An Examination of Peer Teasing and Disordered Eating in Young Adults

by

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ABSTRACT

AN EXAMINATION OF PEER TEASING AND DISORDERED EATING IN YOUNG ADULTS

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Previous research has shown that individuals who are teased about their weight are likely to engage in problematic eating habits. This series of studies attempted to expand the literature by examining mediating variables that might account for this relationship, and to investigate whether experiential avoidance moderated the proposed mediation model. Within an undergraduate student sample of 213 participants, findings from the first study indicated that body dissatisfaction mediated the association between teasing and restrained eating habits. In contrast, self-esteem mediated between teasing and emotional eating. Moderation analyses indicated that this latter effect was stronger among those reporting lower experiential avoidance. In the second study, additional indices of emotional functioning were included to further elucidate the relation between peer teasing and disordered eating. Depression mediated between teasing and both forms of disordered eating, but experiential avoidance only moderated the mediational effect involving emotional eating. Limitations, implications and directions for future research are discussed.
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Chapter One: Introduction

Eating Disorders are characterized by forms of eating that result in altered consumption or absorption of food that significantly impairs either one’s physical or psychosocial health (as outlined by the Diagnostic and Statistical Manual of Mental Disorders, DSM-5; American Psychiatric Association, 2013). Of the eating disorder diagnoses, Anorexia Nervosa (AN) is characterized by a refusal to maintain a minimally normal body weight because of an intense fear of gaining weight or becoming fat. In contrast, Bulimia Nervosa (BN) is described by repeated episodes of binge eating, followed by inappropriate compensatory behaviours, such as self-induced vomiting, misuse of laxatives or excessive exercise. Finally, the new diagnosis of Binge Eating Disorder (BED) has been added to reflect recurring episodes of eating a significant amount of food in a short period of time, accompanied by feelings of lack of control.

These disorders are considered both debilitating and chronic. A recent study involving a sample of adolescents reported the lifetime prevalence rates as: AN at 1.7%, BN at 0.8% and BED at 2.3% (Smink, van Hoeken, Oldehinkel & Hoek, 2014). While the lifetime prevalence rates of diagnosed eating disorders are relatively low, a substantial proportion of young women report subclinical levels of eating disorder attitudes (e.g. weight and shape concerns) and/or behaviours (e.g. binge eating and excessive exercise). For example, a recent study reported high rates of body image disturbance (41.5%), weight and shape concerns (36.4%), and resulting compensatory behaviors (9.4%) in a large sample of adolescent females (Ackard, Fulkerson & Neumark-Sztainer, 2007). Although AN and BN are the most widely recognized diagnoses of eating disorders, the inclusion of BED in the most recent version of the
DSM is an acknowledgment in the field that a broader conceptualization of eating disorders warrant attention. This provides support for the understanding that eating disorders represent a spectrum of difficulties that were not adequately captured in the formal diagnoses of the previous edition, as many do not meet the strict criteria for a diagnosis of AN or BN. These individuals fell in the classification category of Eating Disorders Not Otherwise Specified (ED-NOS) in that they engage in disordered eating behaviours and/or use unhealthy and ineffective weight control measures (DSM-IV-TR; American Psychiatric Association 2000). The goal of the revised Feeding and Eating Disorders section of the DSM-5 was to reduce reliance on this “catch-all” category. Furthermore, subclinical forms of eating disorders that do not meet formal diagnostic criteria are far more common than those that do receive diagnosis, ranging from 4% to 16% of the general population (Neumark-Sztainer, Butler & Palti, 1995; Thompson, Ricciardelli & Williams, 2000; Wood, Becker & Thompson, 1996). Disordered eating consists of a variety of behaviours including severe caloric restriction, skipping meals and moderate anorexic and bulimic behaviours, such as use of diet pills, cycles of binge eating and dieting (Neumark-Sztainer, 1996). These behaviours are of concern because they possibly precede the onset of more severe unhealthy eating patterns, such as Anorexia and Bulimia Nervosa (Attie & Brooks-Gunn, 1989). In addition, even at subclinical levels, body concerns and disordered eating behaviour can be detrimental to health and well-being (Brownell & Rodin, 1994; O’Dea, 1995).

Eating disorders represent one of the most common psychiatric disorders affecting young females (Fairburn et al., 2000). Given the severity of potential complications associated with these disorders (e.g. death, heart problems, osteoporosis, and severe tooth
decay), primary prevention and early detection of cases are considered crucial (Steinhausen, 2002). Prevention work is often considered necessary to reduce the incidence of eating disorders, because treatment programs are not always successful at eradicating the disorder. According to a recent meta-analysis, less than 50% of patients with AN, for instance, were deemed “cured” following treatment (Steinhausen, 2002). As well, relapse rates have been reported being over 30% within a few years following treatment (Richard, Bauer & Kordy, 2005).

Accordingly, effective prevention is dependent upon the identification of specific risk and protective factors that significantly influence the onset of a particular disorder. Furthermore, knowledge about risk factors for eating disorders can be beneficial for improving current treatments for eating disorders. A plethora of research has, therefore, focused on examining individual (e.g., body dissatisfaction) and contextual (e.g., peer teasing) risk factors for developing these problems. To move towards a more comprehensive model of risk for disordered eating behaviour, it is important to better understand the interrelationships among such variables.

**Individual Risk Factors**

**Body dissatisfaction.** Body dissatisfaction has received considerable empirical support as a precursor to eating disturbances (Attie & Brooks Gunn, 1989), and is often recognized as the single strongest predictor of eating disorder symptoms among women (Polivy & Herman, 2002). Body dissatisfaction refers to subjective unhappiness with some aspect of one’s appearance (Ricciardelli & McCabe, 2003). According to the sociocultural model of eating disorders, society promotes an appearance-valued culture that highlights the desirability of physical attractiveness and beauty for both males and
females (Striegel-Moore & Bulik, 2007). These cultural ideals of beauty and body shape are socially modelled and reinforced by the mass media, arguably the most powerful source of such ideals. It is suggested that Western culture’s female ideal of thinness contributes to eating problems. Females internalize this ideal which, in turn, amplifies body image concerns and leads to dietary restraint and restriction (Striegel-Moore & Bulik, 2007).

Two important periods of adolescent development, the early passage into adolescence and the movement from later adolescence to young adulthood, have been identified as sensitive developmental periods (Attie & Brooks-Gunn, 1989). Pervasive concerns among adolescents regarding weight, body image, dieting and eating behaviour have been repeatedly established (Striegel-Moore & Bulik, 2007). Therefore, it is not surprising that problematic eating attitudes and behaviours develop at the same time that girls develop feelings of body dissatisfaction. For girls who gain their weight at puberty primarily in the form of fat tissue, adolescence becomes a period of movement away from the thin cultural female beauty ideal (Brooks-Gunn, 1988). As such, the idealization of a thin body shape may lead to a rejection of one’s own body shape. In contrast, males often have different methods and goals with respect to changing body weight and shape. For example, males often prefer to reduce body fat and increase muscularity (Striegel-Moore & Bulik, 2007). For boys, adolescence marks the time that they become more muscular and, as such, this change pushes them toward the masculine ideal body shape.
Self-esteem. While body dissatisfaction, as discussed previously, is likely a necessary factor in the emergence of eating disorders, it is not sufficient as the only factor that contributes to risk. The question becomes: is it possible for an individual to be dissatisfied with her body, and yet not do anything to change it? The sociocultural model of eating disorders has highlighted the Western culture’s female beauty ideal of thinness and objectification of the female body as factors in the development of eating disorders. The following steps are emphasized: exposure to the thin ideal, internalization of the ideal, body dissatisfaction (a discrepancy between the ideal and self leads to a dissatisfaction with one’s own body), and finally, restriction of diet, binging and/or purging (Striegel-Moore & Bulik, 2007).

However, it is important to recognize that there are those who remain dissatisfied with their bodies, but do not diet, binge or purge. To explain why some, but not all, develop an eating disorder or disordered eating in this cultural climate, additional variables must be proposed that serve to amplify or mitigate against risk arising from the thin beauty ideal. The determining factor might be the level of an individual’s self-esteem, as a large proportion of a female’s self-esteem is linked to her perception of her physical appearance (Akan & Grilo, 1995). Body dissatisfaction and self-esteem are cited as critical concepts in eating disorder research, and as such, are often both included in research in this area.

Self-esteem is a sense of contentment and self-acceptance that results from a person’s appraisal of his/her own worth and ability (Rosenberg, 1965). The relationship between low self-esteem and a variety of difficulties is well-established, including anxiety, academic problems, depression and aggression to name just a few (Striegel-
Moore & Bulik, 2007). It is well recognized that poor self-esteem also often predates the diagnosis of an eating disorder. In community-based studies, low self-esteem has been shown to be a significant risk factor for both BN and AN (Ghaderi, 2001). There are also data on the association between low self-esteem and disordered eating. For example, Heatherton, Polivy and Herman (1990) found that dieters have lower self-esteem than do non-dieters. As such, primary prevention programs that assist with bolstering self-esteem have been shown to significantly reduce the internalization of sociocultural mores, which impacts both levels of body dissatisfaction and disordered eating habits (Berger, Sowa, Bormann, Brix & Strauss, 2008).

This section has reviewed two of the most commonly identified and well-supported risk factors for disordered eating: body dissatisfaction and self-esteem. The next section examines other important psychological correlates of disordered eating: factors related to emotional regulation.

**Emotional Functioning**

It is possible that disordered eating could be more prominent among certain individuals and certain conditions. In the subsequent sections, I briefly review the theoretical work and empirical evidence that encourages the investigation of emotional functioning in disordered eating.

Bruch’s (1973) work has focused upon negative emotions that have lead to increased eating. She labels this emotional eating. The occurrence of problematic eating behaviours in response to negative emotion has been demonstrated across diverse populations, including individuals of various body types. Therefore, it appears that
emotional eating can affect many individuals. Various theories have been proposed in an attempt to elucidate this phenomenon.

The theory of restrained eating (Polivy & Herman, 1985) suggests that when people, obese or of normal weight, restrain their intake of food, a disrupting event such as strong emotions can lead to overeating. Psychosomatic theory posits that those who overeat do so as a learned response to negative affect such that eating alleviates their negative mood states (Kaplan & Kaplan, 1957). These theories posit that individuals experience negative affect that they cannot appropriately manage, and as such, they engage in a negative affect reduction strategy they can easily access, even if it is maladaptive (overeating). Thus, researchers suggest that disordered eating habits may not only be related to the negative emotion that is experienced prior to overeating, but also to emotion regulation strategies to regulate the negative affect. There is evidence to show that individuals with eating disorders lack the skills to effectively cope with negative mood states, and instead engage in restriction, binging/purging, or excessive exercise, which provides a short term distraction from the experience of negative emotion (Smyth et al., 2007; Whiteside et al., 2007). Whiteside and colleagues (2007) found that young adult binge eaters reported less access to adaptive emotional regulation strategies than did nonbinge eaters.

The escape model has also garnered much attention in the eating disorder literature over the past number of years (Heatherton & Baumeister, 1991). It posits that self-awareness is reduced by cognitive narrowing, through a focusing of attention on concrete aspects of the immediate environment. In such a state, it is argued, meaningful interpretations such as attributions, comparisons against standards and implications of
one’s actions are no longer readily accessible, and accordingly negative affect is likely to be alleviated. That is, cognitive narrowing leads to a reduction in, or escape from, the aversive state of negative affect felt by an individual as a consequence of heightened self-awareness. This escape from negative affect may, however, precipitate a cascade of self-defeating behaviours, such as binge-eating. Efforts to escape from unpleasant feelings through cognitive narrowing may erode the usual inhibitions around food (or any other self-destructive behaviour), making the susceptible person more willing to break her dietary rules, and may facilitate further escape through narrowing attention to the actions and sensations involved with eating. In sum, according to this theory, individuals may direct their attention to an immediate and salient stimulus in their environment (e.g. food), in order to shift their internal attention away from negative affect. This has been explored in a naturalistic self-monitoring study that provides empirical evidence for the theory. Engelberg, Steiger, Gauvin and Wonderlich (2007) explored antecedents among individuals with BN by monitoring affect and states of self-awareness prior to the occurrence of binge episodes. They found that negative affect and dissociation, which the authors equated with self-awareness, were elevated prior to binge episodes. The findings lend support to the affect regulation model of eating disorders and are consistent with the escape theory proposed by Heatherton and Baumeister (1991).

The escape model provides an interesting contribution to the field of disordered eating, in that problematic eating behaviour attempts to target and, consequently, alleviate negative emotions. An individual’s experience of difficult emotions, and desire to evade these emotions, are described as the triggers for eating difficulties. Emotion regulation models predict that overeating is preceded by negative affect, and that binging plays an
instrumental role in regulating one’s emotions by improving mood. Specifically, contributions from escape theory purport that binge-eating will be precipitated by decreases in self-awareness (which contributes to cognitive narrowing) and it is this decrease in self-awareness that releases one’s inhibition of food intake and leads to binge eating in restrained eaters. There has been significant theoretical research that highlights the contribution of emotional functioning to our understanding of eating disorders. In addition, previous research has provided evidence for an association between eating disorders and both mood and emotion regulation strategies (Engelberg et al., 2007; Smyth et al., 2007; Whiteside et al., 2007). As such, it is important to investigate why disordered eating individuals have deficits in their ability to regulate emotions. However, there remains a gap in the literature on the role of other variables theoretically consistent with an emotional regulation model of eating disorders. One such variable that has received only limited attention is experiential avoidance. Experiential avoidance refers to the suppression or avoidance of an array of negative psychological experiences, including thoughts, emotions, sensations, memories and urges (Kashdan, Barrios, Forsyth & Steger, 2006). As such, this construct has clear overlap with emotional functioning, and is likely compatible with and contributes to the theoretical concept of emotional dysregulation found to be associated with eating pathology. The next sections describe the concepts of avoidance and acceptance as critical components in various disorders. It is proposed that these concepts could be applied to the area of eating disorders based on the escape model as theoretically outlined by Heatherton and Baumeister (1991).
**Experiential avoidance.** Experiential avoidance involves attempts to alleviate uncomfortable internal experiences by trying to suppress them and/or avoid the situations that produce them. At first glance, this construct appears to be protective in the face of unpleasant emotional experiences and states. The experience of suppressing nervousness in a test-taking situation, for example, could be viewed as an effective coping strategy in the short-term. If one were to apply this concept to teasing, there are advantages in ignoring the painful experience of a peer making fun of your weight and shape. Experiential avoidance becomes problematic, however, when it is applied rigidly and inflexibly such that a person devotes much effort to the consistent avoidance of emotional experiences (i.e. difficult thoughts and emotions). This style of chronic avoidance then interferes with “movement toward valued goals, diminishes contact with present experiences, and thus yields impairment in functioning” (Kashdan et al., 2006, p. 1302). In this manner, the concepts of suppression and avoidance should be viewed as maladaptive responses to a variety of stressors and that various forms of psychopathology should be viewed as unhealthy methods of experiential avoidance (Hayes et al., 1996). Chronic experiential avoidance may hinder the pleasure of being completely immersed in any activity, resulting in a reduction of the frequency of positive events and dampened positive emotions (Hayes et al., 1996).

Whereas experiential avoidance represents the discomfort one experiences in the presence of negative thoughts and feelings, its inverse, mindfulness, reflects the ability to stay in the presence of such uncomfortable events. Mindfulness has been conceptualized as non-elaborative, non-judgmental, present-centered awareness in which thoughts, feelings, and sensations are accepted as they are (Hayes et al., 1996). Hayes et al. (1996)
propose that acceptance is an adaptive alternative to avoidance and, subsequently, corresponding treatments have been designed to reduce experiential avoidance and increase awareness and acceptance.

It is interesting that the concept of emotion has been an underpinning of the theoretical work in understanding both of the different trajectories for AN and BN. The early theoretical work of Hilde Bruch postulated that women with AN had an underlying deficiency in the identification of emotional states and responses (Bruch, 1973). Avoidance of potential emotion is achieved by eliciting predictable and controllable behavioural patterns. Cognitive distraction is afforded by focusing on food, eating, weight, shape, exercise etc. (Oldershaw et al., 2015). Recently, Wildes, Ringham, and Marcus (2010) found that patients with AN reported levels of emotional avoidance equal to or exceeding those endorsed by individuals with social phobia and avoidant personality disorder.

The theory behind the escape model suggests that binge eaters try to escape from negative self-awareness by focusing their attention from more abstract levels (e.g., self-evaluation) to the immediate physical surroundings or stimulus environment (e.g., food). This process is surmised to prevent broadly meaningful thought, and as such, prevent self-awareness that could be distressing. For example, efforts to avoid unpleasant or unwanted cognitions via thought suppression has been found to be a feature of a bulimic presentation in young adult women and men (Lavender, Jardin, & Anderson, 2009). However, the question remains: Are individuals with higher levels of experiential avoidance more susceptible to disordered eating? To my knowledge, very little research in the field has attempted to address this question. Research has begun to examine the
contribution of experiential avoidance to a variety of negative outcomes, ranging from problems with mood to problems with substance use. Wenzlaff and Wegner (2000) have suggested that experiential avoidance paradoxically increases negative thoughts and prevents individuals from taking necessary action (Hayes et al., 2004). In the case of emotion regulation models of eating disorders, avoidance of negative psychological experiences by binge eating and other maladaptive compensatory behaviours would serve as the basis of the disorder (Heatherton & Baumeister, 1991; McCarthy, 1990; Polivy & Herman, 2002). Consistent with this model, a recent study provided support for the conceptualization that disordered eating behaviours, such as binge-eating, excessive exercise and purging, are attempts made to avoid unpleasant affective states (Lavender, Jardin & Anderson, 2009). These researchers found that after controlling for BMI, thought suppression accounted for unique variance in bulimic symptoms in both men and women (Lavender, Jardin & Anderson, 2009). These results suggest that unsuccessful attempts to suppress thoughts may result in a rebound, or increase, in frequency of unwanted thoughts, which may put such individuals at risk for developing maladaptive strategies, such as disordered eating, as a means of coping. In addition, there is also evidence to support the efficacy of interventions incorporating mindfulness in the treatment of serious eating disorders, including AN and BN (Baer, Fischer & Huss, 2005).

While the topic of experiential avoidance is burgeoning upon the eating disordered research, there is accumulating evidence showing experiential avoidance can help explain the onset and maintenance of various forms of psychological struggles (Brown, Ryan and Creswell, 2007; Hayes et al. 2004), including some recent research
that incorporates eating disordered symptoms as criterion variable (Lavender, Jardin, & Anderson, 2009). In addition, mindfulness- and acceptance-based therapies have shown promise in treating individuals with eating disorders (Godsey, 2013; Hayes, Strosahl & Wilson, 1999).

There have been different theories purported to help better understand the different trajectories of the various eating disorders. However, among various theories (notably the escape model and the early work of Bruch), there is a common element of emotions. The new revision of the DSM indicates that the various eating disorders are fairly different and mutually exclusive, not only in their symptomatology, but in their course and treatment recommendations (DSM-5; American Psychiatric Association, 2013). Therefore, I propose that the concept of emotional functioning may not be the exclusive mechanism or path by which we understand different forms of eating disorders, but rather it could be an important variable that may attenuate risk or offer protection. To date, as reviewed above, very few studies have investigated the role of experiential avoidance in disordered eating.

**Contextual Factor: The Role of Teasing**

With the recognition of bullying as a significant problem over the past several years, there are studies that have begun to examine the role that indirect forms of bullying (i.e. teasing) may play in the development and maintenance of disordered eating. The experience of being teased is one of the most common negative peer interactions (Gleason, Alexander & Somers, 2000). Specifically, researchers are now considering the links between weight-related attitudes and opinions that may occur through teasing and eating habits. Since peer relations and peer pressures become increasingly salient in
childhood and adolescence, it is reasonable to propose that peers could have a significant impact on the development of disturbed eating habits and body image concerns during this time (Lieberman, Gauvin, Bukowski & White, 2001).

Of the few studies that have been conducted, most studies demonstrate a relationship between peer teasing and disordered eating (Edlund, Halvarsson, Gebre-Medhin & Sjoden, 1999; Fabian & Thompson, 1989; Lieberman et al., 2001; Shisslak, Crago, McKnight, Estes, Gray & Parnaby, 1998; Wertheim, Koerner & Paxton, 2001; Womble et al., 2001) while one study does not (Jackson, Grilo & Masheb, 2002). A recent meta-analysis (Menzel et al., 2010) investigated the current literature on the teasing and its relationship with both body dissatisfaction and disordered eating has provided some convincing conclusions, however. A positive correlation between teasing and body dissatisfaction has been well-established. The authors reported moderate effect sizes for the overall mean correlations between body dissatisfaction and weight-related teasing (effect size of .39) and appearance-related teasing (effect size of .32). Further, they reported moderate effect sizes for the overall mean correlations between weight-related teasing and both dietary restraint (effect size of .35) and bulimic behaviours (effect size of .36). Overall, these findings suggest that teasing, of various forms, contributes to all three outcomes (Menzel et al., 2010).

