

**Body image flexibility mediates the effect of body image-related victimization
experiences and shame on binge eating and weight**

Cristiana Duarte M.S., Ph.D. Student^{1*}

José Pinto-Gouveia MD, Ph.D.¹

¹University of Coimbra, Portugal

CINEICC – Cognitive and Behavioural Centre for Research and Intervention

* Correspondence concerning this article should be addressed to:

Cristiana Duarte

CINEICC, Faculdade de Psicologia e Ciências da Educação,

Universidade de Coimbra

Rua do Colégio Novo, Apartado 6153

3001-802 Coimbra, Portugal

E-mail: cristianaoduarte@gmail.com (Cristiana Duarte)

Telephone: (+351) 239851450

Fax: (+351) 239851462

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Abstract

Objectives: The current study examined a path model testing the indirect effect of negative body-image related memories of being teased and bullied in childhood and adolescence on binge eating severity symptoms, via its effect on current body image shame and body image flexibility.

Methods: Participants were 853 Portuguese women from the general community who completed a set of self-report measures of body image-related bullying and teasing experiences in childhood and adolescence, current body image shame, body image flexibility, binge eating symptoms, body mass index (BMI) and depressive symptoms.

Results: The path model accounted for 40% of the variance of binge eating symptoms and 14% of the variance of BMI, and revealed a very good fit. Findings corroborated the plausibility of the hypothesized associations suggesting that negative body image-related memories and emotional experiences are significantly associated with binge eating symptoms and BMI, and that body image flexibility is a significant mediator of these associations. The examined relationships were preserved after controlling for the effect of depressive symptoms.

Conclusions: The current study's findings contribute to clarify the role that body image-related memories and emotional experiences may play on individuals' difficulties in regulating eating behaviour and weight, and provides preliminary support for the potential effect of body image flexibility as a self-regulatory process that operates in these associations.

Keywords

Body image victimization; body image shame; psychological flexibility; binge eating; body mass index.

Introduction

Binge eating is characterized by the intake of large amounts of food, in a discrete period of time, with a sense of lack of control. During these episodes, food consumption may be faster than usual, one may eat until feeling uncomfortably full, in the absence of hunger and in secrecy because of feelings of shame about the behaviour. After eating, individuals may feel disgusted with themselves, depressed or very guilty (American Psychiatric Association, 2013). Binge eating behaviours are a hallmark feature of the currently established eating disorders diagnoses of Bulimia Nervosa and Binge Eating Disorder (American Psychiatric Association, 2013), but are also a prevalent problem in the general population. These behaviours are currently recognized as a public health concern with important deleterious health consequences, having a high comorbidity with overweight and obesity and poor psychological adjustment (Bulik & Reichborn-Kjennerud, 2003; Hudson, Hiripi, Pope, & Kessler, 2007; Kessler et al., 2013; Ribeiro, Conceição, Vaz, & Machado, 2014). The scientific literature supports that binge eating is associated with maladaptive emotion regulation capacities (Whiteside et al., 2007). In fact, existing conceptualizations suggest that eating binges are developed and maintained as a means of temporarily reducing or escaping the experience of negative emotions (Heatherton & Baumeister, 1991), particularly emotions associated with negative self-evaluations, criticism from others and other complex interpersonal difficulties (Rieger et al., 2010).

Actually, negative interpersonal interactions that posit a threat to the self have been identified as an important risk factor for binge eating (Menzel et al., 2010; Striegel-Moore, Dohm, Pike, Wilfley, & Fairburn, 2002). In particular, weight-based negative interactions of bullying, teasing, negative verbal commentary or other non-verbal forms of victimization, perpetrated by peers and by parents, have been identified as significant predictors of

