often; O = Often

1	A girl (or girls) stared at me to the point that it made me uncomfortable.	N	S	ST	FO	O
2	A girl (or girls) made fun of my height (e.g., too tall, too short).	N	S	ST	FO	O
3	A girl (or girls) made comments about my breasts or buttocks.	N	S	ST	FO	O
4	A girl (or girls) told me that I have an attractive body.	N	S	ST	FO	O
5	A boy (or boys) spread sexual rumours about me.	N	S	ST	FO	O
6	A boy (or boys) said sexual things about my body when I walked by.	N	S	ST	FO	O
7	A girl (or girls) grabbed my breasts when I didn't want them to.	N	S	ST	FO	O
8	A boy (or boys) grabbed my breasts when I didn't want them to.	N	S	ST	FO	O
9	A boy (or boys) whistled at me when I walked by.	N	S	ST	FO	O
10	A boy (or boys) made fun of my skin (e.g., skin colour, acne).	N	S	ST	FO	O
11	A girl (or girls) showed me pictures of nude women or women in bikinis in school (e.g., in their lockers or their binders).	N	S	ST	FO	O
12	A boy (or boys) teased me about my body (e.g., too fat, too skinny).	N	S	ST	FO	O
13	A boy (or boys) made fun of my buttocks (e.g., too large, too small).	N	S	ST	FO	O
14	A girl (or girls) spread sexual rumours about me.	N	S	ST	FO	O
15	A girl (or girls) made fun of my stomach (e.g., too large, too small).	N	S	ST	FO	O
16	A boy (or boys) gave me a nickname because of my weight (e.g., tubby, beanpole).	N	S	ST	FO	O
17	A boy (or boys) compared the way my body looked to pictures of nude women or women in bikinis.	N	S	ST	FO	O
18	A girl (or girls) forced me up against their body.	N	S	ST	FO	O
19	A boy (or boys) made fun of my thighs, hips, or legs (e.g., too large, too small).	N	S	ST	FO	O
20	A boy (or boys) wrote distasteful or mean graffiti about me (e.g., in bathroom stalls, on desks).	N	S	ST	FO	O
21	A boy (or boys) made fun of my height (e.g., too tall, too short).	N	S	ST	FO	O
22	A girl (or girls) snapped my bra.	N	S	ST	FO	O
23	A girl (or girls) wrote distasteful or mean graffiti about me (e.g., in bathroom stalls, on desks).	N	S	ST	FO	O

N = Never, S = Seldom, ST = Sometimes, FO = Fairly Often, O = Often

24	A boy (or boys) made sexual gestures to me (e.g., grabbed their genitals).	N	S	ST	FO	O
25	A girl (or girls) compared the way my body looked to models or sexy women.	N	S	ST	FO	O
26	A girl (or girls) said sexual things about my body when I walked by.	N	S	ST	FO	O
27	A girl (or girls) brushed up against me on purpose.	N	S	ST	FO	O
28	A boy (or boys) made fun of the shape of my face or head.	N	S	ST	FO	O
29	A boy (or boys) showed me pictures of nude women or women in bikinis at school (e.g., in their lockers, in their binders).	N	S	ST	FO	O
30	A boy (or boys) made fun of my stomach (e.g., too large, too small).	N	S	ST	FO	O
31	A girl (or girls) made fun of my hair (e.g., hair color, colour).	N	S	ST	FO	O
32	A boy (or boys) called me mean names because of my body (e.g., fat pig, rail).	N	S	ST	FO	O
33	A girl (or girls) rated the attractiveness of my body on a rating scale (e.g., scale of 1 to 10).	N	S	ST	FO	O
34	A boy (or boys) told me that I have a good body.	N	S	ST	FO	O
35	A boy (or boys) called me names because of how I looked.	N	S	ST	FO	O
36	A girl (or girls) made fun of the shape of my face or head.	N	S	ST	FO	O
37	A girl (or girls) teased me in a cruel way because of how I looked.	N	S	ST	FO	O
38	A girl (or girls) called me mean names because of my body (e.g., fat pig, rail).	N	S	ST	FO	O
39	A boy (or boys) made fun of my breasts (e.g., too large, too small).	N	S	ST	FO	O
40	A boy (or boys) made comments about my breasts or buttocks.	N	S	ST	FO	O
41	A girl (or girls) made fun of my skin (e.g., skin colour, ache).	N	S	ST	FO	O
42	A boy (or boys) brushed up against me on purpose.	N	S	ST	FO	O
43	A girl (or girls) made fun of my buttocks (e.g., too large, too small).	N	S	ST	FO	O
44	A girl (or girls) patted or grabbed my buttocks when I didn't want them to.	N	S	ST	FO	O
45	A boy (or boys) rated the attractiveness of my body on a rating scale (e.g., scale of 1 to 10).	N	S	ST	FO	O
46	A girl (or girls) called me names because of how I looked.	N	S	ST	FO	O
47	A girl (or girls) made fun of my thighs, hips or legs (e.g., too large, too small).	N	S	ST	FO	O
48	A boy (or boys) compared the way my body looked to models or sexy women.	N	S	ST	FO	O
49	A girl (or girls) called me sexually offensive names (e.g., slut, tramp, skank).	N	S	ST	FO	O
50	A girl (or girls) told me that I have a good body.	N	S	ST	FO	O

N = Never; S = Seldom; ST = Sometimes; FO = Fairly Often; O = Often

51	A girl (or girls) gave me a nickname because of my weight (e.g., tubby or hippo).	N	S	ST	FO	O
52	A boy (or boys) made comments about how my body looked.	N	S	ST	FO	O
53	A girl (or girls) said that my body was ugly or disgusting in some way.	N	S	ST	FO	O
54	A boy (or boys) told me that I have an attractive body.	N	S	ST	FO	O
55	A girl (or girls) teased me about my body (e.g., too fat, too skinny).	N	S	ST	FO	O
56	A girl (or girls) compared the way my body looked to pictures of nude women or women in bikinis.	N	S	ST	FO	O
57	A boy (or boys) said that my body was ugly or disgusting in some way.	N	S	ST	FO	O
58	A girl (or girls) made fun of my breasts (e.g., too large, too small).	N	S	ST	FO	O
59	A girl (or girls) told me that I was pretty.	N	S	ST	FO	O
60	A girl (or girls) whistled at me when I walked by.	N	S	ST	FO	O
61	A boy (or boys) stared at me to the point that it made me uncomfortable.	N	S	ST	FO	O
62	A boy (or boys) called me sexually offensive names (e.g., slut, tramp, skank).	N	S	ST	FO	O
63	A boy (or boys) teased me in a cruel way because of how I looked.	N	S	ST	FO	O
64	A boy (or boys) made fun of a facial feature (e.g., nose, teeth, ears, lips).	N	S	ST	FO	O
65	A boy (or boys) told me to come up against their body.	N	S	ST	FO	O
66	A girl (or girls) made comments about how my body looked.	N	S	ST	FO	O
67	A boy (or boys) patted or grabbed my buttocks when I didn't want them to.	N	S	ST	FO	O
68	A boy (or boys) snapped my bra.	N	S	ST	FO	O
69	A girl (or girls) made sexual remarks to me (e.g., girlie-boy, penis in it).	N	S	ST	FO	O
70	A girl (or girls) made fun of a facial feature (e.g., nose, teeth, ears, lips).	N	S	ST	FO	O
71	A boy (or boys) told me that I was pretty.	N	S	ST	FO	O
72	A boy (or boys) made fun of my hair (e.g., hairstyle, colour).	N	S	ST	FO	O

Appendix B

Coping with Peer Harassment Inventory

Please read this story carefully. Try to imagine that all are the real and that the events are happening to you. At the end of the story, you will be asked questions about your thoughts and feelings.
IT IS IMPORTANT THAT YOU TRY TO IMAGINE THAT THESE THINGS ARE HAPPENING TO YOU.

One day, while walking down the hall at school, you overhear some popular boys talking about girls who are walking by. They say "great jugs," and "fat lard ass." One of them makes a "mooring" sound like a cow. You like one of the guys who is saying these things.