Lieberman et al. (2001) examined the role played by social feedback from peers regarding the thin ideal, such as teasing about body weight by peers, peer modeling and other social reinforcement (e.g. talking about weight loss). Their results support a relationship between social feedback and eating behaviour. Specifically, they found that girls who were teased about their weight, as opposed to teasing in general, were more
likely to engage in both dieting behaviour and bulimic-like behaviours. Girls who were upset about, or disturbed by, weight-related teasing reported more problematic eating behaviours compared to girls who were not upset by teasing or were not teased at all (Lieberman et al., 2001).

Weight-related teasing is significantly related to greater concerns about weight and disordered eating behaviours in both overweight and non-overweight individuals, though overweight individuals are likely to be teased more often. Among overweight youth, 29% of girls and 18% of boys who experienced frequent weight-teasing reported significantly more binge-eating as compared to 16% of girls and 7% of boys who were not teased (Neumark-Sztainer et al., 2002). Interestingly, sex differences were also noted in that girls were teased more than boys, and girls reported being bothered more by the teasing than were boys.

These studies highlight the role it may play in problem eating behaviours, particularly among females, with respect to both restrictive eating difficulties, as well as bulimic-like symptoms (Edlund et al., 1999; Fabian & Thompson, 1989; Lieberman et al., 2001; Menzel et al., 2010; Womble et al., 2001).

In contrast, one study reveals no association between peer weight-related teasing and disordered eating. Jackson et al. (2002) examined physical appearance- and weight-related teasing history along with current eating disorder features in age- and BMI-matched female patients with Bulimia Nervosa and binge-eating disorder (aged 19-43 years). Few significant findings regarding the association of teasing history with the eating disorder features were found in either group. For the group with Bulimia Nervosa, neither form of teasing was significantly associated with eating restraint, binge or
vomiting frequency (Jackson et al., 2002). For patients with binge-eating disorder, weight-related teasing was not positively correlated with these previously mentioned eating disordered features. However, general appearance teasing was related to higher dietary restraint in these patients (Jackson et al., 2002).

The lack of significant findings regarding associations between teasing history and eating disorder symptoms is likely the result of sample selection. Only individuals with diagnosed eating disorders and who, by definition, would be experiencing clinically significant levels of eating disturbances were used as participants. Women with subthreshold forms of eating disorders that do not meet formal diagnostic criteria, but who do have subclinical levels of eating concerns, were not represented in this sample. This results in a restricted range of scores obtained on the problematic eating behaviour measures and, therefore, leads to a decreased chance of identifying statistically significant associations between peer teasing and eating concerns. This highlights the need to incorporate individuals who do not meet diagnostic criteria or possess clinical levels of eating disorder features in studies. A more inclusive sample likely would have led to more significant associations, as previous research has found.

In sum, it appears after careful examination of past studies, that teasing has been an empirically well-supported precursor to disordered eating. Although links have been found between eating disordered behaviour and weight-related teasing, much is unknown regarding mechanisms that may underlie this relationship. Knowledge about such mechanisms is important as it will contribute to the theoretical underpinnings of disordered eating, as well as suggest clinical implications for the primary prevention of disturbed eating attitudes and behaviours. Thus, in the current research, I seek to explore
how body dissatisfaction, self-esteem, and experiential avoidance may contribute to the relationship between teasing and disordered eating.

**The Present Investigation**

In general, previous literature on the impact of teasing has *generally* examined a direct association between teasing and eating habits. This might reflect a simplified view of a more complicated process. This criticism is dependent on the idea that not all who have experienced weight-related teasing subsequently develop eating problems. Teasing may be a contextual variable that is a step in a chain leading to disordered eating, and therefore, the precise mechanism that drives this relationship remains unknown. The mediational role of body satisfaction was examined in one study that found that it mediated the relationship between a history of peer teasing and disordered eating in female undergraduate students (Thompson, Coover & Stormer, 1998). However, in this particular study, two widely used subscales of the EDI, the Bulimia and Drive for Thinness subscales, were combined to obtain a global measure of eating disturbance. Therefore, it fails to explore differential mechanisms among two different forms of disturbed eating (i.e. restraint versus binge). In addition, one recent study investigated whether negative affect mediated the relationship between weight-based teasing and binge eating in adolescent girls (Suisman, Slane, Burt & Klump, 2008). Results demonstrated that negative affect partially mediated this relationship, which suggested that increases in negative affect are one way in which weight-based teasing leads to binge eating in girls (Suisman et al., 2008).

As previously discussed, the study of risk and vulnerability in the emergence of disordered eating has identified a number of important precipitating factors, including
body dissatisfaction, self-esteem and emotional factors (e.g. experiential avoidance).

Focusing research on either individual factors (e.g. body dissatisfaction) or environmental factors (i.e. teasing) neglects the possible inter-relationship between these factors, which might explain why not all teased individuals develop symptoms of disordered eating. The present investigation will blend two areas of research in a reasonably novel attempt to examine risk in a more comprehensive way.

The present series of studies will seek to better understand the relationship between peer teasing and disordered eating. In the first study, the question of whether body dissatisfaction and self-esteem are mediators of the relationship between peer teasing and disordered eating will be addressed. The sociocultural model of eating disorders highlights the importance of including these variables of interest when investigating risk for eating disorders and disordered eating. The first study also represents an initial attempt to determine whether experiential avoidance moderates the mediating role of body dissatisfaction and self-esteem in the relationship between teasing and disordered eating. Hayes et al. (1996) have presented an informative and innovative argument for the contribution of experiential avoidance to a variety of psychological problems. However, there have been very few studies, to date, that have investigated this concept within the realm of eating problems (Lavender, Jardin & Anderson, 2009) and none within the domain of teasing. Furthermore, experiential avoidance has only been used as a predictor variable in disordered eating research, and as such, this study is unique in that it will provide the first moderated-mediational model of teasing-disordered eating.
The second study will serve two purposes: It will provide a replication of study 1, using a new sample of participants; and it will explore the mediating effects of other emotion-based variables, alexithymia, coping and depression, upon the teasing-disordered eating relationship, thus further exploring the emotional regulation escape model of disordered eating. Exploration of experiential avoidance as a potential moderator to the meditational analysis will again be undertaken. Theoretical details and a description of the methodology for Study 2 may be found below.
Chapter Two: Study One

There has been a shift in clinical practice to acknowledge that eating problems may represent a spectrum of difficulties that are not adequately captured in the formal DSM eating disorder diagnoses. In the literature, the term of eating disorder is used to represent individuals who meet the strict and severe criteria for a diagnosis of AN or BN, for example. However, research that incorporates the broader concept of subclinical eating disorders, often referred to “disordered eating”, has gained tremendous attention. Some authors argue that disordered eating might be more useful term, with respect to incidence, as subclinical forms of “eating disorders” appear to be more common (Mussell, Binford & Fulkerson, 2000). Changes to the most recent version of the DSM (DSM-5; American Psychiatric Association, 2013) reflect this change in understanding with the incorporation of binge eating disorder as a formal diagnosis, as practitioners believed it was more common than AN or BN (Mussell, Binford & Fulkerson, 2000). The consideration of disordered eating has also shown its importance in the identification and prevention of eating difficulties. Because treatment is not often successful at eradicating the disorder, it is necessary to focus research and clinical practice on reducing the incidence of eating disorders by acknowledging early detection of individuals, and as well, successful primary prevention techniques aimed towards those at risk.

A transformation in our conceptualization from eating disorders to disordered eating has been beneficial as described above. Previous research typically consolidates various disordered eating behaviour into one category measured by one scale. For example, studies have often used the Eating Attitudes Test (EAT), or the children’s version of the same scale (ChEAT), to measure disordered eating (Akan & Grilo, 1994;
Lieberman et al., 2001). This scale measures eating attitudes and behaviours associated with eating disorders with higher scores representing more disordered eating patterns. Disordered eating symptoms can include anything from unhealthy dieting, unhealthy eating, overeating, binging, diet pill or laxative use as a means of weight control. However, the grouping of disordered eating behaviours into one collective label in research isn’t helpful when we consider how heterogeneous the symptoms can be.

Various theories have been proposed to help explain different trajectories of disordered eating. First, overeating has been identified as a method of disordered, or problematic, eating. Different aspects of overeating or binge eating have been explored in the theoretical literature. Emotional eating describes overeating to help alleviate negative emotions. Based mainly on the early work of Bruch (1973), it has been argued that an individual’s misperception of an emotional state can lead him/her to overeat as a means of alleviating the arousal from this internal state. As previously discussed, escape theory (Heatherton & Baumeister, 1991) suggests that individuals cope with negative emotions by overeating as it diverts the attention away from stimuli that threaten their ego or create intense self-awareness, by allowing them to focus on something pleasurable such as food. Food and overeating provides a means of coping for these individuals.

Second, disordered eating has followed another definition whereby the individual restricts one’s diet, irrespective of specific emotional states. The term restrained eating is used. This definition falls in line with a socio-cultural theory of disordered eating (Striegel-Moore & Bulik, 2007), in that individuals who are exposed to pressures to be thin are more likely to adopt a thin-ideal as their own personal standard (internalization of the thin ideal). Dissatisfaction with body weight and shape may result from the perceived
discrepancy between the ideal and their own personal physical appearance and, as a result, individuals are motivated to change their body shape by restricting diet.

Different theoretical perspectives have encouraged some researchers to investigate specific forms of disordered eating, including restrictive eating and emotional eating, as a means of investigating different paths of eating difficulties. AN is associated with restrictive eating, whereas the main symptom of BN includes binging (and subsequent purging). The DSM-5 is clear that these are fairly distinct disorders with respect to their symptomology, course and treatment. As such, it makes intuitive sense, as differing theories assert, that there are different processes precipitating these varied forms of disordered eating.

**Purpose of Study One**

This study will extend the research on the relationship between peer teasing and the three forms of disordered eating by exploring how body dissatisfaction, self-esteem, and experiential avoidance contribute to the relations. Since experiential avoidance, in particular, has not been investigated in the teasing and disordered eating research before, its inclusion in models of eating disorder risk is poised to expand understanding in this area.

First, the direct effects of peer weight-related teasing and various forms of disordered eating will be examined. Second, I will describe the potential mediating role of body dissatisfaction and self-esteem in the relation between teasing and specific forms of disordered eating. Third, I will present experiential avoidance as a moderator of the mediating relationship of body dissatisfaction/self-esteem to the peer teasing and specific disordered eating link.
The Role of Mediating Variables

**Body dissatisfaction.** A positive association has been found between body dissatisfaction and peer teasing (Fabian & Thompson, 1989; Gleason, Alexander & Somers, 2000; Grilo, Wilfley, Brownell & Rodin, 1994; Lieberman et al., 2001; Menzel et al., 2010; Ricciardelli & McCabe, 2003). In addition, a significant positive correlation between disordered eating habits and low body satisfaction is well established (Edlund et al., 1999; Lunner, Werthem, Thompson, Paxton, McDonald & Halvaarson, 2000; Menzel et al., 2010; Paxton, 2002). Further support for the assertion that body dissatisfaction acts as a mechanism between peer teasing and disordered eating is provided by one study that found that body image satisfaction mediated the relationship between history of peer teasing and eating disturbances in female undergraduate students (Thompson, Coover & Stormer, 1998). Thus, there seems to be some evidence that body dissatisfaction mediates the effects of peer teasing.

It is posited that peer teasing about one’s weight is used as evidence by the recipient of the teasing that one’s body shape is not desirous. This information is then used to determine how satisfied one is about one’s body shape. Thus, the more the teasing, the less one is satisfied with one’s shape, and to the extent that one has low body satisfaction, the individual will seek out means to alter one’s shape with the goal of lessening body dissatisfaction. Restricting one’s diet is a method to change body weight, in order to lessen the impact of body dissatisfaction. This hypothesis is proposed given the theoretical literature stating that the internalization of the thin beauty ideal leads to body dissatisfaction which puts individuals at risk for eating restriction (Striegel-Moore
Therefore, it is hypothesized that body dissatisfaction will act as a mediator between peer teasing and restrictive eating.

**Self-esteem.** As discussed in the previous chapter, self-esteem differs from body dissatisfaction as it represents a general appraisal of one’s worth or ability (Rosenberg, 1965), as compared to a specific appraisal about one’s body shape. Higher self-esteem reflects a higher self-acceptance and self-contentment, in general. The relationship between low self-esteem and disordered eating has been shown consistently in the research (Croll, Neumark-Sztainer, Story & Ireland, 2002; Fabian & Thompson 1989; Keel, Fulkerson, & Leon, 1997). Furthermore, research has shown that weight-related teasing is correlated with lower self-esteem in adult women (Gleason et al., 2000; Jackson et al., 2002).

Individuals with low self-esteem may be particularly vulnerable to adopting societal standards as their own measure of self-worth. As well, they may seek to evaluate themselves through social comparison and evaluation. Therefore, they compare their body with others, such as peers or the media, which heightens the perception of the discrepancy between the self and the ideal (Striegel-Moore & Bulik, 2007). As a result, the feedback they receive from peers about their body could impact their general sense of self. Escape theory (Heatherton & Baumeister, 1991) provides an interesting contribution to the field of overeating, in that binge eating behaviour attempts to distract from and, consequently, alleviate negative emotions. Therefore, it is posited that peer teasing about one’s weight is impactful on one’s self-worth. The resulting low self-esteem leads to overeating as an individual seeks to alleviate negative emotions, in order to improve a sense of self. Thus, when we consider the goal of eating to change one’s
emotional experience, it is proposed that self-esteem will serve as a mediator in the relationship between teasing and *emotional* eating.

**The Role of Moderation**

Although peer weight-related teasing, body dissatisfaction and low self-esteem can adversely affect eating habits, there are factors that may attenuate or temper these adverse effects. Risk factors related to emotions might be an interesting avenue to which current research could turn. The issues of emotions and emotional functioning are pertinent to the understanding of eating disorders, both theoretically and empirically. As previously summarized, significant correlations have been found between mood and eating disorders (Engelberg et al., 2007; Smyth et al., 2007; Whiteside et al., 2007). The most compelling theoretical argument put forth by Heatherton and Baumeister (1991) offered preliminary ideas that those who engage in disordered eating habits and/or eating disorders might do so as a means to escape the distress they experience as a result of sitting with unpleasant emotions.

While the role of emotions has been thoroughly investigated in diagnosed eating disorders, there is little explication of its role in disordered eating. For these individuals, experiential avoidance (i.e. avoidance of emotions) may be a critical risk factor. However, there are only a few studies, to date, that have incorporated experiential avoidance or mindfulness into models of risk for eating disordered behaviour; thus, much remains to be understood. For example, Lavender, Jardin & Anderson (2009) found that experiential avoidance and mindfulness contributed unique variance to the prediction of disordered eating symptoms for both men and women. However, experiential avoidance
and mindfulness may play a more complex role in the relationship between teasing and disordered eating.

**A moderated-mediational model of disordered eating – Experiential avoidance.** In the present research I utilized escape theory and empirical findings (Heatherton & Baumeister, 1991; Lavender, Jardin & Anderson, 2009) to hypothesize that individuals’ level of experiential avoidance (ability to stay in the presence of strong negative thoughts and emotions) interacts with the indirect effect of both body dissatisfaction and self-esteem in the relationship between peer teasing and disordered eating. Thus, this study builds upon previous empirical research by examining a moderated mediation model that investigates the relationship between teasing and disordered eating, mediators (body dissatisfaction and self-esteem) and a moderator (experiential avoidance) simultaneously. In particular, it was of interest to assess if the mediating capacity of body dissatisfaction and self-esteem was contingent on specific levels of experiential avoidance when examining the relation between peer teasing and disordered eating. Specifically, using the mediation model as a basis, I additionally considered, in the present studies, the degree to which the indirect relationship between teasing and disordered eating is differentially impacted for individuals, based on their levels of reported experiential avoidance.

Individuals with high levels of experiential avoidance attempt to avoid the discomfort experienced by thoughts, feelings, memories, physical sensations, and other internal experiences. The short-term relief of discomfort is achieved through avoidance, thereby increasing the likelihood that the behaviour will persist. Importantly, the conceptualization of experiential avoidance suggests that it is not negative thoughts,
emotions, and sensations that are problematic per se, but how one responds to them that can cause difficulties (Kashdan et al., 2006). Specifically, a habitual and persistent unwillingness to experience uncomfortable thoughts and feelings (and the associated avoidance and inhibition of these experiences), in the long-term, is thought to be linked to a wide range of problems (Hayes et al., 1996). Thus, I expect a moderated mediation, or interaction between my moderator and mediators, to exist. Specifically, it is expected that those individuals with high experiential avoidance will seek to escape the discomfort associated with difficult emotions, feelings, and internal experiences (like those based on the experience of peer teasing). As a result of this consistent avoidance, they are more likely to experience negative self-esteem and body dissatisfaction because of the chronic unwillingness to deal with the emotions they experienced as a result of teasing. These individuals will, then, turn to disordered eating behaviours, as in restrictive eating and emotional eating, as methods to alleviate the discomfort they are experiencing, and as a means of coping with high body dissatisfaction and negative self-esteem.

In contrast, those with reported low levels of experiential avoidance are better able to face discomfort experienced by thoughts, feelings, memories, physical sensations, and other internal experiences. In this case, I would expect that self-esteem and body dissatisfaction do not account for the link between peer teasing and disordered eating. Individuals low in experiential avoidance do not seek to escape from their emotions and could be described as mindful or “present” in their experience of difficult emotions. Therefore, teasing will be directly related to disordered eating habits. This teasing-disordered link is not accounted for by individual risk factors, such as self-esteem and body dissatisfaction. For these individuals, the experience of teasing in itself is enough
for them to focus on their control over food, by either restricting or emotional eating habits.

Method

Participants

Two hundred and thirteen women between 18 and 47 years (M = 18.84, SD = 2.27) participated in the study. The majority of participants were in first year university (80.8%) and identified themselves as Caucasian (84.5%). The other 15% most frequently identified ethnicities included Asian (specifically, South East Asian and Japanese) and European (e.g. Italian). BMI values ranged from 10.84 to 49.47 (M = 24.2894, SD = 4.91802), representing a wide range from severely underweight to obese. Using guidelines from Health Canada, participants were classified as underweight (3.3% - BMI less than 18.5), average range weight (60% - BMI between 18.5 and 24.9), overweight (28.2% BMI between 25 and 29.9) and obese (8.5% - BMI over 30) (Health Canada, 2003). Three participants did not report their height and weight.

Measures

Demographic information. Participants were asked to report their age, university level, ethnic group, height, weight and date they last weighed themselves (month and year) (see Appendix A). Self-reported height and weight have been found to be sufficiently reliable to use in research (Imrhan, Imrhan & Hart, 1996). Body mass index for each participant was calculated according to the following equation: Weight (in kilograms) divided by height (in meters) squared.

Peer weight- and shape-related teasing. Participants were given a measure of their experiences of weight- and shape-related teasing (Perception of Teasing Scale
Participants responded to 6 questions about a history of weight- and shape-related teasing in childhood and adolescence, in addition to the impact of the teasing on their feelings using a 5-point rating scale ranging from “Very Upset” to “Not Upset”. These questions were adapted to focus on teasing by peers, rather than teasing by people in general. Separate total teasing frequency and impact of teasing scores were calculated, with higher scores indicating a greater frequency and greater impact of weight- and shape-related teasing by peers. Studies of psychometric properties of the POTS demonstrate high internal consistency (alphas above .80) and construct validity (Thompson et al., 1995). The estimates of internal consistency were also high in the present study, .84 (frequency) and .91 (impact), respectively.

**Body dissatisfaction.** The Body Dissatisfaction subscale of the Eating Disorder Inventory (EDI; Garner, Olmstead & Polivy, 1983; see Appendix C) is a 9-item questionnaire designed to measure body dissatisfaction. It includes questions that reflect how a person evaluates her/his appearance and body. Items are formulated as statements such as: “I think that my stomach is too big” and “I feel satisfied with the shape of my body”. Participants responded to these items on a 6-point scale with endpoints labeled 1 “Never” and 6 “Always”. For each question the most symptomatic response is recoded to a score of 3, the next most symptomatic 2, and the next 1. The remaining three choices receive a score of 0. Some items were reversed scored. The EDI has reported good validity and reliability. Internal consistency coefficient alpha for the body dissatisfaction subscale has been reported as .90 in eating disorder samples. Very similar findings for matched female controls have been reported as .91 (Garner, Olmstead & Polivy, 1983).
Results from the present study indicated that the internal consistency of this scale was .90.

