

The Relative Importance of Parents versus Peers for the Development of  
Female Adolescent Body Image

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Abstract

The goal of this study was to examine the relative influences of peer, dating and parent relationships on adolescent body image and self-esteem. Of additional interest was whether it was the general quality of the relationships, or their focus on weight and appearance issues, which was of greater influence for adolescent body image and self-esteem. Internalization of societal norms for appearance was also examined as a possible mediator in the relationship between relationship variables, and adolescent body image and self-esteem.

One hundred and seven adolescent females completed questionnaires assessing their body image and self-esteem, and the quality and character of their peer, dating and family relationships. Results indicated that both peer and parent relationships were important predictors of adolescent self-esteem and body image. However, with regard to adolescent body image and peer relationships, only the general quality of those relationships was significant. For family relationships and body image, it was focus on weight that best predicted body image. Internalization was found to fully mediate the relationship between peer variables, and body image and self-esteem. For family relationships, internalization only partially mediated the relationship between family variables and body image, but it fully mediated the relationship between family variables and self-esteem. Dating relationships were generally non-significant. The implications of these results with regard to education and intervention programs are discussed.

## Acknowledgements

In September, 2002, I began a journey which has lead me to this exact moment, as I sit here, recollecting all the different individuals who have helped and supported me on this expedition.

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Every journey starts somewhere, and all mine both start and end with the everlasting love and inspiration provided by my parents. They support me both fundamentally, and economically, in all I endeavour, and I will always be grateful for their love.

On this journey I have met with many companions on similar expeditions, and they have assisted me in so many ways, and so I thank them, and wish them continued success and good luck in all their adventures.

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As is often said, life is a journey of constant change and learning.

However, the developmental stage of adolescence presents a unique time in life where individuals are faced with many firsts. One of the defining transitions that occur when moving from childhood to adolescence is that of puberty, which is characterized by growth spurts and sexual maturation. The relationships adolescents are involved in are also in a state of change during this period, as teenagers seek more autonomy from their families and venture into new areas such as opposite-sex friendships and dating relationships. The child-parent relationship may be the most important relationship a person has. It is certainly one of the first experiences of intimacy experienced in life. Nonetheless, the adolescent-parent relationship undoubtedly encompasses a changing dynamic as the relationship moves from that of a hierarchical system, to one where adolescents expect a more egalitarian atmosphere. Evidence suggests that as the childhood attachment to the family diminishes, the peer group becomes the more influential and important adolescent relationship (Sullivan, 1953).

One psychologist who greatly emphasized the importance of relationships to the developmental process was H. S. Sullivan. His interpersonal model of development was built around the central tenet that relationships are an essential part of normal development. His theory was greatly influenced by sociological and anthropological studies, especially by G. H. Mead who held that the self develops through the reflective appraisal of significant others (Muuss, 1988). According to Sullivan (1953), relationships are an essential feature of normal development. Many researchers agree with this claim, with some highlighting

peer relationships as especially important for healthy development (Blyth & Traeger, 1988; Collins, 2004). In his theories, Sullivan (1953) maintained the fundamentalism of relationships throughout the lifecycle. The mother-infant connection being the first, relationships continue to be vital, even in adulthood.

In Sullivan's theory, a person progresses through stages where the 'significant other' most important to development varies. In infancy and childhood it is the mother, father and family who constitute the chief participants in the growing person's fundamental relationships. In the stage of pre and early adolescence, the defining relationship moves away from that of child-parent to that of same-sex peers. In later adolescence, as one progresses through puberty, the focus is shifted to the centrality of opposite sex peer relationships. Accordingly, it would be expected that in terms of social influence, peers would have a stronger influence, than would parents, on personal development areas, such as self-esteem and body image during adolescence.

More contemporary research on relationships and growth expresses attitudes which closely parallel Sullivan's work. Collins (2004) speaks to the interconnectedness of all three significant relationships in the life of an adolescent (parent, peer, dating partner). Admitting that research on development has focused most intensively on the parent-child relationship, he offers that peers prove "a significant rival to parents in molding (the) behaviours and values" of adolescents (Collins, pg. 56, 2004). He proposes that intimacy, disclosure and reliance on peer relationships peaks in adolescence and submits that the influence presented by peers is greatest during this time of life. Collins

(2004) asserts that it is these close peer relationships that form a basis that enables adolescents to venture into the realm of dating. By midadolescence, the majority of individuals have been involved in at least one romantic relationship, and in late adolescence most individuals are participating in ongoing romantic relationships (Collins, 2004).

Finally, Collins (2004) offers that despite the stereotype of incompatibility between parent and peer influences, it would be more appropriate to refer to parent-child relationships as setting the stage for the selection of friends, and the management of peer relationships. He suggests that parent, peer and dating relationships overlap and complement each other far more than they conflict. Just as parent-child relationships set up a template upon which to form peer relationships, friendships offer a platform from which to explore romantic relationships. Each of these relationships is seen, in this theory, to play a unique, yet complementary role in adolescent development.

There is support in the literature for this harmonious view of the significant relationships that are at play in adolescence. Although early adolescence has been said to be the beginning of an increased importance of emotional support and intimacy in friendships (Blyth & Traeger, 1988), more and more researchers are concluding that parents and peers play separate, yet equally important roles in the development of adolescents (Hartup, 1983). Certain studies have found that the relationship between closeness with parents and levels of self-esteem tends to decline as individuals progress through adolescence (Blyth & Traeger, 1988), although the overall change is rarely significant (O'Donnell, 1976).

While parents do influence adolescent self-esteem, same-sex peer relationships have also been shown to correlate with self-esteem for adolescents. This relation between same-sex friends and self-esteem is strengthened during adolescence (DuBois, Burk-Braxton, Swenson, Tevendale, Lockerd, & Moran, 2002). However, the effects of opposite-sex friendships on self-esteem are generally found to be non-significant (O'Donnell, 1976). Peer support has been shown to take the place of parental support, when that support is lacking, in its contributions towards self-esteem (DuBois et al., 2002). This situation can prove harmful for adolescents, as heavy reliance on peers for support has been shown to relate to increased levels of behavioral and externalizing problems (DuBois et al., 2002).

Essentially, the literature suggests that both peer and family relationships, and to some extent, romantic relationships, are important for healthy development during this part of the life cycle. The purpose of this study was to evaluate the relative importance of parents, same-sex peers, and potential dating partners, in the determination of a specific variable closely related to female adolescent self-esteem; namely, body image.

### *Body Image and Self-Esteem*

Body image is a broad construct with behavioural, perceptual, cognitive and affective components (Smolak & Levine, 2001). For the purposes of this study, the use of the term *body image* will indicate the body esteem components of body image, which generally refer to a global rating of how much a person

likes or dislikes her body. In this study, particular attention will be given to participants' satisfaction with appearance, and satisfaction with weight.

Body image is considered an important component of identity development, and as such is a key feature of adolescent development (Usmiani & Daniluk, 1997). Furthermore, body image impacts many other facets of development, such as self-esteem, sexuality, familial relationships, and identity (Usmiani & Daniluk, 1997). The beginning of puberty, when the adolescent body changes rapidly, is considered a critical stage in body image development. Thus it is easy to see why the study of body image development, and the factors associated with it, is an important topic of research in the area of adolescent development.

Female body image has been shown to be strongly correlated with self-esteem (Furnham, Badmin, & Sneade, 2001). Satisfaction with one's physical appearance consistently correlates positively with global self-esteem in youth (Polce-Lynch, Myers, Kliwer, & Kilmartin, 2001). Conversely, low self-esteem has been found to be a significant predictor of eating disturbances (Shisslak & Crago, 2001), and body dissatisfaction for girls (Furnham et al., 2002). In the extreme, low self-esteem and depression are associated with negative attitudes about weight and eating disorder prevalence (Crawford & Unger, 2000).

Body image and personal relationships and their interaction have also been investigated for possible mediating influences on the relationship. One study that examined this effect had the goal of exploring the potential mediating role of internalization of social norms for body shape. The researcher looked at

eating disturbances and body image in a sample of 325 adolescent girls, and examined the role of peer, parent and media influences. Keery (2003) found that internalization fully mediated the relationship between body dissatisfaction and parental influence, but only partially mediated the relationship between peer influence and body dissatisfaction. From this research, a model was created which showed the direct link of sociocultural influences to internalization, and of internalization to body dissatisfaction. This study confirms the significant impact of parent and peer influences on appearance satisfaction, but highlights the critical role that societal standards of beauty play in explaining the nature of these relationships.

It has been shown that higher Body Mass Index (BMI), greater use of figure management techniques, and high levels of appearance related teasing are correlated with greater body dissatisfaction for girls (Barker & Galambos, 2003). The general findings of Barker and Galambos' (2003) research were that females were less satisfied with their bodies than males, and more risk factors (i.e. lower self-esteem, more behavioral problems) were identified for females.

Weight concern and dieting in women has become normative in our society (Pike & Rodin, 1991). The pressure placed on females to attain the ideal body shape and size escalates as one moves through adolescence (Smolak & Levine, 2001), and girls are more likely to be defined by their physical self than are boys (Crawford & Unger, 2000). Adolescent females are consistently found to be more dissatisfied with their bodies, and are at greater risk of being diagnosed with an eating disorder, as compared to male adolescents (Crawford

& Unger, 2000; Smolak & Levine, 2001). As such, this study focused on the effects of peer and parent relationships on female body image and self-esteem exclusively.

The present study examined the relative importance of parents, same-sex peers and potential dating partners for adolescent body image development, and attempted to identify which relationship was most influential during this time of growth. The potential mediating role that internalization of societal norms about weight and appearance played in these relationships was also investigated. Also of interest in the present study was the examination of the specific effects of weight and body appearance discourse versus the general effects of peer and parental relationship quality on adolescent body image. Most research has dealt with the general effects of relationship quality, and how peer and parental relationships are associated with adolescent self-esteem. However, the specific effects of parent and peer weight discourse on body image were assessed in the present study by direct questioning about such practices as commenting on participants' weight and appearance, targeted weight loss discussions, and dieting practice discussions.

#### *Same-Sex Peer Relationships*

The importance of peer relationships and cliques for adolescents increases over time (Crockett, Losoff & Petersen, 1984). Specifically, intimate same-sex friendships have been shown to boost young children's self-esteem and help them develop a sense of identity (Crockett et al., 1984). Research

shows that peer relationships become increasingly important and intimate throughout adolescence (DuBois et al., 2002).

Among the positive effects of close same-sex friendships during adolescence are increases in self-esteem, more positive self-concepts, and better self-image (Blyth & Traeger, 1988). In a study of 350 boys and girls ranging in age from 10 to 15 years, DuBois et al. found that children tended to seek peer support over family support increasingly as they advanced in age. This trend was theorized to be a normative pattern of development for children making the transition to adolescence. Also a factor for older adolescents was the trend of decreasing reliance on overall social support. This could point to the emergence of a more independent personality and a focus of self-reliance for older adolescents and young adults.

However, greater importance of peer relationships as compensation for less supportive parental relationships can have negative effects for adolescents. The above study also found that increased dependence on peer support was correlated with more externalizing problems during adolescence (DuBois et al., 2002). These problems were manifested mainly as an avoidance of responsibility where school and home were concerned. One explanation for this situation involves the esteem enhancing properties of each relationship. When peer relationships are found to be more esteem enhancing, the adolescent is more likely to engage in activities where the chance for more esteem enhancement is probable. Thus, activities not experienced as esteem

enhancing, such as completing homework and household chores, are devalued and neglected.

In a related study by Engels and ter Bogt (2001) adolescents aged 12 to 18 years were measured on risk-taking behavior, family relationships, and same-sex and opposite-sex relationships. The researchers found that substance use and transgressive behavior, such as truancy and shoplifting, were positively correlated with higher quality and quantity of peer relationships. Also, romantic competence, or more specifically, commitment to a steady relationship was positively correlated with both substance use and transgressive behavior and also with criminal behavior. Although sexual experience was measured as part of romantic competence, it was not positively related to criminal behavior.

As the above studies have shown, peers can have both negative and positive influences on adolescents. However, the present study focused on adolescent body image, which is closely tied to self-esteem. Thus, the extant literature would suggest that strong same-sex peer relationships will have a positive effect on adolescent self-esteem.

Consequently, the next step would be to interpret the above findings in relation to body image and peer relationships. Paxton, Schutz, Wertheim, and Muir (1999) looked at adolescent females' friendship cliques and how those friendships affected their body image and dieting behavior. One factor that can have an extensive effect on body image is that of peer influence. It was discovered that body image attitudes in friendship circles were a significant contributor to individual weight loss attitudes for the all-female sample. The

researchers looked at the effect of friendship cliques on body image, dietary restraint, extreme weight-loss behaviours, and binge eating. Researchers found that peer groups exercised influence over all of the above mentioned categories, except binge eating. Even after controlling for Body Mass Index (BMI), self-esteem and family support, members of a friendship clique were found to be significantly similar to one another on body image concerns and extreme weight-loss behaviours. Teasing, body comparisons and group discussions concerning weight loss were all symptoms reported by participants belonging to friendship cliques preoccupied with body shape and weight loss.

Based on their findings, Paxton et al. (1999) assert that it is the similarity in eating disorder pathology that drew their participants into analogous friendship cliques. These results show that cliques can foster negative food relationships, where instances of discussing weight loss and dieting, and teasing about weight can become more prevalent.

In the Paxton et al. study, girls were highly likely to compare their bodies with those of friends. In another study that looked solely at female adolescents, researchers investigated how peer modeling, social reinforcement, and teasing affect girls' eating behaviors and body esteem (Lieberman, Gauvin, Bukowski, & White, 2001). They found that girls nominated by their peers as more popular had lower body esteem and engaged in more acts of disordered eating. They describe this effect as probably occurring because the popular girls surveyed also had more externalized self-perceptions, and since 'being thin' is a norm

among adolescent girls, these females were more likely to engage in dieting and disordered eating to gain or maintain popularity.

These researchers also found that peer pressure was a strong influence on eating behavior, as was peer teasing. Girls who self-reported being the target of teasing about weight were more likely to be dissatisfied with their bodies. Peer pressure was more often of an indirect kind, where girls would imitate peer behavior. This peer modeling could possibly result from having friends who are often on diets. Thus, girls who reported more peer modeling had lower body esteem ratings.

