

**Self-Esteem and Body Shame:
Paths from Appearance Pressures to Disordered Eating**

Joanna Kuang

Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill

Advisors: Alexandra Miller, M.A., and Anna Bardone-Cone, Ph.D.

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Imagine sitting down to lunch with a group of friends in the high school cafeteria. They all pick at their food while complaining about their body shapes, and all of a sudden your own appetite vanishes. After some time, you begin doing the same thing. While the etiology of eating disorders remains unclear, a variety of biological, psychological, and sociocultural factors have been investigated in relationship to the development of disordered eating behaviors and attitudes that include restrictive eating, binge eating, and purging (Stice, 2002). The maladaptive behaviors and thoughts that characterize eating disturbances have led researchers to investigate social pressures from family, peers, and the media as contributing factors to eating disturbances by way of modelling, conformity, and compliance pathways (Engelsen, 2002). More work is needed, however, to investigate the nature of these relationships in order to better understand the etiology of disordered eating to shed light on novel prevention and treatment efforts.

Psychological variables like self-esteem and body shame have been linked to disordered eating risk (Iannaccone et al., 2016; Pritchard & Shea, 2007). Similarly, social pressures have also been associated with disordered eating behaviors and attitudes (Lieberman et al., 2001). However, few studies have examined these variables simultaneously. In this study, we will examine the relationships among appearance-related social pressures, self-esteem, body shame, and disordered eating, including investigating self-esteem and body shame as potential mediators of the relationship between appearance-related social pressures and disordered eating.

Social Pressures

A significant body of literature displays the link between social pressures and disordered eating thoughts and behaviors with regard to body image and eating disturbances (Lieberman et al., 2001; Pike & Rodin, 1991). These pressures can take various forms, such as modeled shape- and weight-control behaviors, appearance-related teasing, and encouragement to lose weight

(Lieberman et al., 2001). Social pressure originates from multiple sources, including family and peers (Lieberman et al., 2001; Oliveira et al., 2019), and differing conclusions about the associations from distinct sources with disordered eating merits their separate investigation. For example, Young et al. (2001) found that peer pressure to maintain a thin body shape was a significant predictor of bulimic behavior while family pressure was not. In this section, we will focus on family pressures and peer pressures in the context of disordered eating.

Family Pressure

Research on family pressures related to food, shape, and weight includes findings on parents and on family members in general. Studies have identified two main dimensions of parental influence in the context of body image and dysfunctional weight concerns direct influence through comments (e.g., telling their child they should lose weight) and modeling (e.g., engaging in dieting behavior themselves). Both direct influence and modeling from parents have been found to be significantly related to drive for thinness and bulimic symptoms (Abraczinskas et al., 2012). Hosseini et al. (2017) found family pressures were directly related to overeating, while Stice (1998) found that social reinforcement of the thin-ideal by family members (e.g. criticism regarding weight or encouragement to diet) as well as modeling by family were correlated with bulimic symptoms. Negative family food-related experiences, including modeling dieting, teasing, and criticism, fully mediated the relationship between family dysfunction and disordered eating (Kluck, 2008), suggesting that familial pressure plays a role in the development of disordered eating behaviors.

Peer Pressure

Appearance-related peer pressure has also been investigated in its different forms, including direct reinforcement and modeling. Stice (1998) found that social reinforcement of the

thin-ideal by peers and modeling by peers were correlated with bulimic symptoms. Although the effect size was small, Lieberman et al. (2001) found that peer pressure, particularly in the form of modeled behavior, contributed to disordered eating above and beyond other variables, such as body-related teasing and externalized self-perceptions. This suggests that, more than direct social reinforcement, the effect of peer pressure may be more indirect. However, Lieberman et al. (2001) found that both social reinforcement and peer modeling were significant predictors of bulimic behaviors, while only peer modeling significantly predicted dieting behavior. On the other hand, Hosseini et al. (2017) found that peers did not have any effect on overeating or inhibition of eating. Given these conflicting findings, more research is needed to better understand the relationships between various forms of peer pressures and eating pathology.