**Experiential avoidance.** The Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004; see Appendix D) is a 9 item questionnaire designed to measure the construct of experiential avoidance. It assessed the degree to which an individual faces difficulty with thoughts, avoids feelings, and is unable to act in the presence of difficult private events. Examples of items include “I’m not afraid of my feelings” and “If I could magically remove all the painful experiences I’ve had in my life, I would do so”.

Participants were asked to rate the truth of each statement as it applies to them, on a 7-point scale with endpoints labeled “Never True” and “Always True”. Some items were reversed scored. Internal consistency for the AAQ has been reported to be .70, which is deemed adequate for a short scale (Hayes et al., 2004). The internal consistency, as measured by Cronbach’s Alpha, of the AAQ items was .80 in the present study.

**Self-esteem.** The Rosenberg Self-Esteem Scale was used to assess participants’ self-esteem (RSES; Rosenberg, 1965; see Appendix E). This is a 10-item scale and includes questions that refer to the individual’s positive or negative evaluation of one’s worth or value. Examples of items include: “At times, I think I am no good at all” and “On the whole, I am satisfied with myself”. Participants used a 4-point scale to classify each item as “Strongly Agree” to “Strongly Disagree. Some items were reversed scored. Internal consistency for the items on this scale has been reportedly high, with alphas between .77 and .88. Studies have reported high test re-test reliability of the RSES (Rosenberg, 1986). Internal consistency for the items on this scale was shown to be high in the present study, with an alpha level of .90.
Disordered eating. The Dutch Eating Behavior Questionnaire (DEBQ) is a 33-item questionnaire, which was used to measure attitudes and behaviours associated with various types of disordered eating (Van Strien, Frijters, Bergers & Defares, 1986; see Appendix F). The following subscales were used in the present study. The Restraint eating scale refers to restricting diet (see items 1-10). Examples of items include “Do you deliberately eat foods that are slimming?” and “Do you deliberately eat less in order not to become heavier?”. Emotional eating refers to eating in response to an emotional arousal state, such as fear or anxiety (see items 11-23). Examples of the items include “Do you have the desire to eat when you are irritated?” and “Do you have the desire to eat when you are disappointed?”. Participants responded to these items on a 5-point scale with endpoints labeled 1 “Never” and 5 “Very Often”. Therefore, two eating scores (e.g. restrained and emotional eating) were generated based on the items, with higher scores representing more problematic eating behaviours. The DEBQ demonstrates high internal consistency for each subscale in past research (.80 to .95) (Van Strien et al., 1986). The estimates of internal consistency were also high in the present study, and were .92 and .94 for the restrained and emotional eating subscales, respectively.

Procedure

Potential participants were sent an information email through the Psychology Participant Pool at the University of Guelph, which explained the purpose of the study and invited them to participate in the study (see Appendix K). They were then provided with an online consent form indicating that participation was voluntary, that consent could be withdrawn at any time, and that questionnaires were number coded for confidentiality (see Appendix L). If participants agreed to participate, they were
provided with a website URL to take them to a series of online questionnaires. The measures were counterbalanced randomly to control for an order effect. Written instructions appeared at the beginning of each questionnaire. Following completion of all measures, participants received a written debriefing sheet (see Appendix M), thanked for their participation and received course credit.

Results

Descriptive Analyses

Prior to beginning the analyses, data were checked for completeness, accuracy, and descriptive statistics. When univariate outliers (e.g., scores more than 3 standard deviations from the mean) were detected (a total of 4 cases for 1 variable), analyses were run with and without the outliers to determine their actual impact on the analyses. The two analyses yielded nearly identical results: the inclusion or exclusion of the observations did not alter the pattern of results or any decision regarding the statistical significance of the findings. Accordingly, the data associated with these observations were included in all analyses.

Descriptive statistics (frequencies, means, and standard deviations) across the sample are found in Table 1. The total scores for frequency of teasing and body dissatisfaction were positively skewed and, as such, the appropriate square root transformations were applied to these variables. Analyses were performed with both transformed and raw data and no differences were seen in the results of both types of analyses; therefore, results are reported using raw data.

Only 23.5% of the participants reported that their peers had never teased them about their weight or shape ($n = 50$ of 213). Of those who were teased, 88.6% of the participants indicated, at least, some distress as a result of the teasing ($n = 156$ of 176).
**Correlations.** Bivariate correlations among all variables are reported in Table 2. Most of the correlations were significant. Frequency of teasing was positively correlated with degree of distress as a result of teasing. As expected, both frequency and impact of peer weight-related teasing were positively correlated with various aspects of disordered eating. Specifically, the more frequently participants were teased about their weight or shape, the more they reported overeating in response to an emotional aroused state (“emotional eating”). Furthermore, the more distressed participants were as a result of peer teasing (impact of peer teasing), the more likely they would report restricting their diet (“restrained eating”), and reported overeating in response to an emotional aroused state (“emotional eating”). The frequency and impact of peer teasing were both positively related to body dissatisfaction and negatively related to self-esteem. Body dissatisfaction was positively correlated and self-esteem was negatively correlated with all subscales of disordered eating. Thus, participants with higher levels of body dissatisfaction and lower levels of self-esteem also experienced more disordered eating.

**Frequency Versus Impact of Peer Teasing.** Impact of peer teasing was significantly correlated with restrained eating but frequency of peer teasing was not. However, because these two variables are significantly correlated, they also overlap and share variance. Therefore, a regression analysis was conducted to determine which variable, frequency of peer teasing or the impact of peer teasing, contributed more unique variance to the overall model. In one regression analysis, the total restrained eating score was the dependent variable and the two teasing variables were entered simultaneously as independent variables. The impact of teasing was found to be a statistically significant individual predictor of restrained eating, \( r = .40, t = 5.67, p < .05; \) however, the frequency
of teasing was not, $r = .11, t = 1.62, p > .05$. The impact of peer teasing uniquely accounted for approximately 16% of the variance in restrained eating. In contrast, adding the frequency of peer teasing to the model did not account for an increase in unique variance. As a result of these analyses, the impact of peer teasing was used as the independent variable in subsequent analyses.

Both impact and frequency of peer teasing were significantly correlated with emotional eating. The impact of teasing was found to be a significant individual predictor of emotional eating, $r = .27, t = 3.63, p < .05$; however, the frequency of teasing was not, $r = .21, t = 3.08, p > .05$. The impact of peer teasing uniquely accounted for approximately 7% of the variance in emotional eating. In contrast, adding the frequency of peer teasing to the model accounted for an increase in 1% of the variance, a difference that is not statistically significant, $p > .05$. As a result of these analyses, the impact of peer teasing was used as the independent variable in subsequent analyses.

**Multiple Mediational Analyses**

It was predicted that body dissatisfaction would mediate the relationship between peer teasing and restrained eating. It also was predicted that self-esteem would mediate the relationship between peer teasing and overeating (as measured by emotional eating subscale; see Figure 1). To test these hypotheses, a multiple mediation analysis was conducted in order to evaluate the indirect effects of two or more mediators simultaneously, such that the effect of one mediator is conditional on the other mediator(s) in the model. Following the recommendations by Preacher and Hayes (2008), a bootstrapping sampling procedure was applied for assessing indirect effects. This is a nonparametric resampling procedure where a large number of samples (5000 in
the current study) are drawn with replacement from the full data set. In the present study, the bootstrap procedure was conducted using the SPSS macro provided by Preacher and Hayes (2008). A point estimate for an indirect effect was considered significant if zero was not included in the 95% bias-corrected confidence interval (C.I.).

As there were two dependent variables (restrained and emotional eating) and one independent variable (impact of peer teasing), two separate analyses were run using both combinations of dependent and independent variables.

**The relation between impact of peer teasing and restrained eating, with body dissatisfaction and self-esteem serving as mediators.** Table 3 summarizes results for the multiple mediation analysis using the impact of peer teasing as the independent variable and restrained eating as the dependent variable. For this analysis, body dissatisfaction functioned as a mediator between teasing and restrained eating (point estimate = .09, C.I. = 0.0434-0.1463), but self-esteem did not (point estimate = .01, C.I. = -0.0156-0.0377).

**The relation between the impact of peer teasing and emotional eating, with body dissatisfaction and self-esteem serving as mediators.** Table 4 summarizes results for the multiple mediation analysis using the impact of peer teasing as the independent variable and emotional eating as the dependent variable. For this analysis, results showed that self-esteem functioned as a mediator between teasing and emotional eating (point estimate = .03, C.I. = 0.0039-0.0810), but body dissatisfaction did not (point estimate = .02, -0.0281-0.0739).
In sum, body dissatisfaction was a significant mediator between impact of peer teasing and restrained eating. Self-esteem was a significant mediator between impact of peer teasing and emotional eating.

**Moderated Mediation Analyses**

It was predicted that the mediator effect of self-esteem and body dissatisfaction on the relation between teasing and disordered eating would be moderated by experiential avoidance (see Figure 1).¹ For this moderated mediation a bootstrap procedure was used, which provides a method for probing the significance of conditional indirect effects at different values of the moderator variable (Preacher & Hayes, 2008). Following Preacher and Hayes’ (2008) recommendation, mediator and moderator variables were first centered in order to increase interpretability of interactions.

**Moderated mediation - the relation between the impact of peer teasing and restrained eating through body dissatisfaction with experiential avoidance as a moderator.** In this analysis, the impact of peer teasing was the independent variable, body dissatisfaction was the mediator, experiential avoidance was the moderator and restrained eating was the dependent variable.

Table 5 presents the results for the moderated mediation analysis. It had been predicted that the relationship between body dissatisfaction and restrained eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. However, the interaction term between body dissatisfaction and experiential avoidance was non-significant ($B = 0.0885$,

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¹ Experiential avoidance was first run as a potential mediator to determine if there was a more straightforward role for this variable. Results showed that it was a significant mediator between the impact of peer teasing and restrained and emotional eating, with small effect sizes noted.
Therefore, contrary to expectations, experiential avoidance did not moderate the mediation by body dissatisfaction of the association between impact of peer teasing and restrained eating.

**Moderated mediation - the relation between the impact of peer teasing and restrained eating through self-esteem with experiential avoidance as a moderator.**

In this analysis, the impact of peer teasing was the independent variable, self-esteem was the mediator, experiential avoidance was the moderator and restrained eating was the dependent variable. Table 6 presents the results for the moderated mediation analysis. It had been predicted that the relationship between self-esteem and restrained eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. However, the interaction term between self-esteem and experiential avoidance was statistically non-significant ($B = 0.0669, t = .6069, p = 0.5447$). Therefore, contrary to expectations, experiential avoidance did not moderate the mediation by self-esteem of the association between impact of peer teasing and restrained eating.

**Moderated mediation - the relation between the impact of peer teasing and emotional eating through body dissatisfaction with experiential avoidance as a moderator.**

In this analysis, the impact of peer teasing was the independent variable, body dissatisfaction was the mediator, experiential avoidance was the moderator and emotional eating was the dependent variable. Table 7 presents the results for the moderated mediation analysis. It was predicted that the relationship between body dissatisfaction and emotional eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential
avoidance. However, the interaction term between body dissatisfaction and experiential avoidance was non-significant ($B = -0.1354$, $t = -1.3943$, $p = 0.1650$). Therefore, contrary to expectations, experiential avoidance did not moderate the mediation of body dissatisfaction between impact of peer teasing and emotional eating.

**Moderated mediation - the relation between the impact of peer teasing and emotional eating through self-esteem with experiential avoidance as a moderator.** In this analysis, the impact of peer teasing was the independent variable, self-esteem was the mediator, experiential avoidance was the moderator and emotional eating was the dependent variable. Table 8 presents the results for the moderated mediation analysis. It was predicted that the relationship between self-esteem and emotional eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. Results indicated that the interaction term between self-esteem and experiential avoidance was significant using the impact of peer teasing ($B = 0.2848$, $t = 2.4669$, $p = 0.0146$), as the independent variable, which is indicative of moderated mediation.

Again, following Preacher and Hayes’ (2008) recommendation, high and low levels of experiential avoidance were operationalized as one standard deviation above and below the mean score of this variable. Table 8 presents the estimates, standard errors, $z$ statistics, and significance values for the conditional indirect effects for self-esteem across low and high levels of experiential avoidance. Results indicated that, when using the impact of peer teasing as the independent variable, the conditional indirect effect of self-esteem approached significance in the low experiential avoidance condition.
(p = 0.0802), but was not significant in the average (p = 0.3105) or high (p = 0.7856) experiential avoidance condition (see Figure 3).

In conclusion, experiential avoidance moderated the mediation of self-esteem between the impact of peer teasing and emotional eating; however, not in the direction that was anticipated. Using the impact of peer teasing as the independent variable, at average or high experiential avoidance, there was no relationship between self-esteem and emotional eating. Among those with low experiential avoidance, low self-esteem was correlated with higher levels of emotional eating. Further, experiential avoidance did not moderate the mediation of body dissatisfaction between impact of peer teasing and emotional eating. In addition, experiential avoidance did not moderate the mediation of either self-esteem or body dissatisfaction between impact of peer teasing and restrained eating.

**Discussion**

**Summary of Study 1 Results**

This study examined the influence of peer weight-related teasing on women’s self-reported eating behaviours. An integrated model was proposed to explore the complex relationship between peer teasing and disordered eating. Previous researchers have found a significant positive relationship between peer teasing and disordered eating (Menzel et al., 2010), without accounting for possible mediators or moderated mediators or differentiating between forms of disordered eating.

Initially, I predicted that body dissatisfaction would mediate the relation between peer teasing and restrained eating and self-esteem would mediate the relation between peer teasing and overeating (as measured by emotional eating subscale). Subsequently, I
investigated whether an individual’s level of experiential avoidance could amplify or attenuate the proposed indirect relationship between peer teasing and disordered eating through a moderated mediation model. A summary of results is presented, separately, based on the two dependent variables: restrained and emotional disordered eating.

**Restrained Eating.** Body dissatisfaction has repeatedly been shown to be a strong predictor of disordered eating across studies (e.g. Attie & Brooks Gunn, 1989, Polivy & Herman, 2002), and furthermore, it has also been shown to play a mediator role in the relationship between teasing and restrained eating (Thompson et al., 1995, 1999). Teasing indicates to young women that others do not consider their body shape to be satisfactory. The extent that they accept this feedback as veridical leads them to engage in restrained eating in order to enhance their body satisfaction.

The relationship between impact of peer teasing and restrained eating was mediated by body dissatisfaction, but not self-esteem. In line with the findings of Thompson and colleagues (1995, 1999), who also used a sample of undergraduates, the present results suggest that those who are teased about their weight or shape are not satisfied with the way their body looks, and engage in restrictive eating as a means of lessening the negative feedback. Intuitively, these findings seem plausible: individuals would not engage in restricting diet, despite being teased about their body, if they, themselves, were happy with the way they look.

The present study also incorporated experiential avoidance as a moderator of the mediational link between body dissatisfaction and restrained eating. An additional moderated-mediation model was examined that included self-esteem as the mediator, as the previous mediational analysis could have been non-significant because there was a
moderator interfering with any different effect. However, contrary to expectations, experiential avoidance did not moderate the relationship. Regardless of the level of experiential avoidance, the mediational model was similar for both body dissatisfaction and self-esteem.

One possible explanation for this pattern of results is that perhaps comfort with emotions (as in low levels of experiential avoidance) is not as important a contributor in restrained eating as initially proposed. Theories of disordered eating relating to emotions (e.g. theory of restrained eating, psychosomatic theory and escape theory as outlined above) all posit that problematic eating behaviours attempt to target and, consequently, alleviate negative emotions. Specifically, they highlight that an individual’s experience of difficult emotions, and desire to evade these emotions, are the triggers for eating difficulties. However, all of these theories focus on overeating, as opposed to restrictive eating behaviours.

Restrained disordered eating might be better conceptualized by the sociocultural model of eating disorders, which suggests that society promotes the culture’s physical standard of beauty (Striegel-Moore & Bulik, 2007). Western culture places value on a thin body shape for females who internalize this ideal. In turn, amplified body image concerns then lead to dietary restraint and restriction (Striegel-Moore & Bulik, 2007). If females are teased about weight or shape, and also feel unhappy with the way they look, then they are more likely to do something extreme to change their bodies (restrained eating), regardless of their comfort level in being in the presence of strong emotions (experiential avoidance). Body dissatisfaction may thus be seen as a fact to individuals to mean that their body shape is not valued by others. Restrictive eating is, therefore, a
means of changing this fact, whether one feels uncomfortable or not with the emotions accompanying this information. From this perspective, meeting a cultural ideal of thinness supersedes all other considerations, including one’s emotional reactions to failure to meet this cultural standard.

**Emotional Eating.** Escape theory suggests that individuals attempt to escape from negative emotions by utilizing eating as a method of coping with difficult feelings. The relationship between impact of peer teasing and emotional eating was mediated by self-esteem, but not body dissatisfaction. This pattern of results suggests that those who are teased about their weight or shape do not engage in emotional overeating if they have high self-esteem (Mintz & Betz, 1988). These results are consistent with the notion that low self-esteem often precedes the diagnosis of an eating disorder (Ghaderi, 2001).

When experiential avoidance was used as a moderator of the relation between self-esteem and emotional eating, significant results were obtained. However, the pattern of results was different than what was initially expected. This model suggested that for women with low levels of experiential avoidance, self-esteem mediated the relationship between teasing and emotional eating. However, for women with average- or high- levels of experiential avoidance, self-esteem did not mediate the relationship between peer teasing and emotional eating. Instead, there was a direct relation between teasing and emotional eating. These results suggest that at low levels of experiential avoidance, more emotion may be experienced as one is able to sit comfortably with one’s feelings and does not attempt to evade or escape them. As such, the impact of one’s self-esteem becomes paramount and, therefore, this concept is able to serve as a mediator in the teasing and emotional eating relationship. Perhaps, in the case of average- and high-
levels of experiential avoidance, there is little to no consideration of an overall sense of self-esteem or worth. They receive negative feedback about their weight and shape, and are not comfortable with the feelings evoked by that feedback, and as a result they engage in emotional eating as a method of alleviating those difficult feelings. In these situations, self-esteem is not specifically absent, but instead of focusing on how they feel about themselves (general self-worth), individuals focus on their experience of the teasing and the feelings brought forth from that feedback. In sum, these individuals are not comfortable sitting with the feelings they experience as a result of the social feedback (i.e. teasing) and, as a result, self-esteem does not act a mechanism for understanding the link between teasing and emotional eating.

These findings provide some initial support for the escape theory (Heatherton & Baumeister, 1991). In their model, eating disorders are said to be based on the notion that individuals attempt to escape from and, in turn, alleviate negative emotions by focusing on concrete factors found in their immediate environment (e.g. food). My current findings suggest that individuals who are teased about their weight and shape, but able to sit comfortably with the emotions (as in low levels of experiential avoidance), will engage in emotional overeating, if they have lower self-esteem. Self-esteem no longer remains a mechanism by which to understand the link between teasing and emotional eating, in the case of individuals with average- or high-levels of experiential avoidance. In the condition of average- or high-levels of experiential avoidance, there is a relation between teasing and emotional eating, without consideration to one’s self-esteem. Therefore, what places these individuals at-risk is their difficulty in the presence of uncomfortable feelings. According to escape theory, people find it particularly
burdensome to be aware of themselves, as awareness can focus on shortcomings that create negative affect, so they seek to escape. It is, however, difficult to escape from one’s own awareness, so the strategy becomes to focus the awareness on the immediate environment (e.g. the presence of food) and overeat in response to their inability to deal with difficult emotions and private thoughts (Heatherton & Baumeister, 1991). As such, this pattern of results suggest support for the conceptualization that disordered eating behaviour, such as overeating, is an attempt made to avoid and regulate unpleasant affective states.

Clinical Implications

On a practical level, findings from this study have important implications for the primary prevention of disturbed eating behaviours. Previous research in the area of eating disorders and disordered eating has focused on and been successful in identifying several risk factors. The implications that are often generated based on the results of these studies point to several primary preventative techniques for reducing disordered eating behaviours. However, it appears from a review of the literature (Ghaderi, 2001) that suggestions are often made in a “piece-meal” fashion. By this I mean that, for instance, when research identifies “teasing” as a risk factor for subsequent eating difficulties, the clinical implications of these findings indicate that primary prevention groups should educate individuals about the negative effects of teasing and develop strategies to battle against teasing (Lieberman et al., 2001), without considering the role that other factors may play in this process.