difficulties to regulate eating behaviour and weight (Fairburn et al., 1998; Field et al., 2008; Jackson, Beeken, & Wardle, 2014; Sweetingham & Waller, 2008). In a large 5-year prospective study, Haines, Neumark-Sztainer, Eisenberg and Hannan (2006) demonstrated that adolescents who were teased about their weight were more likely than their peers to develop disordered eating behaviours, namely binge eating symptoms. Nonetheless, the factors contributing for the development of binge eating symptoms are complex, and other variables have been identified as potential risk factors, namely the exposure to media images representative of the ‘thin ideal’, and the pressure to achieve this socially-valued physical appearance and avoid weight-related stigmatization (e.g., Field et al., 2008; Stice, Presnell & Sprangler, 2002). Moreover, evidence suggests that the extent to which one’s body image comes to be perceived as the possible cause for negative social evaluations and interactions, seems to play a key role in the development and maintenance of eating-related difficulties (Duarte, Pinto-Gouveia & Rodrigues, 2015; Ferreira, Pinto-Gouveia & Duarte, 2011; Gilbert, 2002; Goss & Allan, 2010). Thus, the link between weight-focused negative interpersonal interactions and binge eating symptoms is not necessarily direct and may be influenced by important mechanisms.

These threatening interpersonal experiences have been found to contribute to the development of shame feelings about the self (Matos, Pinto-Gouveia, & Duarte, 2013; Pinto-Gouveia & Matos, 2011), which involve negative evaluations of being a defective, inferior, faulty social agent in the eyes of others. Body image has been identified as a particular source of shame that is significantly associated with indicators of poor psychological adjustment (Castonguay, Brunet, Ferguson, & Sabiston, 2012; Duarte, Pinto-Gouveia, Ferreira, & Batista, 2014; Gilbert, 2002; Noll & Fredrickson, 1998). In particular, a study conducted in a sample of women from the general community revealed that body image shame significantly accounted for the severity of binge eating symptoms, above the effect of overall negative

affect (Duarte, Pinto-Gouveia, & Ferreira, 2014). A recent study also demonstrated that shame is strongly associated with the severity of the symptomatology presented by women with Binge Eating Disorder (Duarte, Pinto-Gouveia, & Ferreira, 2015a). Moreover, this study clarified that the dimension of body image plays a significant role on this association. In fact, results suggested that shame had an impact on the severity of binge eating symptoms via the extent to which shame was associated with the tendency to become overly focused and disturbed by body image-related cognitions.

These findings are consistent with the accruing research substantiating the hypothesis that important self-regulatory processes mediate the impact of negative internal experiences, particularly those related with body image, on the continuum of disordered eating. A process that has been recognized as a particularly important mechanism is body image flexibility (Ferreira et al., 2011; Hill, Masuda, & Latzman, 2013; Moore, Hill, & Goodnight, 2014). Body image flexibility refers to the ability to accept difficult emotions, thoughts and memories about one's body while remaining committed to engage in helpful actions consistent with one's chosen values (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Sandoz, Wilson, Merwin, & Kellum, 2013). There is evidence that individuals with a higher ability to accept these internal experiences related to body image tend to present a decreased tendency to engage in pathological dieting (e.g., Ferreira et al., 2011), less binge eating symptoms (Duarte & Pinto-Gouveia, 2014), more adaptive eating styles (Schoenefeld & Webb, 2013), a healthier BMI (Wendell, Masuda, & Le, 2012), and more adaptive emotion regulation skills (Kelly, Vimalakanthan, & Miller, 2014).

The current study aimed at investigating a path model that tested, on a large sample of women from the general population, the indirect effect of negative body image-related memories of being teased and bullied in early life on binge eating symptoms and BMI, via its effect on current body image shame, and on body image flexibility. According to prior

evidence that demonstrated the negative impact of victimization experiences on body image shame (Duarte et al., 2015), we hypothesised that memories of being bullied or teased about one's body image by important reference figures throughout one's development was associated with current body image shame. Body image shame, in turn, was hypothesized to be significantly associated with binge eating symptoms and increased BMI. Moreover, in view of prior evidence (e.g., Ferreira et al., 2011; Duarte & Pinto-Gouveia, 2014; Wendell et al., 2012) we hypothesized observing negative associations between body image flexibility, memories of body image-related victimization experiences, body image shame, binge eating symptoms and BMI. Finally, we surmised that body image flexibility would mediate the effect of body image-related victimization and body image shame on binge eating symptoms and BMI. These associations were expected to persist when accounting for the effect of depressive symptoms.