During class, the teacher leaves the room for a moment. The boys start goofing around. They talk about some internet sites with naked models. One guy says "you should have seen this one chick – she was flawless. She had these massive jugs out to here, and a tight little ass. i fantasized about her all night." Another guy says "I wish the broads around here looked like that!"

One guy pulls out a picture of a naked woman from his binder. All the guys are talking about the woman's body. One guy holds the picture up to you and says "don't you wish you had a body like this?" Another boy says about you "maybe if she got off her fat ass and went to the gym". Another boy says "ah, she'd still be too ugly. She'd never do it for me." They all laugh. Another guy says "if she lost some of that fat, i might give her a second look, her hooters aren't half bad." He says this as he is staring at your chest.

The next day at lunch you are sitting with your friends in the lunchroom. The guys from your class are sitting nearby. They are whispering and laughing about something. You can hear some of the conversation. They seem to be making a rating scale for the girls. One of them says "zero is so butt ugly she makes you want to hurl." Another guy says "how about 5 being "okay face but too beefy". Sometimes they whisper and you cannot hear them, but then they laugh and give each other the high-five. One guy says "10 is a perfect piece of ass."

When you go into your class, one of the guys is holding up four fingers. The boys in the class all look at you and then laugh and agree with him. They have just rated your body. Other girls enter the room, and the guys do the same thing to them. When the best looking girl in the class walks in (the one all the guys are "hot for"), one guy holds up nine fingers.

A few days later you wear a new tank top to school. While sitting in class, one of the guys says "nice roll" and his friends start snickering. You realize that he's referring to a roll of fat on your waist that is showing because you are sitting down. The same guy says "good skanky top, Roller-girl, it shows off your great bod," and looks at his buddy with a grin on his face. After class some other guys call you "Roller-girl" when you walk by them. One guy says "you might be fat, but at least you have big cans!" He grabs one of your breasts and gives it a squeeze. Another boy says "you better hurry home and jump on the treadmill, fatty!"

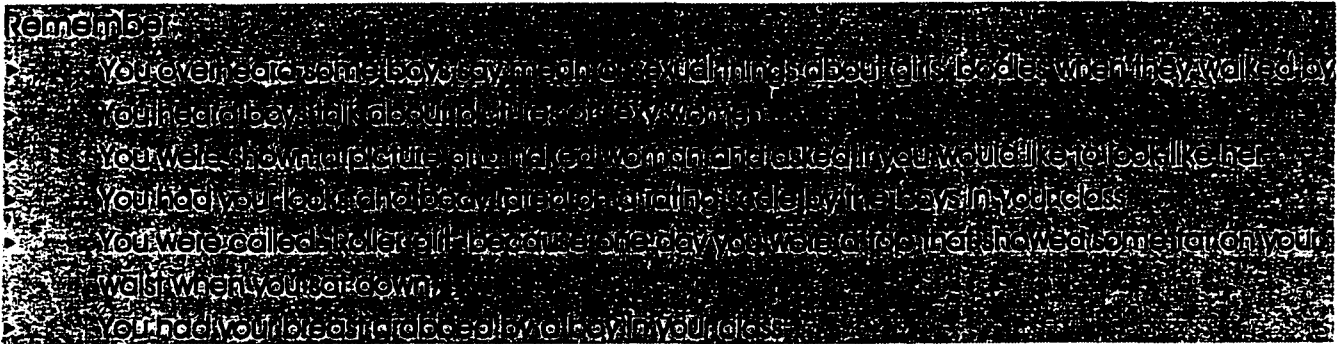
The next day the same group of guys continues to call you Roller-girl. One guy says "where's your tight little top that you had on yesterday? It was great the way it clung to your big cans! Wear it again for us, we beg you! Oh please!" Some other boys join in saying "please! We beg you!" One of the popular girls says "stop bugging Roller-girl, you don't have to be a rocket scientist to figure out that she doesn't have the body to dress like that." They all laugh, including some girls. Whenever you are around this group of guys they call you "Roller-girl".

THE END

C-PHI

The following questions are about the story you just read. Kids have different ways of dealing with this type of behaviour. I am interested in how **YOU** would deal with this kind of behaviour if it was happening to you. Remember, all kids will have their own ways of dealing with problems like these. I'm only interested in how **YOU** would deal with it. Indicate **HOW OFTEN** you think you would do each of the described behaviours when you are faced with situations like the one in the story. Circle the appropriate response.

Remember, **THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE HONEST WHEN YOU RESPOND.** Don't answer by circling the response that you think would be the best way to handle the problem, or what parents/teachers tell you to do. Just circle the response that best indicates what you think you would actually do.



If kids at your school did these things to you, HOW OFTEN do you think you would do the following:

N = Never; S = Seldom; ST = Sometimes; FO = Fairly Often; O = Often

1	I would do schoolwork or other activities to get my mind off it.	N	S	ST	FO	O
2	I would explain to them how much it bothers me.	N	S	ST	FO	O
3	I would call the police.	N	S	ST	FO	O
4	I would feel bad about my body.	N	S	ST	FO	O
5	I would skip school.	N	S	ST	FO	O
6	I would talk to a counsellor about my feelings.	N	S	ST	FO	O
7	I would threaten to report them.	N	S	ST	FO	O
8	I would use laxatives, water pills, or diet products to lose weight.	N	S	ST	FO	O
9	I would write about it in my diary or journal.	N	S	ST	FO	O
10	I would starve myself.	N	S	ST	FO	O
11	I would compare my body to a model/when they appear on television/measure up.	N	S	ST	FO	O
12	I would get someone else to physically hurt them.	N	S	ST	FO	O
13	I would feel more confident.	N	S	ST	FO	O
14	I would talk to a teacher about my feelings.	N	S	ST	FO	O
15	I would feel good about myself.	N	S	ST	FO	O
16	I would compare my body to girls in magazines (e.g., Teen, and Seventeen) to see how I measure up.	N	S	ST	FO	O
17	I would tell them "where to go".	N	S	ST	FO	O
18	I would think "it doesn't matter what I look like, they treat everyone this way".	N	S	ST	FO	O
19	I would talk to a close friend about my feelings.	N	S	ST	FO	O
20	I would use drugs or alcohol to think about it less.	N	S	ST	FO	O
21	I would try to be nice to them.	N	S	ST	FO	O
22	I would feel good about my body.	N	S	ST	FO	O
23	I would talk to my boyfriend about my feelings.	N	S	ST	FO	O
24	I would feel ugly.	N	S	ST	FO	O
25	I would think "It doesn't bug me".	N	S	ST	FO	O
26	I would insult or tease them back.	N	S	ST	FO	O

N = Never, S = Seldom, ST = Sometimes, FO = Fairly Often, O = Often

27	I would put more time into my appearance (e.g., hair, makeup).	N	S	ST	FO	O
28	I would feel bad about my life (achieved and alone).	N	S	ST	FO	O
29	I would talk to my brother or sister about my feelings.	N	S	ST	FO	O
30	I would avoid them as much as possible.	N	S	ST	FO	O
31	I would cry to let my feelings out.	N	S	ST	FO	O
32	I would feel more attractive than other girls.	N	S	ST	FO	O
33	I would call a crisis line/chat line to talk about my feelings.	N	S	ST	FO	O
34	I would eat food to feel better.	N	S	ST	FO	O
35	I would wish I could transfer to another school.	N	S	ST	FO	O
36	I would talk to a priest, minister, or rabbi about my feelings.	N	S	ST	FO	O
37	I would laugh along with them.	N	S	ST	FO	O
38	I would smoke cigarettes to control my weight.	N	S	ST	FO	O
39	I would compare my body to other girls my age at my school to see how I measure up.	N	S	ST	FO	O
40	I would report them to a teacher or Principal so they will stop.	N	S	ST	FO	O
41	I would tell myself the problem is not important.	N	S	ST	FO	O
42	I would dress in different clothes to hide my body.	N	S	ST	FO	O
43	I would skip meals.	N	S	ST	FO	O
44	I would exercise to lose weight.	N	S	ST	FO	O
45	I would feel beautiful.	N	S	ST	FO	O
46	I would feel less attractive than other girls.	N	S	ST	FO	O
47	I would change my eating habits.	N	S	ST	FO	O
48	I would sleep to get my mind off it.	N	S	ST	FO	O
49	I would think "I do not deserve to be treated this way".	N	S	ST	FO	O
50	I would think "If I looked different they wouldn't treat me this way".	N	S	ST	FO	O
51	I would try to physically hurt them.	N	S	ST	FO	O
52	I would make fun of myself.	N	S	ST	FO	O
53	I would talk to my mom or dad about my feelings.	N	S	ST	FO	O
54	I would like myself less.	N	S	ST	FO	O
55	I would go on a diet.	N	S	ST	FO	O