Based on the pattern of results presented in this study, prevention programs should likely be more tailored to meet the presenting subtype of disordered eating, as
opposed to simply a “general” preventative disordered eating program. There has been consensus in the field as to whether or not difficulties with overeating versus restrained eating (jointly described as disordered eating) should be addressed in the same program. Some researchers have suggested, however, that primary prevention techniques should incorporate both types of difficulties, so as to avoid placing undue emphasis on one or the other [e.g. focus on decreasing overeating by increasing the use of unhealthy weight loss behaviours] (Neumark-Sztainer, 1996). Nevertheless, based on the current results, the findings of two quite distinct mediating effects suggest that a comprehensive program, targeting different disordered eating behaviours (i.e. restrictive eating as compared to binge-eating) may be useful and effective. For example, one separate program designed to bolster body satisfaction might protect against the negative effects of peer weight- and shape-related teasing, and in turn, reduce restrained eating behaviours. Further, a preventative program incorporating strategies to specifically boost self-esteem and general self-worth, might be particularly useful for combating emotional overeating. A meta-analysis has demonstrated that that early eating disorder prevention programs that delivered general psychoeducation about the adverse effects of eating disorders, and assumed that this information would deter individuals from initiating these maladaptive behaviors, have been less effective (Stice & Shaw, 2004). Larger effects were reported with prevention programs that were more “selective” in that they focused on risk factors that have been shown to predict eating pathology (e.g., body dissatisfaction) (Stice & Shaw, 2004). The results from my current study are consistent with the conclusions put forth by this meta-analysis, and offer some significant suggestions with respect to content in targeted prevention programs. Prevention programs focusing on specific subtypes of
disordered eating with a focused prevention incorporating the different mechanisms of body dissatisfaction versus self-esteem might be more useful. This is also consistent with our current understanding of diagnosed eating disorders, as offered by the DSM-5, in that there are distinct criteria and recommendations for treatment.

Further, the finding that experiential avoidance moderated the mediating effect of self-esteem between peer teasing and emotional eating suggests that the concept of experiential avoidance could also be included in a comprehensive preventative program for emotional eating. Intervention techniques have begun to incorporate mindfulness-based approaches for use in the treatment of diagnosed eating disorders (Hayes et al., 2006); however, there have been relatively few studies on the role of experiential avoidance and mindfulness among individuals who engage in subclinical disordered eating behaviours. One study by Lavender, Jardin and Anderson (2009), suggests that interventions designed to reduce experiential avoidance may be effective in treating disordered eating. Consistent with the results of the current study, identifying individuals’ level of experiential avoidance would allow for the development of prevention programs tailored to those seeking treatment. Since individuals with high or average levels of experiential avoidance displayed a direct effect between peer teasing and emotional eating, it would be important to focus prevention on combating the negative effects of the peer teasing, specifically. However, individuals identified with low experiential avoidance might be better served by a prevention program incorporating strategies reflecting the mediating effects of self-esteem as the mechanism for understanding and alleviating the link between peer teasing and emotional eating.


**Limitations of Study 1 and Directions for Study 2**

Study 1 was unique in that: 1) it examined disordered eating with respect to both restrained eating and emotional eating; 2) it determined the contribution of body dissatisfaction and self-esteem as mediators in the teasing-disordered eating relationship; and 3) it ascertained whether or not experiential avoidance was a moderator of the mediation between peer teasing and different types of disordered eating.

Study 1 expanded the teasing-disordered eating literature by examining mediational variables that may account for the relation between these important factors. Evidence suggested that self-esteem and body dissatisfaction mediate the link between peer teasing and disordered eating. However, self-esteem and body dissatisfaction were not mediators for both forms of disordered eating. Only body dissatisfaction accounted for the link between peer teasing and restrained eating. If one is teased about weight or shape by one’s peers, and is unhappy with one’s looks, the individual may be more likely to restrict diet to attempt to adjust weight or shape. This was not the case with individuals who engaged in emotional eating. For this form of disordered eating, only self-esteem accounted for the link between emotional eating (e.g. emotional eating). The most consequential and unique finding was that experiential avoidance moderated the mediation between self-esteem and emotional eating. For individuals who displayed low experiential avoidance, self-esteem was a mediator between teasing and emotional eating. Despite this contribution, however, a significant limitation warrants discussion.

The measures used to measure self-esteem and experiential avoidance were highly negatively correlated (-0.683). These constructs are defined differently in the literature and separate measures have been developed, and used, to assess these constructs. Based
on the findings from the current study, the questionnaires measuring self-esteem and experiential avoidance were so highly correlated that it is unclear what is actually being measured. A correlation of this magnitude requires careful consideration of the results.

Study 2 further investigates a moderated-mediation model of the relationship between peer teasing and disordered eating. The concept of experiential avoidance within the disordered eating and teasing literature is unique. A better understanding of one’s discomfort, inability and/or unwillingness to sit with strong negative thoughts and feelings and its contribution to the teasing-disordered eating association is worthwhile to investigate. Again, following the ideas from escape theory and based on the initial results of Study 1, I proposed that teasing may be related indirectly to disordered eating through the specific emotional regulation skills, which may be moderated by experiential avoidance.
Chapter Three: Study Two

Study one expanded the teasing-disordered eating literature by examining the mediational variables that may account for the relation between them. Evidence was found which suggests that self-esteem and body dissatisfaction mediate the link between impact of peer teasing and disordered eating. However, self-esteem and body dissatisfaction were not mediators for all forms of disordered eating. Only body dissatisfaction accounted for the link between peer teasing and restrained eating. These findings suggest that if one is teased about weight or shape by one’s peers, and is unhappy with one’s looks, the individual is more likely to restrict one’s diet to attempt to adjust weight or shape. This is not the case with individuals who engage in emotional eating. For this form of disordered eating, only self-esteem accounted for the link between emotional eating. The addition of experiential avoidance as a moderator to the model also displayed some unique findings. Self-esteem was a mediator between teasing and emotional eating only when experiential avoidance was low.

The purpose of study two was to further explore the role of emotional experience as a mediator between teasing and types of disordered eating. Following escape theory, I proposed that teasing would be related indirectly to emotional eating through the construct of emotional functioning skills. In general, emotional regulation skills refer to one’s psychological acceptance of one’s own awareness of emotions and one’s ability to act effectively when difficult emotions are experienced. They are discussed further below.
Specific Emotional Regulatory Skills

The role of emotions in eating disorders has been repeatedly examined, beginning with the seminal work of Bruch (1973). In the early eating disorder literature, Bruch (1973) believed that the inability to understand, label and respond to inner needs, both physiological (e.g. hunger) and emotional (e.g. sadness) might account for eating disorders. Her patients, she believed, used eating (or lack thereof) as a solution to their difficulties understanding, labelling and responding appropriately to internal states. The term, “emotional eating,” is meant to highlight the phenomenon that in some individuals, negative emotions lead to increased eating. As discussed in previous chapters, one predominant theoretical model for explaining eating disorders suggests that unhealthy eating habits are undertaken as an attempt to regulate or escape, and in turn, alleviate feelings of negative affect (Escape model: Heatherton & Baumeister, 1991). The occurrence of problematic eating behaviours in response to negative emotion has been demonstrated across various populations. Previous studies have found those who were both overweight (Telch & Agras, 1996) and restrained eaters (Heatherton, Polivy & Herman, 1990), as well as healthy, non-restrained individuals (Newman, O’Connor & Conner, 2007), increased food intake with the experience of negative emotions. Past research has shown that individuals who are overweight or have a diagnosed eating disorder engage in eating in response to emotions (Masheb & Grilo, 2006). Negative affect is a commonly reported precipitant of binge eating episodes (Polivy & Herman, 2002), and a recent meta-analytic review concluded that increases in negative affect often precede binge episodes in individuals with either BED and BN (Haedt-Matt & Keel,
Binge eating and loss-of-control eating has been shown in obese women with BED in experiments that induced negative affect (Agras & Telch, 1998).

It has also been hypothesized that individuals with eating disorders are vulnerable to engaging in emotional eating because they actually lack adaptive emotion regulation strategies, such as being able to clearly identify and adaptively cope with emotional states (Sim & Zeman, 2006; Wiser & Telch, 1999). Although no casual explanation can be indicated, there is research that shows that individuals with AN and BN report more difficulties, compared to healthy controls, with emotion regulation (Harrison, Sullivan, Tchanturia, & Treasure, 2010). Recent studies suggest that emotion regulation difficulties explain a significant portion of the variance in binge eating behaviours in non-clinical adult and child samples (Czaja, Reif, & Hilbert, 2009; Whiteside et al., 2007). Again, it becomes important to further evaluate the relation between emotion regulation difficulties and disordered eating, as this provides valuable information regarding appropriate plans for identification, prevention and subsequent intervention.

Sim & Zeman (2006) assert that the umbrella term of “emotional functioning” is often presented in studies, but that the research is limited because it does not capture specific aspects of emotional functioning. For example, a study may utilize the overall concept of “negative affect” or a global measure of depression to account for an individual’s emotional functioning (Sim & Zeman, 2006). In contrast, they argue that emotional functioning is a complex process and specific variables constituting elements of that process should be considered. The present study relies on the conceptualization offered by Sim and Zeman (2006) who posit that variables such as 1) identification of
emotional states, 2) negative affect, and 3) generation of adaptive coping strategies encompasses the range of emotional functioning experiences.

**Emotional awareness - alexithymia.** Alexithymia is a term that literally means “no words for feelings” (Sifneos, 1972) and is generally described as a difficulty identifying and describing one’s own feelings, and distinguishing between feelings and bodily sensations. Individuals with alexithymia display an externally focused, logical, thinking style (Sifneos, 1972). Generally, studies have shown that individuals with higher rates of alexithymia have poorer mental health outcomes. Alexithymia has been found to be associated with a range of symptoms, including difficulties related to post-traumatic stress disorder (Hyer, Woods, Summers, Boudswyns & Harrison, 1990), panic disorder (Cox, Swinson, Shulman & Bourdeau, 1995) and depression (Berthoz, Consoli, Perez-Diaz & Jouvent, 1999).

Alexithymia has been consistently linked to clinical eating disorders. In a longitudinal study of adolescent girls, Leon, Fulkerson, Perry & Early-Zald (1995) found an inability to discriminate and label emotions was a significant risk factor for eating disorders. Sexton, Sunday, Hurt and Halmi (1998) report that patients diagnosed with AN, but not those diagnosed with BN, were also significantly more likely to have difficulty expressing their feelings. More recent research has identified a relation between alexithymia and both a diagnosis of AN and BN (Gilboa-Schechtman, Avnon, Zubery & Jeczmien, 2006).

Clinicians and researchers have long concluded that individuals with eating disorders typically have difficulty identifying and describing their emotions (e.g. Van Strien & Ouwens, 2007). In the early eating disorder literature, Bruch (1973) argued that
the inability to understand, label and respond to inner needs, both physiological (e.g. hunger) and emotional (e.g. sadness) might account for eating disorders. These patients, she believed, used eating as a solution to their difficulties understanding, labelling and responding appropriately to internal states. Van Strien & Ouwens (2007) induced emotional distress and found that participants with higher alexithymia scores increased their food consumption as a result of the introduced emotional distress, whereas, non-alexithymic participants decreased their food intake. This suggests that a deficit in the ability to identify and describe internal states (alexithymia) may be associated with overeating in response to emotional distress (Van Strien & Ouwens, 2007).

Those with higher alexithymia scores have been found to have limited emotional regulation strategies (Bagby, Taylor & Parker, 1994), which makes it difficult for them to cope with stress and stressful events (Parker, Taylor & Bagby, 1998). Although the relationship between teasing/bullying and alexithymia has never been explicitly investigated, some hypotheses could be made. Alexithymia is related to lower emotional intelligence, and reduced social network size and quality (Austin, Saklofske & Egan, 2005), which have been shown to be risk factors for peer victimization (Hazler & Denham, 2002). One recent exploratory study using an adolescent sample found that alexithymia partially mediated the relationship between bullying and self-harm (Garisch & Wilson, 2010). It was proposed that alexithymia may be related to difficulty coping with the emotions associated with the bullying.

It is proposed that peer teasing leads to difficulty identifying and describing one’s own feelings (alexithymia) in that an individual’s difficulty understanding feelings may develop as part of a protective mechanism to avoid the emotional exploration of a teasing
experience. Thus, overeating may serve as a means of distraction from negative thoughts and emotions associated with stressful experiences, such as teasing. Difficulties with emotional awareness/identification may contribute to overeating patterns, such that women who are teased about their weight may have trouble distinguishing between the thoughts and emotions they have surrounding the teasing and the physical sensations of hunger and fullness (Leon et al., 1995). As a result, these individuals become unresponsive to normal eating-related cues (such as eating when hungry and stopping when full). Instead, they become extremely sensitive to and guided by external stimuli (i.e. the presence of food), which leads them to problematic eating habits. Therefore, it was hypothesized that alexithymia will act as a mediator between peer teasing and emotional eating (as measured by the emotional subscale of the disordered eating measure). It is further proposed that alexithymia will not serve as a mediator between peer teasing and restrictive eating (as measured by the restrained subscale) since restrictive eating will not offer the means of distraction that emotional eating will allow.

**Negative affect - depression.** Symptoms of low mood are often cited as risk factors in the onset and maintenance of many clinical diagnoses, including both mental health concerns and substance abuse difficulties. As a non-specific risk factor, depression has repeatedly and consistently been discussed in the eating disorder literature. Previous research has demonstrated a statistically significant positive relationship between clinical eating disorders and depression (Gilboa-Schechtman et al., 2006). Close to half of those with AN also suffer from a mood disorder, and among those with BN, approximately 70% also have a diagnosed mood disorder (Kessler et al., 2005). Depression and eating disorders are often co-morbid, which has led some
researchers to suggest that eating disorders are a form of an affective disorder (Pope, Hudson, Jonas & Yurgelun-Todd, 1983). Previous researchers have also found significant positive associations between sub-clinical disordered eating behaviours and depressive symptomatology (Mizes, 1988).

Correlations between peer teasing and depression have also been noted. Fabian and Thompson (1989) found that higher levels of depression were associated with both eating disturbances and childhood weight-related teasing in young adolescent girls. Further, Roth, Coles and Heimber (2002) concluded that scores on measures of current depression were significantly and positively correlated with retrospective accounts of childhood teasing in adult men and women.

The role of negative affect is central to the theory put forth by Heatherton and Baumeister (1991) as reviewed earlier. They propose that overeating serves an adaptive function as a means to escape aversive self-awareness. Escape theory suggests that individuals who engage in overeating have high personal expectations (typically related to their weight and shape), a desire to be thought of favourably by others and higher levels of self-awareness shown in the belief that others pay close and critical attention to their actions. This often results in negative self-assessments (aversive self-awareness) and negative affect (depression). Under these circumstances, individuals are motivated to reduce levels of self-awareness in order to escape these negative experiences by narrowing their focus to simple actions and sensations (e.g. food). It is suggested that this may be accomplished by overeating episodes which temporarily alleviate the negative affect through distraction. Therefore, it is hypothesized that depression will act
as a mediator between peer teasing and *emotional* eating (as measured by the emotional subscale).

On the other hand, restrained disordered eating is better conceptualized by the sociocultural model of eating disorders, which suggests that society promotes the culture’s physical standard of beauty (Striegel-Moore & Bulik, 2007). Increased body image concerns, exacerbated by the value culture places on a thin body shape, leads to dietary restraint and restriction (Striegel-Moore & Bulik, 2007). It is quite conceivable that participants who have had the experience of being teased by peers would develop feelings of sadness and a depressed mood based on the peer feedback that their body does not fit culture’s standard of beauty. As such, they may engage in restrictive eating behaviours, as a means of changing their body shape, in order to address their depressed mood and attempt to ameliorate their feelings of sadness. Therefore, it is hypothesized that depression will act as a mediator between peer teasing and *restrained* eating patterns (as measured by the restrained eating subscale).

**Coping.** One final component of emotional functioning is the ability to utilize effective coping strategies. Coping reflects how an individual copes with emotions that are generated as a result of stressful situations (Spoor, Bekker, Van Strien & van Heck, 2007). Two adaptive forms of coping have been proposed: Problem focused coping, which involves an active response, such as solving the problem, managing or changing the situation and seeking information; and emotion-focused coping, which refers to attempts to manage the emotions created by the stressful event, through emotion-oriented reactions such as minimizing, distancing, self-control, seeking social support, avoidance, self-blame, venting, and positive reappraisal (Spoor et al., 2007). There is also the
concept of avoidant-focused coping such as actions and cognitive changes meant to avoid a stressful situation or to dampen the thoughts and emotions associated with it. This dimension includes approaches like venting, distraction, denial, and behavioral and mental disengagement (Endler & Parker, 1994).

While coping and experiential avoidance have been linked, recent research by Karekla and Panayiotou (2011) suggests that they are different, albeit related, constructs. They found that both experiential avoidance and coping predicted psychological distress and well-being. The higher people were in experiential avoidance, the more they tended to utilize emotion-focused and avoidant types of coping. However, while most variance was explained by coping, there was additional variance explained by experiential avoidance (Karekla & Panayiotou, 2011). These results suggest that experiential avoidance, though related to coping, adds small but significant variance to the prediction of psychological outcomes and should be considered a unique construct.

Coping has been investigated in both the teasing and disordered eating literature. First, adaptive coping strategies are often implicated in teasing and bullying research as protective in terms of effective ways of responding to teasing (Scambler, Harris & Milich, 1998), and are included as an important construct in interventions (Keltner, 2001). However, the most common responses to teasing are actually maladaptive. These include behaviours, such as reciprocal teasing, fighting and ignoring. Those who are teased repeatedly demonstrate these maladaptive coping strategies (Scambler, Harris & Milich, 1998).

Coping as a form of emotional regulation has also appeared in the disordered eating literature. The use of maladaptive coping strategies has been found to be
positively associated with disordered eating (Sim & Zeman, 2006). Individuals with disordered eating typically use a restricted range of coping strategies and endorse using maladaptive coping strategies in contrast to comparison groups (Sim & Zeman, 2006).

As previously discussed, one’s inability to understand, label and effectively respond to inner needs, both physiological (e.g. hunger) and emotional (e.g. sadness), might explain the trajectory of overeating. Individuals’ difficulty coping with a negative emotional state may lead them to the presence of food in an effort to manage their difficult emotions. This may result in overeating as a means of alleviating the arousal from this internal state (Bruch, 1973; Kaplan & Kaplan, 1957). Thus, it is posited that peer teasing may lead to maladaptive coping. As a result, overeating may serve as a means of alleviating discomfort with stressful experiences, such as teasing, when adaptive coping strategies are not effectively utilized.

Therefore, it was hypothesized that maladaptive coping would act as a mediator between peer teasing and emotional eating (as measured by the emotional subscale of the disordered eating measure). It was further proposed that coping would not serve as a mediator between peer teasing and restrained eating (as measured by the restrained subscale).

A Moderated-Mediational Model of Disordered Eating – Experiential Avoidance

In this study and based on the results of Study1, I was again interested in whether experiential avoidance amplifies or tempers the risk for disordered eating in individuals. Like in study 1, I proposed a moderated mediation model in which the indirect link between peer teasing and disordered eating would apply more strongly for participants with higher levels of reported experiential avoidance (see Figure 2). Specifically, I
investigated whether experiential avoidance moderates the association between the mediators (alexithymia, coping and depression) and disordered eating (restrained and emotional eating). This means that peer teasing would be associated with higher levels of alexithymia and depression and lower levels of coping and these factors may be more detrimental in individuals with higher levels of experiential avoidance, because of their inability to sit with emotions, which may lead to disordered eating. Individuals with lower levels of experiential avoidance may be able to remain in the presence of difficult emotions and thoughts, which may serve as a protective factor. As a result, they may not turn to disordered eating as an escape to address the discomfort they experience when faced with strong emotions. In contrast, individuals with high experiential avoidance are more likely to feel distressed when experiencing higher levels of depression and alexithymia and lower levels of coping skills, and may turn to disordered eating to cope.

**Purpose of Study Two**

As outlined above, current research in disordered eating and peer weight-related teasing is limited by the lack of consideration given to potential mediating and moderating relations between the variables of interest. An interesting, and novel, result from study one suggested that experiential avoidance is a moderator of the mediational role of self-esteem in the teasing-disordered eating association. It becomes critical to evaluate why individuals who are teased engage in problematic eating behaviour: possibly because they have difficulty with their thoughts, avoid feelings and are unable to act in the presence of difficult private events (i.e. they engage in experiential avoidance). Addressing this will help to identify variables that may lower the risk of problematic eating behaviours. Based on escape theory (Heatherton & Baumeister, 1991), it was
queried whether specific difficulties in emotion regulation interact with experiential avoidance to impact the relationship between peer weight-related teasing and disordered eating, particularly emotional eating. Specifically, this study examined whether staying in the presence of uncomfortable thoughts and feelings, an ability to identify one’s feelings, sadness, and coping skills may help to disentangle the complex teasing – disordered eating relationship.