Body Shame

Body shame refers to the feeling of shame when one's body does not conform to appearance ideals (McKinley & Hyde, 1996). It results from strong internalization of standards for the feminine body to the point where achieving them is tied to one's identity (McKinley & Hyde, 1996). Individuals with high levels of body shame believe they are "bad" if they do not live up to cultural expectations for their bodies. Body shame appears to have a logical relationship with both social pressures and eating disturbances in that individuals who internalize social pressures may feel greater shame for not living up to them, and disordered eating behaviors may occur as an attempt to move themselves closer to the ideal. Indeed, research indicates that body shame has a strong negative correlation with body esteem and has been found to mediate the relationship between self-objectification and disordered eating (Noll & Fredrickson, 1998). Interestingly, in a sample of women aged 18 to 40, restrictive or critical messages from early caregivers to restrict food intake were linked to body shame and inflexible

eating (Oliveira et al., 2019), suggesting that experiences in women's formative years can lead to maladaptive eating behaviors due to acquired body shame. Of note, some extant research suggests that body shame may mediate the relationship between self-esteem and eating disorder risk in both obese and non-obese samples (Iannaccone et al., 2016).

Self-Esteem

Self-esteem is a multi-dimensional concept that refers to one's subjective self-evaluation (Coopersmith, 1959). Research has shown its association with disordered eating (Pritchard & Shea, 2007). Low self-esteem is an established premorbid characteristic of anorexia nervosa (AN) and bulimia nervosa (BN), with some research pointing to low self-esteem as a mediator between body dissatisfaction and disordered eating (Brechan & Kvalem, 2015). Courtney et al. (2008) found that low self-esteem is a primary risk factor of high levels of depressive symptoms and eating disorder symptoms. Iannaccone et al. (2016) proposed a "defense mechanism" theory wherein people with low self-esteem place their feelings of ineffectiveness onto their bodies, and eating pathology is subsequently an attempt to change or punish their bodies. Lieberman et al. (2001) found that girls who reported feeling upset from weight-, body-shape-, and appearance-related teasing had lower body esteem, or attitudes about their appearance and body, than girls who were not upset by the teasing and girls who were not teased. The girls who reported feeling upset also reported dietary restraint. While not examined in that study, the results from Lieberman et al. (2001) lend credibility to a potential mediation model: people who feel bad about themselves in the context of external pressures may then experience eating disturbances.

The Current Study

While social pressures, body shame, and low self-esteem are separately correlated with disordered eating behaviors or attitudes, the joint relationship among these variables is unclear. More research is needed to further understand the pathway through which social pressures, a particularly salient concern for women, leads to disordered eating. The current study aims to explore the relationships among appearance-related social pressures, self-esteem, body shame, and disordered eating, including examining self-esteem and body shame as mediators explaining the relationship between pressures and disordered eating. Although disordered eating does not appear solely in women, this study will examine these constructs in women given the unique pressure women face to achieve thinness in America (McKinley & Hyde, 1996).

For our first aim, we will investigate the relationships between appearance-related social pressures and self-esteem and body shame. In particular, we will examine the association between family pressures and both self-esteem and body shame, as well as between peer pressures and both self-esteem and body shame. We hypothesize that greater family and peer pressures to conform to an appearance ideal will be associated with lower self-esteem and higher body shame.

For our second aim, we will study the relationships between self-esteem and body shame and disordered eating. We hypothesize that lower self-esteem and greater body shame will each be associated with disordered eating.

Our third aim will then be to investigate whether self-esteem or body shame mediate the relationship between peer/family pressures and disordered eating. Given that social pressures to maintain a certain body shape or weight can lower self-esteem and increase a sense of shame about one's body for individuals who do not feel like they are achieving external standards

(McKinley & Hyde, 1995), we hypothesize that both low self-esteem and high body shame will partially mediate the relationship between peer and family pressures and disordered eating.