N=Never S= seldom ST= Sometimes FO= Frequently O= often

56	I would demand that they stop bothering me.	N	S	ST	FO	O
57	I would feel hurt.	N	S	ST	FO	O
58	I would secretly throw up after meals.	N	S	ST	FO	O
59	I would say to myself "this is not happening".	N	S	ST	FO	O
60	I would ask a friend for advice about what I should do.	N	S	ST	FO	O
61	I would ask my mom or dad for advice about what I should do.	N	S	ST	FO	O
62	I would tell my parents so that they can stop this from happening.	N	S	ST	FO	O
63	I would get someone else to talk to them.	N	S	ST	FO	O
64	I would like myself more.	N	S	ST	FO	O
65	I would think "I deserve to be treated this way".	N	S	ST	FO	O
66	I would feel less confident.	N	S	ST	FO	O
67	I would blame myself for the way they treat me.	N	S	ST	FO	O
68	I would watch TV or listen to music to get my mind off it.	N	S	ST	FO	O
69	I would pray about it.	N	S	ST	FO	O
70	I would hold them totally responsible for treating me that way.	N	S	ST	FO	O

Appendix C

Personal Information Questionnaire

PIQ

Please answer the following questions about yourself.

1	I am _____ years old
2	My birthday is _____ (year/ month/ day)
3	People sometimes identify themselves by race and/or colour. Check the box that shows how you identify yourself (place a ✓ mark) <input type="checkbox"/> Caucasian / White <input type="checkbox"/> Aboriginal / Native Indian / Metis <input type="checkbox"/> Asian <input type="checkbox"/> African-American / Black <input type="checkbox"/> other, please specify: _____
4	I am ____ feet and ____ inches tall OR ____ cm tall (<i>guess if you don't know</i>)
5	I weigh _____ lbs. OR ____ kg (<i>guess if you don't know</i>)

Appendix D

Eating Disorder Inventory – Body Dissatisfaction Scale

EDI-BD

Please indicate which rating best applies to you by circling the response:

A = Always; U = Usually; O = Often; S = Sometimes; R = Rarely; N = Never

1	I think that my stomach is too big	A	U	O	S	R	N
2	I think that my thighs are too large	A	U	O	S	R	N
3	I think that my stomach is just the right size	A	U	O	S	R	N
4	I feel satisfied with the shape of my body	A	U	O	S	R	N
5	I like the shape of my buttocks	A	U	O	S	R	N
6	I think that my hips are too big	A	U	O	S	R	N
7	I think that my thighs are just the right size	A	U	O	S	R	N
8	I think that my buttocks are too large	A	U	O	S	R	N
9	I think my hips are just the right size	A	U	O	S	R	N

Appendix E

Concerns for Weight and Shape Scale – Affective Subscale

CSAW

This is a scale which measures a variety of personal opinions and feelings about your own body weight and shape. **THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS.** Read each statement carefully. For each statement circle the number that **best represents your opinion or feeling.**

SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree

1	I feel insecure about my weight or shape	SD	D	N	A	SA
2	I feel great about my weight or shape	SD	D	N	A	SA
3	I feel negative about my weight or shape	SD	D	N	A	SA
4	I feel humiliated about my weight or shape	SD	D	N	A	SA
5	I feel unhappy about my weight or shape	SD	D	N	A	SA
6	I feel comfortable about my weight or shape	SD	D	N	A	SA
7	I feel dissatisfied about my weight or shape	SD	D	N	A	SA
8	I feel secure about my weight or shape	SD	D	N	A	SA
9	I feel terrible about my weight or shape	SD	D	N	A	SA
10	I feel proud about my weight or shape	SD	D	N	A	SA
11	I feel bad about my weight or shape	SD	D	N	A	SA
12	I feel happy about my weight or shape	SD	D	N	A	SA
13	I feel satisfied about my weight or shape	SD	D	N	A	SA
14	I feel nervous about my weight or shape	SD	D	N	A	SA
15	I feel uncomfortable about my weight or shape	SD	D	N	A	SA
16	I feel relaxed about my weight or shape	SD	D	N	A	SA
17	I feel good about my weight or shape	SD	D	N	A	SA
18	I feel positive about my weight or shape	SD	D	N	A	SA

Appendix F

Children's Eating Attitudes Test

CHEAT

Please circle the letter that best applies to the statements below.

A = Always; U = Usually; O = Often; ST = Sometimes; R = Rarely; N = Never

1	I am scared about being overweight	A	U	O	ST	R	N
2	I stay away from eating when I am hungry	A	U	O	ST	R	N
3	I think about food a lot of the time	A	U	O	ST	R	N
4	I have gone on eating binges where I feel that I might not be able to stop	A	U	O	ST	R	N
5	I cut my food into small pieces	A	U	O	ST	R	N
6	I am aware of the energy (calorie) content in foods that I eat	A	U	O	ST	R	N
7	I try to stay away from foods such as bread, potatoes, and rice	A	U	O	ST	R	N
8	I feel that others would like me to eat more	A	U	O	ST	R	N
9	I vomit after I have eaten	A	U	O	ST	R	N
10	I feel very guilty after eating	A	U	O	ST	R	N
11	I think a lot about wanting to be thinner	A	U	O	ST	R	N
12	I think about burning up energy (calories) when I exercise	A	U	O	ST	R	N
13	Other people think I am too thin	A	U	O	ST	R	N
14	I think a lot about having fat on my body	A	U	O	ST	R	N
15	I take longer than others to eat my meals	A	U	O	ST	R	N
16	I stay away from foods with sugar in them	A	U	O	ST	R	N
17	I eat diet foods	A	U	O	ST	R	N
18	I think that food controls my life	A	U	O	ST	R	N
19	I can show self-control around food	A	U	O	ST	R	N
20	I feel that others pressure me to eat	A	U	O	ST	R	N
21	I give too much time and thought to food	A	U	O	ST	R	N
22	I feel uncomfortable after eating sweets	A	U	O	ST	R	N
23	I have been dieting	A	U	O	ST	R	N
24	I like my stomach to be empty	A	U	O	ST	R	N
25	I enjoy trying new rich foods	A	U	O	ST	R	N
26	I have the urge to vomit after eating	A	U	O	ST	R	N

Appendix G

Children's Depression Inventory – Short Form

CDI

Kids sometimes have different feelings and ideas.

This form lists the feelings and ideas in groups. From each group of three sentences, pick one sentence that describes you *best* for the past two weeks. After you pick a sentence from the first group, go on to the next group.

There is no right answer or wrong answer. Just pick the sentence that best describes the way you have been recently. Put a mark like this next to your answer. Put the mark in the box next to the sentence that you pick.

Remember, pick out the sentences that describe you best in the PAST TWO WEEKS.