In the present research, I examined the link between a history of peer weight-related teasing and disordered eating (as measured by the restrained and emotional eating scales of the DEBQ) in a sample of undergraduate women. This study extended the current literature by testing alexithymia, coping and depression simultaneously as mediators of the anticipated positive relation between teasing and three various forms of disordered eating among women. Also unique to the present study, I again investigated whether experiential avoidance moderated the hypothesized mediation model linking peer teasing and disordered eating via alexithymia, coping and/or depression (see Figure 2).

Method

Participants

A new sample of two hundred and eighty-five women between 17 and 27 years of age ($M = 18.74, SD = 1.073$) participated in the study. The majority of participants were in first year university (80.4%) and identified themselves as Caucasian (87%). Just under 5% identified themselves as Asian. The remaining ethnicities included African-Canadian (1.4%), Hispanic (less than 1%) and First Nations (less than 1%). BMI values ranged from 14.25 to 32.59 ($M = 22.0721, SD = 3.3719$), representing a wide range from
severely underweight to obese. Using guidelines from Health Canada, participants were classified as underweight (3.3% - BMI less than 18.5), average range weight (60% - BMI between 18.5 and 24.9), overweight (28.2% BMI between 25 and 29.9) and obese (8.5% - BMI over 30) (Health Canada, 2003). Eighty-nine participants did not report their height and weight.

Measures

Demographic information. Participants were asked to report their sex, age, university level, ethnic group, height, weight and date they last weighed themselves (month and year) (see Appendix A). Please refer to the relevant section of Study 1 for details about this measure.

Peer weight- and shape-related teasing. Participants were given a measure of their experiences of weight- and shape-related teasing (Perception of Teasing Scale (POTS); Thompson, Cattarin, Fowler & Fisher, 1995; see Appendix B). Please refer to the relevant section of Study 1 for details about this measure. The estimates of internal consistency were also high in the present study, and were .84 and .90 for frequency and impact, respectively.

Alexithymia. The Toronto Alexithymia Scale-20 (TAS-20; Bagby, Parker & Taylor, 1994; see Appendix H) is a 20-item self-report measure of alexithymia. It was used to measure difficulty describing and identifying emotions. Sample items include: “I am often confused about what emotion I am feeling”, “People tell me to describe my feelings more” and “I prefer to talk to people about their daily activities rather than their feelings”. Items were rated using a 5-point Likert scale whereby 1 = strongly disagree and 5 = strongly agree. There are 5 items that are negatively keyed (items 4, 5, 10, 18
The total alexithymia score is the sum of responses to all 20 items. Research using the TAS-20 demonstrates that the TAS-20 is a valid and reliable measure of alexithymia. Internal consistency in previous studies ranged from .66 to .80 for undergraduate students (Bagby, Parker & Taylor, 1994). In the present study, the internal consistency was .86.

**Coping.** The Task Oriented subscale of the Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990; see Appendix I) is a 16-item scale that was used to measure adaptive coping strategies people may use during stressful situations. Examples of items included: “Think about how I solved similar problems” and “Schedule my time better”. Items were rated using a 5-point Likert scale with endpoints labeled “1” (not at all) to “5” (very much) to indicate how frequently they engaged in a particular coping strategy. The CISS is shown to be a reliable and valid measure of basic coping styles with high internal consistency estimates (ranging from .80 to .90) (Endler & Parker, 1994). In the present study, the internal consistency was .90.

**Depression.** An adapted version of the Beck Depression Inventory (BDI-II; Beck, Steer & Brown, 1996; see Appendix J) was used to assess the existence and severity of symptoms of depression. Specifically, the question asking about suicidal thoughts or wishes was omitted from the present study. Therefore, the 20-item scale presented individuals with groups of four sentences that describe various levels of a given symptom of depression, as in the following: “I do not feel sad”, “I feel sad much of the time”, “I am sad all the time” and “I am so sad or unhappy that I can’t stand it”. Participants were asked to indicate which sentence best described the way they had been feeling for the past 2 weeks. On two items (15 and 17) there were seven options to
indicate either an increase or decrease of appetite and sleep. Item choices were assigned a numerical value from 0 to 3 and yield a total score by summing ratings for all items. High scores on the BDI-II indicate higher levels of depressive symptoms. The BDI-II demonstrates excellent test–retest reliability, high internal consistency ($\alpha=.91$ among psychiatric outpatients, $\alpha=.93$ among undergraduate students), and moderate to high convergent validity (Beck, Steer & Brown, 1996). In the present study, the internal consistency was .92.

**Experiential avoidance.** The Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004; see Appendix D) is a 9 item questionnaire designed to measure the construct of experiential avoidance. Please refer to the relevant section of Study 1 for details about this measure. The internal consistency, as measured by Cronbach’s Alpha, of the AAQ items was .73 in the present study.

**Disordered eating.** The Dutch Eating Behavior Questionnaire (DEBQ) is a 33-item questionnaire, which was used to measure attitudes and behaviours associated with different types of disordered eating (Van Strien, Frijters, Bergers & Defares, 1986; see Appendix F). Please refer to the relevant section of Study 1 for details about this measure. The estimates of internal consistency were also high in the present study, and were .91 and .92 for the restrained and emotional eating subscales, respectively.

**Procedure**

Potential participants were sent an information email through the Psychology Participant Pool at the University of Guelph, which explained the purpose of the study and invited them to participate in the study (see Appendix N). They were then provided with an online consent form indicating that participation was voluntary, that consent
could be withdrawn at any time, and that questionnaires were number coded for confidentiality (see Appendix O). If participants agreed to participate, they were provided with a website URL to take them to a series of online questionnaires. The measures were counterbalanced to control for an order effect. Written instructions appeared at the beginning of each questionnaire. Following completion of all measures, participants received a written debriefing sheet (see Appendix P), thanked for their participation and received course credit.

**Results**

**Descriptive Analyses**

Prior to beginning the analyses, data were checked for completeness, accuracy, and descriptive statistics. When outliers (e.g., scores more than 3 standard deviations from the mean) were detected (no more than 5 cases for 5 variables), analyses were run with and without the outliers to determine their actual impact on the analyses. The two analyses yielded nearly identical results: the inclusion or exclusion of the observations did not alter the pattern of results or any decision regarding the statistical significance of the findings. Accordingly, the data associated with these observations were included in all analyses.

Descriptive statistics (frequencies, means, and standard deviations) across the sample are found in Table 9. The pattern of teasing results was similar to that found in study 1. Only 21% of the participants reported that their peers had never teased them about their weight or shape ($n = 59$ of 285). Of those who were teased, 65% of the participants indicated, at least, some distress as a result of the teasing ($n = 168$ of 258).
**Correlations.** Bivariate correlations among all variables are reported in Table 10. The inter-correlation matrix demonstrates that most of the correlations were significant. As expected, the frequency and impact of peer weight-related teasing was positively correlated with various aspects of disordered eating. Specifically, the more frequently participants were teased about their weight or shape, the more they reported overeating in response to an emotional aroused state (“emotional eating”). The correlation between the frequency of teasing and restrained eating approached significance. The more distressed participants were as a result of peer teasing (impact of peer teasing), the more likely they reported restricting their diet (“restrained eating”) and reported overeating in response to an emotional aroused state (“emotional eating”). Those who were teased more frequently were also likely to experience more distress as a result of the teasing.

The frequency of peer teasing was positively related to alexithymia and depression. The impact of peer teasing was positively related to depression. Alexithymia and depression were positively correlated with both subscales of disordered eating. Thus, participants with higher levels of alexithymia and depression also reported more disordered eating. Coping was negatively correlated with emotional eating only. Therefore, participants with lower levels of task-oriented coping skills also reported more emotional overeating habits.

**Frequency Versus Impact of Peer Teasing.** Impact of peer teasing was statistically significantly correlated with restrained eating but frequency of peer teasing was not. However, because these two variables were significantly correlated, they also overlapped and shared variance. Therefore, a multiple regression analysis was conducted to determine which variable, frequency of peer teasing or the impact of peer teasing,
contributed more unique variance to both forms of disordered eating. The impact of teasing was found to be a significant individual predictor of restrained eating, $r = .31, t = 5.25, p < .01$; however, the frequency of teasing was not, $r = .17, t = 1.76, p > .05$. The impact of peer teasing uniquely accounted for approximately 10% of the variance in restrained eating. In contrast, adding the frequency of peer teasing to the model did not account for an increase in unique variance. As a result of these analyses, the impact of peer teasing was used as the independent variable in subsequent analyses.

Both impact and frequency of peer teasing were significantly correlated with emotional eating. The impact of teasing was found to be a stronger individual predictor of emotional eating, $r = .14, t = 2.22, p < .05$ as compared to the frequency of teasing, $r = .08, t = 1.36, p > .05$. As a result of these analyses, the impact of peer teasing will be used as the independent variable in subsequent analyses.

**Multiple Mediation Analyses**

It was predicted that alexithymia and coping would mediate the relation between peer teasing and emotional eating, and that depression would mediate the relation between peer teasing and restrained and emotional eating (see Figure 2). To test these hypotheses, a multiple mediation analysis was conducted in order to evaluate the indirect effects of two or more mediators simultaneously, as recommended by Preacher and Hayes (2008). Again, a point estimate for an indirect effect was considered significant if zero was not included in the 95% bias-corrected confidence interval.

As there were two dependent variables (restrained and emotional eating) and one independent variable (impact of peer teasing), two separate analyses were run.
The relation between the impact of peer teasing and restrained eating, with alexithymia, coping and depression serving as mediators. Table 11 summarizes results for the multiple mediation analysis using the impact of peer teasing as the independent variable and restrained eating as the dependent variable. Depression was found to function as a mediator between the impact of peer teasing and restrained eating (point estimate = .04, C.I. = 0.0120-0.1118), but alexithymia (point estimate = .00, C.I. = -0.0082-0.0348) and coping (point estimate = -.01, C.I. = -0.0489-0.0076) were not.

The relation between the impact of peer teasing and emotional eating, with alexithymia, coping and depression serving as mediators. Table 12 summarizes results for the multiple mediation analysis using the impact of peer teasing as the independent variable and emotional eating as the dependent variable. Depression was found to function as a mediator between the impact of peer teasing and emotional eating (point estimate = .02, C.I. = 0.0035-0.0669), but alexithymia (point estimate = .01, C.I. = -0.0136-0.0697) and coping (point estimate = .00, C.I. = -0.0082-0.0151) were not.

In sum, depression was a significant mediator between the impact of peer teasing and the two forms of disordered eating (restrained and emotional).

Moderated Mediational Analyses

It was predicted that the effect of the mediators on disordered eating was moderated by the level of experiential avoidance.² Again, a moderated mediation analyses was conducted using the SPSS macro provided by Preacher and Hayes (2008).

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² Experiential avoidance was first run as a potential mediator to determine if there was a more straightforward role for this variable. Results showed that it was not a significant mediator between the impact of peer teasing and either restrained or emotional eating.
Mediator and moderator variables were first centered in order to increase interpretability of interactions.

**Moderated mediation - the relation between the impact of peer teasing and restrained eating through depression with experiential avoidance as a moderator.** In this analysis, the impact of peer teasing was the independent variable, depression was the mediator, experiential avoidance was the moderator and restrained eating was the dependent variable.

Table 13 presents the results for the proposed moderated mediation. It was predicted that the relationship between depression and restrained eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. Results indicated that the interaction term between depression and experiential avoidance was non-significant using the impact of peer teasing ($B = 0.0576$, $t = 0.4075$, $p = 0.6840$). Thus, depression mediated the impact of peer teasing and restrained eating relation in the same fashion at all levels of experiential avoidance.

**Moderated mediation - the relation between the impact of peer teasing and restrained eating through alexithymia with experiential avoidance as a moderator.**

In this analysis, the impact of peer teasing was the independent variable, alexithymia was the mediator, experiential avoidance was the moderator and restrained eating was the dependent variable.

Table 14 presents the results for the proposed moderated mediation. It was predicted that the relationship between alexithymia and restrained eating would be weaker for those with lower reported levels of experiential avoidance than for those with
higher levels of reported experiential avoidance. Results indicated that the interaction term between alexithymia and experiential avoidance was non-significant using the impact of peer teasing ($B = 0.0820, t = 0.7241, p = 0.4697$). Therefore, contrary to expectations, experiential avoidance did not moderate the mediation of alexithymia between the impact of peer teasing and restrained eating.

**Moderated mediation - the relation between the impact of peer teasing and restrained eating through coping with experiential avoidance as a moderator.**

In this analysis, the impact of peer teasing was the independent variable, coping was the mediator, experiential avoidance was the moderator and restrained eating was the dependent variable.

Table 15 presents the results for the proposed moderated mediation. It was predicted that the relationship between coping and restrained eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. Results indicated that the interaction term between coping and experiential avoidance was non-significant using the impact of peer teasing ($B = 0.0071, t = 0.0707, p = 0.9437$). Therefore, contrary to expectations, experiential avoidance did not moderate the mediation of coping between the impact of peer teasing and restrained eating.

**Moderated mediation - the relation between the impact of peer teasing and emotional eating through depression with experiential avoidance as a moderator.** In this analysis, the impact of peer teasing was the independent variable, depression was the mediator, experiential avoidance was the moderator and emotional eating was the dependent variable.
Table 16 presents the results for the proposed moderated mediation. It was predicted that the relationship between depression and emotional eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. Results indicated that the interaction term between depression and experiential avoidance approached significance using the impact of peer teasing ($B = -0.2155$, $t = -1.8607$, $p = 0.0639$).

High and low levels of experiential avoidance were operationalized as one standard deviation above and below the mean score of this variable. Table 14 presents the estimates, standard errors, $z$ statistics, and significance value for the conditional indirect effects for depression across low and high levels of experiential avoidance. Results showed that, when using the impact of peer teasing as the independent variable, the conditional indirect effects of depression were significant in the low ($p = 0.0370$) and average ($p = 0.0412$) experiential avoidance condition, but were not significant in the high ($p = 0.1642$) experiential avoidance condition (see Figure 5).

In sum, when experiential avoidance was used as the moderator in the mediation of depression between the impact of peer teasing and emotional eating, the results trended towards significance; however, not in the direction that was anticipated. Using the impact of peer teasing as the independent variable, with high experiential avoidance, there is no relation between depression and emotional eating. However, with mean and low experiential avoidance, depression mediated the relation between impact of teasing and emotional eating.
Moderated mediation - the relation between the impact of peer teasing and emotional eating through alexithymia with experiential avoidance as a moderator. In this analysis, the impact of peer teasing was the independent variable, alexithymia was the mediator, experiential avoidance was the moderator and emotional eating was the dependent variable.

Table 17 presents the results for the proposed moderated mediation. It was predicted that the relationship between alexithymia and emotional eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. Results indicated that the interaction term between alexithymia and experiential avoidance was non-significant using the impact of peer teasing \((B = -0.0177, t = -0.1906, p = 0.8490)\). Therefore, contrary to expectations, alexithymia did not moderate the mediation of coping between the impact of peer teasing and emotional eating.

Moderated mediation - the relation between the impact of peer teasing and emotional eating through coping with experiential avoidance as a moderator. In this analysis, the impact of peer teasing was the independent variable, coping was the mediator, experiential avoidance was the moderator and emotional eating was the dependent variable.

Table 18 presents the results for the proposed moderated mediation. It was predicted that the relationship between coping and emotional eating would be weaker for those with lower reported levels of experiential avoidance than for those with higher levels of reported experiential avoidance. Results indicated that the interaction term between coping and experiential avoidance was non-significant using the impact of peer
teasing \((B = -0.0424, t = -0.5096, p = 0.6108)\). Therefore, contrary to expectations, coping did not moderate the mediation of coping between the impact of peer teasing and emotional eating.

In conclusion, experiential avoidance did not moderate the mediation of depression, alexithymia or coping between impact of peer teasing and restrained eating. There was a trend towards significance when examining the moderating contribution of experiential avoidance in the mediation of depression between the impact of peer teasing and emotional eating. With high experiential avoidance, there is no relation between depression and emotional eating. With low and moderate experiential avoidance, depression mediated the relation between impact of teasing and emotional eating. Further, experiential avoidance did not moderate the mediation of either alexithymia or coping between impact of peer teasing and emotional eating.

Discussion

Summary of Study 2 Results

Study 2 attempted to further elucidate implications posited by affect regulation theory, in particular escape theory, that restrained and emotional eating may occur through a process of emotional regulation and avoidance of aversive mood states. Based on the research of Sim and Zeman (2006), three areas of emotional functioning were examined as potential mechanisms through which to understand the link between peer teasing and three aspects of disordered eating. Two different trajectories were expected. First, it was predicted that alexithymia (identification of emotional states), depression (negative affect) and coping (generation of adaptive coping strategies) would operate as mediators between peer teasing and emotional eating. Second, it was also predicted that
depression would mediate the relation between peer teasing and restrained eating, but that alexithymia and coping would not. Subsequently, I investigated whether an individual’s level of experiential avoidance could amplify or attenuate the proposed indirect relationship between peer teasing and disordered eating through a moderated mediation model. A summary of results will be presented, separately, based on the two dependent variables, restrained and emotional disordered eating.

**Restrained Eating.** The first significant finding was that depression mediated the relationship between peer teasing and restrained eating. Thus, these results suggest that peer teasing leads to a depressed mood, which then leads to restrained eating. It is quite conceivable that individuals who are teased about their weight and shape would react by developing feelings of sadness and a depressed mood. As such, individuals may respond by engaging in problematic eating behaviours (such as restricting their caloric intake) as a strategy to deal with their feelings of sadness. These results are in line with previous researchers who have often identified depression as a factor that is significantly correlated with both peer teasing and restrained eating (Fabian and Thompson, 1989; Roth et al., 2002; Wertheim et al., 2001).

Further analyses demonstrated that, contrary to expectations, experiential avoidance did not moderate the mediation of depression between peer teasing and restrained eating. Therefore, low levels of experiential avoidance did not act as a protective mechanism against restrained eating habits.

A similar pattern of results were found in study 1 as body dissatisfaction was found to be a unique mediator in the relationship between peer teasing and restrained eating, but there was no moderated mediation of experiential avoidance. It was surmised
that this unexpected result was due to the fact that restrained eating is better conceptualized, theoretically, by the “thin ideal” in a model put forth by Striegel-Moore and Bulik (2007), namely the sociocultural model of eating disorders. The present results appear to support this hypothesis. If our culture supports the ideal that beauty equates to thinness for women, and a value is placed on this belief, then a perceived discrepancy between actual weight and a (hard to achieve) ideal may put women at risk for being dissatisfied with their current body weight or shape and being depressed regarding their current body weight or shape. These women are, in turn, more likely to attempt to change their body weight or shape in line with the thin ideal through restrained eating behaviours.

The implications of the sociocultural model for restrained eating might be further elaborated by investigating other mediators linking peer teasing and restrained eating. It would be interesting if factors, such as perfectionism or obsessive thoughts, were investigated in further studies in this area, as eating disorders, particularly AN, feature cognitive aberrations that include obsessive thoughts, inaccurate judgments and rigid thinking patterns (Polivy & Herman, 2002). For example, there is a tendency for individuals with eating disorders to spend an inordinate amount of time obsessing about food, eating, weight, and shape. Researchers have found that patients with eating disorders can spend a debilitating amount of time obsessing about body image and eating behaviours (Polivy & Herman, 2002). Secondly, related to obsessions is the concept of perfectionism or the belief that one must strive for perfection. Patients with AN have been found to have higher scores on measures of perfectionism and it has been argued that perfectionism can contribute to eating disorders by examining the body as a potential
sign of imperfection (Polivy & Herman, 2002). This might be particularly true if one’s body weight or shape deviates from the sociocultural norm or one's body image is based on negative feedback, through teasing, from others.

As expected, alexithymia and coping did not serve as mediators between peer teasing and restrained eating. However, consistent with previous research, alexithymia was positively correlated with restrained eating (Gilboa-Schechtman et al., 2006; Leon et al., 1995; Sexton et al., 1998; Sim & Zeman, 2006). Therefore, although this variable was not a mediator, it may still have direct effects when considering restrained eating.

Coping was not correlated with restrained eating. This finding is consistent with some studies in which similar non-significant results have been found and may suggest that coping deficits may actually be related to symptoms of depression and not restrained eating per se (Sim & Zeman, 2006). Sim and Zeman (2006) proposed that perhaps individuals do not lack the knowledge of constructive coping skills, but rather lack the tendency to use them and, instead, rely on restrained eating habits (e.g. strategies to control their weight) to serve as their coping strategies.