Lieberman et al. (2001) suggest that these findings point to the necessity of directing eating disorder prevention programs at the level of the peer group. Lieberman et al.'s study, along with that of Paxton et al. (1999) demonstrate the possible negative effects that the peer group can have on adolescent girls, in terms of body image concern.

A study which speaks somewhat to the positive effects of friendship was done by Graham, Eich, Kephart, and Peterson (2000). They surveyed fifty-two boys and sixty-one girls from grades ten and twelve. To assess popularity, participants rated each other using a 5-point likert scale. These ratings were used to calculate a Social Preference rating, and participants also completed the Body-Esteem Scale. Results indicated that boys were more satisfied with their bodies, and had higher body esteem scores as compared to girls. For boys, body dissatisfaction came from both ends of the body shape spectrum (wanting to be thinner, or wanting to be heavier), however, no girls wanted to be heavier.

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A significant relation was found between body satisfaction and popularity. More popular adolescents were also more satisfied with their bodies. No physical differences on body shape or size were found between the popularity groups, indicating that the popular group was not simply thinner than other groups.

What is unclear from the results of the above studies is the direction of the relationship between popularity and body image. Does being popular lead to more positive feelings about one's body, or do adolescents feel better about their bodies as a function of popularity? This research casts another light on the area of peer relationships and body image. One issue with this research is that only body esteem, not overall self-esteem was measured. Therefore, since self-esteem is often positively correlated with better body image, it could be that the more popular children in this study had higher self-esteem levels, and thus better body images.

The research summarized above dealt with the importance and influence of same-sex peer relationships for adolescents. The current study looked at effect of specific weight and appearance discourse on adolescent body image, and compared that to the general effects of peer relationship quality on adolescent body image. Based on information available from the existing literature (Vincent & McCabe, 2000), it was expected that peer discourse would have a direct effect on body image concerns in adolescents. A possible expression of this type of influence would be peer teasing with regard to weight, or discussions of dieting and weight in peer group settings.

*Cross-Sex and Dating Relationships*

Another type of peer relationship, mentioned briefly in the study conducted by Engels and ter Bogt (2001), is that of the opposite-sex peer. According to Sullivan (1953), during later adolescence the position of significant other shifts from that of same-sex friend, to opposite-sex partner. The current study examined any possible influence that dating partners had on the body image and self-esteem of adolescents.

Cross-sex relationships are a big part of adolescence. It appears that having cross-sex friendships is a fairly common occurrence by late adolescence (Grades 10 to 12); in one study 47% of this population was found to have at least one close, cross-sex friend (Kuttler, La Greca, & Prinstein, 1999). It was also discovered that adolescents are more likely to have cross-sex friends as they grow older, 17 to 18 year olds were 14% more likely to have a cross-sex friend than 15 to 16 year olds. These results speak to the importance of opposite sex relationships as children develop into young adults and engage in more meaningful relationships which involve different qualities from their same-sex friendships.

At the age of 15/16, adolescents report more companionship with their same-sex friends than their opposite-sex friends (Kuttler et al., 1999). However, by late adolescence, these differences are no longer apparent, showing that by this stage, cross-sex friendships become more normative and offer equal support to adolescents.

Somewhat different from cross-sex friendships are romantic relationships, which are also an important part of adolescence. Whereas cross-sex friendships are relatively common in middle adolescence (Kuttler, La Greca, & Prinstein, 1999), not as many adolescents are engaged in romantic relationships at this time. One suggestion made by Kuttler et al. (1999) is for more investigation into the importance of romantic relationships in adolescence, since adolescent dating status is not typically assessed in studies. They report that nonromantic cross-sex friendships may have a different character to them, and therefore romantic relationships should be assessed for their potential effect on social functioning, self-perceptions, and psychological adjustment.

An important aspect of romantic relationships, which requires consideration, is the durations of those relationships. It has been noted that as romantic relationships increase in durations, participants report receiving more social support from their significant other (Connolly & Johnson, 1996). Similarly, salience of romantic relationships increases compared to other relationships, as the durations of those romantic relationships increased. Inversely, the perception of similarity among relationships decreased as romantic relationship duration increased, adding a unique element to the quality of longer lasting romantic relationships, in which they become increasingly distinguishable from other significant relationships.

The character of romantic relationships is also assessed differently by boys and girls. Fifteen-year-old girls are more likely to mention intimacy and

support when describing romantic relationships, as compared to adolescent boys (Feiring, 1996).

The current study assessed romantic relationships, to see what, if any, impact they had on adolescent body image and self-esteem. An important question to consider was whether it would be the quality of romantic relationships, or their quantity that would have an effect on adolescent body image. There is little research on romantic relationships in adolescence in general, and thus specific areas of interest, such as the effects of such relationships on body image, have received little attention.

How would romantic relationships affect body image concerns in youth? One study that looked at dating status in relation to body image in a young adult population was done by Hoyt and Kogan (2002). In this study, 101 males and 187 females with an average age of 20.71 were assessed as to their satisfaction with personal body image and peer relationships. The researchers used an adaptation of the Body Satisfaction Scale. Data was also collected on gender, age, current height and weight, ethnicity, and dating status.

Results indicated that women expressed significantly higher rates of dissatisfaction than did men for all body parts measured, with the exception of forearms. It was discovered that participants who were less satisfied with their sex lives were more dissatisfied with their appearance. The same results were apparent for the relation between dating situation and appearance. Those less satisfied with their history of dating status were also less satisfied with appearance. For women, being underweight was negatively correlated with

positive same-sex peer relationships. Interestingly, participants' current dating status had no effect on their appearance satisfaction.

It is difficult to directly apply these results to the proposed sample in the current study, as there are age differences that obviously affected the participants' experiences with the opposite sex. However, as general dating status was shown to be correlated with appearance satisfaction, it is possible that romantic relationship quantity may have an influence on the body image of adolescents.

For adolescent females in cross-sex relationships, it has been shown that as the perceived quality of relationships increased, body image also increased (Rodriguez-Tome, Bariaud, Cohen Zardi, Delmas, Jenvoine, & Szylagyi, 1993). Another study reported that girls who had begun dating used more weight management techniques than did non-daters (Levin, Smolak, Moodey, Shuman, & Hessen, 1994). However, age was not controlled for in this study, and as body dissatisfaction is shown to increase with age (Smolak & Levine, 2001), the results of this study could be misleading.

There is very little research in the area of romantic relationships and body image in adolescents, and results of studies which assess cross-sex friendships do not generalize well to this aspect of adolescence. Therefore, the present study investigated whether the quality or quantity of adolescent romantic relationships would have the most influence on adolescent body image.

*Family Relationships*

Of particular interest to the current study was the comparison of family effects and peer effects on the self-esteem and body image of adolescents. In consideration of Sullivan's interpersonal model of development, during adolescence one would expect that peer relationships would have the strongest impact on body image concerns. However, in some situations parents have greater influence, or a longer lasting influence on their children. Research indicates that for females, perceptions of familial support are more positively related to adolescent self-esteem than are perceptions of peer support (Polce-Lynch et al., 2001). Blyth and Traeger (1988) found that intimacy with both mother and father was significantly correlated with ratings of global self-esteem. Female intimacy with parents has been shown to be a stable predictor of global self-esteem across all ages (Blyth & Traeger, 1988). Perhaps parental relationships remain a considerable influence in the area of body image development.

There is considerable research that speaks to this effect, especially in the specific area of mothers' body satisfaction and its effect on children. Lowes and Tiggemann (2003) found that adolescent body dissatisfaction was related to participants' perception of their mothers' body dissatisfaction. That is, mothers who were less satisfied with their own bodies tended to have offspring who were also less satisfied with their bodies. From this research, it seems that parents' comments about weight and weight concerns, especially those of the mother, may seriously influence their children's body image. This result would indicate a

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more direct effect of parent relationships on adolescent body image. Rather than general relationship quality, Lowes and Tiggemann (2003) found that it was the actions and words of their mothers that correlated with participants' own body satisfaction.

In a study of mothers and daughters and their self-esteem and body image, similar results were found. When the body image scores of mothers and pre and postmenstrual daughters were compared, a significant positive correlation was only found for mothers and menstruating daughters (Usmiani & Daniluk, 1997). As the postmenstrual daughters were older, the significant correlations could have been age related. It has been found in other research that age is a predictor of increased dieting awareness and body dissatisfaction for female adolescents (Lowes & Tiggemann, 2003). Thus mothers and daughters body image scores may simply become more similar with age.

Many other studies have looked specifically at the mother-daughter relationship and its significance for body image development (Byely, Archibald, Graber, Brooks-Gunn, 2000; Pike & Rodin, 1991). One such study looked at this relationship from the mothers' perspective, and found that mothers of eating disordered daughters reported that their daughters were less physically attractive and thought their daughters should lose more weight, when compared to mothers of non-disordered eating daughters (Pike & Rodin, 1991). The implication of this finding is that these mothers had distorted perceptions of their daughters, which may be the result of their own body image issues, as these mothers were themselves more eating disordered and had more involved dieting histories when

compared to the mothers of girls who were not eating disordered (Pike & Rodin, 1991).

As well, mothers of eating disordered daughters reported that they were less satisfied with the cohesion of their families (Pike & Rodin, 1991). This finding could be explained in two ways. On the one hand, less family cohesion could be seen as a risk factor for disordered eating. On the other hand, having a child who displays disordered eating behaviours may lead to less family cohesion. The authors do not postulate in what direction they feel the relationship runs. Other past research has also shown that negative family relations have predicted problematic dieting behavior for female adolescents (Byely et al., 2000).

Some research has found conflicting results to the above mentioned, where despite the longitudinal nature of the study, mothers' body image and dieting behavior failed to predict daughters' dieting and body satisfaction (Byely et al., 2000). The findings in the former study (Pike & Rodin, 1991) could have resulted from the near clinical nature of the research, as the comparison was between mothers of daughters with just below clinical levels of disordered eating involving characteristics of bulimia nervosa, and a normative non-disordered eating sample.

It has also been found that over a one-year period, girls' perceptions of more negative family relations predicted disordered eating and dieting concurrently and over time (Byely et al., 2000). As well, mothers' perceptions of their daughters' weight at Time 1 were shown to predict body image and dieting

behaviour at Time 2. Girls who were rated as heavier by their mothers had significantly lower body images than did girls rated as thinner or the same as other girls. This result, coupled with that of Pike and Rodin (1991), suggests again that mothers act on their perceptions of their daughters' weight and appearance, and therefore exert direct pressure on their daughters' body image and dieting habits. Despite this, Byely et al. (2000) conclude that girls' previous body image and dieting behaviours are the most significant predictors over time of later body image concerns.

Twamley and Davis (1999) conducted a study to investigate the effects of internalization and media exposure, and also looked at the possible mediating influences of family environment and personal attributes. The researchers found that internalization of social norms about body shape mediated the relation between family pressure to control weight and eating disorder symptomatology. Women who reported low levels of family pressure to control weight were less likely to internalize societal ideals of thinness. This is yet another example of the possible effects that family relationships can have on adolescent body image.

Vincent and McCabe (2000) looked at family and peer influences on body image in boys and girls between the ages of 11 and 18. In terms of parental relationships, the researchers state that it was the direct influence of parents that predicted body dissatisfaction, such as encouragement to lose weight. The overall quality of parental relationships was not predictive of body image dissatisfaction. For girls, both fathers and mothers actions were found to significantly predict weight loss behaviors. Peer encouragements of weight loss

and peer criticism were significantly predictive of weight loss behaviors. Overall, for girls, parental and peer relationships were both influential in terms of predicting weight loss behavior. The findings of this study may be more pronounced when compared to other body image research because of the inclusion of extreme weight loss behaviors as part of the ratings for body satisfaction.

Vincent and McCabe (2000) targeted the different contributions of direct and indirect influences, and found that it was the direct influences, such as criticism and modeling that had the most predictive value for body image concerns for boys and girls in this study. The perceived quality of family and peer relationships did not contribute to adolescent body image concern or weight loss behavior. This research is strong evidence in support of the possible direct effects of parental weight-related discourse, and their possible effect on adolescent body image.

In a qualitative study by Haworth-Hoepfner (2000), open-ended interviews were conducted with two groups of women: one group who suffered from eating disorders, and a control group of women with no clinical diagnoses. This researcher investigated how different aspects of family environment influence eating pathology. Haworth-Hoepfner (2000) discovered that the direct relationship described by many of the past studies was over simplified. She stated that three different family interactions mediated the effects of culture and promoted eating pathology in her study. A critical family environment together with a main discourse on weight was a significant predictor. By critical family

environment, the researcher is referring to a situation characterized by parental criticism which occurred frequently, and focused on either the daughter's appearance or personality. Further, a critical family environment coupled with an atmosphere of coercive parental control put participants at risk for development of an eating disorder. Finally, participants with families where there was a main discourse on weight were at higher risk for eating pathology. This study links disordered eating in females with specific types of overall family environment, as opposed to individual relationships with parents. However, only when there were considerable familial discussions around weight and size was family environment a factor in the prediction of disordered eating. The present study asked specifically about the nature of adolescent-parent relationships and the frequency and characteristics of weight related comments.

### *The Present Study*

The current study examined factors that influence adolescent body image and self-esteem. Specifically, this study targeted family, peer and dating relationships to determine which, if any, has more influence on these two aspects of adolescent development.

*Hypotheses.* The central hypothesis of this study was that peer variables, including quality of the relationship, weight loss practices, and weight discourse would be most strongly related to participants' own body image concerns. This hypothesis was supported by the centrality of the peer relationship at this stage of life (Collins, 2004; Sullivan, 1953), and the critical and comparative nature of friendship cliques during adolescence (Paxton et al., 1999). It was expected that

specific weight related dialogue present in peer relationships, such as the salience of weight discourse and perceived body satisfaction, would be more strongly related to adolescent body image as compared to the general quality of the relationship.