These hypotheses are illustrated in the model presented in Figure 1.

Method

Participants

Participants were undergraduate females at a large, public Southeastern university ($N = 441$) recruited through introductory psychology courses. The participants provided follow-up data at Time 2, about 14 months after baseline (Time 1). 237 individuals in the original sample participated at Time 2, and those who did not fill out all the measures relevant to Aim 3 were excluded in that specific analysis for $N = 193$ in that aim. In the full sample ($N = 441$), participants ranged in age from 17 to 24 with a mean age of 18.70 years ($SD = 1.02$). The majority (69.1%) identified as non-Hispanic Caucasian/White, 4.3% as African American/Black, 11.4% as Hispanic/Latina, 5.5% as Asian, and 6.4% as multiple race/ethnicities. Highest parental education attained was used as a proxy for socioeconomic status with a mean of 17.13 years ($SD = 2.71$), reflecting about five years of post-secondary education. Based on their self-report of current height and weight, average body mass index (BMI) was 22.27 kg/m² ($SD = 3.36$; range 16.76–37.38).

Procedure

At each of the two time points, participants completed an online survey in a private setting as part of a study presented as a study of peers and body image. Participants received a link to the survey and the consent form via email and were individually called by a research assistant who highlighted aspects of the consent form and answered any questions about the study. After participants provided electronic consent, they were directed to the questionnaires,

which took 45–60 minutes to complete at Time 1 and 30–45 minutes to complete at Time 2.

Participants received course credit for completing the survey at Time 1 and a \$5 gift card to their choice of either a coffee shop or a discount department store at Time 2. This study was approved by the university's Institutional Review Board.

Measures

Peer and Family Pressures. The Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4) measures internalization of appearance ideals and appearance pressures and was initially developed and validated in a sample of college women (Schaefer et al., 2015). Three pressure subscales reflect pressures from peers, family, and the media. For the purpose of this manuscript, the peer pressures (four items) and family pressures (four items) subscales were used, with response options ranging from 1 = *definitely disagree* to 5 = *definitely agree*. Internal consistency for these two subscales is excellent among college women, with alphas of .92-.93 (Schaefer et al., 2017). In the present study, coefficient alpha was 0.85 for the family pressures subscale and 0.89 for the peer pressures subscale for the Aim 3 subgroup.

Disordered Eating. Disordered eating thoughts and behaviors were evaluated with the Eating Attitudes Test-26 (EAT-26; Garner et al., 1982), a measure with 26 items on a 1 (*never*) to 6 (*always*) Likert scale. Following recommendations by Garner et al. (1986), responses of 1, 2, or 3 are scored as “0” and response of 4, 5, or 6 are scored as “1,” “2,” and “3,” respectively. Higher summed scores reflect more severe disordered eating. The EAT-26 includes items about attitudes: “[I] am terrified about being overweight” and behaviors: “[I] cut my food into small pieces.” Due to its psychometric robustness, the EAT-26 is a widely used assessment of tendency toward an eating disorder (Ocker et al., 2007). A cutoff score of 20 on the EAT-26 indicates a probable eating disorder (King, 1991). Mean test-retest reliability was 0.87 (Gleaves et al.,

2014). Internal consistency was also high at 0.83 for female college students (Garner et al., 1982). In the present study, coefficient alpha for the EAT-26 was 0.90.

Body Shame. Body shame was assessed with the Body Shame Scale from the Body Consciousness Scale (OBCS; McKinley & Hyde, 1995). Derived from feminist theory, the OBCS investigates women's body experience in the U.S. and assesses body shame, body surveillance, and appearance-control beliefs. The Body Shame Scale contains eight items on a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert scale with a "Not Applicable" option to evaluate feelings of shame toward the body and weight-control activities, with statements such as "When I can't control my weight, I feel like something must be wrong with me." In a sample of undergraduate women, internal consistency for the Body Shame Scale was 0.75, test-retest reliability was 0.79 and high construct validity was demonstrated (McKinley & Hyde, 1995). In the present study, coefficient alpha for the Body Shame Scale was 0.74.