**Emotional Eating.** The relationship between the impact of peer teasing and emotional eating was mediated by depression, but not alexithymia and coping. Those who report being affected by the experience of being teased about their weight engage in emotional overeating if they experience negative mood. Based on the findings from Study 1 that self-esteem was a mediator between peer teasing and emotional overeating, the focus on specific emotional regulation skills was added to the model in this study. These results support the idea that women who have a history of teasing, but who also experience negative affect, are most at risk for using eating as a means to manage their
aversive negative emotions. These results are consistent with previous studies that have found correlations between high levels of disordered eating and increased levels of negative affect and greater difficulties with emotional awareness (Masheb & Grilo, 2006; Polivy & Herman, 2002; Sim & Zeman, 2006).

Further, multiple moderated mediational analyses were conducted. Coping, depression, and alexithymia were included in the models. Contrary to what was predicted, experiential avoidance did not moderate the mediation of alexithymia and coping between the impact of peer teasing and emotional eating.

To further elucidate this mediational model, experiential avoidance was used as a moderator of the relation between depression and emotional eating. A trend towards significant results was obtained. For women with low and average levels of experiential avoidance, depression mediated the relationship between teasing and emotional eating. However, for women with high levels of experiential avoidance, depression did not mediate the relationship between peer teasing and emotional eating. Instead, there was a direct relation between teasing and emotional eating. These results suggest that at low and average levels of experiential avoidance there could be, generally, less difficulty with the experience of emotions as one is able to sit comfortably with these feelings. These individuals may not be overwhelmed by their thoughts and feelings and, as such, more awareness is paid to the symptoms of depression. This provides the opportunity to react to the depressive experience by engaging in emotional eating. However, at high levels of experiential avoidance, individuals have greater difficulty being aware of and/or paying attention to their emotions. These individuals are not comfortable sitting with the feelings they experience as a result of the social feedback from teasing. Therefore,
depression does not act a link between teasing and emotional eating. Instead, the reported teasing they experienced triggers their reported emotional eating.

These findings are consistent with escape theory as proposed by Heatherton and Baumeister (1991). In their model, eating disorders are said to be based on the notion that individuals attempt to escape from and, in turn, alleviate negative emotions by focusing on concrete factors found in their immediate environment (e.g. food). The above-mentioned findings suggest that individuals who are teased about their weight and shape, but able to sit comfortably with the emotions, will engage in emotional eating, if they experience a depressed mood. However, depression no longer remains a mechanism by which to understand the link between teasing and emotional eating in the case of individuals high with levels of experiential avoidance. Instead, there is a direct relation between teasing and emotional eating, without consideration of one’s mood. Therefore, what places these individuals at-risk is their difficulty in the presence of uncomfortable feelings associated directly with the teasing and not depressed affect that may develop as a result of the teasing. Escape theory suggests that individuals cope with negative emotions by eating as it diverts the attention away from stimuli that threaten their ego or create intense self-awareness, by allowing them to focus on something pleasurable such as food. Food and overeating provides a means of coping for these individuals (Heatherton & Baumeister, 1991). As such, this pattern of results suggest support for the conceptualization that disordered eating behaviour, such as overeating, is an attempt made to regulate unpleasant affective states through avoidance.
General Discussion

Over the years, there has been a shift in the definition of bullying. Early investigations initially considered that bullying occurred only through physical attacks and boys were found to be the targets of bullying more frequently than girls (Storch & Ledley, 2005). This definition, as such, often precluded the peer experiences of girls in research and did not incorporate information regarding the differing nature of aggressive behavior among girls and boys. When a broader conceptualization included other forms of peer maltreatment, such as teasing, a more balanced picture of the peer experience was captured (Storch & Ledley, 2005).

As the focus of these studies included the contribution of peer teasing to the disordered eating literature, the consideration of why peers are such an important source of feedback is warranted. Teasing, by peers specifically, is a salient issue if we consider a broader developmental perspective for eating disorders. Normal development during this period includes a number of difficult tasks, including forming peer and romantic relationships, gaining increased autonomy from the family (i.e. parents, in particular) and developing an independent sense of identity (Mussell, Binford & Fulkerson, 2000). The expectation is that peer relationships are a socially rewarding experience that play an integral role in psychosocial development. However, peer relations can also serve as a significant stressor for children. When such relations are strained, psychosomatic complaints, anxiety and depression, lowered self-esteem, loneliness, isolation, fear of going to school, and behavioural difficulties ensue (Kaltiala-Heino Rimpela, Rantanen & Rimpela, 2000). From this developmental perspective, psychopathology develops as a result of a failure to meet the demands of a particular developmental shift or task, such as
developing and maintaining peer relations or accepting one’s physical body. The fact that the experience of peer teasing about weight, for example, coincides with the developmental changes associated with puberty helps to explain why body dissatisfaction, increased concerns about eating and subsequent problematic eating behaviours develop at this stage, as well as the fact that eating disorders, in general, most commonly develop in adolescence (Mussell, Binford & Fulkerson, 2000).

**Implications for Research on Disordered Eating**

The results of these two studies corroborate but also extend previous research findings in several ways. Firstly, the influence of peer weight-related teasing was examined in relation to disordered eating among young adults. While past research has devoted attention to these important variables, most studies have only examined a direct relation. The present series of studies has broadened the focus of this area and presented a more complex scenario of how meditational mechanisms, previously identified as risk factors for disordered eating, might contribute to the relationship between peer teasing and disordered eating.

The results of the second study showed that depression mediated the relation between peer teasing and both forms of disordered eating (restrained and emotional). These results suggest that although depression was a mediator, it did not differentiate a trajectory to a specific type of disordered eating. Therefore, while depression is a common, but not unique factor, these results suggest that depression is necessary but not sufficient for accounting for the trajectories leading to specific disordered eating outcomes.
As previously discussed, the addition of experiential avoidance to a moderated mediational model has extended our understanding of forms of disordered eating. Very little attention has been paid to the contribution of experiential avoidance to the disordered eating literature in the past. These current studies attempted to address a gap in the literature by applying the theory of emotional regulation and, more specifically, escape theory to disordered eating (Heatherton & Baumeister, 1991). The present results support the applicability of this theory to this area of research.

The escape model (Heatherton & Baumeister, 1991) is built on concepts drawn from theories of self-awareness and comparisons with one’s ideal self, particularly when an individual has high standards and becomes aware that they are failing to meet their personal goals and ideals. If these discrepancies are then attributed to internal aspects of the self, the individual is likely to experience negative affect, which is an aversive state. Individuals are motivated to escape this negative affective state and this model provides a framework for viewing how individuals might escape the aversive negative affective state by engaging self-defeating behaviours, including disordered eating.

Clinical Implications

According to the current version of the DSM, the main diagnoses that fall under the umbrella of eating disorders, include AN, BN, and Binge Eating Disorder (DSM-5; American Psychiatric Association, 2013). These disorders are defined as severe eating disturbances with a persistent course that often result in serious psychological and physical complications. AN, in particular, “is known to have the highest mortality rate of any mental illness” (Couturier, Kimber & Szatmari, 2013, p. 3). The efficacy of various treatment options have been confirmed in research, including Cognitive Behavioral
Therapy (CBT), Interpersonal Psychotherapy (IPT), Dialectical Behavioral Therapy (DBT), and Family Based Treatments (FBT) (Berger et al., 2008; Couturier et al., 2013; Ghaderi, 2001). Despite this, treatment programs have not yielded strong, positive long-term follow-up data (Berger et al., 2008). Success rates for treatment for AN, for instance, has reported rates of less than 50%, with a greater percentage of individuals who continue to have minor eating disturbances or do not recover at all (Neumark-Sztainer, 1996).

A number of reasons can be proposed for the difficulty addressing the challenges that individuals with these disorders face. Symptom reduction in eating disordered behaviour is typically a first recommendation of any treatment [e.g. weight gain in those diagnosed with AN] (Couturier et al., 2013). As such, many therapies are successful, in the short-term, at targeting specific behavioural symptoms in order to ameliorate any serious medical complications. However, it is more difficult for therapies to encapsulate treatment that can target both the complex physical and mental needs of patients, particularly in the long-term. The complexity of numerous risk factors and various aetiologies proposed for eating disorders also contributes to the heterogeneity of the disorders, which make them more difficult to treat with manual-based or structured treatment options alone.

It is possible that subclinical forms of eating disorders, similar to the ones described in this thesis, might be useful to examine separately when discussing prevention. Disordered eating can include eating disorder-like symptoms that might incorporate only one symptom of an ED or several symptoms without the clinical significance necessary for a formal diagnosis. For example, symptom examples of
restrained disordered eating, identified in the current studies, include unhealthy dieting and diet pill use and, on their own, do not constitute a diagnosis. However, when the umbrella term of disordered eating is used in prevention work, it lumps together different forms of disordered eating, and as such, different trajectories, pathways and recommendations for treatment, as supported by these current results. As well, in the current version of the DSM, the addition of Binge Eating Disorder attempts to incorporate individuals with different eating disorders, from AN and BN, who have episodes of extreme overeating or binging. Because treatment is not often successful at eradicating the disorder, it is necessary to focus research on reducing the incidence of eating disorders by acknowledging early detection of individuals, and as well, successful primary prevention techniques aimed towards those at risk.

On a practical level, results from these studies indicate that women who experienced teasing relating to their shape and/or weight from their peers are more likely to engage in problematic eating behaviours than those who do not. As in study 1, these results would suggest that primary prevention should include strategies to respond to teasing. While researchers have recommended similar preventative techniques (Lieberman et al., 2001), the findings of the mediating effects of depression between teasing and emotional overeating suggest that preventative programs should not only focus on coping strategies to deal with the experience of being teased, but rather identify those who may be experiencing feelings of sadness and/or who have difficulty identifying and describing emotions in the self through the use of measures of more global psychological functioning, such as depressive symptomatology. Therefore, these findings also suggest that reducing depressive symptoms could be a target for
intervention in order to reduce problematic eating behaviours, such as overeating in response to emotions.

As there have been relatively few studies that have demonstrated the importance of experiential avoidance to the disordered eating literature (Lavender et al., 2009), these results would suggest that it may also be a factor that may attenuate the adverse effects of peer teasing on emotional eating habits. In the current study, there was a trend towards significance that the mediational effects of depression between peer teasing and emotional eating varied as a function of this variable. The mediation of depression was stronger for those with low- and average-levels of experiential avoidance. Therefore, those who in engage in disordered eating (emotional eating, in particular) might do so because of the sadness (i.e. depression) they experience as a result of peer teasing. However, it is the individuals who are aware and experience the unpleasant emotions that are most at-risk for developing emotional eating habits. There was no meditational effect of depression between peer teasing and emotional eating when individuals were high in experiential avoidance. For individuals who are not able to sit comfortably with private thoughts, memories and feelings, there is a direct relation between the experience of peer teasing and emotional eating, regardless of the level of depressive symptomatology they experience.

As previously discussed, there are some therapies in the treatment of eating disorders that incorporate components designed to reduce experiential avoidance, encourage acceptance and increase awareness. For example, one treatment option, Acceptance and Commitment Therapy (Hayes, Strosahl & Wilson, 1999) is effective in treating both BN and AN by promoting and acceptance of private experiences (thoughts,
emotions and memories) in the present moment (Baer et al., 2005). However, there has been limited research in the area of the role of experiential avoidance among individuals who engage in disordered eating (Lavender et al., 2009). The results of these studies suggest that the primary prevention of disordered eating, particularly overeating, could also incorporate mindfulness-based approaches.

Limitations and Future Research

While this study expands on past research concerning peer teasing and disordered eating, more research into this field of inquiry can be expected. There were several limitations to these studies, which should be highlighted as directions to which future research can turn. First, sampling issues should be addressed. Participants were university undergraduate students and, as such, the results may not be representative of the general population. An additional limitation, which relates to the first, is that as only women participated, it is unclear if the results would be similar if the sample included men. In addition, it would be interesting to incorporate additional forms of subclinical eating disorders, such as exercise dependence, which may be more prevalent in men as means of changing body weight and shape.

A second limitation of these studies involves the reliance on self-report questionnaires. Given the sensitive nature of questions in this study, the self-report measures may be subject to social desirability, wrongful interpretations and other problems associated with subject bias. Although one could argue that these types of questionnaires offer anonymity and produce honest responding, future research should consider the value of more comprehensive, albeit more time-consuming, methods of collecting data, including interviews and focus groups. As well, an individual who
avoids negative emotions likely has difficulty reporting on negative emotions, in general, even if one experiences them. Furthermore, teasing was measured by asking participants to report the frequency and impact of teasing occurrences during their childhood and adolescence. While the POTS is the most commonly used measure to assess a retrospective account of teasing history, the reliability of participants’ accounts based on these retrospective questions might be questioned. However, being teased is likely a very salient experience for individuals. Therefore, participants, in all likelihood, remember these events, even if they took place many years earlier. Hardt and Rutter (2004) examined the validity of adult retrospective reports of adverse childhood experience. In their review, they conclude that while memories are a reconstruction and subject to measurement error, they do reflect earlier experiences in that false positive reports are probably rare (Hardt & Rutter, 2004).

Similarly, as this series of studies relies on the reconstruction of past events in the present, caution is warranted regarding the utility of this type of integration. Specifically, the independent and dependent variables include a current construction of past teasing with current eating styles. Previous research often relies on retrospective studies of peer victimization, and this has been particularly useful research methodology when the goal of the study is clinical application (McCabe et al., 2010). Perception of peer victimization is what matters most in terms of understanding the psychological functioning of the person (Miller & Vaillancourt, 2007). Regardless of the accuracy of the recalled victimization, as discussed above, subjective appraisals of victimization are more intimately linked to current psychological functioning than actual victim status (Graham & Juvonen, 1998; Hardt & Rutter, 2004). Therefore, it is possible that these
studies demonstrate a current narrative that integrates, in a coherent fashion, past teasing with current eating.

Third, a psychometric point of interest is the neglect of the state-trait distinction when measuring depression in participants. When considering the mediating contribution of depression to the teasing and emotional eating relation in study 2, depression could be assumed a reactive depression, or a trait, referring to individual differences in the likelihood that a person would experience depression in a stressful situation. However, the assessment measure used, the BDI-II, could be considered a state-like measure of depression, and defined as a transitory emotional response involving low mood and negative thoughts as it measures depression in the last two weeks. Therefore, the measurement, depending on the nature of the questions asked, could assess different experiences of depression and this study failed to measure depression as a result of teasing. Instead, it measured current depression as a mediator of past experience of teasing and current eating behaviours. A review of the literature revealed that there is no state-trait measure for depression, as it is a complex diagnosis and not just a mood. In contrast, it is the BDI that has been extensively used in research and clinical work with both clinical and subclinical populations based on it has strong validity and reliability (Beck, Steer & Brown, 1996). In addition, there has been some confusion in the literature as to whether it measures trait or state depression, as in “its original form there were no temporal limitations” (p. 836; Endler, Cox, Parker & Bagby, 1992). Instead participants responded to each item with how they felt in general. Although the current version of the BDI is generally assumed to assess state depressive symptoms, some researchers argue that the time frame may allow the scale to tap a trait depression
construct (Endler et al., 1992). It is possible that if this study had asked participants to endorse depressive symptoms when they were teased, it would have garnered a retrospective account. However, this method is open to concerns about the accuracy of recall. Different ways in which to assess depression is an area that warrants additional research.

Fourth, understanding the natural development of eating problems is not possible with the design used in these studies. Longitudinal studies are required to examine the impact of peer teasing more systematically and are a good direction for future research. This might also help researchers determine what causes individuals to move from disordered eating behaviours to adopt more extreme health risk behaviours. For example it is possible that the relation between different forms of disordered eating and depression is bidirectional. To produce satisfactory answers to the question regarding bidirectionality, one would need to conduct cross-lag cohort studies, examining disordered eating as a possible antecedent to depression, and depression as a possible antecedent to disordered eating.

Fifth, following the recommendation provided by Preacher and Hayes (2008), a point estimate for an indirect effect was considered significant if zero was not included in the 95% bias-corrected confidence interval as a conventional method for significance testing. However, it was noted that the confidence intervals were highly similar in the analyses. Researchers are moving away from an over-reliance on significance testing with the realization that these conventional procedures perhaps provide a possibly misleading view of how seriously to take any particular result. In this case, an arbitrary cut-off indicates that one result is significant as compared to another in mediator analyses.
that have very similar confidence intervals. Cumming (2013) notes that standardized effect sizes are widely used in psychology as they afford “understanding and interpretation independently of the measure and situation” (p. 968). In the present series of the studies, the point estimates (an indicator of effect size) are relatively small. Cohen (1988) defines small, medium, and large effect sizes as .01, .09, and .25. However, the argument for the importance of small size effects has been put forth for many years (Prentice & Miller, 1992). Recently, it has been suggested that small effect sizes do not mean that they are not important effects, and conversely, large effects should not equate definitively to important effects, depending on the research context (Preacher & Kelly, 2011). For example, a small effect in “high-stakes research may be deemed very important by the scientific community, whereas an objectively large effect in other fields may not reach a noteworthy level” (Preacher & Kelley, 2011, p. 108). Therefore, researchers have cautioned against interpreting the importance of effect sizes against seemingly arbitrary benchmarks, as this ignores the important contribution of clinical significance, the research questions posed, societal concerns, and the design of a particular study (Preacher & Kelley, 2011).

Finally, the current study only examined teasing by peers. Past research has shown that teasing about body weight or shape by family members also predicts dieting and problematic eating behaviours (Levine, Smolak & Hayden, 1994; Vincent & McCabe, 2000). Future work could examine these variables in the teasing-disordered eating relationship, focusing on siblings and parents, rather than peers. Second, it would be worthwhile for additional studies to determine whether negative feedback about weight and shape from male and female peers differentially impacts the results.
Furthermore, the age during which the teasing occurred might be an important consideration. In adolescence, when there is a normal developmental shift towards interest in romantic relationships, teasing by male peers may reinforce cultural expectations to adhere to the thin ideal by highlighting aspects of girls' bodies that they deem unattractive. This may lead to internalize the message to be thin and contribute to restrained eating behaviour to lose weight, in order to appear more desirable to others. In contrast, in younger years (e.g. 6-11 years), it may be teasing by female peers that exerts more pressure to attain the thin ideal body shape. During this time in childhood, the development of same sex peer friendships is a common developmental goal.

**Final Conclusion**

Overall, the current research makes an important contribution to the field of peer teasing and different aspects of disordered eating. Specifically, insight has been gained into the important mediators of body dissatisfaction, depression and self-esteem that account for this relationship in a sample of undergraduate women. The moderated mediation analysis, however, provides some initial evidence that experiential avoidance is an important component when considering its impact on emotional eating, and this factor should continue to be included in future studies. Specifically, it is suggested that the mediational links of self-esteem and, possibly, depression are more aversive if higher levels of experiential avoidances are also present, such that the individual experiences an increased need to escape from emotions. These results suggest the importance that emotional functioning plays in the role of disordered eating, as opposed to simply considering the direct relationship of peer teasing and eating habits. A better understanding of sub-clinical eating behaviours and attitudes will be achieved by
continuing to disentangle the influence of peers, in addition to the importance of emotional awareness, acceptance and functioning.
References


Table 1

*Frequencies, Means and Standard Deviations for all Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTS (F)</td>
<td>213</td>
<td>1.582</td>
<td>0.623</td>
<td>1.000</td>
<td>4.170</td>
</tr>
<tr>
<td>POTS (I)</td>
<td>176</td>
<td>1.913</td>
<td>1.277</td>
<td>0.000</td>
<td>5.000</td>
</tr>
<tr>
<td>EDI</td>
<td>212</td>
<td>0.925</td>
<td>0.735</td>
<td>0.000</td>
<td>3.000</td>
</tr>
<tr>
<td>RSES</td>
<td>212</td>
<td>2.981</td>
<td>0.531</td>
<td>1.400</td>
<td>4.000</td>
</tr>
<tr>
<td>AAQ</td>
<td>213</td>
<td>3.920</td>
<td>0.875</td>
<td>1.780</td>
<td>6.330</td>
</tr>
<tr>
<td>RESTEAT</td>
<td>213</td>
<td>2.656</td>
<td>0.882</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>EMOEAT</td>
<td>213</td>
<td>2.750</td>
<td>0.930</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>BMI</td>
<td>210</td>
<td>24.289</td>
<td>4.918</td>
<td>10.840</td>
<td>49.470</td>
</tr>
</tbody>
</table>

Note. POTS (F) = teasing frequency score, POTS (I) = teasing impact score, EDI = body dissatisfaction score, RSES = self-esteem score, AAQ = experiential avoidance score, RESTEAT = restrained eating score, EMOEAT = emotional eating score, BMI.
Table 2

*Intercorrelation Matrix among Measures*

<table>
<thead>
<tr>
<th></th>
<th>POTS (I)</th>
<th>EDI</th>
<th>RSES</th>
<th>AAQ</th>
<th>RESTEAT</th>
<th>EMOEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTS (F)</td>
<td>.283**</td>
<td>.176*</td>
<td>-.251**</td>
<td>0.59</td>
<td>.111</td>
<td>.208**</td>
</tr>
<tr>
<td>POTS (I)</td>
<td>.354**</td>
<td>-.214**</td>
<td>.163*</td>
<td>.395*</td>
<td>.265**</td>
<td></td>
</tr>
<tr>
<td>EDI</td>
<td></td>
<td>-.552**</td>
<td>.377**</td>
<td>.464**</td>
<td>.261**</td>
<td></td>
</tr>
<tr>
<td>RSES</td>
<td></td>
<td></td>
<td>-.683**</td>
<td>-.263**</td>
<td>-.297**</td>
<td></td>
</tr>
<tr>
<td>AAQ</td>
<td></td>
<td></td>
<td></td>
<td>.230**</td>
<td>.267**</td>
<td></td>
</tr>
<tr>
<td>RESTEAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.173*</td>
</tr>
</tbody>
</table>

*denotes significance at the p < .05 level, **denotes significance at the p<.01 level.