As for the parent-adolescent relationship, the researcher expected that specific weight discourse variables would have a more powerful effect on adolescent body image than would the general relationship quality. Just as Vincent and McCabe (2000) found that the direct influences of focus on weight in parent-child relationships were most predictive of adolescent body image, this study expected to find parental focus on weight to be a significant predictor of participant body esteem scores.

Internalization of societal norms concerning appearance and weight were examined as a mediator in this study, and it was hypothesized that internalization would fully mediate the relationship between peer and parent focus on weight, and body image. This hypothesis was formulated as internalization is consistently shown to correlate strongly with body image and weight management, and has in the past been shown to mediate the relationship between body image and peer and parent influence.

With respect to general self-esteem, parent and peer relationship variables were anticipated to have a powerful, yet equal influence. The general quality of these relationships was expected to be most predictive of self-esteem, and the direct effects of focus on weight in the relationships were not expected to be predictive of participant general self-esteem.

With regard to dating relationships, it was predicted that daters would have lower body image scores as compared to non-daters, as previous research has linked dating with increased use of weight management strategies (Levin, Smolak, Moodey, Shuman, & Hessen, 1994). Also, quality of dating relationships was expected to be predictive of body image. This correlation was not expected to be as strong as peer and parent relationship correlations, because for individuals in middle adolescence, parent and same-sex peer relationships are still far more important than dating relationships (Sullivan, 1953). Also, not all adolescents at this stage were expected to be engaged in romantic relationships.

## Method

### *Participants*

Adolescent female students from several Ottawa area high schools were recruited through the Mini Course program offered at Carleton University in May, 2004. The Mini Course program was run with adolescent students in grades 8 to 12; however, the majority of program participants were in Grade 8.

This study targeted individuals in middle adolescence because it is said that these individuals are moving away from being attached most strongly to their families, they are very attached to their same-sex peers, and finally, they are starting to form cross-sex and dating relationships at this time. Therefore it was expected that most of the participants in this study would have relevant experience with all three of the target relationships.

### *Measures*

A complete questionnaire package is available in Appendix B, including all measures referred to below, and all other information provided to study participants.

*Body Mass Index (BMI)*. Height and weight measurements were asked for on the parental permission form. From this information, participant BMI scores were calculated as weight (in kilograms) divided by height (in meters) squared. Participant BMI scores were used as a control variable in the regression analyses completed looking at the interaction between significant relationships and the outcome variables of body image and self-esteem.

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*Body Esteem Scale (BSE)*. (Mendelson, Mendelson, & White, 2000) This scale assessed how positively individuals perceived themselves in terms of appearance and body image. This measure was designed for use with upper elementary/early high school populations, has established reliability and validity, and is widely used in contemporary research to assess body esteem. It consists of 23 items that are answered on a 5-point Likert scale, with higher scores indicating more positive body esteem. The two sub-scales used in this study were those of Satisfaction with Appearance, and Satisfaction with Weight.

*Self Description Questionnaire (SDQ)*. (Marsh, Smith, & Barnes, 1983) (Referred to in Appendix B as *About Me*) This questionnaire assessed participants' global self-esteem, as well as participants' domain specific self-concept with regard to peer, dating and family relationships. This scale has been used with early high school populations and has excellent reliability and validity.

*Social Attitudes Towards Appearance Questionnaire (SATAQ)*. (Heinberg, Thompson, & Stormer, 1995) (Referred to in Appendix B as *Some Questions about Culture and Media*) This measure is a revised edition of the SATAQ for women, which assessed levels of awareness and internalization of sociocultural norms about body shape and weight. It is composed of 14 items, all scored on a Likert scale of 1 (completely disagree) to 5 (completely agree). The SATAQ consists of two sub-scales, Internalization and Awareness. In past research, the Internalization sub-scale has been shown to be a stronger predictor of weight management behaviours. This variable (Internalization) was included

as a possible mediator in the interactions between significant relationships and outcome variables.

*Peer Friendship Questionnaire (PFQ)*. (Tarjan, 2004) The PFQ was a questionnaire developed by the researcher to assess the general quality of peer relationships, as well as the specific focus on weight present in those relationships. PFQ questions also assessed the dieting practices and weight preoccupation of the same-sex peers of study participants. All questions in the PFQ are answered on a 5-point likert scale.

*Dating Relationship Questionnaire (DRQ)*<sup>1</sup>. (Tarjan, 2004) This questionnaire, developed by the researcher, assessed the dating practices of the participants in the study, including length of relationships and frequency. Only participants who had been involved in romantic relationships filled out the demographic questions. The remaining questions assessed the frequency of weight discourse with the dating partner, or the potential dating partner, and the general quality of the dating relationship. Participants who had never been involved in a dating relationship were instructed to fill out the relationship questions with reference to “someone they currently have a relationship with, and would be interested in dating”.

*Family Relationship Questionnaire (FRQ)*. (Tarjan, 2004) This measure was developed by the researcher to assess the dieting practices and weight preoccupation of parents of the adolescents in the study, as well as the general quality of the parent-child relationship. Participants indicated on a 5-point likert

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<sup>1</sup> All questions posed on the subject of dating relationships were phrased in such a way as to appear inclusive of both heterosexual and homosexual relationships.

scale how happy they were with different dimensions of their relationship, and how much they engaged in certain weight related activities within the relationship.

*Friendship Activity Questionnaire (FAQ).* (Bukowski, Hoza, & Boivin, 1994) The FAQ measured quality of relationship with a friend across five different aspects of friendship; Companionship, Conflict, Help/Aid, Security, and Closeness. This measure was used to assess the general quality of peer friendships. The FAQ has good reliability, including high levels of internal consistency within each dimension, as well as good validity. For this measure only the overall score was used, as a representation of overall quality of peer relationship.

*Dating Activity Questionnaire (DAQ).* (Adaptation of the FAQ; Bukowski, Hoza, & Boivin, 1994) The DAQ was created by altering the FAQ questions to pertain to a dating partner, or a potential dating partner. Participants were instructed to fill out the questionnaire with reference to a person they were currently dating, had dated in the past, or someone they have a relationship with currently and would like to date. Again, this measure was used to further assess the general quality of dating relationships. Also, only the overall score was used in this study, as a measure of quality of dating relationship.

*Relational Provisions Loneliness Questionnaire (RPLQ).* (Hayden, 1989) (Referred to in Appendix B as *How I Feel*) This questionnaire assessed participant satisfaction with current peer and family relationships, and was designed for use with an early to mid-adolescent population. The questionnaire

assessed Group Integration and Intimacy with respect to these two relationships, and these dimensions were conceptualized as a measure of supportiveness for the purposes of this study.

### *Procedure*

After receiving departmental ethics board consent, an information sheet was sent out to all instructors involved in the mini course program offered at Carleton University requesting permission to enter their classes and administer the questionnaire package (Letter to Mini Course Instructors; See Appendix B). Interested parties contacted the principal researcher and then course professors were given parental permission letters explaining the study to hand out in their classes. Permission forms were sent home to obtain parental consent as required by ethical guidelines (Parent Information Package; See Appendix B). Only students who received parental permission participated in the study. Study participants also completed an Informed Consent form, which was included in the questionnaire package (Student Informed Consent Forms; See Appendix B). Participants completed all questionnaires in class during time provided, or alternatively, on their own, as packages were sent home with selected students. Height and weight measurements were obtained on parental permission forms. The last page of the questionnaire package was a debriefing letter, which highlighted possible concerns with regard to the questionnaires completed, and listed additional resources which participants could contact if they had any questions (Debriefing Form, referred to as *Some Information*; See Appendix B).

## Results

This study's main goal was to examine factors that influence adolescent body image and self-esteem. Specifically, this study targeted peer, family and dating relationships as potential critical factors in the prediction of body image satisfaction and self-esteem during adolescence.

### *Descriptives and Demographics*

The participants in this study were 107 females between the ages of 12 and 17 years. The average age of the participants was 13.88 years (SD = .94). The Body Mass Index (BMI, refer to Method section for formula) of each participant was calculated for use as a control variable. The healthy range of BMI's set out by the United States Department of Health and Human Services (2004) for female adolescents is 18.5 to 24.9. The mean BMI of participants in this study was 20.43 (SD = 2.74), and scores ranged from 15.1 to 34.1. A Social Attitudes Towards Appearance Questionnaire (SATAQ) score was also calculated for each participant in the study. SATAQ scores fell between 1.08 and 4.42, with a mean of 2.68 (SD = .65) on a 5-point scale. Higher scores represent more awareness and internalization of society's standards for female body shape and size.

*Dieting.* Other demographic information was collected describing participants' dieting behaviours and the dieting behaviours of their friends and families. These questions were rated on a 5-point scale, with scores relating to the frequency of dieting (1 = never diet, 5 = diet all the time). When asked about their own dieting practices participants reported a mean score of 1.68 (SD =

.1.06), indicating that they very seldom dieted. Participants were also asked about the dieting behaviours of their parents, and assigned mothers a mean score of 2.51 (SD = .1.46) and fathers a mean score of 1.73 (SD = 1.10). Finally, participants were asked to report how often their friends dieted, and they assigned their peers a mean score of 2.03 (SD = .1.06).

*Dating.* Additionally, study participants were asked about their dating behaviours. Dating status was assessed by asking participants how many dating partners they have had in the past 12 months. Of the total 107 participants, approximately half or 56 females indicated that they had had one or more dating partners in the past 12 months. This group of dating females reported an average number of dating partners in the past 12 months of 1.96 (SD= 1.73). This group also reported that their last or current relationship had lasted an average of 3 to 8 weeks, and the average age at which they began dating was 11 to 13 years.

*Self-Esteem.* Participant self-esteem was assessed using the *Self Description Questionnaire* (SDQ, Marsh, Smith, & Barnes, 1983). This questionnaire assessed global self-esteem, as well as the domain specific self-concepts of peer, romantic and family related self-esteem. Generally, participants reported high levels of self-esteem across all concepts; however, self-esteem in romantic relationships was the lowest scoring area. The table below summarizes the means and standard deviations for self-esteem scores collected in this study. The SDQ was answered on a 5-point scale, with a score of 5 indicating the most positive score.

Table 1

*Descriptives for Self-Esteem*

Variables	Mean	SD
Self Description Questionnaire (SDQ): General Self-Esteem	4.19	.61
SDQ: Parent Relations Factor	3.84	.91
SDQ: Peer Relations Factor	3.90	.59
SDQ: Romantic Factor	3.01	.55

*Body Image.* The *Body Esteem Scale* developed by Mendelson, Mendelson, and White (2000) was used to assess participant body image. Specifically, the two sub-scales of Satisfaction with Appearance, and Satisfaction with Weight were looked at in this study. The average participant score indicated that girls in this study generally felt positively about their bodies and their appearance. The following table displays the means and standard deviations for body esteem scores. All questions were answered on a 5-point Likert scale, with higher scores indicating a more positive body image.

Table 2

*Descriptives for Body Image*

Variables	Mean	SD
Body Esteem : Appearance Satisfaction	3.53	.76
Body Esteem : Weight Satisfaction	3.79	.99

*Peer Relationships*

To address the quality of adolescent peer relationships, participants completed the Friendship Activity Questionnaire (FAQ). They also completed the Relational Provisions Loneliness Questionnaire (RPLQ) peer subscales of Group Integration and Intimacy, which are conceptualized in this study as indices of peer support. Average friendship scores for the FAQ indicated very positive friendship quality. Likewise, perceived support from peers (assessed by the RPLQ) was also very positive (See Table 4). To assess the extent to which peer relationships focused on weight-related issues, the Peer Friendship Questionnaire (PFQ) was developed. Participants answered questions as to the extent to which they were satisfied with their peer relationships in general, and the extent to which their peer relationships focused on weight and body shape.

A factor analysis was performed with varimax rotation in order to ascertain how many individual factors comprised the PFQ. Two factors emerged from the analysis (See Table 3 in Appendix A). Factor A labeled Peer Focus on Weight/Appearance, accounted for 66.6% of the variance, with an alpha of .67.

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Higher scores on this factor reflect relationships where weight was a strong focus of the relationship. The other factor in the peer questionnaire (Factor B) was labeled the Peer Relationship Quality factor, and accounted for the remaining 33.3% of the variance, with an alpha of .30. Higher scores on this factor reflected a higher perceived quality of relationship.

The table below summarizes the means and standard deviations for peer social support, friendship quality, and focus on weight in peer relationships. All questions were answered on a 5-point scale, with a score of 5 indicating a more positive or healthier score, except in the case of the focus on weight variable, where higher scores reflect relationships where weight is a stronger focus of the relationship.

Table 4

*Descriptives for Peer Relationship Variables*

Variables	Mean	SD
Friendship Activity Questionnaire:	4.28	.63
Overall Quality		
RPLQ: Peer group integration	3.98	.85
RPLQ: Peer intimacy	4.51	.78
Peer Friendship Questionnaire (PFQ): Focus on Weight	2.46	.77
PFQ: Relationship Quality	4.14	.71

Note: RPLQ = Relational Provisions Loneliness Questionnaire

In an effort to simplify and streamline the discussion of perceived support in this study, a compilation score was created. An overall Peer Supportiveness variable ( $M=4.30$ ,  $SD=.65$ ) was created by combining the total friendship quality (FAQ), the two subscales of the RPLQ (Group Integration and Intimacy), and the general peer relationship quality measure of the PFQ (all combined measures were significantly inter-correlated, mean  $r=.63$ ,  $p<.01$ ). The creation of this compilation score adds strength to the variable as compared to the individual peer relationship variables, especially in the case of the PRQ variable of general peer relationship quality, where the alpha was somewhat low.

#### *Dating Relationships*

To address the quality of adolescent dating relationships, participants completed the Dating Activity Questionnaire (DAQ). Scores for the DAQ indicated very positive relationship quality as perceived by the participants (See Table 6). To assess the demographics of adolescent dating relationships, and the extent to which opposite sex peer relationships focused on weight-related issues, the Dating Relationship Questionnaire (DRQ) was developed. Participants answered questions about how satisfied they were with their dating relationships in general, and the extent to which those relationships focused on weight and body shape.