Method

Participants

Participants were 853 female participants (including students and women from the general community), whose ages ranged from 18 to 55, with a mean of 28.74 ($SD = 10.94$). The participants' years of education ranged from 5 to 24, with a mean of 13.21 ($SD = 2.60$). The participants' Body Mass Index (BMI) mean was 22.69 ($SD = 3.59$). Sixty-four (7.5%) participants were underweight ($BMI < 18.5$), 591 (69.3%) had a normal weight ($18.5 \geq BMI \leq 25.0$), 160 (18.7%) were overweight ($25 \geq BMI \leq 29.9$), and 38 ($BMI \geq 30$) were obese, which corresponded to the BMI distribution in the female Portuguese population (Poínhos, 2009). Regarding binge eating symptoms, 800 (93.8%) participants presented mild to no

binge eating; 44 (5.1%) moderate binge eating; and 9 (2.1%) presented severe binge eating, which is in accordance with values found in other community samples with similar characteristics to those of the current study (Duarte, Pinto-Gouveia, & Ferreira, 2015b; Kessler et al., 2013).

Measures

Body Mass Index. The participants' BMI was calculated by dividing self-reported weight (in Kg) by height squared (in m).

Binge Eating Scale (BES; Gormally, Black, Daston, & Rardin, 1982) is a 16-item self-report instrument that assesses the behavioural, emotional and cognitive dimensions of binge eating. Each item comprises three to four statements that represent a rating of severity, which ranges from 0 (no difficulties with binge eating) to 3 (severe problems with binge eating). Respondents are asked to select the statement that best applies to them. The score range is from 0 to 46. The scale presents good psychometric properties, with a Cronbach's alpha of .85 in the original validation study conducted with people with obesity (Gormally et al., 1982). In a sample of women from the general population the scale was found to be a reliable measure of binge eating symptoms, with a test-retest (over 4 weeks) estimate of .84, good construct reliability and discriminant validity, and good internal consistency (with a Composite Reliability value of .88; Duarte et al., 2015b).

Body Image Victimization Experiences Scale (BIVES; Duarte & Pinto-Gouveia, 2016) measures childhood or adolescence experiences of bullying and teasing related to physical appearance perpetrated by peers (friends or colleagues; BIVES_Peers) or by parents (or other significant carers; BIVES_Parents). The BIVES comprises 12 items regarding which respondents are invited to rate, using a 5-point Likert Scale, the frequency to which they

experienced each situation described (ranging from 1 = *Never* to 5 = *Very frequently*) and the emotional impact the experience had for them (ranging from 1 = *Nothing* to 5 = *A lot*). The mean score of the two subscales range from 1 to 5. In the validation study of the BIVES, conducted in a nonclinical sample of women from the general population, the two subscales presented very good psychometric properties, including construct validity, test-retest reliability (ranging from .80 to .89), and internal consistency (with both subscales presenting a Composite Reliability value of .95; Duarte & Pinto-Gouveia, 2015, September).

Body Image Shame Scale (BISS; Duarte et al., 2014) is a measure of body image shame, that is, perceptions of being negatively evaluated or criticized by others because of one's physical appearance, and negative self-evaluations due to one's physical appearance. Participants are asked to rate each item according to the frequency with which they experience body image shame, using a 5-point Likert scale (ranging from 0 = *Never* to 4 = *Almost always*). The scale's mean score range from 0 to 4. The scale was validated in a large nonclinical sample of women from the general population and the scale revealed very good construct and discriminant validities, temporal stability (with an estimate of .75 in a 4-week period) and high internal consistency with a Composite Reliability estimate of .96 (Duarte et al., 2014).

Body Image Acceptance and Action Questionnaire (BI-AAQ; Sandoz et al., 2013) is a 12-item scale that measures body image-related psychological flexibility, which entails the capacity to accept thoughts, memories, emotions and sensations related to body image, along with the capacity to adopt adaptive actions committed with one's values. Respondents are asked to rate the extent to which each item applies to them, using a 7-point scale (ranging from 1 = *Never true* to 7 = *Always true*). The score range is from 7 to 84. The scale presented good construct validity, test-retest reliability and internal consistency in the original validation study (with Cronbach's alpha values of .92 and .93; Sandoz et al., 2013) and in the

Portuguese validation study conducted in a nonclinical sample of women from the general population (with a Cronbach's alpha of .95; Ferreira et al., 2011).