Note. POTS (F) = teasing frequency score, POTS (I) = teasing impact score, EDI = body dissatisfaction score, RSES = self-esteem score, AAQ = experiential avoidance score, RESTEAT = restrained eating score, EMOEAT = emotional eating score
Table 3

*The Relation between the Impact of Peer Teasing and Restrained Eating, with Body Dissatisfaction and Self-Esteem serving as Mediators*

<table>
<thead>
<tr>
<th></th>
<th>$B$</th>
<th>$SE$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.2784</td>
<td>0.0491</td>
<td>5.6727</td>
<td>0.0001</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.1877</td>
<td>0.0491</td>
<td>3.8250</td>
<td>0.0002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0907</td>
<td>0.0504</td>
<td>0.1472</td>
</tr>
<tr>
<td>Body dissatisfaction</td>
<td>0.0848</td>
<td>0.0434</td>
<td>0.1463</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.0059</td>
<td>−0.0156</td>
<td>0.0377</td>
</tr>
</tbody>
</table>
Table 4

*The Relation between the Impact of Peer Teasing and Emotional Eating, with Body Dissatisfaction and Self-Esteem serving as Mediators*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.1904</td>
<td>0.0525</td>
<td>3.626</td>
<td>0.0004</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.1454</td>
<td>0.0549</td>
<td>2.6461</td>
<td>0.0089</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0450</td>
<td>0.0017</td>
<td>0.1092</td>
</tr>
<tr>
<td>Body dissatisfaction</td>
<td>0.0150</td>
<td>-0.0281</td>
<td>0.0739</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.0300</td>
<td>0.0039</td>
<td>0.0810</td>
</tr>
</tbody>
</table>
Table 5

*Moderated Mediation - the Relation between the Impact of Peer Teasing and Restrained Eating through Body Dissatisfaction with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.2589</td>
<td>0.1116</td>
<td>20.2483</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.1872</td>
<td>0.0489</td>
<td>3.8287</td>
<td>0.0002</td>
</tr>
<tr>
<td>Body Dissatisfaction (BD)</td>
<td>0.3971</td>
<td>0.0895</td>
<td>4.4358</td>
<td>0.0000</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.0793</td>
<td>0.0707</td>
<td>1.1215</td>
<td>0.2637</td>
</tr>
<tr>
<td>BD x EA</td>
<td>0.0885</td>
<td>0.0869</td>
<td>1.0190</td>
<td>0.3096</td>
</tr>
</tbody>
</table>

Note. Table shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, body dissatisfaction = mediator, experiential avoidance = moderator, and restrained eating = dependent variable.
Table 6

*Moderated Mediation - the Relation between the Impact of Peer Teasing and Restrained Eating through Self-Esteem with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.1913</td>
<td>0.1145</td>
<td>19.1414</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.2508</td>
<td>0.0497</td>
<td>5.0429</td>
<td>0.0000</td>
</tr>
<tr>
<td>Self-Esteem (SE)</td>
<td>-0.2193</td>
<td>0.01627</td>
<td>-1.3480</td>
<td>0.1794</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.1117</td>
<td>0.0981</td>
<td>1.1385</td>
<td>0.2565</td>
</tr>
<tr>
<td>SE x EA</td>
<td>0.0669</td>
<td>0.1102</td>
<td>0.6069</td>
<td>0.5447</td>
</tr>
</tbody>
</table>

Note. Table above shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, self-esteem = mediator, experiential avoidance = moderator, and restrained eating = dependent variable.
Table 7

*Moderated Mediation - the Relation between the Impact of Peer Teasing and Emotional Eating through Body Dissatisfaction with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.6055</td>
<td>0.1247</td>
<td>20.8941</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.1418</td>
<td>0.0547</td>
<td>2.5936</td>
<td>0.0103</td>
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<tr>
<td>Body Dissatisfaction (BD)</td>
<td>0.1238</td>
<td>0.1001</td>
<td>1.2376</td>
<td>0.2175</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.2122</td>
<td>0.0790</td>
<td>2.6861</td>
<td>0.0079</td>
</tr>
<tr>
<td>BD x EA</td>
<td>-0.1354</td>
<td>0.0971</td>
<td>-1.3943</td>
<td>0.1650</td>
</tr>
</tbody>
</table>

Note. Table shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, body dissatisfaction = mediator, experiential avoidance = moderator, and emotional eating = dependent variable.
Table 8

*Moderated Mediation - the Relation between the Impact of Peer Teasing and Emotional Eating through Self-Esteem with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.6099</td>
<td>0.1200</td>
<td>21.7512</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.1723</td>
<td>0.0521</td>
<td>3.3061</td>
<td>0.0012</td>
</tr>
<tr>
<td>Self-Esteem (SE)</td>
<td>-0.1978</td>
<td>0.1705</td>
<td>-1.1601</td>
<td>0.2476</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.1829</td>
<td>0.1029</td>
<td>1.7779</td>
<td>0.0772</td>
</tr>
<tr>
<td>SE x EA</td>
<td>0.2848</td>
<td>0.1155</td>
<td>2.4669</td>
<td>0.0146</td>
</tr>
</tbody>
</table>

Note. Table shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, self-esteem = mediator, experiential avoidance = moderator, and emotional eating = dependent variable.

<table>
<thead>
<tr>
<th>Experiential Avoidance</th>
<th>Boot indirect effect</th>
<th>Boot SE</th>
<th>Boot z</th>
<th>Boot p</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1 SD</td>
<td>0.0405</td>
<td>0.0231</td>
<td>1.7495</td>
<td>0.0802</td>
</tr>
<tr>
<td>Mean</td>
<td>0.0176</td>
<td>0.0173</td>
<td>1.0142</td>
<td>0.3105</td>
</tr>
<tr>
<td>+1 SD</td>
<td>-0.0053</td>
<td>0.0196</td>
<td>-0.2720</td>
<td>0.7856</td>
</tr>
</tbody>
</table>

Note. Table above shows estimates, standard errors, z statistics, and significance value for the conditional indirect effects for self-esteem across low and high levels of experiential avoidance.
### Table 9

*Frequencies, Means and Standard Deviations for all Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$Min$</th>
<th>$Max$</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTS (F)</td>
<td>285</td>
<td>1.604</td>
<td>.620</td>
<td>1.000</td>
<td>4.330</td>
</tr>
<tr>
<td>POTS (I)</td>
<td>258</td>
<td>1.859</td>
<td>.939</td>
<td>1.000</td>
<td>4.000</td>
</tr>
<tr>
<td>ALEX</td>
<td>284</td>
<td>2.452</td>
<td>.595</td>
<td>1.100</td>
<td>4.250</td>
</tr>
<tr>
<td>BDI</td>
<td>285</td>
<td>1.494</td>
<td>.460</td>
<td>0.900</td>
<td>3.350</td>
</tr>
<tr>
<td>CISS</td>
<td>285</td>
<td>3.4043</td>
<td>.562</td>
<td>1.750</td>
<td>4.940</td>
</tr>
<tr>
<td>AAQ</td>
<td>285</td>
<td>4.034</td>
<td>.818</td>
<td>2.110</td>
<td>6.330</td>
</tr>
<tr>
<td>RESTEAT</td>
<td>285</td>
<td>2.935</td>
<td>.975</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>EMOEAT</td>
<td>285</td>
<td>2.520</td>
<td>.781</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>BMI</td>
<td>196</td>
<td>23.910</td>
<td>3.507</td>
<td>1.000</td>
<td>5.000</td>
</tr>
</tbody>
</table>

Note. POTS (F) = teasing frequency score, POTS (I) = teasing impact score, ALEX = alexithymia score, BDI = depression score, CISS = coping score, AAQ = experiential avoidance score, RESTEAT = restrained eating score, EMOEAT = emotional eating score, BMI = body mass index.
Table 10

*Intercorrelation Matrix among Measures.*

<table>
<thead>
<tr>
<th></th>
<th>POTS (I)</th>
<th>ALEX</th>
<th>BDI</th>
<th>CISS</th>
<th>AAQ</th>
<th>RESTEAT</th>
<th>EMOEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTS (F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POTS (I)</td>
<td>.352**</td>
<td>.158**</td>
<td>.238**</td>
<td>-.016</td>
<td>.187**</td>
<td>.104</td>
<td>.202**</td>
</tr>
<tr>
<td>ALEX</td>
<td>.109</td>
<td></td>
<td>.210**</td>
<td>-.062</td>
<td>.230**</td>
<td>.312**</td>
<td>.138*</td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td>.523**</td>
<td>-.321**</td>
<td>.554**</td>
<td>.167**</td>
<td>.228**</td>
<td></td>
</tr>
<tr>
<td>CISS</td>
<td>-.341**</td>
<td>.333**</td>
<td></td>
<td>.256**</td>
<td>.232**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAQ</td>
<td>-.364**</td>
<td>.011</td>
<td>.221**</td>
<td></td>
<td>.223**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESTEAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.137*</td>
</tr>
</tbody>
</table>

*denotes significance at the p < .05 level, **denotes significance at the p < .01 level.

Note.  POTS (F) = teasing frequency score, POTS (I) = teasing impact score, ALEX = alexithymia score, BDI = depression score, CISS = coping score, AAQ = experiential avoidance score, RESTEAT = restrained eating score, EMOEAT = emotional eating score.
Table 11

The Relation between the Impact of Peer teasing and Restrained Eating, with Alexithymia, Coping and Depression serving as Mediators

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.3240</td>
<td>0.0622</td>
<td>5.2048</td>
<td>0.0000</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.2841</td>
<td>0.0622</td>
<td>4.5650</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0399</td>
<td>0.0020</td>
<td>0.0944</td>
</tr>
<tr>
<td>Alexithymia</td>
<td>0.0042</td>
<td>-0.0082</td>
<td>0.0348</td>
</tr>
<tr>
<td>Coping</td>
<td>-0.0112</td>
<td>-0.0489</td>
<td>0.0076</td>
</tr>
<tr>
<td>Depression</td>
<td>0.0468</td>
<td>0.0120</td>
<td>0.1118</td>
</tr>
</tbody>
</table>
Table 12

The Relation between the Impact of Peer teasing and Emotional Eating, with Alexithymia, Coping and Depression serving as Mediators

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effect (effect of IV+ mediators)</td>
<td>0.1125</td>
<td>0.0517</td>
<td>2.1754</td>
<td>0.0305</td>
</tr>
<tr>
<td>Direct effect (effect of IV)</td>
<td>0.0748</td>
<td>0.0517</td>
<td>1.4455</td>
<td>0.1496</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Point Estimate</th>
<th>Lower Level 95% CI</th>
<th>Upper Level 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect (via mediators)</td>
<td>0.0377</td>
<td>0.0095</td>
<td>0.0886</td>
</tr>
<tr>
<td>Alexithymia</td>
<td>0.0111</td>
<td>-0.0010</td>
<td>0.0438</td>
</tr>
<tr>
<td>Coping</td>
<td>0.0004</td>
<td>-0.0082</td>
<td>0.0151</td>
</tr>
<tr>
<td>Depression</td>
<td>0.0261</td>
<td>0.0035</td>
<td>0.0669</td>
</tr>
</tbody>
</table>
Table 13

*Moderated Mediation - the Relationship between the Impact of Peer Teasing and Restrained Eating through Depression with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.4122</td>
<td>0.1318</td>
<td>18.2992</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.2850</td>
<td>0.0635</td>
<td>4.4862</td>
<td>0.0000</td>
</tr>
<tr>
<td>Depression (D)</td>
<td>0.3142</td>
<td>0.1811</td>
<td>1.7345</td>
<td>0.0841</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.0119</td>
<td>0.0939</td>
<td>0.1263</td>
<td>0.8996</td>
</tr>
<tr>
<td>D x EA</td>
<td>0.0576</td>
<td>0.1413</td>
<td>0.4075</td>
<td>0.6840</td>
</tr>
</tbody>
</table>

Note. Table shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, depression = mediator, experiential avoidance = moderator, and restrained eating = dependent variable.
Table 14

*Moderated Mediation - the Relationship between the Impact of Peer Teasing and Restrained Eating through Alexithymia with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.3908</td>
<td>0.1328</td>
<td>18.0048</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.2946</td>
<td>0.0640</td>
<td>4.6053</td>
<td>0.0000</td>
</tr>
<tr>
<td>Alexithymia (A)</td>
<td>0.0550</td>
<td>0.1212</td>
<td>0.4533</td>
<td>0.6507</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.1058</td>
<td>0.0877</td>
<td>1.2071</td>
<td>0.2285</td>
</tr>
<tr>
<td>A x EA</td>
<td>0.0820</td>
<td>0.1133</td>
<td>0.7241</td>
<td>0.4697</td>
</tr>
</tbody>
</table>

Note. Table above shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, alexithymia = mediator, experiential avoidance = moderator, and restrained eating = dependent variable.
Table 15

*Moderated Mediation - the Relationship between the Impact of Peer Teasing and Restrained Eating through Coping with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.4130</td>
<td>0.1352</td>
<td>17.8535</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.2898</td>
<td>0.0639</td>
<td>4.5379</td>
<td>0.0000</td>
</tr>
<tr>
<td>Coping (C)</td>
<td>0.1597</td>
<td>0.1193</td>
<td>1.3390</td>
<td>0.1818</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.0523</td>
<td>0.0993</td>
<td>0.5268</td>
<td>0.5988</td>
</tr>
<tr>
<td>C x EA</td>
<td>0.0071</td>
<td>0.1011</td>
<td>0.0707</td>
<td>0.9437</td>
</tr>
</tbody>
</table>

Note. Table above shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, coping = mediator, experiential avoidance = moderator, and restrained eating = dependent variable.
Table 16

_Moderated Mediation - the Relationship between the Impact of Peer Teasing and Emotional Eating through Depression with Experiential Avoidance as a Moderator_

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.4065</td>
<td>0.1081</td>
<td>22.2620</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.0797</td>
<td>0.0521</td>
<td>1.5298</td>
<td>0.1273</td>
</tr>
<tr>
<td>Depression (D)</td>
<td>0.3977</td>
<td>0.1485</td>
<td>2.6773</td>
<td>0.0079</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.0703</td>
<td>0.0770</td>
<td>0.9128</td>
<td>0.3622</td>
</tr>
<tr>
<td>D x EA</td>
<td>-0.2155</td>
<td>0.1158</td>
<td>-1.8607</td>
<td>0.0639</td>
</tr>
</tbody>
</table>

Note. Table above shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, depression = mediator, experiential avoidance = moderator, and emotional eating = dependent variable.

<table>
<thead>
<tr>
<th>Experiential Avoidance</th>
<th>Boot indirect effect</th>
<th>Boot SE</th>
<th>Boot z</th>
<th>Boot p</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1 SD</td>
<td>0.0580</td>
<td>0.0278</td>
<td>2.0856</td>
<td>0.0370</td>
</tr>
<tr>
<td>Mean</td>
<td>0.0401</td>
<td>0.0196</td>
<td>2.0414</td>
<td>0.0412</td>
</tr>
<tr>
<td>+1 SD</td>
<td>0.0221</td>
<td>0.0159</td>
<td>1.3910</td>
<td>0.1642</td>
</tr>
</tbody>
</table>

Note. Table above shows estimates, standard errors, z statistics, and significance value for the conditional indirect effects for self-esteem across low and high levels of experiential avoidance.
Table 17

*Moderated Mediation - the Relationship between the Impact of Peer Teasing and Emotional Eating through Alexithymia with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.3619</td>
<td>0.1086</td>
<td>21.7478</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.0802</td>
<td>0.0523</td>
<td>1.5337</td>
<td>0.1264</td>
</tr>
<tr>
<td>Alexithymia (A)</td>
<td>0.2007</td>
<td>0.0992</td>
<td>2.0240</td>
<td>0.0440</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.1010</td>
<td>0.0717</td>
<td>1.4082</td>
<td>0.1603</td>
</tr>
<tr>
<td>A x EA</td>
<td>-0.0177</td>
<td>0.0926</td>
<td>-0.1906</td>
<td>0.8490</td>
</tr>
</tbody>
</table>

Note. Table above shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, alexithymia = mediator, experiential avoidance = moderator, and emotional eating = dependent variable.
Table 18

*Moderated Mediation - the Relationship between the Impact of Peer Teasing and Emotional Eating through Coping with Experiential Avoidance as a Moderator*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.3847</td>
<td>0.1113</td>
<td>21.4251</td>
<td>0.0000</td>
</tr>
<tr>
<td>Impact of Peer Teasing</td>
<td>0.0731</td>
<td>0.0526</td>
<td>1.3899</td>
<td>0.1658</td>
</tr>
<tr>
<td>Coping (C)</td>
<td>0.1365</td>
<td>0.0982</td>
<td>1.3899</td>
<td>0.165</td>
</tr>
<tr>
<td>Experiential Avoidance (EA)</td>
<td>0.1120</td>
<td>0.0818</td>
<td>1.3698</td>
<td>0.1720</td>
</tr>
<tr>
<td>C x EA</td>
<td>-0.0424</td>
<td>0.0832</td>
<td>-0.5096</td>
<td>0.6108</td>
</tr>
</tbody>
</table>

Note. Table shows unstandardized coefficients for the conditional indirect effects. Impact of peer teasing = independent variable, coping = mediator, experiential avoidance = moderator, and emotional eating = dependent variable.
Figure 1: Moderated Mediational Model to be tested: Study 1
Figure 2: Moderated Mediational Model to be tested: Study 2
Figure 3. Emotional eating predicted by self-esteem moderated by experiential avoidance. This figure illustrates moderated-mediation with impact of peer teasing as independent variable.
Figure 4. Emotional eating predicted by self-esteem moderated by experiential avoidance. This figure illustrates moderated-mediation with frequency of peer teasing as independent variable.
Figure 5. Emotional eating predicted by depression moderated by experiential avoidance. This figure illustrates moderated-mediation with impact of peer teasing as independent variable.
Figure 6. Emotional eating predicted by depression moderated by experiential avoidance. This figure illustrates moderated-mediation with impact of peer teasing as independent variable.
Appendix A

Demographic Information Questionnaire

Please answer the following questions by providing relevant information or by placing a check on the appropriate line.

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

I am:  _____ Male  _____ Female

State your age:  _____ Years

I am in:  _____ Year of University

My height is:  _____ Feet  _____ Inches or  _____ Centimeters

My weight is:  _____ Pounds or  _____ Kilograms

When was the last time you weighed yourself?  _________________

Choose the ethnic group that best describes what you consider yourself to be:

_____ Caucasian

_____ Asian

_____ Afro Canadian

_____ Hispanic

_____ First Nations

_____ Other ethnicity. Please specify:  _________________
Appendix B

Perception of Teasing Scale

The following questions should be answered with respect to the period of time when you were growing up (ages 5-16).

First, rate how often you think you have been the object of such behaviour (using the scale provided, never to very often)

Second, unless you responded never to a particular question, rate how upset you were by the teasing (not upset to very upset).

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

1. Peers made fun of you because of your weight/shape.

<table>
<thead>
<tr>
<th>Never</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1a. How upset were you?

<table>
<thead>
<tr>
<th>Not Upset</th>
<th>A Bit Upset</th>
<th>Somewhat Upset</th>
<th>Upset</th>
<th>Very Upset</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. Peers made jokes about you because of your weight/shape.

<table>
<thead>
<tr>
<th>Never</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2a. How upset were you?

<table>
<thead>
<tr>
<th>Not Upset</th>
<th>A Bit Upset</th>
<th>Somewhat Upset</th>
<th>Upset</th>
<th>Very Upset</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
3. Peers laughed at you for trying out for sports because of your weight/shape.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a. How upset were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>A Bit Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Peers called you weight- and shape-related names like “fatso” or “skinny”.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a. How upset were you?</td>
<td></td>
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5. Peers pointed at you because you were over- or under-weight.