A factor analysis was performed with varimax rotation in order to ascertain how many individual factors comprise the DRQ. Only one component emerged from the analysis (See Table 5 in Appendix A), accounting for 57.1% of the questionnaire variance, with an alpha of .47. The other questions were excluded

from the analysis based on their demographic nature. This emergent factor was labeled the Dating Relationship Quality factor, as it was decided that this factor best reflected the overall perceived quality of the dating relationship.

The table below summarizes the means and standard deviations for the measures of perceived quality of dating relationships. All questions were answered on a 5-point scale, with a score of 5 indicating a more positive score.

Table 6

*Descriptives for Dating Relationship Variables*

Variables	Mean	SD
Dating Activity Questionnaire – Overall Quality	3.79	.78
Dating Relationship Questionnaire: Relationship Quality	3.41	.56

As noted earlier, approximately half the girls in this study (52%) had been involved in a dating relationship at this point in time. As such, it was important to compare the daters and non-daters in this sample with regard to their body image and self-esteem. A series of oneway ANOVAs were completed, looking at the differences between groups. In all but one analysis, daters and non-daters did not differ significantly on any of the body image or self-esteem variables (See Tables 9, 10, 11, and 12 in Appendix A). However, when self-esteem in a romantic context was examined, a significant difference between groups was

found, with the daters reporting a higher mean score ( $M=3.20$ ) on this variable, as compared to the non-daters ( $M=2.85$ )  $F(1, 107)=11.92, p=.01$ .

### *Family Relationships*

To address the perceived quality of adolescents' relationships with their parents, participants completed the RPLQ (family subscales), which assessed Group Integration and Intimacy, which were conceptualized in this study as Parental Supportiveness. Group Integration and Intimacy in the family context was fairly high (See Table 8). To assess the extent to which family relationships focused on weight-related issues, the Family Relationship Questionnaire (FRQ) was developed. Participants answered questions assessing their satisfaction with family relationships, and the extent to which those relationships focused on weight and body shape.

A factor analysis was performed on the questions of the FRQ using varimax rotation, to determine the number of factors which composed the questionnaire. Two factors emerged from the analysis (See Table 7 in Appendix A). Factor A, labeled the Quality of Relationship factor, accounted for 37.5% of the variance ( $\alpha=.60$ ). Higher scores on this factor indicated a higher perceived quality of relationship. The other factor that emerged from the FRQ was labeled the Focus on Weight/Appearance factor. Higher scores on this factor represented feeling that weight was a stronger focus of the family relationship. The second factor accounted for 62.5% of the variance ( $\alpha=.57$ ).

The following table summarizes the means and standard deviations for perceived social support from parents, relationship quality, and the focus on

weight in family relationships. All questions were answered on a 5-point scale, with a score of 5 indicating a more positive or healthier score, except in the case of the focus on weight variable, where higher scores indicated a stronger focus on weight in family relationships.

Table 8

*Descriptives for Family Relationship Variables*

Variables	Mean	SD
RPLQ: Family group integration	3.87	.99
RPLQ: Family intimacy	3.97	1.04
Family Relationship Questionnaire (FRQ): Focus on Weight	2.22	.77
FRQ: Relationship Quality	3.86	.80

Note: RPLQ = Relational Provisions Loneliness Questionnaire

In order to simplify the discussion of perceived parental support, a compilation score was created. A score for general perceived Family Supportiveness ( $M=3.90$ ,  $SD=.81$ ) was formed by combining the two RPLQ family subscales of Group Integration and Intimacy, and the quality of family relationship measure of the FRQ (all combined measures were significantly inter-correlated, average correlation, mean  $r=.61$ ,  $p<.01$ ).

Table 13

*Correlation Matrix of Outcome Variables and Relationship Variables*

	1	2	3	4	5	6	7	8	9	10	11	12
1-Body Esteem: Appearance		.61**	.58**	.34**	.38**	.16	.43**	-.30**	.09	.16	.34**	-.30**
2-Body Esteem: Weight			.37**	.21**	.22*	.08	.34**	-.17	.13	.11	.34**	-.38**
3- SDQ: General				.50**	.28**	.17	.40**	-.25**	-.04	.11	.41**	-.23*
4- SDQ: Parent					.11	-.09	.15	-.31**	.11	-.02	.74**	-.23*
5- SDQ: Peer						.50**	.68**	.05	.35**	.40**	.11	-.05
6-SDQ: Romantic							.33**	.28**	.15	.37**	-.07	.13
7- Peer Supportiveness								-.13	.25*	.38**	.27**	-.20*
8- Peer Focus on Weight									.05	.29**	-.34**	.41**
9- Dating Activity Questionnaire										.44**	.18	-.03
10- DRQ: Dating Rela. Quality											-.02	.03
11- Family Supportiveness												-.24*
12- Family Focus on Weight												

Note. SDQ = Self Description Questionnaire, Rela. = Relationship

\* =  $p < .05$ , \*\* =  $p < .01$

*Body Image, Self-Esteem and Relationship Variables*

Pearson Correlational analyses were conducted to assess the inter-relationships between self-esteem, body image, and the various relationship variables. Table 13 showcases the results of this analysis.

*Body Image.* Both Peer Supportiveness and Family Supportiveness were significantly correlated with Satisfaction with Weight (BE). With regard to Peer and Family Focus on Weight, both variables were negatively correlated with satisfaction with appearance, but only Family Focus on Weight was significantly negatively correlated with Satisfaction with Weight. Thus, feelings of support tended to be positively related to body image, but greater focus on weight-related issues tended to be associated with less positive body image scores. Dating relationship variables were not significantly correlated with any of the measures of body image.

*Self-Esteem.* In the case of global self-esteem, both Peer and Family Supportiveness were equally positively correlated with this variable. Also, both Peer and Family Focus on Weight were negatively correlated with global self-esteem. Peer Supportiveness was also positively correlated with both Peer context self-esteem, and Romantic context self-esteem. Parent Supportiveness was positively correlated with Parent context self-esteem. Additionally, measures of dating supportiveness and dating quality of relationship were shown to be positively correlated with both Peer context and Romantic self-esteem. One further correlation which was somewhat surprising was the positive correlation between Romantic self-esteem and Peer Focus on Weight.

### *Regression Analyses*

Next, a series of hierarchical regression analyses were performed, to assess the relative importance of each set of relationship variables for adolescent self-esteem and body image. The goal of these regression analyses was to predict adolescent body image satisfaction (BE Appearance, and BE Weight), and self-esteem levels (SDQ General), from each of the three target relationships (peer, dating and parent) while controlling for individual body mass index scores. Of additional interest was the potential role of internalization as a mediating variable.

*Internalization of Social Norms for Appearance as a Mediator.* It was hypothesized that the extent to which girls had internalized societal standards of body shape (hereafter referred to as Internalization) would at least partially mediate the relationship between peer and parent relations and body image satisfaction and self-esteem. A variable is said to act as a mediator “to the extent that it explains the relation between the predictor and the criterion” (Baron & Kenny, 1986, pg. 1176).

In order to demonstrate how internalization levels mediate the relationship between predictor and outcome variables in this study, it was necessary to follow three steps. The first step of this process was to establish that the mediator (Internalization) was related to the outcome variables (body image and self-esteem). Thus, a series of hierarchical regressions were performed with the goal of determining whether Internalization scores were predictive of body esteem (both BE Appearance and BE Weight), and General self-esteem.

*Predicting BE Appearance.* In the first regression predicting BE Appearance, BMI scores were shown to account for no significant variance in BE Appearance scores. On Step 2 of the regression, Internalization and Awareness scores were entered and only internalization ( $\beta = -.43, p < .000$ ) proved to account for significant variation in the outcome variable.

Table 14

*Predicting BE Appearance from SATAQ variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.03	.03	-.05
Step 2			
BMI	.30***	.27***	-.04
SATAQ Internalization			-.43***
SATAQ Awareness			-.04

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* $p < .001$

*Predicting BE Weight.* Then, a second regression analysis was completed predicting BE Weight scores, and similar results were found. BMI ( $\beta = -.18, p < .000$ ) entered on the first step, was shown to control for significant variance in BE Weight scores. On Step 2, Internalization and Awareness scores were entered and only Internalization ( $\beta = -.33, p < .000$ ) proved to significantly predict BE Weight scores.

Table 15

*Predicting BE Weight from SATAQ variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.24***	.24***	-.18***
Step 2			
BMI	.36***	.08***	-.17***
SATAQ Internalization			-.33***
SATAQ Awareness			-.13

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* $p < .001$ 

*Predicting General Self-Esteem.* In the third regression, General self-esteem scores were predicted from Internalization and Awareness. On the first step, BMI scores were entered, but did not account for significant variance in general self-esteem scores. On Step 2 Internalization and Awareness scores were entered, and only Internalization ( $\beta = -.19$ ,  $p < .01$ ) was shown to significantly predict General self-esteem.

Table 16

*Predicting SDQ General from SATAQ variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.00	.00	-.05
Step 2			
BMI	.09***	.09***	-.03
SATAQ Internalization			-.19**
SATAQ Awareness			-.02

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\*  $p < .001$

The above results demonstrate that participants who reported higher levels of internalization of society's ideals for body shape and size also had lower body esteem scores (BE Appearance and BE Weight), and lower general self-esteem (SDQ General).

Next, on the second step performed in order to argue for mediation, independent variables (peer, dating and family relationship variables) needed to be shown to predict the mediational variable (Internalization). Pearson correlations were conducted to assess the relationship between each of the relationship variables and Internalization. Only two variables were significantly correlated with Internalization; Peer Focus on Weight ( $r = .35, p > .01$ ), and Family Focus on Weight ( $r = .26, p > .01$ ). Because in this step, dating relationship variables were not shown to predict internalization levels, Internalization cannot

be said to mediate the relationship between dating relationship variables and outcome variables in this study.

Finally, in the third step performed, after subsequently determining that the independent and dependent variables were related, the effect of the mediating variable (C) must be controlled for. If the previous relationship between the independent variable and the dependent variable is no longer significant, it can be said that variable C (in this case, Internalization) is a mediating variable in the relationship between independent and dependent variables (Baron & Kenny, 1986). The following analyses, predicting BE Appearance and Weight scores and SDQ General scores from peer and parent relationship variables, will demonstrate that Internalization was a mediator in the relationships described.

#### *Peer Relationships*

A series of hierarchical regression analyses were performed to assess the relative importance of the peer relationship variables for adolescent body image and self-esteem.

*Satisfaction with Appearance.* The first regression examined the relationship between peer variables and body image, predicted Satisfaction with Appearance from Peer Supportiveness and Focus on Weight variables. BMI scores entered on the first step did not account for significant variance. After controlling for BMI, both Peer Supportiveness (beta=.43,  $p<.001$ ), and Peer Focus on Weight (beta= -.26,  $p<.005$ ) were significant predictors of BE Appearance. This demonstrates that participants who reported higher levels of support from peers, and lower levels of focus on weight in peer relationships,

also had greater satisfaction with appearance. However, after Internalization was entered on the third step, only Peer Supportiveness ( $\beta = .43, p < .000$ ) remained a significant predictor (See Table 17). This result illustrates the mediating role that internalization of body shape ideals plays in the relationship between focus on weight in peer relationships and body image (specifically BE Appearance). That is, a focus on weight related issues in the peer group was negatively related to satisfaction with appearance and this relationship is explained by the fact that girls had internalized society's standards for thinness and appearance, even by the young age of 13 and 14 years old (mean age of participants = 13.88).

Table 17

*Predicting BE Appearance from Peer Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.03	.03	-.05
Step 2			
BMI	.28***	.25***	-.03
Peer Support			.43***
Peer Focus on Weight			-.26**
Step 3			
BMI	.45***	.17***	-.02
Peer Support			.43***
Peer Focus on Weight			-.09
SATAQ Internalization			-.39***

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* $p < .001$

*Satisfaction with Weight.* Next, BE Weight scores were predicted from peer relationships variables. BMI scores entered on the first step accounted for significant variance (beta =  $-.18$ ,  $p < .000$ ). On the second step of the regression, both Peer Supportiveness (beta =  $.33$ ,  $p < .05$ ) and Peer Focus on Weight (beta =  $-.20$ ,  $p < .05$ ) were significant predictors of BE Weight. This indicates that for girls who perceived their peer group as more supportive, and who described the focus

on weight related issues as lower in their peer group, satisfaction with weight was higher. However, after Internalization was entered on Step 3, only Peer Supportiveness ( $\beta=.33, p<.01$ ) remained a significant predictor (See Table 18). Again, this result demonstrates that Internalization is a mediator in the relationship between peer focus on weight and participant body image (BE Weight). The results of the two previous analyses demonstrate the mediating role that internalization of body shape ideals plays in the relationship between peer focus on weight and body image. The relationship between peer focus on weight and body image is best explained by the extent to which participants had internalized societal ideals of weight and body shape.

Table 18

*Predicting BE Weight from Peer Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.03	.03	-.18***
Step 2			
BMI	.28***	.25***	-.16***
Peer Support			.33**
Peer Focus on Weight			-.20*
Step 3			
BMI	.45***	.17***	-.16***
Peer Support			.33**
Peer Focus on Weight			-.07
SATAQ Internalization			-.31**

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\*  $p < .001$

*General Self-Esteem.* Next, Peer Supportiveness and Focus on Weight were examined with respect to their predictiveness of participant self-esteem, as assessed by the SDQ General score. Again, BMI was controlled for, but in this regression it did not prove to account for any significant variance. On Step 2 of the regression, the peer variables were entered. Both Peer Focus on Weight (beta= -.17,  $p < .05$ ) and Peer Supportiveness (beta=.32,  $p < .000$ ) were significant

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predictors of participants' self-esteem scores. This result indicates that general self-esteem was highest in participants who reported feeling more supported by their peer group, and who indicated that weight was less of a focus in their peer relations. On the third step, Peer Focus on Weight was no longer a significant predictor, but Peer Supportiveness ( $\beta=.33, p<.05$ ) remained a significant predictor on Step 3 (See Table 19). This finding indicates that Internalization was a mediator in the relationship between Peer Focus on Weight and adolescent self-esteem. That means focus on weight related issues in the peer group was negatively related to general self-esteem, due to the fact that study participants had internalized society's standards for appearance and weight.