Self-Esteem. Global self-esteem was measured with the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), a 10-item measure that includes both positive and negative feelings toward the self. Participants respond on a 4-point Likert scale ranging from *strongly disagree* to *strongly agree* on items such as "I take a positive attitude toward myself," with items reflecting negative feelings about the self reverse-scored so that higher totals correspond to higher self-esteem. Internal consistency was 0.88, high construct validity was demonstrated, and reliability was also 0.88 (Robins, 2001). In the present study, coefficient alpha for the RSES was 0.92.

Data Analytic Plan

For our first aim of investigating the relationships between family and peer pressures and both self-esteem and body shame, we used the data obtained from participants at Time 1 ($N = 441$) to report correlations between each of the appearance-related social pressures and self-

esteem and body shame. Similarly, for our second aim of studying the relationships of both self-esteem and body shame to disordered eating thoughts and behaviors, we used the Time 1 data and report correlations. For our third aim, we will use Time 1 data for peer and family pressures and Time 2 data for self-esteem, body shame, and disordered eating thoughts and behaviors to explore a potential mediation model using path analysis.

Results

Aim 1

Family pressures and body shame, both measured at Time 1, were found to be positively correlated, ($r = 0.48, p < .001$). Family pressures and self-esteem, measured at Time 1, were found to be negatively correlated ($r = -0.33, p < .001$). Peer pressures were also positively correlated with body shame ($r = 0.50, p < .001$). Peer pressures and self-esteem, both measured at Time 1, were also found to be negatively correlated ($r = -0.30, p < .001$). Thus, participants who reported greater appearance pressures from either family or peers tended to report higher body shame and lower self-esteem. Age and race were not found to be significantly correlated with any core study variable and were left out of subsequent analyses. Descriptive statistics of means and standard deviations of core study variables can be found in Table 1.

Aim 2

Using all variables measured at Time 1, body shame and disordered eating were positively correlated ($r = 0.60, p < .001$). Self-esteem and disordered eating were found to be negatively correlated ($r = -0.42, p < .001$). Body shame and self-esteem were themselves negatively correlated ($r = -0.60, p < .001$). Thus, those who reported lower self-esteem also tended to report higher body shame, and higher body shame and lower self-esteem were associated with disordered eating.

Aim 3

Total effects, indirect effects, and direct effects of social pressures on disordered eating can be found in Table 2. The effects of social pressures on disordered eating were found to be completely indirect. Body shame, measured at Time 2, was found to completely mediate the effect of family pressures on disordered eating ($\beta = 0.17, p < .001$). Body shame also completely mediated the effect of peer pressures on disordered eating ($\beta = 0.18, p < .001$). Self-esteem, measured at Time 2, was not a significant mediator for the indirect effects of either family or peer pressures on disordered eating ($p = 0.17$ and $p = 0.32$, respectively). Therefore, a mediation model is supported wherein the positive effects of social pressures from family and peers on disordered eating can be attributed fully to body shame, but not to self-esteem. Our modified model is depicted in Figure 2.

Discussion

This study examined the relationships between appearance pressures from family and peers, body shame, self-esteem, and disordered eating. Building upon existing literature, we hypothesized that greater pressures from family and peers to conform to an appearance ideal would be associated with lower self-esteem and higher body shame. We also hypothesized that lower self-esteem and higher body shame would each be associated with disordered eating. Finally, we proposed a model where body shame and self-esteem mediated the effects of social pressures on disordered eating.