<p><i>Item 1</i></p> <p><input type="checkbox"/> I am sad once in a while.</p> <p><input type="checkbox"/> I am sad many times.</p> <p><input type="checkbox"/> I am sad all the time.</p>	<p><i>Item 6</i></p> <p><input type="checkbox"/> Things bother me all the time.</p> <p><input type="checkbox"/> Things bother me many times.</p> <p><input type="checkbox"/> Things bother me once in a while.</p>
<p><i>Item 2</i></p> <p><input type="checkbox"/> Nothing will ever work out for me.</p> <p><input type="checkbox"/> I am not sure if things will work out for me.</p> <p><input type="checkbox"/> Things will work out for me O.K.</p>	<p><i>Item 7</i></p> <p><input type="checkbox"/> I look O.K.</p> <p><input type="checkbox"/> There are some bad things about my looks.</p> <p><input type="checkbox"/> I look ugly.</p>
<p><i>Item 3</i></p> <p><input type="checkbox"/> I do most things O.K.</p> <p><input type="checkbox"/> I do many things wrong.</p> <p><input type="checkbox"/> I do everything wrong.</p>	<p><i>Item 8</i></p> <p><input type="checkbox"/> I do not feel alone.</p> <p><input type="checkbox"/> I feel along many times.</p> <p><input type="checkbox"/> I feel alone all the time.</p>
<p><i>Item 4</i></p> <p><input type="checkbox"/> I hate myself.</p> <p><input type="checkbox"/> I do not like myself.</p> <p><input type="checkbox"/> I like myself.</p>	<p><i>Item 9</i></p> <p><input type="checkbox"/> I have plenty of friends.</p> <p><input type="checkbox"/> I have some friends but I wish I had more.</p> <p><input type="checkbox"/> I do not have any friends.</p>
<p><i>Item 5</i></p> <p><input type="checkbox"/> I feel like crying every day.</p> <p><input type="checkbox"/> I feel like crying many days.</p> <p><input type="checkbox"/> I feel like crying once in a while.</p>	<p><i>Item 10</i></p> <p><input type="checkbox"/> Nobody really loves me.</p> <p><input type="checkbox"/> I am not sure if anybody loves me.</p> <p><input type="checkbox"/> I am sure that somebody loves me.</p>

Appendix H

Rosenberg Self-Esteem Inventory

RSES

Please answer these questions honestly according to the way you **usually feel**. Please answer each question carefully by circling the appropriate number.

SA = Strongly Agree; **A** = Agree; **D** = Disagree; **SD** = Strongly Disagree

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

Appendix I

Life Stressors and Social Resources Inventory – Youth Form

LISRES-Y

This questionnaire contains questions about your parents and other relatives, your school, and your friends. Please circle the answers that best describe you using the following scale:

N = Never; S = Seldom; ST = Sometimes; FO = Fairly Often; O = Often.

A PARENTS

The following questions ask about your mother or stepmother. If you have both a mother and stepmother, answer these questions about the person you spend *the most time with*. **If you do not have a mother/stepmother, skip this section.**

1. N=Never, S=Seldom, ST=Sometimes, FO=Fairly Often, O=Often

When you spend time with your mother/stepmother, how often?

- | | | | | | | |
|---|---|---|---|----|----|---|
| a | Can you count on her to help you when you need it? | N | S | ST | FO | O |
| b | Does she cheer you up when you are sad or worried? | N | S | ST | FO | O |
| c | Do you have fun, laugh, or joke with her? | N | S | ST | FO | O |
| d | Does she really understand how you feel about things? | N | S | ST | FO | O |
| e | Does she respect your opinion? | N | S | ST | FO | O |

The following questions ask about your father or stepfather. If you have both a father and stepfather, answer these questions about the person you spend *the most time with*. **If you do not have a father/stepfather, skip this section.**

2. N=Never, S=Seldom, ST=Sometimes, FO=Fairly Often, O=Often

When you spend time with your father/stepfather, how often?

- | | | | | | | |
|---|--|---|---|----|----|---|
| a | Can you count on him to help you when you need it? | N | S | ST | FO | O |
| b | Does he cheer you up when you are sad or worried? | N | S | ST | FO | O |
| c | Do you have fun, laugh, or joke with him? | N | S | ST | FO | O |
| d | Does he really understand how you feel about things? | N | S | ST | FO | O |
| e | Does he respect your opinion? | N | S | ST | FO | O |

B. BROTHERS AND SISTERS

The following questions ask about your brothers and sisters. *If you do not have any brothers or sisters, skip this section.*

If you have more than one brother or sister, think about your relationship with the brother or sister you spend *the most time with*.

N = Never, S = Seldom, ST = Sometimes, FO = Fairly Often, O = Often
When you spend time with your brother/sister/his/her, *often*

- | | | | | | | |
|---|---|---|---|----|----|---|
| a | Can you count on him or her to help you when you need it? | N | S | ST | FO | O |
| b | Does he or she cheer you up when you are sad or worried? | N | S | ST | FO | O |
| c | Do you have fun, laugh, or joke with him or her? | N | S | ST | FO | O |
| d | Does he or she really understand how you feel about things? | N | S | ST | FO | O |
| e | Does he or she respect your opinion? | N | S | ST | FO | O |

C. EXTENDED FAMILY

The following questions are about your relatives other than your parents or brothers and sisters.

N = Never, S = Seldom, ST = Sometimes, FO = Fairly Often, O = Often
When you spend time with your relatives/his/her, *often*

- | | | | | | | |
|---|---|---|---|----|----|---|
| a | Can you count on any of your relatives to help you when you need it? | N | S | ST | FO | O |
| b | Do any of your relatives cheer you up when you are sad or worried? | N | S | ST | FO | O |
| c | Do you have fun, laugh, or joke with them? | N | S | ST | FO | O |
| d | Do any of your relatives really understand how you feel about things? | N | S | ST | FO | O |
| e | Do any of your relatives respect your opinion? | N | S | ST | FO | O |

5 How many relatives do you rely on for help (with relatives you feel you can rely on and can talk to about personal problems)?

- 0 1 2 3 4 5 6 7 8 9

N = Never, S = Seldom (1 or 2 times a year), ST = Sometimes (3 or 4 times a year), FO = Fairly Often (once or twice a month), O = Often (every week)

- | | | | | | | |
|---|--|---|---|----|----|---|
| 6 | How often do you spend time with the relative or relatives to whom you feel the closest? | N | S | ST | FO | O |
|---|--|---|---|----|----|---|

D SCHOOL

7 Here are some questions about your teachers, coaches, and counselors.

How often?

a	Can you count on any of them to help you when you need it?	N	S	ST	FO	O
b	Do any of them cheer you up when you are sad or worried?	N	S	ST	FO	O
c	Do you have fun, laugh, or joke with any of them?	N	S	ST	FO	O
d	Do any of them really understand how you feel about things?	N	S	ST	FO	O
e	Do any of them respect your opinion?	N	S	ST	FO	O

E FRIENDS

Here are some questions about your friends and social activities.
Do not include a steady boyfriend or girlfriend, your family, or brothers and sisters as friends when answering these questions.

8 How many school clubs and organizations (e.g., sports team, cheerleading, school government) do you belong to? 0 1 2 3 4 5

9 How many clubs and organizations outside of school (e.g., church groups, sports teams, clubs, organized hobbies) do you belong to? 0 1 2 3 4+

10 How many close friends do you have (people you really talk with and confide in about personal matters)? 0 1 2 3 4 5

N = Never **S = Seldom** (less than twice a year) **ST = Sometimes** (several times/yr) **FO = Fairly Often** (once or twice a month) **O = Often** (every week)

11 How often are you in touch with the friend or friends to whom you feel closest? N S ST FO O

N = Never **S = Seldom** (less than twice a year) **ST = Sometimes** (several times/yr) **FO = Fairly Often** (once or twice a month) **O = Often** (every week)

12 How often do you attend religious services or activities? N S ST FO O

N = Never **S = Seldom** (less than twice a year) **ST = Sometimes** (several times/yr) **FO = Fairly Often** (once or twice a month) **O = Often** (every week)

How often?

a	Can you count on any of your friends to help you when you need it?	N	S	ST	FO	O
b	Do any of your friends cheer you up when you are sad or worried?	N	S	ST	FO	O
c	Do you have fun, laugh, or joke with any of your friends?	N	S	ST	FO	O
d	Do any of your friends really understand how you feel about things?	N	S	ST	FO	O
e	Do any of your friends respect your opinion?	N	S	ST	FO	O

BOYFRIEND

Here are some questions about your current relationship with a boyfriend.

If you do not have a steady boyfriend, do not answer this section.