Table 19

*Predicting SDQ General from Peer Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.01	.01	-.06
Step 2			
BMI	.19***	.18***	-.06
Peer Support			.33***
Peer Focus on Weight			-.17*
Step 3			
BMI	.25***	.06***	-.01
Peer Support			.32***
Peer Focus on Weight			-.11
SATAQ Internalization			-.15*

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Peer Context Self-Esteem.* In addition to measuring general levels of self-esteem, the SDQ also measures specialized areas of participant self-esteem. Peer variables were examined for their predictiveness of Peer relations self-esteem. On Step 1 of the regression BMI was entered, however it was not shown to control for any significant variance in Peer related self-esteem. On Step 2, only Peer Supportiveness (beta=.63,  $p < .000$ ) was a significant predictor

of SDQ Peer relation self-esteem. Peer Focus on Weight approached significance ( $p=.06$ ), but did not meet criteria. This result indicates that participants who evaluated their close friendships as more supportive, also reported higher levels of peer related self-esteem.

Table 20

*Predicting Peer Self-Esteem from Peer Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
<b>Step 1</b>			
BMI	.05	.05	-.02
<b>Step 2</b>			
BMI	.25***	.20***	-.02
Peer Support			.63***
Peer Focus on Weight			-.20

\* =  $p<.05$ , \*\* =  $p<.01$ , \*\*\*= $p<.001$

*Dating Relationships*

Next, a series of hierarchical regression analyses were performed to assess the relative importance of the dating relationship variables for adolescent body image and self-esteem. Internalization was not assessed as a mediator in the following analyses because in earlier analyses dating relationship variables were not shown to predict Internalization scores.

*Body Esteem.* In all the regression analyses attempting to predict body image scores, neither DAQ scores nor quality of dating relationship scores were

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found to be significantly related to the outcome variables. These non-significant results indicate that this study found no significant relationship between adolescent dating or opposite sex peer relationships, and body image. Only when predicting BE Weight, Quality of dating relationship (as assessed by the DRQ) approached significance ( $p=.07$ ), suggesting that greater dating relationship satisfaction was related to more positive body image.

*Self-Esteem.* However, when analyses were completed looking at the predictive quality of dating relationships on self-esteem levels as they related to romantic competence, a significant relationship was found. In this analysis, participant BMI scores, entered on the first step, were not found to account for any significant variance in the outcome variable. On Step 2, Quality of the dating relationship as assessed by the DRQ ( $\beta=.11$ ,  $p<.01$ ) was found to be a significant predictor of SDQ Romantic scores. This final analysis shows that when predicting romantic competence (e.g. I am dating the people I want to be dating.) perceived quality of dating relationships was a significant predictor.

Table 21

*Predicting Romantic Self-Esteem from Dating Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.06	.06	-.04
Step 2			
BMI	.15**	.09**	-.02
DAQ: Dating Quality			.05
DRQ: Relationship Quality			.11**

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Family Relationships*

Next, hierarchical regression analyses were performed to look at the influence of parent relationship on adolescent body image and self-esteem.

*Satisfaction with Appearance.* The first regression analysis predicted Satisfaction with Appearance from Family Supportiveness and Family Focus on Weight variables. BMI scores entered on the first step did not account for significant variance. After controlling for BMI, both Family Supportiveness (beta = .25,  $p < .01$ ) and Family Focus on Weight (beta = -.22,  $p < .05$ ) were significant predictors of BE Appearance. This finding shows that adolescents who report feeling more supported in their family relationships, and reported feeling their family relationships were less focused on weight, also scored higher

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on this measure of body image. However, after Internalization was entered on the third step, only Family Supportiveness (beta=.24,  $p<.01$ ) remained a significant predictor (See Table 22). Because Family Focus on Weight failed to remain significant in Step 3, after Internalization was entered, this result illustrates the mediating role that internalization of body shape ideals plays in the relationship between family focus on weight and satisfaction with appearance. That is, a focus on weight related issues in the family was negatively related to satisfaction with appearance, due to the fact that girls had internalized society's standards for thinness and appearance.

Table 22

*Predicting BE Appearance from Family Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.03	.03	-.05
Step 2			
BMI	.18***	.15***	-.04
Family Support			.25**
Family Focus on Weight			-.22*
Step 3			
BMI	.38***	.20***	-.03
Family Support			.24**
Family Focus on Weight			-.10
SATAQ Internalization			-.39***

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Satisfaction with Weight.* Next, BE Weight scores were predicted from the family relationship variables. BMI scores entered on the first step accounted for significant variance (beta =  $-.18$ ,  $p < .000$ ) in the outcome variable. In the second step of the regression, Family Supportiveness (beta =  $.20$ ,  $p < .05$ ) was a significant predictor of BE Weight, as was Family Focus on Weight (beta =  $-.38$ ,  $p < .001$ ). Accordingly, this result indicates that participants who felt supported in

their family relationships were more satisfied with their weight, but for participants who felt their family relationships focused more strongly on weight and shape issues, satisfaction with weight was lower. On Step 3, after Internalization was entered, both Family Supportiveness (beta= .19,  $p<.05$ ) and Family Focus on Weight (beta= -.30,  $p<.01$ ) remained significant predictors of participant weight satisfaction. However, the strength of the prediction was weakened for Family focus on Weight in this step, indicating that the relationship between Family Focus on Weight and Satisfaction with Weight was partially mediated by participant internalization.

Table 23

*Predicting BE Weight from Family Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.24***	.24***	-.18***
Step 2			
BMI	.38***	.14***	-.16***
Family Support			.20*
Family Focus on Weight			-.38**
Step 3			
BMI	.44***	.06***	-.15***
Family Support			.19*
Family Focus on Weight			-.30**
SATAQ Internalization			-.26**

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*General Self-Esteem.* Next, General self-esteem was predicted from the family relationship variables. Participant BMI scores were entered on Step 1 of the regression, and did not account for any significant variance in General self-esteem. On Step 2 of the regression, both Family Supportiveness (beta=.27,  $p < .000$ ), and Family Focus on Weight (beta= -.17,  $p < .05$ ) were significantly predictive of SDQ General scores. This result indicates that as participants

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reported feeling closer and more connected to their families, and reported their family relations were less focused on discussions of weight and appearance, they also reported higher levels of self-esteem. Yet again, on Step 3, after Internalization was entered, only Family Supportiveness remained a significant predictor of General self-esteem (beta=.26,  $p<.000$ ), and Family Focus on Weight became non-significant, which indicates that the relationship between Family Focus on Weight and self-esteem was fully mediated by Internalization.

Table 24

*Predicting SDQ General from Family Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.00	.00	-.05
Step 2			
BMI	.22***	.22***	-.03
Family Support			.27***
Family Focus on Weight			-.17*
Step 3			
BMI	.26***	.04***	-.03
Family Support			.26***
Family Focus on Weight			-.13
SATAQ Internalization			-.14*

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Parental Context Self-Esteem.* Finally, self-esteem in the parental context was examined in relation to Family Supportiveness and Focus on Weight. BMI scores were entered on Step 1, and did not predict any significant variance in Parent related self-esteem. Only one variable was shown to be significantly predictive of self-esteem in parental relations, perceived Family Supportiveness (beta=.82,  $p < .000$ ). Thus, it can be said that participants who reported feeling

higher levels of support from their parents also reported the higher levels of parent related self-esteem.

Table 25

*Predicting Parental Self-Esteem from Family Relationship Variables*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.05	.05	-.02
Step 2			
BMI	.27***	.22***	-.02
Family Support			.82***
Family Focus on Weight			-.13

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Summary.* To review, it is clear that both peer and parent supportiveness levels and focus on weight in those relationships are important predictors of body image (both BE Appearance and BE Weight). For both peer and family relationship variables, the relationship between focus on weight and body image was either fully mediated, or partially mediated by the extent to which adolescents had internalized society's standards of body shape and size.

The most significant variables in the prediction of adolescent general self-esteem were the participants' general sense of support, within both their family and peer relationships, and the focus within those relationships on weight and appearance. The closer participants reported feeling to their parents and peers,

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the more positively they felt about themselves. To a lesser degree, participants who reported feeling like weight was a focus of their peer and parent relationships also scored lower on the measure of general self-esteem. However, peer focus on weight in relation to general self-esteem was mediated by participant internalization of body shape ideals.

Adolescent dating relationship variables were not significant predictors of any of the outcome variables, except for self-esteem in a romantic context. In this case, dating relationship quality was shown to significantly predict more positive romantic self-esteem levels.

### *Comparing Parents and Peers*

Finally, of interest was the relative importance of parent versus peer relationship variables in the prediction of adolescent body image and self-esteem. Given the non-significant influence of dating relationships on body image and general self-esteem, dating relationships were not compared with peer and parental variables in the following analyses.

*Satisfaction with Appearance.* Of interest was which relationship variables (parent or peer) would be the most significant predictors of body esteem. First, BE Appearance scores were predicted from both peer and family relationship variables. On Step 1 of the regression, participant BMI scores were entered, and were not shown to account for any significant variance in the outcome variable. On Step 2, Peer and Family Supportiveness, as well as Peer and Family Focus on Weight were entered. Only Peer Supportiveness ( $\beta = .37, p < .01$ ) proved to be a significant predictor of participant body esteem scores. Family variables

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were not significant predictors in this analysis. This signifies that the general quality of peer relationships is more important than family relationship variables in the prediction of this measure of body image (BE Appearance).

Table 26

*Predicting BE Appearance from Peer and Family Relationships*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.03	.03	-.05
Step 2			
BMI	.29***	.26***	-.03
Peer Support			.37**
Peer Focus on Weight			-.18
Family Support			.15
Family Focus on Weight			-.04

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Satisfaction with Weight.* Next, BE Weight was predicted from the same peer and parent variables. In this regression, on the first step, BMI scores were shown to predict significant variance in the outcome variable (beta = -.18,  $p < .000$ ). On Step 2, only one relationship variable was found to be a significant predictor of BE Weight scores. Family Focus on Weight (beta = -.35,  $p < .01$ ) was shown to be significantly negatively related to BE Weight scores. This result

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indicates the effect of parental focus on weight was more important in determining satisfaction with weight than were peer relationship variables.

Table 27

*Predicting BE Weight from Peer and Family Relationships*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.24***	.24***	-.18***
Step 2			
BMI	.37***	.13***	-.16***
Peer Support			.25
Peer Focus on Weight			-.06
Family Support			.18
Family Focus on Weight			-.35**

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

Consequently, with regard to adolescent body image, it is not possible to say that one relationship plays a more influential role in its development.

However, what is clear is that both peer and parent relationships are important in the formation of a positive adolescent body image, but they appear to be so in very different ways. Specifically, parents appear to have a more direct effect on adolescent body image, with parental focus on weight being most predictive of adolescent body esteem (i.e. satisfaction with weight). Peers have a more

general influence on adolescent body image, as is signified by the predictiveness of the participants' feelings of peer support on body esteem (i.e. satisfaction with appearance).

*General Self-Esteem.* Finally, an analysis was conducted to determine whether parent or peer relationship variables were most significant in the prediction of adolescent general self-esteem. On Step 1, BMI was controlled for, but did not account for any significant variance in the outcome variable. On Step 2, both Peer and Family Supportiveness and Focus on Weight variables were entered. Both Peer and Family Supportiveness (beta=.24,  $p<.01$ ; beta=.21,  $p<.01$  respectively) were significant predictors of SDQ General scores. These were the only variables to account for significant variance in the outcome variable, neither Peer nor Family Focus on Weight proved significant. This result indicates that as adolescents reported feeling more supported by both parents and peers, they also reported higher levels of self-esteem. It appears that in this respect, parents and peers are equally important in the development of healthy self-esteem levels.

Table 28

*Predicting SDQ General from Peer and Family Relationships*

Variable	Cumulative R <sup>2</sup>	R <sup>2</sup> Change	Beta
Step 1			
BMI	.03	.03	-.05
Step 2			
BMI	.29***	.26***	-.01
Peer Support			.24**
Peer Focus on Weight			-.07
Family Support			.21**
Family Focus on Weight			-.05

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$

*Summary.* To summarize, while parents and peers appear to both have an important influence on adolescent development with regard to self-esteem, it appears that these relationships influence adolescent body esteem or body image very differently. Peers influence appearance satisfaction in a more general way (general level of supportiveness), and parents appear to be specifically influential in the weight satisfaction of their children, as parental focus on weight was most predictive of BE Weight scores for study participants.

## Discussion

The main purpose of this study was to evaluate how same-sex peers, dating partners, and parents influence two important areas of adolescent development, body image and self-esteem. Additionally, the method by which these three relationships were of influence was also examined. That is, whether it was the general quality of the relationships, or a specific component of the relationships, namely their focus on weight and appearance issues, which was of greater influence to adolescent body image and self-esteem. Finally, internalization of societal norms for appearance was examined as a possible mediational factor in these relationships.

### *Internalization of Social Norms about Appearance*

Little research exists which examines internalization of societal norms about appearance as a mediational variable in the relationship between peer and parent variables and body image and self-esteem. In one notable study, Keery (2003) found that the relationship between parental influence and body dissatisfaction was fully mediated by internalization, and internalization partially mediated the relationship between peer influence and body dissatisfaction. Consistent with these findings, the present study found that Peer and Family Focus on Weight were predictive of both adolescent body image and self-esteem, but in each analysis, the relationship was fully mediated by Internalization. This indicates that focus on weight related issues in the peer group and with the family was negatively related to body image and general self-esteem due to the fact that study participants had internalized society's

standards for appearance and weight. Internalization has also been found to play a mediating role in the prediction of adolescent body image in several other studies (Stice et al., 1994; Twamley & Davis, 1999).

What does it mean that higher levels of internalization mediated the relationship between social influences (peer and parent) and body image and self-esteem? Internalization has only fairly recently emerged as an important variable in the investigation of body image and the influences that impact it (Heinberg et al., 1995). As the possible influence of the media, through television and magazines, became an increased area of research, internalization of the ideals promoted about body shape and size has also emerged as a central component in the development of body image. More recently, internalization has been shown to be a particularly powerful correlate of the use of weight management techniques, even more so than BMI measurements (Smolak et al., 2001). The mediational role played by internalization in this study suggest that even though peer and parental focus on weight are influential in this aspect of adolescent development, ultimately it is the degree to which individuals are internalizing media messages about appearance norms that really effects body image and self-esteem in adolescents. This finding has clear application in the sphere of education and prevention efforts as to the effectiveness of tertiary programs which target the attitudes of friends and family members. Although these sorts of programs may be partially effective, without any focus on the individual and her/his own attitudes about health and body shape, the results of such programs will be limited.