All of our hypotheses were confirmed with the exception of self-esteem as a significant mediator. Although self-esteem was by itself negatively associated with disordered eating, it did not mediate the effects of social pressures on disordered eating. Notably, our data did not display

any direct effects of family pressures or peer pressures on disordered eating, suggesting that their indirect effect was completely mediated by body shame.

Our findings build upon existing findings that pressure from parents and peers is associated with developing disordered eating symptomatology (Polivy & Herman, 2002). As Polivy and Herman (2002) noted, this pressure is a manifestation of our widespread cultural adoption of appearance ideals, specifically ones valuing thinness. Because the precise pathway by which pressures from those around us can lead to disordered eating thoughts and behaviors remains unclear, our study suggests that the effect of social pressures can be explained by body shame and not self-esteem, at least in a predominantly white sample of college women. The absence of direct effects of family pressures and peer pressures on disordered eating underscores the relevance of examining mediators as social pressures by themselves do not offer a complete explanation for disordered eating development. Given that body shame is a type of shame that individuals experience when their body does not conform to appearance ideals, those who endorse higher levels of body shame may be more affected by social pressures. Family and peer endorsements of the appearance ideal through words and actions may make individuals feel negatively about their bodies for not living up to societal standards and consequently resort to attempts to change their bodies in maladaptive ways.

The finding that self-esteem was not a significant mediator of the relationship between social pressures and disordered eating indicates that the construct of self-esteem may not adequately capture how feelings of low self-worth relate to disordered eating. Self-esteem, measured at Time 2, was not significantly related to disordered eating, measured at Time 2 ($r = -0.50, p = 0.08$), an unusual finding given extant research linking low self-esteem to disordered eating (Pritchard & Shea, 2007) and given that the correlation of both variables at T1 was

significant ($r = -0.42, p < .001$). It is possible that since the RSES measures global self-esteem, it does not reflect how individuals feel about their bodies specifically. Body esteem, which reflects an individual's attitude toward their body, may have been a significant mediator of the relationship between social pressures and disordered eating in that individuals who reported experiencing pressure to conform to an appearance ideal may subsequently feel worse about their bodies and then attempt to change them using extreme behaviors. Someone may feel negatively toward their body but have a positive view of themselves overall, and they may still experience disordered eating thoughts and behaviors, which may explain why self-esteem was not a significant mediator in our model. In addition, including perfectionism in our model may have yielded different results. Vohs et al. (1999) found that high perfectionism and the perception of oneself as overweight predicted bulimic symptoms most strongly in women when they also had low self-esteem, while high self-esteem acted as a buffer against bulimic symptoms even with the presence of the other two factors. These findings suggest evidence for the hypothesis that people with lower self-esteem engage in disordered eating behaviors because they feel unable to achieve high body standards (Vohs et al., 1999). It is possible that individuals who experience appearance pressures but who do not report high perfectionism may not experience subsequent low self-esteem, and the pressures do not then lead to disordered eating through low self-esteem.

Future research can investigate a number of questions stemming from these findings. To begin, the participants in our sample identified as women, so our findings do not generalize to all individuals across gender identities. Body shame and self-esteem may not mediate the relationship between social pressures and disordered eating for men and non-binary individuals. McKinley (1998) noted that different constructions of male and female bodies within U.S. culture leads to gender differences in the way an individual experiences their body. Namely, men

may not learn to see their bodies from an outsider's standpoint in the way that women do (McKinley, 1998). Although women had lower body esteem than men did, this gender difference was no longer significant after controlling for objectified body consciousness scale, of which body shame is a subset (McKinley, 1998). This finding supports the feminist construction of the OBCS that women specifically are taught to experience and relate to their bodies as an outside observer.