N = Never S = Seldom ST = Sometimes FO = Fairly Often O = Often

How often

a	Can you count on him to help you when you need it?	N	S	ST	FO	O
b	Does he really understand how you feel about things?	N	S	ST	FO	O
c	Does he cheer you up when you are sad or worried?	N	S	ST	FO	O
d	Does he respect your opinion?	N	S	ST	FO	O
e	Do you have fun, laugh, or joke with him?	N	S	ST	FO	O

Appendix J

High School Personality Questionnaire – Intelligence Scale

HSPQ

Read each question and select the correct answer. For example:

1. Adult is to child as cat is to:
 a. kitten
 b. dog
 c. baby

These questions have a right answer. The right answer to the sample question is kitten. There are 10 questions. In answering the questions, keep in mind: (1) don't spend too much time thinking over each question, give the first natural answer as it comes to you, and (2) answer every question.

1. "Mend" means the same as: a. repair b. heal c. patch	6. If Joan's mother is my father's sister, what relation is Joan's father to my brother? a. second cousin b. grandfather c. uncle
2. "Truth" is the opposite of: a. fancy b. falsehood c. denial	7. "Usually" means the same as: a. sometimes b. always c. generally
3. "Firm" is the opposite of: a. easy b. kind c. loose	8. The grandmother of the daughter of my brother's sister is my a. mother b. sister-in-law c. niece
4. "Rich" is to "money" as "sad" is to: a. trouble b. friends c. land	9. Look at these five words: <i>mostly, gladly, chiefly, mainly, highly</i> . The word that does not belong with the others is: a. mostly b. gladly c. highly
5. "Run" is to "pant" as "eat" is to: a. exercise b. indigestion c. sleep	10. Look at these five words: <i>below, beside, above, behind, between</i> . The word that does not belong with the others is: a. below b. between c. beside

Appendix K

Consent Form for Parents and Guardians

CONSENT FORM FOR PARENTS AND GUARDIANS

Dear Parent/Guardian:

I am a Doctoral student in Clinical Psychology at Lakehead University. I am conducting a research study on body image and eating attitudes in children under the supervision of Dr. Ron Davis. I would like to include your daughter in my study.

The purpose of the research is to learn more about factors that influence the development of body image and eating attitudes among adolescent females. One theory states that negative weight-related messages from other people can affect the development of body image. I am interested in (a) determining whether this relationship exists among early adolescent girls, and (b) identifying personal characteristics and coping behaviours that appear to protect a child from the negative effects of weight-related teasing. This information will help us to one day develop more effective eating disorder prevention programs for youth.

Participation in this study will involve parental permission on the attached form. Your daughter will be asked to fill out several questionnaires during one class period. These questionnaires are about (a) family background (e.g., parents' education, who the child lives with, etc.), (b) body image, (c) eating attitudes, (d) teasing and harassment experiences by other students, (e) moods and feelings, (f) social relationships including friends and family, and (g) coping responses to a hypothetical story about peer harassment. Some questions ask that your daughter contemplate unpleasant interpersonal experiences such as whether she has ever been bullied by peers in school. Other questions of a potentially sensitive nature concern self-esteem and emotions. It is possible that some of these questions may produce some degree of psychological discomfort for your daughter. The researcher will be available to talk privately with all students throughout and following the testing period. The researcher will provide support and encouragement for your daughter in the event that she experiences discomfort. If your daughter expresses interest in counselling, a referral will be made to an appropriate professional.

The questionnaires will take approximately 50 minutes to complete and will be administered during one class period. Children will be asked whether they agree with statements such as "I feel good about my weight or shape." They will also be asked questions such as "how often has someone teased you about your body?" Children will read a hypothetical story about a girl who is being harassed by boys at her school. They will be asked what they think they would do if it were happening to them. Sample items include "I would report them to the Principal," and "I would try to avoid them." I will be present in the classroom to answer any questions of the children that may arise.

This study has been approved by the Lakehead University Senate Research Ethics Board, the Lakehead Board of Education Superintendent of Research, and by the Principal at your child's school.

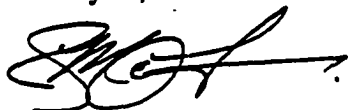
No person other than myself will have access to the information provided by your daughter. Your child's responses will not be identified by name and I will not use any information from the school's records. When the study is completed, the information will be securely stored at Lakehead University for seven years. A report of the findings will be available to interested parents and students in the school library. To improve their education about health, a presentation on body image and eating disorders will be made to the students during their health class.

Participation in this research is completely voluntary. I will seek your daughter's consent. If for any reason your daughter does not want to complete the questionnaires, she will not be made to participate. Furthermore, she can withdraw from the study anytime without penalty whatsoever.

If you wish to give permission, please sign the attached form. If you do not want your child to participate, please indicate this by checking the appropriate box on the form. Please complete the following consent form and return it to your child's teacher **within the next week**. At the end of the study, a letter will be sent to all of the parents outlining the signs and symptoms of poor body image and eating disorders.

If you would like to receive more information about the study, please contact me at 346-2296. I sincerely appreciate your cooperation.

Thank you,



Jennifer McFarlane, M.A.
Doctoral Candidate
Department of Psychology, Lakehead University

***Please sign the consent form on the following page and have
your daughter bring it to school as soon as possible!***

Thank you

PLEASE DETACH THIS PAGE AND RETURN IT TO THE SCHOOL.

Child's name: _____ Birthdate: _____

PLEASE CHECK ONE:

- I give permission for my child to participate in the Lakehead University study conducted by Jennifer McFarlane.

- I do not give permission for my child to participate in the Lakehead University study conducted by Jennifer McFarlane.

I have received an explanation about the nature of the study and its purpose.
I understand the following:

1. My child is a volunteer and can withdraw from the study at any time.
2. There is the potential for some degree of psychological discomfort as my child contemplates unpleasant experiences. I understand that the researcher will be available at all times if my child needs to talk about personal issues that arise.
3. The data provided by my child will remain confidential.
4. I will receive an information sheet outlining the signs and symptoms of eating disorders following the completion of the project.
5. A summary of the research findings will be available at my child's school library upon the completion of the study.

Signature of parent or guardian

Date

Appendix L

Instructions for Study

INSTRUCTIONS FOR STUDY

Researcher: Jennifer McFarlane (Ph.D. Psychology Student)

Supervisor: Dr. Ron Davis

This study will investigate factors involved in body image and eating attitudes among early adolescent girls. You will be asked to fill out several questionnaires about your eating attitudes and feelings about your body. You will also fill out some questionnaires about your moods and feelings. You will read a short story involving a girl who is receiving negative comments about her body by a group of boys at her school. You will answer questions about your thoughts and feelings about what happened in the story. This study will require approximately 50 minutes to complete.

You will be seated one desk apart to ensure the privacy and confidentiality of your responses. Please be quiet and do not talk to others while you are completing the questionnaires. If you feel psychological discomfort during the testing session and wish to talk about it, simply approach the researcher. No questions will be asked. The researcher will invite you to leave the room, where you will be able to discuss your feelings privately.

Participation in this study is voluntary, meaning that you can leave the study any time you want. If you chose to not complete the questionnaires, just return the booklet to the researcher. No questions will be asked and there will be no penalty. Your responses will be kept completely confidential. Only the researchers will have access to your information. Once the study has been completed, a summary of the results will be made available through your school library.

Appendix M
Informed Consent Form



CONSENT FORM

1. Title of Research: **Body Image and Eating Attitudes among Early Adolescent Females**
2. I, _____ consent to participate in this study about body image and eating attitudes among early adolescent girls that is conducted by Jennifer McFarlane of Lakehead University.
3. The procedures in this project have been explained to me as follows: I will be asked to fill out several questionnaires about my eating attitudes and feelings about my body. I will also fill out questionnaires about my moods and feelings. I will then be asked to read a short story involving a girl who is receiving negative comments about her body by a group of boys at her school. I will answer questions about my thoughts and feelings about what happened in the story.
4. I have been informed that I may experience some feelings of psychological discomfort as I think about unpleasant issues in my life. I understand that the researcher will be available at all times (during and after the testing session) if I wish to talk about any personal feelings or issues that may develop.
5. Only the researchers will have access to my information which will be kept completely confidential. Once the study is completed the information will be securely stored for seven years at Lakehead University.
6. I understand that my participation in this research is voluntary. If for some reason I do not wish to participate, I will not be required to. Also, if I wish to discontinue the study once I have begun, I am free to do so without explaining my reasons why and without penalty, even after I have signed this form.
7. If the results of this study get presented or published by the researcher, I will not be identified in any way.
8. I have been told that a report of the overall findings will be available in the school library once the study has finished.