*Focus on Weight in Peer and Parent Relationships*

It is interesting that not only was Peer and Family Focus on Weight important in the determination of adolescent body image, but that they also impacted self-esteem levels. The quality of both peer and family relationships has long been shown to impact adolescent body image (Graham et al., 2000; McCabe & Ricciardelli, 2001), and self-esteem (Blyth & Traeger, 1988; DuBois et al., 2002). However, the specific influence of focus on weight and its impact on body image has only fairly recently emerged as an important area of research (Paxton et al., 1999; Vincent & McCabe, 2000); and focus on weight as a predictor of self-esteem has not yet been investigated in the literature. The results of the present study indicate that an excessive focus on weight in the peer and family context has negative repercussions in various areas, even outside of its impact on body image. Again, the mediating effect of Internalization indicates that this relationship was due in part to the amount that the adolescents surveyed had internalized social standards of thinness and appearance.

*Comparing the Influence of Parents and Peers*

Certainly it is important to recognize that both parents and peers, separately, are key influences in the development of adolescent body image and self-esteem. This study was successful in confirming the importance of both peer and familial relationships for healthy body image and self-esteem development in adolescents. Furthermore, participants who felt that their peer and parent relationships focused less strongly on weight and body shape reported higher body esteem scores and more positive body image scores.

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However, a discussion of these variables would be incomplete without examining these relationships and comparing them in an attempt to determine which has the most significant influence on these two areas of adolescent development, body image and self-esteem.

*Body Image.* The two areas of body image were looked at with respect to the comparison of parent and peer influences were Satisfaction with Appearance, and Satisfaction with Weight. First, in examining Satisfaction with Appearance, only Peer Supportiveness was shown to predict higher Satisfaction with Appearance scores; family relationship variables were no longer significant when considered simultaneously with peer relationship variables. This result shows that participant satisfaction with appearance was more closely linked to peer group supportiveness than it was to parental relationship variables. This is in keeping with Sullivan's theory (1953), which suggests that at this stage of life the peer group begins to emerge as the most significant relationship for adolescents, particularly with regard to appearance related issues (e.g. dress codes). In this study's examination of adolescents' general happiness with their overall appearance and figure, it is interesting to see that neither peer nor parental discussions of weight management and body shape had significant influence on adolescent appearance satisfaction. What is clear from this result is that peers are far more important in the determination of this area of adolescent body image.

For the Satisfaction with Weight variable, a different picture emerged. Family Focus on Weight was the only significant predictor of participant

satisfaction with weight, and peer variables had no significant influence in this area. Participants who reported greater focus on weight in their family relationships had lower scores on the satisfaction with weight variable. A dominant discourse on weight in family relationships has been linked to disordered eating in females in previous research (Haworth-Hoepfner, 2000). Clearly, in the examination of adolescent weight dissatisfaction, and any interventions applied to this area, it would be essential to also target parental attitudes and weight management behaviours as a source of possible modeling influence and a clear determinate factor in the prediction of adolescent weight dissatisfaction.

Determining whether parents or peers have more influence on adolescent body image is not an easy task. Some research has shown that peer influence is more significant than family relationships in the prediction of unhealthy eating behaviours in young women (Gibbs, 1986; Young, McFatter, & Clopton, 2001), and general body image (O’Koon, 1997), and the results of this study appear to suggest that peers more strongly influence adolescent body image, at least in the area of satisfaction with appearance. However, a majority of the existing literature testifies to the influence of both peers and parents without offering a comparison of their relative influences (Levin, Smolak, Moodey, Shuman, & Hessen, 1994; McCabe & Ricciardelli, 2001; Ricciardelli, McCabe, Holt, & Finemore, 2003; Vincent & McCabe, 2000), and along with the importance of peer supportiveness revealed by this study, the direct influences of parental focus on weight cannot be undervalued in their effect on adolescent weight

dissatisfaction. Clearly, the results of this study reveal that parents and peers impact adolescent body image differently, and future research and intervention efforts need to take these unique influences into account.

*Self-Esteem.* There is no shortage of literature affirming the importance of healthy parent and peer relationships in the development of adolescent self-esteem (Blyth & Traeger, 1988; Oh et al., 2004; O’Koon, 1997; Shaffer, 1999). The existing research is equally like-minded on the relative importance that these two relationships play; peers and parents are generally acknowledged as equally important in the development of global self-esteem (Blyth & Traeger, 1988; Oh et al., 2004; O’Koon, 1997). The results of this study confirmed these findings, as both peer and parent supportiveness were found to be predictive of general self-esteem, with only a marginal difference between the predictiveness of the two variables. It is clear in this case that peer and parent relationships are both essential elements in the positive expression of healthy self-esteem for adolescents.

#### *Dating Practices and Relationships*

During early adolescence, the importance of romantic relationships begins to emerge. Research has suggested that girls who begin dating at an early age are at risk for increased involvement with substance use, transgressive behavior, and also criminal behavior (Engels & ter Bogt, 2001). In the present study approximately half (56 females) of the participants reported that they had been in at least one dating relationship in the past twelve months. Considering the average age of the sample (13.88 years of age), this finding is representative of

what is considered normal for adolescents at this stage (Brendgen, Vitaro, Doyle, Markiewicz, & Bukowski, 2002; Connolly, & Johnson, 1996).

The difference in body image and self-esteem between daters and non-daters was examined, and generally no significant differences were found in this study. Other research has found a connection between dating status and weight management, where girls who had begun dating in the previous year used more weight management techniques than did non-daters (Levin, Smolak, Moodey, Shuman, & Hessen, 1994). Perhaps the difference between opposite-sex friendships and dating relationships at this time of life is not pronounced enough to provide for a meaningful discussion of dating relationships and their impact of body image at this stage of puberty. As indicated by Collins (2004), it is often the case that romantic relationships develop from friendships already in existence in the peer group. If this is the case in the present study, perhaps due to the short duration of dating relationships and their similarity to cross-sex friendships, no differentiation between daters and non-daters was possible at this stage of puberty.

The effect of dating relationship quality on adolescent body esteem and self-esteem was examined, and in all the completed analyses except one, dating relationship variables were not found to be significantly related to body image or self-esteem. In general, this study found no strong association between adolescent dating relationships, and body image and self-esteem. Other research has also reported no relation between adolescent self-esteem and the quality of their dating relationships (Blyth & Traeger, 1988). One factor that might

be important in this situation is the duration of dating relationships at this time of life. Participants reported an average length of dating relationship of 3 to 8 weeks. This may not be a sufficient period of time to have developed meaningful relationships that might play a role in the self-esteem and body image appraisals of participants. Perhaps, if older adolescents, who had been involved in longer and more meaningful dating relationships, were surveyed, a significant association between dating relationships and body image and self-esteem might be uncovered.

#### *Limitations and Future Directions*

Several limitations of the present study and recommendations for future research should be noted. Firstly, this research was only conducted with female participants, and its application to males is limited. Females have traditionally been viewed as suffering from poorer body images compared to males, and are at risk for more serious consequences, such as a higher prevalence of eating disorders (Crawford & Unger, 2000). However, recent research is attempting to focus on male body image and indicates that the concerns of this group are unique (e. g. wanting to gain weight/muscle mass) and in some cases very different from the issues that face females (risk for steroid use) (Cohane & Pope, 2001; McCabe & Ricciardelli, 2003; Ricciardelli, McCabe, & Banfield, 2000). Furthermore, females were exclusively surveyed in this study in an attempt to gather data on dating relationships, and adolescent interest in the opposite-sex, as they were perceived to be potentially more interested in these areas in light of their stage of puberty. However, research does indicate that equal amounts of

males and females are engaged in dating relationships during adolescence (Zimmer-Gembeck, Siebenbruner, & Collins, 2001). The particular issues that are relevant to males in the area of body image need special attention and future research in this area should include both sexes in the study of body image.

Also, the overall generalizability of this study was limited due to the nature of the program through which potential participants were recruited. The Carleton University Mini Course program selects students for participation in part due to their level of academic achievement. As such, students who were not as academically oriented as program participants were not represented in this study.

Another limitation of this study was the average age and dating experience of the participants surveyed. With the majority of participants being thirteen years of age, the collection of data on dating relationships and their impact on adolescent body image and self-esteem was limited. Only a little more than half the participants surveyed reported having any dating experience, and participants with dating experience reported an average dating relationship length of 3 to 8 weeks. This time frame may not have allowed for the development of meaningful dating relationships. It was not possible in this study to collect data on the direct influences of focus on weight in the dating relationships. This may be the case if the relationships adolescents are engaged in at this time of life are not comprehensive and detailed enough to touch on topics of body shape and weight. Other research in the area has found an interaction between weight management practices and dating, where girls who had begun dating in the past year were shown to engage in more dieting

behaviours (Levine et al., 1994). The results of the present study proved inconclusive; however it is clear that more research is necessary to fully understand the potential relationship between adolescent dating and body image. Surveying older adolescents, who would be more likely to be engaging in longer, more meaningful relationships, should lead to a more thorough representation of dating and the impact dating relationships exert on adolescent development.

Finally, in collecting information on the direct influences of family focus on weight, future studies would do well to investigate the separate spheres of influence of each parent. Previous research has found that mothers' attitudes towards body shape and weight, and mothers' own dieting behaviours have more influence on male and female adolescent body image than do the attitudes and behaviours of fathers (Byely et al., 2000; Levin et al., 1994; McCabe & Ricciardelli, 2001; Usmani & Daniluk, 1997). The unique influences of each parent with respect to adolescent body image development should be further explored, as this information would have valuable applications for intervention methods and prevention strategies at the family level.

### *Conclusions*

Adolescence is a key time in the development of healthy self-esteem and body image (Blyth & Traeger, 1988; Levin et al., 1994). Relationships with parents, peers and potential dating partners can impact adolescent development in a variety of ways. This study has shown how the overall quality of parent and peer relationships, as well as the direct influence they assert on development vis-à-vis focus on body shape and weight, significantly impact body image and self-

esteem. Parents and peers are two central influences for adolescents. They influence body image and self-esteem both in general ways, through perceived quality of relationship and supportiveness, and in specific ways, by a strong discourse on body shape and weight ideals. For some time now the influence that mothers exert on body image development has been documented (Byely et al., 2000; Levin et al., 1994; McCabe & Ricciardelli, 2001; Usmiani & Daniluk, 1997), however, results of this study indicate that for some areas of body image, the general quality of peer relationships is more influential than parent relationships and attitudes.

In addition, the examination of dating partners and their influence on body image proved non conclusive, however previous research has demonstrated the potential for dating relationships to exert particular influence on weight management in adolescents (Levin, Smolak, Moodey, Shuman, & Hessen, 1994). It is the expressed opinion of the researcher that more investigation is required in this area, as a potential basis for prevention and awareness strategies, to develop knowledge about the exact sphere of influence exerted by dating partners on adolescents.

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Appendix A

Table 3  
Factor Analysis of Peer Friendship Questionnaire

	Factor A	Factor B
How often do your friends discuss you body appearance and weight, and/or the body appearance and weight of your other friends?	.72	
How happy are you with your relationship with your friends?		.66
How often do your friends discuss the body appearance and weight of men and women in the media?	.73	
How happy do you feel your friends are with your body weight and appearance?		.84
How happy do you think your closest friend is with her/his own body weight and appearance?	.51	
How often do your friends diet?	.82	

Table 5  
Factor Analysis of Dating Relationship Questionnaire

	Factor A
How often do you and that person discuss your body appearance and weight, and/or their body appearance and weight?	.61
How happy do you feel that person is with you body weight and appearance?	.54
How happy are you with that person's body weight and appearance?	.65

Note: Participants were instructed as follows – For this section think of someone you have dated, or would like to date

Table 7

Factor Analysis of Family Relationship Questionnaire

	Factor A	Factor B
How often does your family discuss your body appearance and weight, and/or the body appearance and weight of other family members?	.66	
How happy are you with your relationship with your parents?	.63	
How happy do you feel your parents are with your body weight and appearance?	.87	
How happy do you think your mother is with her body weight and appearance?	.42	.75
How happy do you think your father is with his body weight and appearance?		.88
How often does your mother diet?		.60
How often does your father diet?		.70
How often do you diet?		.47

Table 9

## Analysis of Variance for Satisfaction with Appearance

	df	Mean Square	F	<i>p</i>
Between Groups	1	.48	.83	.37
Within Groups	105	.58		
Total	106			

Table 10

## Analysis of Variance for Satisfaction with Weight

	df	Mean Square	F	<i>P</i>
Between Groups	1	.00	.00	.93
Within Groups	105	.98		
Total	106			

Table 11

## Analysis of Variance for General Self-Esteem

	df	Mean Square	F	<i>P</i>
Between Groups	1	.01	.02	.88
Within Groups	105	.37		
Total	106			

Table 12

## Analysis of Variance for Romantic Self-Esteem

	df	Mean Square	F	P
Between Groups	1	3.32	11.92	.00
Within Groups	105	.28		
Total	106			

Appendix B

Dear Mini Course Instructors,

My name is Clara Tarjan and I am a MA Candidate from the Psychology Department. I am currently working on my MA thesis and I am writing this letter to ask for your permission to collect data from the students in your courses. My thesis is on adolescent body image development and how parent, friend and dating relationships affect adolescent body image.

By the time your courses start in May I will have obtained University ethics approval for my study. The study consists of several questionnaires on topics such as self-esteem, body image, quality of parental relationship, quality of friendship, and occurrence of dating. These questionnaires should take your students less than 30 minutes to fill out. At the beginning of the week I will send out letters of information and permission with your students to bring home. Only students who receive parental permission to participate in the study will be able to fill out the questionnaires.