Research would benefit from investigating pathways from social pressures to disordered eating through other variables, such as body esteem. As discussed previously, body esteem may be a more salient predictor of disordered eating since it directly reflects attitudes toward one's body, and research has found that body esteem partially mediates the relationship between internalization of the thin ideal and disordered eating behaviors (Flament et al., 2012). Moreover, since the appearance ideal may be different for men and women, with limited research on individuals who identify as non-binary or another gender classification, future research on these constructs may require different measures to maintain validity. For example, the SATAQ-4 measure includes questions on pressure to be thin ("I feel pressure from family members to look thinner"), as does the EAT-26 ("I am occupied with a desire to be thinner") while the sociocultural ideal for male bodies is a muscular build (McCabe & Ricciardelli, 2004). While not used in our study, the SATAQ-4 questions on how athletic or muscular an individual wants their body to look (e.g. "I think a lot about looking muscular") could measure these other appearance ideals beyond thinness.

In addition, both direct pressure (e.g., explicit comments and reinforcement) and indirect pressure (e.g., modeling) should be studied in the context of our model. The items on the SATAQ-4 did not specify the type of pressure from family and peers, and previous research has

found that the relationship between pressures and disordered eating may vary between different types of pressures. For example, in young women, social comparisons were a stronger predictor than both positive and negative appearance-related comments in the relationship to body dissatisfaction and eating disturbance (Bailey & Ricciardelli, 2010). Therefore, grouping social pressures together may gloss over the nuance in the various forms of appearance pressures, such as teasing and modeling, which may each have a slightly different effect on disordered eating.

To extend our findings, researchers should study the same constructs in a more racially diverse sample as experiences of eating pathology and appearance pressures may vary across racial/ethnic categories. More than 75% of the studies included in a meta-analysis found that eating disturbance and body dissatisfaction were higher in White samples than in non-White samples (Wildes et al., 2001). Gray and colleagues (2001) found that African American women reported significantly lower levels of weight-based stigmatization than white females, which might explain the previous finding by Wildes and colleagues (2001) since less stigmatization due to one's weight may lead to fewer weight-management behaviors. A better understanding of what factors are associated with appearance pressures related to thinness in racially/ethnically diverse groups is needed.

Finally, future work should examine whether measuring perception of pressure (e.g., the SATAQ-4) corresponds to actual pressure exhibited by family and peers. An alternative method of measuring pressures would be to have participants keep a log of actions and comments made by those around them and code the log for appearance pressures. Researchers could use Ecological Momentary Assessment (EMA) to obtain real-time reporting of experiences and collect data in participants' natural environments, which has been used to examine how body comparisons and eating comparisons lead to disordered eating thoughts and behaviors

(Fitzsimmons-Craft et al., 2016). EMA could assist researchers in examining whether an individual's perceptions of pressure correspond to actual experiences of direct reinforcement or modeled behavior, for example. An individual's perception of pressure may be biased and may not accurately reflect what their family and peers are actually doing.

Our findings hold several clinical implications. First, it marks body shame as a target for intervention. Due to the ubiquity of appearance-related messaging in media and general cultural adoption of appearance ideals, removing peer and family pressures may not be a realistic goal. However, the effects of social pressures on an individual may be attenuated if they can be prevented from developing high body shame. Aiming to decrease individuals' feelings of shame when they do not achieve them is a worthwhile goal. In the face of social pressures that urge them to conform to appearance ideals, decreasing feelings of shame may make individuals more resilient and less likely to engage in disordered eating thoughts and behaviors as a result. Although not examined with regard to disordered eating specifically, one study found that mindfulness may attenuate the effects of body-related variables on physical health outcomes by decreasing body shame and improving body responsiveness, so increasing mindfulness may be an effective intervention (Lamont, 2019). In addition, since our measures technically examined perceptions of social pressures, perceiving comments and actions as idiosyncratic behaviors may be a protective technique against the development of disordered eating. For example, rather than viewing a family member's dieting behavior as pressure to restrict one's own eating, an individual could note the dieting as a personal choice made by that family member and retain their current eating patterns. More broadly, our results call for increased education on how striving for appearance ideals can be both unrealistic and unhealthy. If fewer people believe appearance ideals are achievable, fewer people may engage in weight-control behaviors or

comment on their own or others' weights or shapes, activities that can pressure those around them to conform as well. In this way, education to diminish striving for appearance ideals can decrease social pressures to conform.