 Name (Print)

 Signature

 Date

Appendix N

Eating Disorders Information Sheet for Parents of Adolescent Girls



Eating Disorders Information Sheet for Parents of Adolescent Girls



Eating Disorders and the preoccupation with food and weight exist along a continuum. This continuum begins with girls "feeling fat", and the extreme end of the continuum is ending up in the hospital with a dangerously low weight. It's important to recognize the line between eating disordered behavior and more "normal" eating attitudes and behaviors of adolescent girls. For example:

- ◆ A very large number of girls will start to feel fat by the end of grade six, and most certainly by grade seven.
- ◆ Many girls will become preoccupied with food and weight. They will think a lot about what they eat, and feel fat quite often.
- ◆ A fair number of girls will experiment with dieting, bingeing, purging and exercising to excess by the time they are in high school.
- ◆ Some girls will get caught up in these dynamics and might develop eating disorders.
- ◆ A small number of these girls will develop medical complications from the behaviors.
- ◆ A few will finally end up in the hospital at real medical risk.

Food and Weight Preoccupation Continuum



- ◆ In a study of over 1,900 girls (ages 12-16), researchers found that over half of *normal weight* adolescent girls consider themselves fat.
- ◆ "perceived" weight, rather than "real" weight appears to be the reason many girls begin dieting
- ◆ **Anorexia and Bulimia** are the most common eating disorders; the main feature is an exaggerated desire to be thin.
- ◆ **Anorexia** is characterized by extreme dieting, excessive exercising, below normal body weight, and an intense fear of gaining weight. Watch for disturbances in body image (e.g., a normal or underweight child describing themselves as "fat") and excessive weight control behaviors (e.g., not eating for long periods of time).
- ◆ **Bulimia** is characterized by episodes of dieting, followed by bingeing on large amounts of food and purging (vomiting or laxative use), and an intense fear of gaining weight. Watch for a pattern of overeating large amounts of food and feeling out of control; excessive weight control behaviors (e.g., purging food by vomiting or laxatives); and an unrealistic emphasis on shape and weight.

- ◆ **Multiple risk factors** for developing an eating disorder include school/peers (e.g., teasing), the media (e.g., models), cultural factors (e.g., the "thin ideal" for women), family (e.g., parental messages about weight), and psychological factors (e.g., perfectionism).

♥ 😊 ♥ Support Strategies for Parents of Preadolescent Girls ♥ 😊 ♥

- ❖ Encourage your daughter to express her feelings; be a supportive listener.
- ❖ Try to understand what your daughter is experiencing. In order to relate better, try to think back to when you were her age – how did you feel about yourself?
- ❖ Be aware that your daughter receives conflicting messages about her worth and place in society from school, television, and the movies. Discuss these messages with her.
- ❖ Watch TV and movies with your daughter. Discuss what the women look like and the messages that these shows are trying to convey.
- ❖ Look at pictures of models with your daughter – discuss the procedures involved in making them look this way (e.g., airbrushing, computer enhancement, cosmetic surgery)
- ❖ Check out the magazines at your grocery store check-out. How many magazines have diets on their covers? How many tell you how to please someone else?
- ❖ If your daughter tells you she has experienced sexual harassment or name-calling at school, take her concerns seriously. Let her know that sexual harassment is against the law. Talk about how you are going to deal with her complaints. Can she tell the principal herself? What kind of support does she need? She may not want you to get involved. But remember, if you don't say anything, you are protecting the offender.
- ❖ Recognize your own "emotional baggage" regarding weight. How is this affecting your daughter's attitudes about herself?
- ❖ Do not promote "dieting"! Put a quarter in a jar every time you or your daughter talks about "going on a diet". When you have enough money, treat each other to something that doesn't have to do with food.
- ❖ Model healthy eating and exercise behaviors.

FOR THOSE PARENTS WHO ALLOWED THEIR DAUGHTERS TO PARTICIPATE IN MY RESEARCH PROJECT, I WISH TO SINCERELY THANK YOU! IT IS OUR HOPE THAT THE INFORMATION WE HAVE COLLECTED FROM APPROXIMATELY 300 ADOLESCENT GIRLS IN THE THUNDER BAY REGION WILL HELP US BETTER UNDERSTAND THEIR EXPERIENCES SO THAT WE MAY DEVELOP MORE EFFECTIVE PREVENTION PROGRAMS.

This information sheet was compiled by Jennifer McFarlane, M.A., Lakehead University. If you have any questions about the signs and symptoms of eating disorders, please call me at 343-8441 and leave a message with the secretary. The Eating Disorders Clinic at St. Joseph's Hospital has additional resources on eating disorders. Excerpts from Friedman, S. (1997). *When girls feel fat: Helping girls through adolescence. USA: Harper Collins.*



Appendix O

Teasing and Sexual Harassment Information Sheet for Teachers



Teasing and Sexual Harassment Information Sheet for Teachers



Research shows that teasing experiences in childhood are highly correlated with body dissatisfaction and eating disorders in adulthood. Thompson (1992) referred to this phenomenon as the “*negative verbal commentary hypothesis*”. Messages children receive about their appearance, weight, and shape can range from light-hearted teasing to extremely pejorative comments, and even sexual harassment. The focus of my research is to investigate early adolescent girls’ accounts of teasing and sexual harassment, and to explore the relationship between these experiences and body image and eating behaviors.

The scientific literature is replete with terms to describe the many negative interpersonal experiences that children or adolescence may endure. These include teasing, bullying, peer victimization, peer abuse, aversive peer exchanges, and sexual harassment. These experiences, although somewhat distinct, can all be quite devastating to a child’s sense of self-worth.

Most people are familiar with sexual harassment in the workplace, among adults. However, student-to-student sexual harassment is becoming a pervasive problem in our schools. Sexual harassment is defined as any unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature...” (Strauss, 1992).

Examples of Student-to-Student Sexually Harassing Behaviors

- ◆ Touching (e.g., breast, buttock)
- ◆ Verbal comments (e.g., about parts of the body, what type of sex the victim would be “good at”)
- ◆ Name-calling (from “honey” to “bitch” and worse)
- ◆ Spreading sexual rumours
- ◆ Leers and stares
- ◆ Sexual or “dirty” jokes
- ◆ Gestures with the hands and body
- ◆ Pressure for sexual activity
- ◆ Cornering, blocking, standing too close, following
- ◆ “rating” an individual (e.g., on a scale of 1 to 10)
- ◆ touching oneself sexually in front of others
- ◆ making kissing sounds or smacking sounds, licking the lips suggestively
- ◆ howling, catcalls, whistles

Coping with Harassment

- ◆ most victims of harassment try to ignore it, hoping it will stop. However, ignoring harassment usually exacerbates it.
- ◆ Sometimes victims appear to go along with their harassers, joking and giggling even when they are offended or afraid.
- ◆ Some may confront their harassers. However, an assertive response may not be enough.
- ◆ An informal resolution letter to the harasser may help.
- ◆ A formal complaint is usually made only as a last resort — when the harassment has become intolerable.
- ◆ Unfortunately, most victims never report the harassment. They fear reprisal or retaliation from the offender or feel nothing will be done.

- ◆ Unfortunately, most victims never report the harassment. They fear reprisal or retaliation from the offender or feel nothing will be done.