In sum, I am requesting 30 minutes of your class time anytime during the week to have your students participate in my study. Alternatively, if you cannot spare class time, I would also appreciate being given a few minutes to pass out questionnaires to students so they can complete them on their own and return them later in the week.

If you are willing to have me administer my questionnaires in your class, or even just pass out questionnaires to your students please contact me by email (information to follow) with a time during the week your courses run that would be most convenient for you. Thank you for your time, and I hope to hear from you in the future.

Clara Tarjan  
MA Candidate, Psychology  
Carleton University  
[citarjan@hotmail.com](mailto:citarjan@hotmail.com)

## Parent Information Package

Dear Parent:

May, 2004

The purpose of this letter is to request permission for you daughter/son to participate in a research project conducted through Carleton University. The focus of this research is on adolescent body image and relationships. As we know, in this day and age a lot of attention is given to body image, in the media and in our culture. However, body image is very important in the developmental process. This study will evaluate adolescents with regard to their body image satisfaction, and their general self-esteem, and these factors will be related to information collected on their relationships with parents, friends, and opposite-sex peers. This information will then be used to determine which relationship plays the most significant role in the determination of adolescent body image.

Your child will be filling out a series of questionnaires that will take approximately 30 minutes to complete. The questionnaires ask your child how they feel about themselves in a number of different areas – about their bodies (ex. ‘I like what I look like in pictures.’), and about their overall satisfaction with life. Additional questionnaires will ask about relationships your child has with their parents, their friends, and their opposite-sex peers.

This research has been approved by the psychology ethics committee of Carleton University. All information collected in this study will be confidential and participation is voluntary. At the beginning of the questionnaire your child will be asked if they wish to participate in the study, and they will be informed that should they choose not to participate, this will not impact participation in the Mini Course. Results of this study will help us understand more about adolescent body image and the factors that relate to it.

We do not expect that your child will suffer any adverse effects from their participation in this study. However, reflecting on body image can sometimes be disturbing for adolescents. If you or your child have any concerns as a result of participation in this study, please feel free to contact me or my supervisor (at the numbers below), or your family physician. If you would like to read more about body image, I would suggest either the books ‘When girls feel fat. Helping girls through adolescence.’ by Sandra Friedman, ‘Real boys: Rescuing our sons from the myths of boyhood’ by William Pollack, or the Canadian National Eating Disorder Center website, at [www.nedic.ca](http://www.nedic.ca).

I hope that you will agree to your daughter's/ son's participation in this project. If you will allow your child to participate, then please sign the consent form, and have your child return it to me. I will be dropping by classes all week, or they can pass it in to their professor at any time. If you have any questions please call:

Clara Tarjan (Primary Researcher): 520-2600 ext. 1013

Anne Bowker (Supervisor): 520-2600 ext. 8218

John Logan (Psychology Dept. Chair): 520-2600 ext. 2648

Mary Gick (Psychology Ethics Board Chair): 520-2600 ext. 2664

Results of this study will be available on Dr. Bowker's website by the end of the summer. The address is [www.carleton.ca/copewell/anne](http://www.carleton.ca/copewell/anne) . Thank you for reading this letter. I hope that your child will be able to participate.

Sincerely,

Clara Tarjan  
MA Candidate  
Carleton University

Anne Bowker, PhD  
Assistant Professor of Psychology  
Carleton University

The information collected for this project is confidential and protected under the Municipal Freedom Information and Privacy Act, 1989.

I have read the letter concerning research on adolescent body image and relationships to be conducted by Clara Tarjan, under supervision of Dr. Anne Bowker. I understand that all information collected on this project is to be used for research purposes only and will be confidential.

Name of Child: \_\_\_\_\_

Birth date: \_\_\_\_\_

Sex of Child:      Male \_\_\_\_\_ Female \_\_\_\_\_

Weight and Height: Weight \_\_\_\_\_ lbs/kg      Height \_\_\_\_\_ feet/meters  
(To be used in the calculation of a Body Mass Index {BMI} score for each participant)

Permission granted: Yes \_\_\_\_\_ No \_\_\_\_\_

Name of Parent/Guardian: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Student Permission Form

Please read the following

I understand that I have been asked to be in a research study that Clara Tarjan and Dr. Anne Bowker from Carleton University are doing about body image and relationships.

I know that if I agree to be in the study I will be asked to fill in some questionnaires about myself, my body, and my relationships with my parents and my friends, both same and other sex peers.

I know that I do not have to be in the study, and that even if I agree to participate I can drop out at any time.

I know that I can ask questions about the study at any time.

I also know that my answers are private and will not be shown to anyone, and my name will be replaced on the questionnaires with a participant number to make sure of this. Only Clara and Dr. Bowker and their research assistants will know what I say on the questionnaires.

Sign: \_\_\_\_\_

Date: \_\_\_\_\_

## ABOUT ME

We'd like to ask you some questions about yourself. It is not a test. There are no right or wrong answers, and everyone will have different answers. Be sure that your answers show how you feel about yourself. Please do not talk about your answers with anyone else. We will keep your answers private and not show them to anyone.

After each sentence there are five words. Each one tells us about whether or not someone thinks the statement is true for them. Read each sentence and ask yourself "Is this sentence true about me?" then circle one of the words according to how true the sentence is for you.

**FALSE** means it is definitely not true for you

**false** means it is probably not true for you

**maybe** means it might or might not be true for you

**true** means it is probably true for you

**TRUE** means that it is definitely true for you

- |     |  |  |
|-----|--|--|
| 1.  | Overall, I have a lot to be proud of.                                      | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 2.  | My parents understand me.  | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 3.  | If I am romantically interested in someone, that person will like me back. | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 4.  | I have lots of friends.  | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 5.  | Overall, I am no good.   | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 6.  | I make friends easily with girls.  | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 7.  | I make friends easily with boys.   | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 8.  | Most things I do, I do well.   | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 9.  | I'm not dating the people I'm really attracted to.                         | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 10. | My parents are usually unhappy or disappointed with what I do.             | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 11. | Most kids have more friends than I do.                                     | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 12. | Nothing I do even seems to turn out right.                                 | <b>FALSE-----false-----maybe-----true-----TRUE</b> |
| 13. | I am popular with boys.  | <b>FALSE-----false-----maybe-----true-----TRUE</b> |

## Adolescent Body Image

14. I am popular with girls. FALSE-----false-----maybe-----true-----TRUE
15. I feel that people my age will be romantically attracted to me. FALSE-----false-----maybe-----true-----TRUE
16. I like my parents. FALSE-----false-----maybe-----true-----TRUE
17. Overall, most things I do turn out well. FALSE-----false-----maybe-----true-----TRUE
18. I do not get along very well with boys. FALSE-----false-----maybe-----true-----TRUE
19. I do not get along very well with girls. FALSE-----false-----maybe-----true-----TRUE
20. If I have children of my own, I want to bring them up like my parents raised me. FALSE-----false-----maybe-----true-----TRUE
21. I don't have much to be proud of. FALSE-----false-----maybe-----true-----TRUE
22. My parents and I spend a lot of time together. FALSE-----false-----maybe-----true-----TRUE
23. I have good friends who are boys. FALSE-----false-----maybe-----true-----TRUE
24. I have good friends who are girls. FALSE-----false-----maybe-----true-----TRUE
25. I feel that I am fun and interesting on a date. FALSE-----false-----maybe-----true-----TRUE
26. I can do things as well as most people. FALSE-----false-----maybe-----true-----TRUE
27. My parents are easy to talk to. FALSE-----false-----maybe-----true-----TRUE
28. I feel that my life is not very useful. FALSE-----false-----maybe-----true-----TRUE
29. Most other kids like me. FALSE-----false-----maybe-----true-----TRUE
30. My parents and I have a lot of fun together. FALSE-----false-----maybe-----true-----TRUE
31. If I really try I can do almost anything I want to do. FALSE-----false-----maybe-----true-----TRUE

## Body Esteem Scale

	FALSE	Mostly FALSE	SOME TIMES	Mostly TRUE	TRUE
1. I like what I look like in pictures.	0	1	2	3	4
2. Other people consider me good looking.	0	1	2	3	4
3. I'm proud of my body.	0	1	2	3	4
4. I worry about trying to change my weight.	0	1	2	3	4
5. I think that my appearance would help me get a job.	0	1	2	3	4
6. I like what I see when I look in the mirror.	0	1	2	3	4
7. There are lots of things I'd change about my looks if I could.	0	1	2	3	4
8. I am satisfied with my weight.	0	1	2	3	4
9. I wish I looked better.	0	1	2	3	4
10. I really like what I weigh.	0	1	2	3	4
11. I wish I looked like someone else	0	1	2	3	4
12. People my own age like my looks.	0	1	2	3	4
13. My looks upset me.	0	1	2	3	4
14. I'm as nice looking as most people.	0	1	2	3	4
15. I'm pretty happy about the way I look.	0	1	2	3	4
16. I feel I weigh about the right amount for my height.	0	1	2	3	4
17. I feel ashamed of how I look.	0	1	2	3	4
18. Weighing myself always depresses me.	0	1	2	3	4
19. My weight makes me unhappy.	0	1	2	3	4
20. I worry about the way I look.	0	1	2	3	4
21. I think I have a good body.	0	1	2	3	4
22. I'm looking as nice as I'd like to.	0	1	2	3	4

### Some Questions about Culture and Media

- |    |   |  |
|----|---|--|
| 1. | <b>Women who appear in TV shows and movies have the type of appearance that I see as my goal</b>                    | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 2. | <b>I believe that clothes look better on thin models</b>  | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 3. | <b>Music videos that show thin women make me wish that I were thin</b>  | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 4. | <b>I would like to look like the models in the magazines</b>  | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 5. | <b>I tend to compare my body to people in magazines and on TV</b>   | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 6. | <b>In our society, fat people are regarded as unattractive</b>  | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 7. | <b>Photographs of thin women make me wish I were thin</b>   | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 8. | <b>Attractiveness is very important if you want to get ahead in our culture</b>                                     | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |
| 9. | <b>It's important for people to work hard on their figures/physiques if they want to succeed in today's culture</b> | 1-----2-----3-----4-----5<br>Really Disagree                      Really Agree |

## Adolescent Body Image

10. **Most people believe the thinner you are, the better you look**      1-----2-----3-----4-----5  
Really Disagree      Really Agree
11. **People think the thinner you are, the better you look in clothes**      1-----2-----3-----4-----5  
Really Disagree      Really Agree
12. **In today's society, it is important to always look attractive**      1-----2-----3-----4-----5  
Really Disagree      Really Agree
13. **I wish I looked like a swimsuit model**      1-----2-----3-----4-----5  
Really Disagree      Really Agree
14. **I often read magazines like Cosmopolitan, Vogue, and Glamour and compare my appearance to the models**      1-----2-----3-----4-----5  
Really Disagree      Really Agree

### Peer Friendship Questionnaire

1. **How often do your friends discuss your body appearance and weight, and/or the body appearance and weight of your other friends?**  
1-----2-----3-----4-----5  
Never All the time
  
2. **How happy are you with your relationship with your friends?**  
1-----2-----3-----4-----5  
Unhappy Very happy
  
3. **How often do your friends discuss the body appearance and weight of men and women in the media?**  
1-----2-----3-----4-----5  
Never All the time
  
4. **How happy do you feel your friends are with your body weight and appearance?**  
1-----2-----3-----4-----5  
Unhappy Very happy
  
5. **How happy do you think your closest friend is with her/his own body weight and appearance?**  
1-----2-----3-----4-----5  
Unhappy Very happy
  
6. **How often do your friends diet?**  
1-----2-----3-----4-----5  
Never All the time

## FRIENDSHIP ACTIVITY QUESTIONNAIRE

Put the name of your very best friend here: \_\_\_\_\_

Now we want to ask some questions just about you and the person you think of as your best friend so we can know what your best friend is like. We have some sentences that we would like you to read. Please tell us whether this sentence describes your friendship or not. Some of the sentences might be really true for your friendship while other sentences might be not very true for your friendship. We simply want you to read the sentence and tell us how true the sentence is for your friendship. Remember, there are no right or wrong ways to answer these questions, and you can use any of the numbers on the scale.

After each sentence there is a scale that goes from 1 to 5.

"1" means the sentence is probably not true for your friendship

"2" means that it might be true

"3" means that it is usually true

"4" means that it is very true

"5" means that it is really true for your friendship

Circle the number on the scale that is best for you. Be sure to read carefully and answer as honestly as possible.