In sum, this study examined how appearance-related pressures from family and peers related to body shame, self-esteem, and disordered eating in a group of college-aged women. Although existing research implicates social pressures as a risk factor for disordered eating, the precise mechanisms are unclear. Our hypothesis that the path from social pressures to disordered eating would be mediated by other variables was supported for body shame but not self-esteem. Our findings suggest that body shame could be a potential target in disordered eating prevention or treatment to diminish the effects of social pressures.

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Table 1*Means and Standard Deviations of Core Study Variables*

Variable	<i>M</i>	<i>SD</i>
Peer pressures T1	9.80	4.11
Family pressures T1	10.21	4.25
Body shame T1	3.31	1.19
Body shame T2 ^a	3.23	1.17
Self-esteem T1	31.00	5.61
Self-esteem T2 ^a	30.91	6.08
Disordered eating T1	8.27	9.44
Disordered eating T2 ^a	7.22	8.18
Age	18.68	0.96
Race ^b	--	--

Note. T1 = Time 1. T2 = Time 2. Family pressures and peer pressures are from the Sociocultural Attitudes Towards Appearance Questionnaire-4 (possible range for each subscale: 4–20). Body shame is from the Body Shame Scale of the Objectified Body Consciousness Scale (possible range: 8–56). Self-esteem is from the Rosenberg Self-Esteem Scale (possible range: 0–30). Disordered eating is from the Eating Attitudes Test-26 (possible range: 0–78).

^a *N* = 193.

^b Self-reported race was dichotomously coded into White and non-White.

Table 2*Standardized total, indirect, and direct effects of social pressures on disordered eating*

Total Effects				
Path	Estimate	SE	<i>p</i>	
Family pressures T1 → disordered eating T2	0.19	0.05	.000	
Peer pressures T1 → disordered eating T2	0.19	0.05	.000	
Indirect Effects				
Path	Estimate	SE	<i>p</i>	
Family pressures T1 → body shame T2 → disordered eating T2	0.17	0.04	.000	
Family pressures T1 → self-esteem T2 → disordered eating T2	0.02	0.01	.174	
Peer pressures T1 → body shame T2 → disordered eating T2	0.18	0.05	.000	
Peer pressures T1 → self-esteem T2 → disordered eating T2	0.01	0.01	.322	
Direct Effects				
Path	Estimate	SE	<i>p</i>	
Family pressures T1 → disordered eating T2	0.00	--	--	
Peer pressures T1 → disordered eating T2	0.00	--	--	