Depression Anxiety and Stress Scales (DASS21; Lovibond & Lovibond, 1995; Pais-Ribeiro, Honrado, & Leal, 2004) assesses levels of depression, anxiety and stress symptoms. Respondents are asked to indicate how frequently they experienced such symptoms over the previous week on a 4-point scale (ranging from 0 = *Did not apply to me at all* to 4 = *Applied to me very much, or most of the time*). In the current study, depressive symptoms were assessed through the depression subscale. This subscale score range is from 0 to 21. This subscale was found to have adequate convergent and discriminant validity, and internal consistency in both the original validation study (with a Cronbach's alpha of .88; Lovibond & Lovibond, 1995) and in the Portuguese validation study (with a Cronbach's alpha of .85; Pais-Ribeiro et al., 2004), both conducted in nonclinical samples of the general population.

The internal reliability coefficients of each measure used in the current study are reported in Table 1.

Procedures

All ethical requirements were met to conduct the current study. Students completed the measures at the end of a designated lecture authorized by the respective institution Board. The participants from the general population comprised staff members of different institutions (e.g., schools, hospitals, private companies, retail services) and completed the measures during an authorized break approved by the institution Board. The participants were informed about the voluntary and confidential nature of their cooperation, received standardized instructions, and provided their written informed consent. A total of 895 participants initially completed the questionnaire; 4.7% were excluded because they did not

provide data regarding height or weight or more than 15% of the answers were missing from a questionnaire.

Data analysis

Product-moment Pearson Correlation coefficients were calculated to examine the correlations between the study variables (Cohen, Cohen, West, & Aiken, 2003). Descriptives and correlational analyses were conducted using the SPSS software (v.21 SPSS; Armonk, NY: IBM Corp.).

A path analysis (Figure 1) was conducted to examine the association between early experiences of body image-related bullying and teasing by parents and peers (exogenous variable) and both binge eating symptoms and BMI (endogenous variables), and potential mediator mechanisms – body image shame and body image flexibility – influencing this association. Path analysis is a particular technique within Structural Equation Modelling that allows for the simultaneous examination of direct and indirect effects considering multiple mediators (Kline, 2005). Therefore, the model tested the hypothesis that body image shame is a significant mechanism (first endogenous mediator variable) through which body image-related bullying and teasing experiences influence binge eating and weight, directly and partially through its effect on body image flexibility (second endogenous mediator variable).

The Maximum Likelihood estimation method was used to examine the significance of the regression coefficients and to calculate fit statistics. The following model fit indicators were used to test model fit: Chi-square (χ^2), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and the Root-Mean Square Error of Approximation (RMSEA), with 90% confidence intervals (CI). The significance of the mediation effects were analysed through the Bootstrap resampling method, with 5000 Bootstrap samples and 95% bias-corrected

confidence intervals around the standardized estimates of total, direct and indirect effects (Kline, 2005; Tabachnick & Fidell, 2013). The path model was examined using the AMOS software (Analysis of Momentary Structure, software version 18, SPSS Inc. Chicago, IL).

Results

Descriptives and correlations

Preliminary analysis indicated that there was no serious violation of normal distribution: Skewness values ranged from 0.86 (BIVES_Parents) to 1.53 (BES), and Kurtosis values ranged from -0.67 (BIVES_Parents) to 2.80 (BES). The means and standard deviations of the study variables are reported in Table 1.

Product moment Pearson correlation coefficients are also reported in Table 1. Results indicated a positive moderate association between body image-related bullying and teasing experiences perpetrated by peers and by parents. These experiences were also positively associated with body image shame and binge eating symptoms, and negatively associated with body image flexibility. Smaller associations were found with depressive symptoms and BMI. Body image shame was strongly associated with binge eating symptoms, and moderately associated with BMI and depressive symptoms. Body image flexibility was negatively and strongly associated with body image shame, binge eating symptoms and moderately associated with BMI and depressive symptoms. Binge eating presented a positive moderate association with BMI and a positive but smaller association with depressive symptoms.