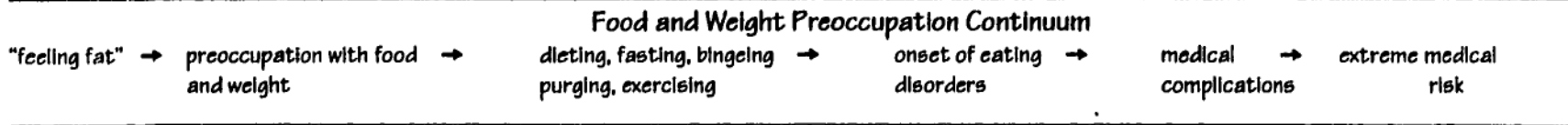
♥ 😊 ♥ Support Strategies for Teachers of Preadolescent Girls ♥ 😊 ♥

- | | |
|---|---|
| <ul style="list-style-type: none"> ❖ Define the victim's experience as harassment or sexual harassment. ❖ Assure confidentiality ❖ Provide a safe environment for the victim. ❖ Affirm the victim. ❖ Provide choices so the victim regains some sense of empowerment. ❖ Don't force the victim to make decisions. | <ul style="list-style-type: none"> ❖ Listen respectfully; be nonjudgmental ❖ Validate the victim's feelings and worth. ❖ Reinforce that it is not the victim's fault. ❖ Respect the victim's personal timing regarding her ability to cope. ❖ Familiarize yourself with outside agencies so you can refer the victim for counseling. |
|---|---|

A Word on Body Image and Eating Disorders

Eating Disorders and the preoccupation with food and weight exist along a continuum. This continuum begins with girls "feeling fat", and the extreme end of the continuum is ending up in the hospital with a dangerously low weight. It's important to recognize the line between eating disordered behavior and more "normal" eating attitudes and behaviors of adolescent girls. For example:

- ◆ A very large number of girls will start to feel fat by the end of grade six, and most certainly by grade seven.
- ◆ Many girls will become preoccupied with food and weight. They will think a lot about what they eat, and feel fat quite often.
- ◆ A fair number of girls will experiment with dieting, bingeing, purging and exercising to excess by the time they are in high school.
- ◆ Some girls will get caught up in these dynamics and might develop eating disorders.
- ◆ A small number of these girls will develop medical complications from the behaviors.
- ◆ A few will finally end up in the hospital at real medical risk.



FOR THOSE TEACHERS WHO ALLOWED THEIR STUDENTS TO PARTICIPATE IN MY RESEARCH PROJECT, I WISH TO SINCERELY THANK YOU! IT IS OUR HOPE THAT THE INFORMATION WE HAVE COLLECTED FROM APPROXIMATELY 300 ADOLESCENT GIRLS IN THE THUNDER BAY REGION WILL HELP US BETTER UNDERSTAND THEIR EXPERIENCES SO THAT WE MAY DEVELOP MORE EFFECTIVE PREVENTION PROGRAMS.

This information sheet was compiled by Jennifer McFarlane, M.A., Lakehead University. If you have any questions about teasing or sexual harassment among students, please call me at 343-8441 and leave a message with the secretary. The Lakehead Regional Family Center has additional resources on bullying and sexual harassment. Excerpts from Strause, S. (1992). Sexual harassment and teens: A program for positive change.



Appendix P

Evaluation of Assumptions for Data Analyses

Evaluation of Assumptions for Data Analyses

The data were examined for univariate and multivariate outliers. Outliers were defined as cases with a z -score of ± 3.00 . However, with large sample sizes, a few standardized scores in excess of ± 3.00 are expected (Tabachnick & Fidell, 1989). Numerous outliers were identified. As nonnormality of the data may be responsible for the production of the outliers, the assumptions of multivariate normality were explored before the outliers were transformed. As expected, moderate to severe skewness was found for all the variables producing outliers. The significance of skewness was evaluated by dividing the skewness by the standard error of skewness to arrive at a z -score. Z -scores that exceeded ± 3.00 indicated a clear departure from symmetry.

Moderate positive skewness was found for BMI, $z = 6.44$. Strong positive skewness was identified for body dissatisfaction, $z = 9.17$; DWR, $z = 14.33$; RETAL, $z = 8.25$; CDI, $z = 12.95$; CHEAT, $z = 12.32$; BSA, $z = 10.90$; BT, $z = 15.89$; GSA, $z = 15.98$; and GT, $z = 15.83$. Strong negative skewness was found for DAD, $z = -8.65$; FR, $z = -14.95$; and MOM, $z = -10.88$. A significant degree of kurtosis was also found for factor DWR, $z = 14.29$; CDI, $z = 9.70$; CHEAT, $z = 9.92$; FR, $z = 15.99$; MOM, $z = 5.67$; BSA, $z = 6.13$; BT, $z = 19.20$; GSA, $z = 28.82$; and GT, $z = 17.78$.

When the assumption of normality is violated, transformation of the data to get the data to fit the assumption is recommended (Tabachnick & Fidell, 1989). A square root transformation was performed for moderately skewed variable and a logarithmic transformation for severely skewed variables. The skewness and kurtosis were significantly reduced by the transformations, resulting in data that met the assumption of normality. The analyses were re-run on the transformed variables. However, the results were not substantially different from the

analyses using the nontransformed data. For instance, the correlations among variables were slightly altered, but the alpha level was unaffected in all cases. Because the transformations did not alter the findings, the original measures were used because of their ease of interpretation.

The absence of multicollinearity, defined by correlations greater than .90 (Tabachnick & Fidell, 1989), and singularity, defined by correlations greater than .99 (Tabachnick & Fidell, 1989) was established. Nonlinearity was examined through bivariate scatterplots between pairs of variables. All variables demonstrated linearity.

Appendix Q

**Rotated Item Loading of Factors in the Boy Harassment Scale
of the Peer Harassment Inventory**

Rotated Item Loading of Factors in the Boy Harassment Scale of the Peer Harassment Inventory

Factor	Item	Loading
1	<u>Sexual Harassment</u>	
	Brushed up against me on purpose	.812
	Told me that I have a good body	.804
	Snapped my bra	.797
	Said sexual things about my body when I walked by	.797
	Patted or grabbed my buttocks when I didn't want them to	.792
	Made sexual gestures to me	.787
	Told me that I have an attractive body	.787
	Whistled at me when I walked by	.746
	Forced me against their body	.725
	Grabbed my breasts when I didn't want them to	.693
	Told me that I was pretty	.689
	Rated the attractiveness of my body on a rating scale	.683
	Made comments about my breasts or buttocks	.679
	Compared the way my body looked to models	.624
	Spread sexual rumours about me	.615
	Made comments about how my body looked	.596
	Stared at me to the point of discomfort	.517
	Called me sexually offensive names	.491
	Showed me pictures of nude women	.480
	Compared my body to pictures of nude women	.477

2 Appearance Teasing

Teased me in a cruel way because of how I looked	.814
Said my body was ugly or disgusting in some way	.798
Teased me about my body	.795
Called me mean names because of my body	.769
Made fun of my thighs, hips, legs	.767
Made fun of my stomach	.723
Made fun of my buttocks	.679
Gave me a nickname because of my weight	.668
Called me names because of how I looked	.664
Made fun of the shape of my face or head	.615
Made fun of a facial feature	.585
Made fun of my hair	.501
Made fun of my breasts	.481
Wrote distasteful or mean graffiti about me	.457
Made fun of my skin	.342
Made fun of my height	.342

Appendix R

**Rotated Item Loading of Factors in the Girl Harassment Scale
of the Peer Harassment Inventory**

Rotated Item Loading of Factors in the Girl Harassment Scale of the Peer Harassment Inventory

Factor	Item	Loading
<u>1 Appearance Teasing</u>		
	Teased me about my body	.785
	Made fun of my stomach	.760
	Called me names because of how I looked	.758
	Teased me in a cruel way because of how I looked	.755
	Called me mean names because of my body	.751
	Said my body was ugly or disgusting in some way	.676
	Made fun of my thighs, hips, legs	.671
	Made fun of my shape of face or head	.647
	Made fun of a facial feature	.618
	Gave me a nickname because of my weight	.606
	Made fun of my hair	.578
	Made fun of my breasts	.547
	Made fun of my buttocks	.491
	Wrote distasteful or mean graffiti about me	.491
	Made fun of my height	.364
	Made fun of my skin	.317
<u>2 Sexual Harassment</u>		
	Whistled at me when I walked by	.682
	Forced me up against their body	.662
	Grabbed my breasts when I didn't want them to	.636