Figure 1

Proposed Effects of Peer Pressures and Family Pressures on Disordered Eating

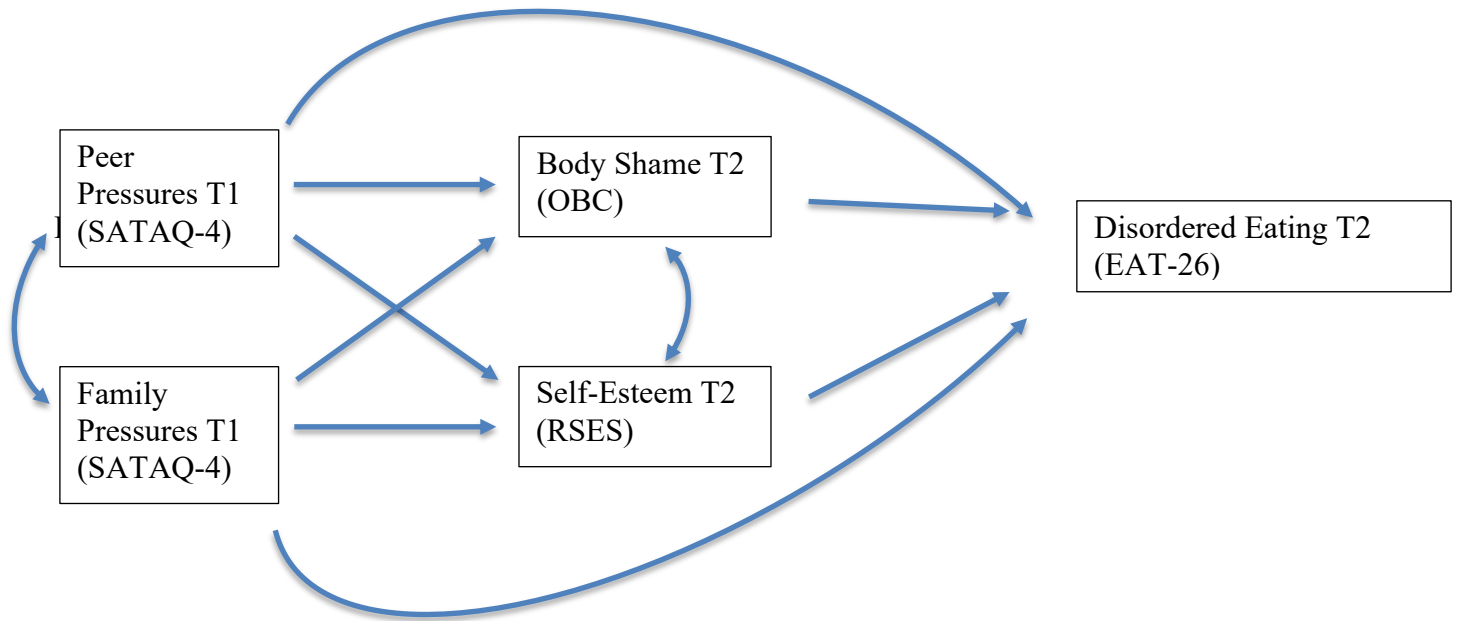
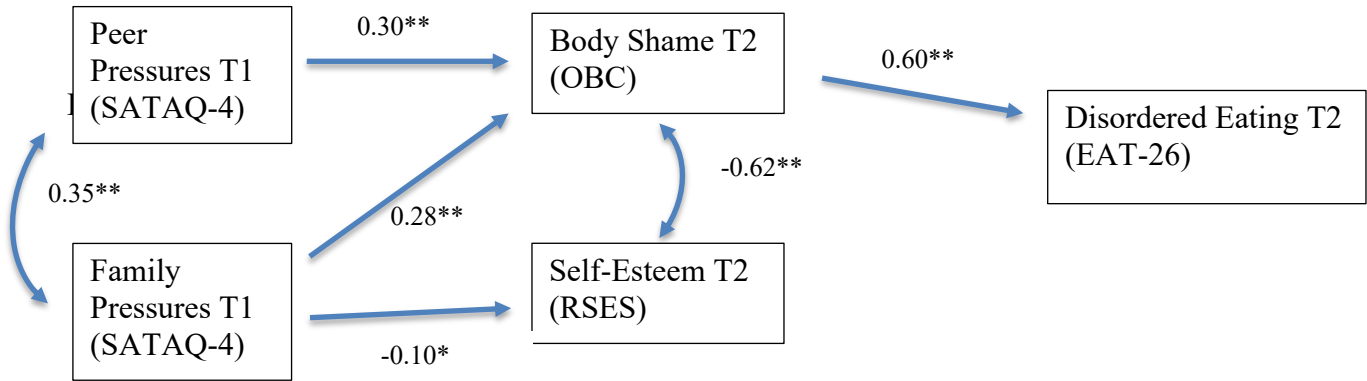


Figure 2

Final Model of Peer Pressures and Family Pressures on Disordered Eating



Note. Coefficients presented are standardized linear regression coefficients.

* $p < 0.05$. * $p < 0.01$