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<th>Never</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
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<tr>
<td>5a. How upset were you?</td>
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6. Peers snickered about your weight/shape when you walked into a room alone.

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<th>Never</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Often</th>
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<td>6a. How upset were you?</td>
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<td>Not Upset</td>
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Appendix C

Body Dissatisfaction Subscale of the Eating Disorder Inventory

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

1. I think that my stomach is too big.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

2. I think that my thighs are too large.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

3. I think that my stomach is just the right size.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

4. I feel satisfied with the shape of my body.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never
5. I like the shape of my buttocks.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

6. I think my hips are too big.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

7. I think that my thighs are just the right size.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

8. I think my buttocks are too large.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never

9. I think that my hips are just the right size.
   a. Always
   b. Usually
   c. Often
   d. Sometimes
   e. Rarely
   f. Never
Appendix D

Acceptance and Action Questionnaire

Below you will find a list of statements. Please rate the truth of each statement as it applies to you.

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

1. I am able to take action on a problem even if I am uncertain what is the right thing to do.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True

2. I often catch myself daydreaming about things I’ve done and what I would do differently next time.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True

3. When I feel depressed or anxious, I am unable to take care of my responsibilities.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True
4. I rarely worry about getting my anxieties, worries, and feelings under control.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True

5. I’m not afraid of my feelings.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True

6. When I evaluate something negatively, I usually recognize that this is just a reaction, not an objective fact.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True

7. When I compare myself to other people, it seems that most of them are handling their lives better than I do.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True
8. Anxiety is bad.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True

9. If I could magically remove all the painful experiences I’ve had in my life, I would do so.
   a. Never True
   b. Very Rarely True
   c. Seldom True
   d. Sometimes True
   e. Frequently True
   f. Almost Always True
   g. Always True
Appendix E

Rosenberg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself.

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

1. On the whole, I am satisfied with myself.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

2. At times, I think I am no good at all.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

3. I feel that I have a number of good qualities.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

4. I am able to do things as well as most other people.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

5. I feel I do not have much to be proud of.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree
6. I certainly feel useless at times.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

7. I feel that I’m a person of worth, at least on an equal plane with others.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

8. I wish I could have more respect for myself.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.
   a. Strongly Agree
   b. Agree
   c. Disagree
   d. Strongly Disagree

10. I take a positive attitude towards myself.
    a. Strongly Agree
    b. Agree
    c. Disagree
    d. Strongly Disagree
Appendix F

Dutch Eating Behavior Questionnaire

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answer will only be seen by the researchers.

1. If you have put on weight, do you eat less than you usually do?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

2. Do you try to eat less at mealtimes than you would like to eat?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

3. How often do you refuse food or drink offered because you are concerned about your weight?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

4. Do you watch exactly what you eat?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

5. Do you deliberately eat foods that are slimming?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

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6. When you have eaten too much, do you eat less than usual the following days?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

7. Do you deliberately eat less in order not to become heavier?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

8. How often do you try not to eat between meals because you are watching your weight?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

9. How often in the evening do you try not to eat because you are watching your weight?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

10. Do you take into account your weight with what you eat?
    a. Never
    b. Seldom
    c. Sometimes
    d. Often
    e. Very Often
11. Do you have the desire to eat when you are irritated?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

12. Do you have a desire to eat when you have nothing to do?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

13. Do you have a desire to eat when you are depressed or discouraged?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

14. Do you have a desire to eat when you are feeling lonely?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

15. Do you have a desire to eat when someone lets you down?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant
16. Do you have a desire to eat when you are cross?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

17. Do you have a desire to eat when you are approaching something unpleasant to happen?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

18. Do you get the desire to eat when you are anxious, worried or tense?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

19. Do you have a desire to eat when things are going against you or when things have gone wrong?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

20. Do you have a desire to eat when you are frightened?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant
21. Do you have a desire to eat when you are disappointed?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

22. Do you have a desire to eat when you are emotionally upset?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

23. Do you have a desire to eat when you are bored or restless?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
   f. Not Relevant

24. If food tastes good to you, do you eat more than usual?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

25. If food smells and looks good, do you eat more than usual?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

26. If you see or smell something delicious, do you have a desire to eat it?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
27. If you have something delicious to eat, do you eat it straight away?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

28. If you walk past the baker do you have the desire to buy something delicious?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

29. If you walk past a snackbar or a café, do you have the desire to buy something delicious?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

30. If you see others eating, do you also have the desire to eat?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

31. Can you resist eating delicious foods?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often

32. Do you eat more than usual, when you see others eating?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
33. When preparing a meal are you inclined to eat something?
   a. Never
   b. Seldom
   c. Sometimes
   d. Often
   e. Very Often
Appendix H

Twenty-item Toronto Alexithymia Scale

Please read each question carefully. There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

1. I am often confused about what emotion I am feeling.
   Strongly Disagree
   1 2 3 4 5
   Strongly Agree

2. It is difficult for me to find the right words for my feelings.
   Strongly Disagree
   1 2 3 4 5
   Strongly Agree

3. I have physical sensations that even doctors don’t understand.
   Strongly Disagree
   1 2 3 4 5
   Strongly Agree

4. I am able to describe my feelings easily.
   Strongly Disagree
   1 2 3 4 5
   Strongly Agree

5. I prefer to analyze problems rather than just describe them.
   Strongly Disagree
   1 2 3 4 5
   Strongly Agree

6. When I am upset, I don’t know if I am sad, frightened or angry.
   Strongly Disagree
   1 2 3 4 5
   Strongly Agree
7. I am often puzzled by sensations in my body.
   **Strongly Disagree**
   ![Strongly Agree](1, 2, 3, 4, 5)

8. I prefer to just let things happen rather than to understand why they turned out that way.
   **Strongly Disagree**
   ![Strongly Agree](1, 2, 3, 4, 5)

9. I have feelings that I can’t quite identify.
   **Strongly Disagree**
   ![Strongly Agree](1, 2, 3, 4, 5)

10. Being in touch with emotions is essential.
    **Strongly Disagree**
    ![Strongly Agree](1, 2, 3, 4, 5)

11. I find it hard to describe how I feel about people.
    **Strongly Disagree**
    ![Strongly Agree](1, 2, 3, 4, 5)

12. People tell me to describe my feelings more.
    **Strongly Disagree**
    ![Strongly Agree](1, 2, 3, 4, 5)

13. I don’t know what’s going on inside me.
    **Strongly Disagree**
    ![Strongly Agree](1, 2, 3, 4, 5)
14. I often don’t know why I am angry.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree

15. I prefer talking to people about their daily activities rather than their feelings.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree

16. I prefer to watch “light” entertainment shows rather than psychological dramas.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree

17. It is difficult for me to reveal my innermost feelings, even to close friends.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree

18. I can feel close to someone, even in moments of silence.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree

19. I find examination of my feelings useful in solving personal problems.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree

20. Looking for hidden meanings in movies or plays distracts from their enjoyment.
   Strongly Disagree 1  2  3  4  5
   Strongly Agree
Appendix I

Task Oriented Subscale of the Coping Inventory for Stressful Situations

The following are ways people react to various difficult, stressful, or upsetting situations. Please select a number from 1 to 5 for each item. Indicate how much you engage in these types of activities when you encounter a difficult, stressful, or upsetting situation.

There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

<table>
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<tr>
<th>Not at All</th>
<th>Very Much</th>
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<td>1</td>
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<td>3</td>
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1. Schedule my time better.
2. Focus on the problem and see how I can solve it.
3. Do what I think is best.
4. Outline my priorities.
5. Think about how I solved similar problems.
6. Determine a course of action and follow it.
7. Work to understand the situations.
8. Take corrective action immediately.
9. Think about the event and learn from my mistakes.
10. Analyze my problem before reacting.
11. Adjust my priorities.
12. Get control of the situation.
13. Make an extra effort to get things done.
14. Come up with several different solutions to the problem.
15. Use the situation to prove that I can do it.
16. Try to be organized so I can be on top of the situation.
Appendix J

Beck Depression Inventory – Second Edition

Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Be sure that you do not choose more than one statement for any group.

There are no right or wrong answers. You may skip any question you do not wish to answer. Please note that your answers will only be seen by the researchers.

Item 1:
- □ I do not feel sad.
- □ I feel sad much of the time.
- □ I am sad all the time.
- □ I am so sad or unhappy that I can’t stand it.

Item 2:
- □ I am not discouraged about my future.
- □ I feel more discouraged about my future than I used to be.
- □ I do not expect things to work out for me.
- □ I feel my future is hopeless and will only get worse.

Item 3:
- □ I do not feel like a failure.
- □ I have failed more than I should have.
- □ As I look back, I see a lot of failures.
- □ I feel I am a total failure of a person.

Item 4:
- □ I get as much pleasure as I ever did from the things I enjoy.
- □ I don’t enjoy things as much as I used to.
- □ I get very little pleasure from the things I used to enjoy.
- □ I can’t get any pleasure from the things I used to enjoy.

Item 5:
- □ I don’t feel particularly guilty.
- □ I feel guilty over many things I have done or should have done.
- □ I feel quite guilty most of the time.
- □ I feel guilty all of the time.
Item 6:
☐ I don’t feel I am being punished.
☐ I feel I may be punished.
☐ I expect to be punished.
☐ I feel I am being punished.

Item 7:
☐ I feel the same about myself as ever.
☐ I have lost confidence in myself.
☐ I am disappointed in myself.
☐ I dislike myself.

Item 8:
☐ I don’t criticize or blame myself more than usual.
☐ I am more critical of myself than I used to be.
☐ I criticize myself for all of my faults.
☐ I blame myself for everything bad that happens.

Item 9:
☐ I don’t cry anymore than I used to.
☐ I cry more than I used to.
☐ I cry over every little thing.
☐ I feel like crying, but I can’t.

Item 10:
☐ I am no more restless or wound up than usual.
☐ I feel more restless or wound up than usual.
☐ I am so restless or agitated that it’s hard to stay still.
☐ I am so restless or agitated that I have to keep moving or doing something.

Item 11:
☐ I have not lost interest in other people or activities.
☐ I am less interested in other people or things than before.
☐ I have lost most of my interest in other people or things.
☐ It’s hard to get interested in anything.

Item 12:
☐ I make decisions about as well as ever.
☐ I find it more difficult to make decisions than usual.
☐ I have much greater difficulty in making decisions than I used to.
☐ I have trouble making any decisions.
Item 13:
- I do not feel I am worthless.
- I don’t consider myself as worthwhile and useful as I used to.
- I feel more worthless as compared to other people.
- I feel utterly worthless.

Item 14:
- I have as much energy as ever.
- I have less energy than I used to have.
- I don’t have enough energy to do very much.
- I don’t have enough energy to do anything.

Item 15:
- I have not experienced any change in my sleeping pattern.
- I sleep somewhat more than usual.
- I sleep somewhat less than usual.
- I sleep a lot more than usual.
- I sleep a lot less than usual.
- I sleep most of the day.
- I wake up 1-2 hours early and can’t get back to sleep.

Item 16:
- I am no more irritable than usual.
- I am more irritable than usual.
- I am much more irritable than usual.
- I am irritable all the time.

Item 17:
- I have not experienced any change in my appetite
- My appetite is somewhat less than usual.
- My appetite is somewhat greater than usual.
- My appetite is much less than before.
- My appetite is much greater than before.
- I have no appetite at all.
- I crave food all the time.

Item 18:
- I can concentrate as well as ever.
- I can’t concentrate as well as usual.
- It’s hard to keep my mind on anything for very long.
- I find I can’t concentrate on anything.
Item 19:
- I am no more tired or fatigued than usual.
- I get more tired or fatigued more easily than usual.
- I am too tired or fatigued to do a lot of things I used to do.
- I am too tired or fatigued to do most of the things I used to do.

Item 20:
- I have not noticed any recent change in my interest in sex.
- I am less interested in sex than I used to be.
- I am much less interested in sex now.
- I have lost interest in sex completely.
Appendix K

Information Email to Potential Participants

We are writing to you to request your participation in a study examining factors that influence eating behaviours. For the study, you will be asked to fill out an online questionnaire assessing a history of peer teasing, attitudes and behaviour about eating and measures of emotional experience, body satisfaction and self-esteem. We hope that this study will help us to better understand the impact of peer influences on young adults’ eating behaviours. Participation in this study is strictly voluntary and you may withdraw from participating at any time without penalty. Your responses will be coded to remove the possibility of identifying those who are filling out the questionnaire. Participants will receive one course credit. Most students will complete the study in about 45 minutes. If you have any questions about the study, please contact Alison Blakely at ablakely@uoguelph.ca.

If you would like to participate in the study, please go to the website (provide URL) and enter this password (provide password) to complete the questionnaire.

Thank you for considering being in this study.

Professor Michael Grand, Ph.D., C. Psych.
Alison Blakely, M.A., Ph.D. student
Appendix L

Consent Form

Peer teasing and disordered eating in young adults

You are asked to participate in a research study conducted by Alison Blakely and Dr. Michael Grand from the Psychology Department at the University of Guelph. The results of this study will contribute to a Ph.D. dissertation project.

If you have any questions or concerns about the research, please feel free to contact:

Dr. Michael Grand (519-824-4120 ext. 52107; Email: mgrand@uoguelph.ca)
Alison Blakely (519-824-4120 ext. 52608; Email: ablakely@uoguelph.ca)

PURPOSE OF THE STUDY

We are interested in factors that contribute to eating difficulties, including your assessment of the actions of others, your feelings about yourself and your weight.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

If you volunteer to participate in this study, we would ask you to complete an online questionnaire that should take approximately one hour to complete. If you are interested in research findings, please contact Alison Blakely.

POTENTIAL RISKS AND DISCOMFORTS

Questions in this study ask about behaviour and personality. Due to the nature of some questions participants might be sensitive to experiencing negative feelings such as anxiety and/or sadness. Participants do not have to answer any questions that they are not comfortable with, and can withdraw from the study at any time without penalization.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

Upon completion of this study you will receive 1 credit towards your first year psychology class and you will learn about what it is like to participate in a research study.

The results of this study will help further research on understanding factors that might impact young adults’ eating behaviours.
PAYMENT FOR PARTICIPATION

Upon completion of this study you will not receive any financial compensation.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study.
Participation is strictly anonymous and all answers are kept confidential. In no case will the participants answers be identified, rather all the data will be collected and studied as a whole.
Only the investigators of this study will have access to the data. All data will be kept for two years following study completion, and will then be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don’t want to answer and still remain in the study.

RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator
University of Guelph
437 University Centre
Guelph, ON  N1G 2W1
Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
Fax: (519) 821-5236
SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided for the study “Peer teasing and disordered eating in young adults” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study.

____________________________________  ____________
Signature of Participant*                             Date

(*If you are filling out this survey online, your response to this survey indicates your consent)

Please keep a copy of this consent form for your records and reference. This research has the ethical approval of the Research Board Ethics Committee.
Appendix M

Debriefing Form

Peer teasing and disordered eating in young adults

A history of peer weight related teasing has been shown to contribute to eating difficulties (Neumark-Sztainer et al., 2002). This relationship may be shaped by many factors. For example, some factors that may influence the relationship between teasing and eating difficulties may include self-esteem (Jackson, Grilo & Masheb, 2002) and body satisfaction (Lieberman et al., 2001).

The goal of the current study is to examine the relationship between a history of peer weight-related teasing and later eating difficulties. Specifically, we are interested in investigating whether other factors interact with one another to contribute to eating difficulties. Also, we are interested in whether being unwilling to experience negative emotions impacts eating behaviours.

Your participation in this study helps in the advancement of understanding the impact of specific factors on young adults’ eating behaviours.

If you have any questions or comments about this research, please feel free to contact one of the primary researchers of the study.

Dr. Michael Grand              Alison Blakely
519-824-4120 x52107            519-824-42120 x52608
grand@psy.uoguelph.ca          ablakely@uoguelph.ca

If you wish to speak to a counsellor after participating in this study, you can contact the University’s Counselling Services at:

Counselling Services
Level 3, University Centre
University of Guelph
519-824-4120 x53244
counsel@uoguelph.ca

References


Appendix N

Information Email to Potential Participants

We are writing to you to request your participation in a study examining factors that influence eating behaviours. For the study, you will be asked to fill out an online questionnaire assessing a history of peer teasing, attitudes and behaviour about eating and measures of emotional experience, presence of uncomfortable thoughts and feelings, ability to identify one’s feelings, sadness, and coping. We hope that this study will help us to better understand the impact of peer influences on young adults’ eating behaviours. Participation in this study is strictly voluntary and you may withdraw from participating at any time without penalty. Your responses will be coded to remove the possibility of identifying those who are filling out the questionnaire. Participants will receive one half course credit. Most students will complete the study in less than 30 minutes. If you have any questions about the study, please contact Alison Blakely at ablakely@uoguelph.ca.

If you would like to participate in the study, please go to the website (provide URL) and enter this password (provide password) to complete the questionnaire.

Thank you for considering being in this study.

Professor Michael Grand, Ph.D. C. Psych.
Alison Blakely, M.A., Ph.D. student
Appendix O

Consent Form

Peer teasing and disordered eating in young adults

You are asked to participate in a research study conducted by Alison Blakely and Dr. Michael Grand from the Psychology Department at the University of Guelph. The results of this study will contribute to a Ph.D. dissertation project.

If you have any questions or concerns about the research, please feel free to contact:

Dr. Michael Grand (519-824-4120 ext. 52107; Email: mgrand@uoguelph.ca).
Alison Blakely (519-824-4120 ext. 52608; Email: ablakely@uoguelph.ca)

PURPOSE OF THE STUDY

We are interested in factors that contribute to eating difficulties, including your assessment of the actions of others, your feelings about yourself and your weight.

PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

If you volunteer to participate in this study, we would ask you to complete an online questionnaire that should take approximately less than 30 minutes to complete. If you are interested in research findings, please contact Alison Blakely.

POTENTIAL RISKS AND DISCOMFORTS

Questions in this study ask about behaviour and personality. Due to the nature of some questions participants might have uncomfortable feelings as they answer questions about past experiences around weight and their and others’ reactions.

Participants do not have to answer any questions that they are not comfortable with, and can withdraw from the study at any time without penalty.
POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

The results of this study will help further research on understanding factors that might impact young adults’ eating behaviours.

PAYMENT FOR PARTICIPATION

Upon completion of this study you will not receive any financial compensation. You will receive 0.5 course credit towards your first year psychology class.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study.

Information collected is strictly confidential.

Only the investigators of this study will have access to the data. All data will be kept for two years following study completion, and will then be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don’t want to answer and still remain in the study.

RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. If you have questions regarding your rights as a research participant, contact:

Research Ethics Coordinator
University of Guelph
Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided for the study “Peer teasing and disordered eating in young adults” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study.

____________________________________  ______________
Signature of Participant*                 Date

(*If you are filling out this survey online, your response to this survey indicates your consent)

Please keep a copy of this consent form for your records and reference.
Appendix P

Debriefing Form

Peer teasing and disordered eating in young adults

A history of peer weight related teasing has been shown to contribute to eating difficulties (Neumark-Sztainer et al., 2002). This relationship may be shaped by many factors. For example, some factors that may influence the relationship between teasing and eating difficulties have included self-esteem (Jackson, Grilo & Masheb, 2002) and body satisfaction (Lieberman et al., 2001).

The goal of the current study is to examine the relationship between a history of peer weight-related teasing and later eating difficulties. Specifically, we are examining whether staying in the presence of uncomfortable thoughts and feelings, ability to identify one’s feelings, sadness, and coping skills interact with each other and contribute to the teasing - eating difficulties relationship.

Your participation in this study helps in the advancement of understanding the impact of specific factors on young adults’ eating behaviours.

Specifically, we expect to find that those who have experienced weight-related teasing by their peers will be more likely to experience problematic eating habits as young adults.

Second, this research will examine whether specific factors might be protective in the peer teasing – eating difficulties relationship. It is expected that if an individual is able to identify one’s feelings, as well as better able to stay in the presence of uncomfortable thoughts and feelings, they will not be as likely to experience eating difficulties.

Third, this study will address the question of whether sadness and coping skills affect the teasing – eating difficulties relationship. It is expected that at low levels of sadness and high levels of coping skill, there will be weak relationship between teasing and eating difficulties. However, at high levels of sadness and low levels of coping skill, there will be a strong relationship between teasing and eating difficulties.

If you have any questions or comments about this research, please feel free to contact one of the primary researchers of the study.

Dr. Michael Grand  Alison Blakely
519-824-4120 x52107  519-824-42120 x52608
grand@psy.uoguelph.ca  ablakely@uoguelph.ca
If you wish to speak to a counsellor after participating in this study, you can contact the University’s Counselling Services at:

Counselling Services
Level 3, University Centre
University of Guelph
519-824-4120 x53244
counsel@uoguelph.ca

References