Spread sexual rumours about me	.627
Said sexual things about my body when I walked by	.594
Compared my body to pictures of nude women	.584
Made sexual gestures to me	.578
Rated the attractiveness of my body on a rating scale	.558
Showed me pictures of nude women	.552
Patted or grabbed my buttocks when I didn't want them to	.521
Brushed up against me on purpose	.509
Told me that I have an attractive body	.434
Told me that I have a good body	.429
Told me that I was pretty	.403
Called me sexually offensive names	.393
Snapped my bra	.390
Compared the way my body looked to models	.325
Made comments about my breasts or buttocks	.279
Made comments about how my body looked	.196
Stared at me to the point of discomfort	.155

Appendix S

PHI Item Analysis

Peer Harassment Inventory Item Analysis

Scale	Item	Boy Sexual Harrassment Scale	Boy Appearance Teasing Scale	Girl Sexual Harassment Scale	Girl Appearance Teasing Scale
BSH	5	.66	.37	.57	.35
	6	.82	.35	.58	.29
	8	.70	.29	.53	.27
	9	.73	.11	.46	.11
	17	.54	.45	.55	.41
	24	.78	.26	.59	.26
	29	.49	.19	.38	.24
	34	.76	.06	.48	.04
	40	.71	.40	.51	.33
	42	.81	.22	.53	.22
	45	.69	.23	.43	.20
	48	.64	.29	.51	.29
	52	.69	.53	.54	.46
	54	.76	.11	.51	.07
	61	.58	.39	.52	.37
	62	.57	.48	.57	.45
	65	.72	.24	.53	.24
	67	.78	.22	.53	.22
68	.80	.25	.51	.25	
71	.67	.07	.44	.09	
BAT	10	.16	.43	.22	.35
	12	.19	.79	.31	.62
	13	.35	.70	.40	.57
	16	.17	.66	.33	.54
	19	.27	.77	.41	.65
	20	.43	.50	.49	.41
	21	.11	.42	.19	.38
	28	.15	.61	.27	.57
	30	.16	.70	.26	.62
	32	.18	.75	.33	.63
	35	.26	.67	.31	.48
	39	.56	.60	.52	.50
	57	.23	.78	.33	.62
	63	.27	.80	.39	.66
	64	.22	.62	.32	.58
72	.21	.53	.33	.47	

Scale	Item	Boy Sexual Harrassment Scale	Boy Appearance Teasing Scale	Girl Sexual Harassment Scale	Girl Appearance Teasing Scale
GSH	1	.21	.41	.39	.43
	3	.36	.47	.56	.51
	4	.36	.08	.50	.04
	7	.37	.24	.52	.21
	11	.28	.24	.43	.24
	14	.47	.43	.63	.40
	18	.29	.35	.53	.33
	22	.48	.30	.58	.33
	25	.36	.20	.44	.26
	26	.32	.29	.54	.35
	27	.35	.25	.54	.29
	33	.44	.31	.60	.34
	44	.33	.15	.47	.21
	49	.61	.43	.62	.46
	50	.38	.05	.48	.03
	56	.31	.24	.48	.26
	59	.43	.03	.50	.04
	60	.34	.16	.49	.14
	66	.25	.55	.48	.61
69	.26	.21	.44	.20	
GAT	2	.06	.30	.17	.44
	15	.25	.70	.39	.77
	23	.46	.51	.47	.58
	31	.22	.48	.32	.59
	36	.15	.49	.29	.61
	37	.23	.56	.41	.73
	38	.20	.56	.32	.72
	41	.15	.28	.20	.34
	43	.28	.41	.41	.53
	46	.22	.58	.36	.72
	47	.29	.58	.38	.68
	51	.24	.55	.37	.64
	53	.20	.65	.36	.69
	55	.22	.68	.37	.77
58	.34	.61	.48	.63	
70	.13	.53	.25	.64	

Note. BSH = Boy Sexual Harassment. BAT = Boy Appearance Teasing. GSH = Girl Sexual Harassment. GAT = Girl Appearance Teasing

Appendix T

**Factor Names, Items, and Rotated Item Loadings
of the Coping with Peer Harassment Inventory**

Factor Names, Items, and Rotated Item Loadings of the Coping with Peer Harassment Inventory

Factor	Item	Loading
<u>1</u>	<u>Negative Cognitive Appraisal</u>	
	Feel bad about myself (ashamed, sad, alone)	.766
	Feel bad about my body	.735
	Feel less confident	.724
	Feel ugly	.715
	Like myself less	.707
	Feel less attractive than other girls	.694
	Compare my body to girls my age to see how I measure up	.679
	Wish I could transfer to another school	.642
	Think "if I looked different, they wouldn't treat me this way"	.641
	Dress in different clothes to hide my body	.638
	Compare my body to girls in magazines to see how I compare	.627
	Feel hurt	.625
	Put more time into my appearance (hair, makeup)	.614
	Compare my body to models to see how I measure up	.595
	Blame myself for the way they treated me	.590
	Cry to let my feelings out	.527
	Change my eating habits	.506
	Make fun of myself	.495
	Skip school	.441
	Avoid them as much as possible	.381
	Say to myself "this is not happening"	.365
<u>2</u>	<u>Seek Adult Support</u>	
	Tell my parents so they can stop this from happening	.743

Talk to a teacher about my feelings	.727
Ask my mom or dad for advice about what I should do	.722
Talk to my mom or dad about my feelings	.705
Talk to a counselor about my feelings	.697
Report them to a teacher or Principal so they will stop	.595
Call the police	.569
Talk to my brother or sister about my feelings	.508
Explain to them how much it bother me	.502
Talk to a priest or minister about my feelings	.427

3 Positive Cognitive Appraisal

Feel good about my body	.706
Like myself more	.695
Feel good about myself	.691
Feel beautiful	.676
Feel more attractive than other girls	.643
Feel more confident	.616
Try to be nice to them	.525
Laugh along with them	.493
Tell myself the problem isn't important	.434
Think "it doesn't bug me"	.404
Think "it doesn't matter how I look like, they treat everyone this way"	.352

4 Drastic Weight-Reduction

Secretly throw up after meals	.756
Starve myself	.708
Use laxatives, water pills, or diet products to lose weight	.671
Smoke cigarettes to control my weight	.661

Skip meals	.633
Use drugs or alcohol to think about it less	.541
Go on a diet	.520
Think "I deserve to be treated this way"	.388

5 Retaliation

Get someone else to threaten them	.711
Try to physically hurt them	.688
Insult or tease them back	.683
Get someone else to physically hurt them	.663
Threaten to report them	.519

6 Emotional Expression

Think "I do not deserve to be treated this way"	.634
Ask a friend for advice about what to do	.579
Hold them totally responsible for treating me that way	.573
Talk to a close friend about my feelings	.524
Demand they stop bothering me	.389
Write about it in my journal	.374

Appendix U

Intercorrelations among Variables

Intercorrelations among Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1 Age	--										
2 BMI	.23***	--									
3 Facial Attractiveness	.08	-.32***	--								
4 Intelligence	.00	.05	.06	--							
5 Social Support	-.03	-.08	.15**	.09	--						
6 Boy Appearance Teasing	-.04	.20***	-.14**	-.04	-.39***	--					
7 Boy Sexual Harassment	.28***	.08	.22***	-.09	-.24***	.37***	--				
8 Girl Appearance Teasing	-.03	.13*	-.11*	-.02	-.34***	.84***	.35***	--			
9 Girl Sexual Harassment	.08	.07	.11*	-.07	-.25***	.52***	.73***	.55***	--		
10 Body Dissatisfaction	.09	.44***	-.24***	-.05	-.44***	.58***	.22***	.52***	.26***	--	
11 Eating Problems	.04	.27***	-.17**	-.14*	-.26***	.49***	.35***	.43***	.34***	.59***	--
12 Psychological Distress	-.00	.15**	-.17**	-.11*	-.55***	.48***	.20***	.43***	.23***	.70***	.52***

* p < .05. ** p < .01. *** p < .001.