Example

- |   |                                       |             |
|---|---------------------------------------|-------------|
| X1. My friend and I play games and other activities with each other.                              | Not true<br>1-----2-----3-----4-----5 | Really true |
| 1. My friend and I spend a lot of our free time together.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 2. My friend gives me advice when I need it.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 3. Even if my friend and I have an argument we would still be able to be friends with each other. | Not true<br>1-----2-----3-----4-----5 | Really true |
| 4. If other kids are bothering me, my friend would help me.                                       | Not true<br>1-----2-----3-----4-----5 | Really true |
| 5. My friend and I do things together.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 6. My friend and I help each other.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 7. My friend helps me when I am having trouble with something.                                    | Not true<br>1-----2-----3-----4-----5 | Really true |

PUT THE NAME OF YOUR VERY BEST FRIEND HERE \_\_\_\_\_

- |  |                                       |             |
|--|---------------------------------------|-------------|
| 8. If my friend had to move away I would miss him or her.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 9. When I do a good job at something my friend is happy for me.                                    | Not true<br>1-----2-----3-----4-----5 | Really true |
| 10. My friend and I play together at recess.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 11. There is nothing that would stop my friend and I from being friends.                           | Not true<br>1-----2-----3-----4-----5 | Really true |
| 12. Sometimes my friend does things for me or makes me feel special.                               | Not true<br>1-----2-----3-----4-----5 | Really true |
| 13. When I have not been with my friend for a while I really miss being with him or her.           | Not true<br>1-----2-----3-----4-----5 | Really true |
| 14. Our friendship is just as important to me as it is to my friend.                               | Not true<br>1-----2-----3-----4-----5 | Really true |
| 15. If somebody tried to push me around, my friend would help me.                                  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 16. I can get into fights with my friend.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 17. My friend and I argue a lot.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 18. I can trust and rely upon my friend.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 19. If I have a problem at school or at home I can talk to my friend about it.                     | Not true<br>1-----2-----3-----4-----5 | Really true |
| 20. My friend can bug me or annoy me even though I ask him or her not to.                          | Not true<br>1-----2-----3-----4-----5 | Really true |
| 21. If I forgot my lunch or needed a little money my friend would loan it to me.                   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 22. If I said I was sorry after I had a fight with my friend he or she would still stay mad at me. | Not true<br>1-----2-----3-----4-----5 | Really true |
| 23. If I can't figure out how to do something, my friend shows me how.                             | Not true<br>1-----2-----3-----4-----5 | Really true |

PUT THE NAME OF YOUR VERY BEST FRIEND HERE \_\_\_\_\_

24. My friend likes me as much as I like him or her.      Not true      Really true  
1-----2-----3-----4-----5
25. My friend and I go to each other's houses after school and on weekends.      Not true      Really true  
1-----2-----3-----4-----5
26. Sometimes my friend and I just sit around and talk about things like school and the things we like.      Not true      Really true  
1-----2-----3-----4-----5
27. Even if other persons stopped liking me, my friend would still be my friend.      Not true      Really true  
1-----2-----3-----4-----5
28. I know that I am important to my friend.      Not true      Really true  
1-----2-----3-----4-----5
29. My friend would help me if I needed it.      Not true      Really true  
1-----2-----3-----4-----5
30. Sometimes it seems that I care more about our friendship than my friend does.      Not true      Really true  
1-----2-----3-----4-----5
31. If there is something bothering me I can tell my friend about it even if it is something I cannot tell other people.      Not true      Really true  
1-----2-----3-----4-----5
32. If my friend or I do something that bothers the other one of us, we can make up easily.      Not true      Really true  
1-----2-----3-----4-----5
33. My friend would stick up for me if another kid was causing me trouble      Not true      Really true  
1-----2-----3-----4-----5
34. My friend and I disagree about many things.      Not true      Really true  
1-----2-----3-----4-----5
35. If my friend and I have a fight or argument we can say "I'm sorry" and everything will be alright.      Not true      Really true  
1-----2-----3-----4-----5
36. When my friend and I have an argument, he or she can hurt my feelings.      Not true      Really true  
1-----2-----3-----4-----5



## Dating Relationship Questionnaire

For this section think of someone you have dated, or would like to date

1. How often do you and that person discuss your body appearance and weight, and/or their body appearance and weight? 1-----2-----3-----4-----5  
Never All the time
2. How happy do you feel that person is with your body weight and appearance? 1-----2-----3-----4-----5  
Unhappy Very happy
3. How happy are you with that person's body weight and appearance? 1-----2-----3-----4-----5  
Unhappy Very happy

Only complete the next section if you have dated someone in the past or are currently dating someone

4. In the last 12 months how many people have you dated? \_\_\_\_\_
5. What was the duration of your last or current dating relationship? 1-2wks 3-8wks 2-6mo. 6mo. or more
6. At what age did you first start dating? 1-10 yrs 11-13 yrs 14-16 yrs 16 yrs or more
7. How happy were you with your last or current dating relationship? 1-----2-----3-----4-----5  
Unhappy Very happy

### DATING ACTIVITY QUESTIONNAIRE

Think of someone you have dated, or someone you would like to date

Now we want to ask some questions just about you and this friend, so we can know what your friend is like. We have some sentences that we would like you to read. Please tell us whether this sentence describes your friendship or not. Some of the sentences might be really true for your friendship while other sentences might be not very true for your friendship. We simply want you to read the sentence and tell us how true the sentence is for your friendship. Remember, there are no right or wrong ways to answer these questions, and you can use any of the numbers on the scale.

After each sentence there is a scale that goes from 1 to 5.

"1" means the sentence is probably not true for your friendship

"2" means that it might be true

"3" means that it is usually true

"4" means that it is very true

"5" means that it is really true for your friendship

Circle the number on the scale that is best for you. Be sure to read carefully and answer as honestly as possible.

Example

X1. My friend and I play games and other activities with each other.

Not true Really true  
1-----2-----3-----4-----5

1. My friend and I spend a lot of our free time together.

Not true Really true  
1-----2-----3-----4-----5

2. My friend gives me advice when I need it.

Not true Really true  
1-----2-----3-----4-----5

3. Even if my friend and I have an argument we would still be able to be friends with each other.

Not true Really true  
1-----2-----3-----4-----5

4. If other kids are bothering me, my friend would help me.

Not true Really true  
1-----2-----3-----4-----5

5. My friend and I do things together.

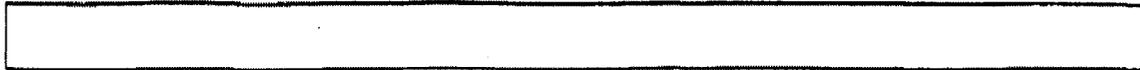
Not true Really true  
1-----2-----3-----4-----5

6. My friend and I help each other.

Not true Really true  
1-----2-----3-----4-----5

7. My friend helps me when I am having trouble with something.

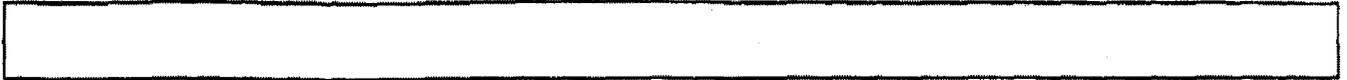
Not true Really true  
1-----2-----3-----4-----5



- |  |                                       |             |
|--|---------------------------------------|-------------|
| 8. If my friend had to move away I would miss him or her.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 9. When I do a good job at something my friend is happy for me.                                    | Not true<br>1-----2-----3-----4-----5 | Really true |
| 10. My friend and I play together at recess.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 11. There is nothing that would stop my friend and I from being friends.                           | Not true<br>1-----2-----3-----4-----5 | Really true |
| 12. Sometimes my friend does things for me or makes me feel special.                               | Not true<br>1-----2-----3-----4-----5 | Really true |
| 13. When I have not been with my friend for a while I really miss being with him or her.           | Not true<br>1-----2-----3-----4-----5 | Really true |
| 14. Our friendship is just as important to me as it is to my friend.                               | Not true<br>1-----2-----3-----4-----5 | Really true |
| 15. If somebody tried to push me around, my friend would help me.                                  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 16. I can get into fights with my friend.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 17. My friend and I argue a lot.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 18. I can trust and rely upon my friend.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 19. If I have a problem at school or at home I can talk to my friend about it.                     | Not true<br>1-----2-----3-----4-----5 | Really true |
| 20. My friend can bug me or annoy me even though I ask him or her not to.                          | Not true<br>1-----2-----3-----4-----5 | Really true |
| 21. If I forgot my lunch or needed a little money my friend would loan it to me.                   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 22. If I said I was sorry after I had a fight with my friend he or she would still stay mad at me. | Not true<br>1-----2-----3-----4-----5 | Really true |
| 23. If I can't figure out how to do something, my friend shows me how.                             | Not true<br>1-----2-----3-----4-----5 | Really true |



- |  |                                       |             |
|--|---------------------------------------|-------------|
| 24. My friend likes me as much as I like him or her.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 25. My friend and I go to each other's houses after school and on weekends.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 26. Sometimes my friend and I just sit around and talk about things like school and the things we like.                  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 27. Even if other persons stopped liking me, my friend would still be my friend.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 28. I know that I am important to my friend.   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 29. My friend would help me if I needed it.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 30. Sometimes it seems that I care more about our friendship than my friend does.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 31. If there is something bothering me I can tell my friend about it even if it is something I cannot tell other people. | Not true<br>1-----2-----3-----4-----5 | Really true |
| 32. If my friend or I do something that bothers the other one of us, we can make up easily.                              | Not true<br>1-----2-----3-----4-----5 | Really true |
| 33. My friend would stick up for me if another kid was causing me trouble  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 34. My friend and I disagree about many things.  | Not true<br>1-----2-----3-----4-----5 | Really true |
| 35. If my friend and I have a fight or argument we can say "I'm sorry" and everything will be alright.                   | Not true<br>1-----2-----3-----4-----5 | Really true |
| 36. When my friend and I have an argument, he or she can hurt my feelings.   | Not true<br>1-----2-----3-----4-----5 | Really true |



37. I feel happy when I am with my friend.      Not true      Really true  
1-----2-----3-----4-----5
38. I think about my friend even when my friend is not around.      Not true      Really true  
1-----2-----3-----4-----5
39. When I have to do something that is hard I can count on my friend for help.      Not true      Really true  
1-----2-----3-----4-----5
40. When we have free time at school, such as lunch time or recess, my friend and I usually do something together or spend time with each other.      Not true      Really true  
1-----2-----3-----4-----5
41. I think of things for us to do more often than my friend does.      Not true      Really true  
1-----2-----3-----4-----5
42. My friend helps me with tasks that are hard or that need two people.      Not true      Really true  
1-----2-----3-----4-----5
43. If I have questions about something my friend would help me get some answers.      Not true      Really true  
1-----2-----3-----4-----5
44. Being friends together is more important to me than it is to my friend.      Not true      Really true  
1-----2-----3-----4-----5
45. Things are usually pretty even in my friendship.      Not true      Really true  
1-----2-----3-----4-----5
46. My friend puts our friendship ahead of other things.      Not true      Really true  
1-----2-----3-----4-----5

## Family Relationship Questionnaire

- |    |   |  |
|----|---|--|
| 1. | <b>How often does your family discuss your body appearance and weight, and/or the body appearance and weight of other family members?</b> | 1-----2-----3-----4-----5<br>Never <span style="float: right;">All the time</span> |
| 2. | <b>How happy are you with your relationship with your parents?</b>  | 1-----2-----3-----4-----5<br>Unhappy <span style="float: right;">Very happy</span> |
| 3. | <b>How happy do you feel your parents are with your body weight and appearance?</b>   | 1-----2-----3-----4-----5<br>Unhappy <span style="float: right;">Very happy</span> |
| 4. | <b>How happy do you think your mother is with her body weight and appearance?</b>   | 1-----2-----3-----4-----5<br>Unhappy <span style="float: right;">Very happy</span> |
| 5. | <b>How happy do you think your father is with his body weight and appearance?</b>   | 1-----2-----3-----4-----5<br>Unhappy <span style="float: right;">Very happy</span> |
| 6. | <b>How often does your mother diet?</b>   | 1-----2-----3-----4-----5<br>Never <span style="float: right;">All the time</span> |
| 7. | <b>How often does your father diet?</b>   | 1-----2-----3-----4-----5<br>Never <span style="float: right;">All the time</span> |
| 8. | <b>How often do you diet?</b>   | 1-----2-----3-----4-----5<br>Never <span style="float: right;">All the time</span> |

**How I feel**

For the following items, think about yourself and children your age when you answer.

	FALSE	Mostly FALSE	SOME TIMES	Mostly TRUE	TRUE
1. I feel part of a group of friends that do things together.	1	2	3	4	5
2. There is someone my age I can turn to.	1	2	3	4	5
3. I have a lot in common with other children.	1	2	3	4	5
4. There is always someone my age I could go to if I was feeling down.	1	2	3	4	5
5. I have at least one really good friend I can talk to when something is bothering me.	1	2	3	4	5
6. I feel like other children want to be with me.	1	2	3	4	5
7. I have a friend who is really interested in hearing about my private thoughts and feelings.	1	2	3	4	5
8. I feel that I usually fit in with other children around me.	1	2	3	4	5
9. I have a friend I can tell everything to.	1	2	3	4	5
10. When I want to do something for fun, I can usually find friends to join me.	1	2	3	4	5
11. There is somebody my age who really understands me.	1	2	3	4	5
12. When I am with other children, I feel like I belong.	1	2	3	4	5
13. There is a friend I feel close to.	1	2	3	4	5

For the following items, think about yourself and your family when you answer.

	FALSE	Mostly FALSE	SOME TIMES	Mostly TRUE	TRUE
14. In my family, I feel part of a group of people that do things together.	1	2	3	4	5
15. There is someone in my family I can turn to.	1	2	3	4	5
16. I have a lot in common with people in my family.	1	2	3	4	5
17. There is someone in my family I could go to if I were feeling down.	1	2	3	4	5
18. I have at least one person in my family I can talk to when something is bothering me.	1	2	3	4	5
19. I feel like people in my family want to be with me.	1	2	3	4	5
20. I have someone in my family who is really interested in hearing about my private thoughts and feelings.	1	2	3	4	5
21. I feel that I usually fit in with my family.	1	2	3	4	5
22. I have someone in my family I can tell everything to.	1	2	3	4	5
23. When I want to do something for fun, I can usually find people in my family to join me.	1	2	3	4	5
24. There is someone in my family who really understands me.	1	2	3	4	5
25. When I am with my family, I feel like I belong.	1	2	3	4	5
26. There is someone in my family I feel close to.	1	2	3	4	5

### Some Information

Thank you for participating in the study. I was interested in the way kids your age felt about their bodies, themselves, and relationships they have with parents and friends. Your answers are very valuable to me, and they will help me find out more about this topic. Some of the questions you answered may have made you feel a little uneasy. It's very normal for kids your age to sometimes feel self-conscious. If you have any other questions, or if you want to find out more about body image you can talk to your parents, your family doctor, or the people listed below.

Clara Tarjan (Primary Researcher): 520-2600 ext. 1013

Anne Bowker (Supervisor): 520-2600 ext. 8218

John Logan (Psychology Dept. Chair): 520-2600 ext. 2648

Mary Gick (Psychology Ethics Board Chair): 520-2600 ext. 2664

If you'd like to read a bit more on this topic, some good books are "When girls feel fat. Helping girls through adolescence" by Sandra Friedman, or "Real Boys' Voices" by William Pollack. Or you can go to this website for the Canadian National Center for Eating Disorders and it will have lots of information about body image, [www.nedic.ca](http://www.nedic.ca).

Results of this study will be available on my supervisor's website by the end of the summer. [www.carleton.ca/copewell/anne](http://www.carleton.ca/copewell/anne)

Thank you for your participation.

Sincerely,

Clara Tarjan  
MA Candidate  
Carleton University  
613-520-2600 ext. 1013