Insert Table 1 around here

Path analysis

The initial model comprised 31 parameters. The paths regarding the direct effect of body image-related victimization experiences with peers on binge eating symptoms ($b_{\text{BIVES_Peers}} = -.16$; $SEb = .12$; $Z = -1.39$; $p = .165$; $\beta = -.04$) and on BMI ($b_{\text{BIVES_Peers}} = -.03$; $SEb = .08$; $Z = -.30$; $p = .766$; $\beta = -.01$), and the direct effect of body image-related victimization experiences with parents on BMI ($b_{\text{BIVES_Parents}} = .09$; $SEb = .11$; $Z = .82$; $p = .414$; $\beta = .03$) were nonsignificant. After the removal of these nonsignificant paths, results indicated that the model accounted for 40% of binge eating symptoms and 14% of BMI variance and presented a very good model fit: $\chi^2_{(3)} = 2.52$, $p = .472$; TLI = 1.00; CFI = 1.00; RMSEA = .00 (CI = .00 to .05; $p = .928$).

Results indicated that body image-related victimization experiences with peers and parents presented respectively a direct effect of .25 ($b_{\text{BIVES_Peers}} = .12$; $SEb = .02$; $Z = 7.13$; $p < .001$) and .24 ($b_{\text{BIVES_Parents}} = .14$; $SEb = .02$; $Z = 6.69$; $p < .001$) on body image shame; a direct effect of -.07 ($b_{\text{BIVES_Peers}} = -.07$; $SEb = .26$; $Z = 2.63$; $p = .009$) and -.09 ($b_{\text{BIVES_Parents}} = -.09$; $SEb = .32$; $Z = 3.41$; $p < .001$) on body image flexibility, and an indirect effect of -.17 and -.16 on body image flexibility mediated by body image shame (CI = -.22 to -.12, $p < .001$; CI = -.22 to -.10, $p < .001$, respectively). Body image-related victimization experiences with peers and parents presented a direct effect of .09 ($b_{\text{BIVES_Peers}} = .09$; $SEb = .13$; $Z = 3.20$; $p < .001$) on BES. Moreover, body image-related victimization experiences with peers and parents presented a total effect of .16 and .25 on binge eating symptoms. Also, the indirect effects of body image-related victimization experiences with peers and parents on binge

eating symptoms (.16 for both), were significantly mediated by body image shame and body image flexibility (CI = .11 to .21, $p < .001$ for both). Regarding BMI, results indicated that body image-related victimization experiences with peers and parents presented an indirect effect on BMI (.10 for both), again significantly mediated by body image shame and body image flexibility (CI = .07 to .14, $p < .001$; and CI = .06 to .14, $p < .001$, respectively). The path model was recalculated controlling for the effect of depressive symptoms ($\chi^2_{(3)} = 24.11$, $p < .001$; TLI = .97; CFI = .99; RMSEA = .06 (CI = .04 to .08; $p = .231$) and the results confirmed the stability of the significance, strength and direction of the examined structural relationships.

Insert Figure 1 around here

Discussion

Clarifying the mechanisms that contribute to body image disturbance, disordered eating and weight regulation is currently a main focus of interest for researchers and clinicians. The current study uniquely adds to existing research by testing a model that examines the role of early experiences of body image-related bullying and teasing about body image, current body image shame, and body image flexibility on binge eating severity and weight in a community sample.

Results of the bivariate associations were aligned with prior research demonstrating the association between body-image related teasing and bullying perpetrated by peers and parents and binge eating (e.g., Fairburn et al., 1998; Haines et al., 2006), and the significant link between body image shame and the severity of binge eating symptoms (Duarte et al., 2014). In fact, findings supported our initial predictions in that body image-related teasing perpetrated by peers and parents was associated with both body image shame and with binge

eating symptoms. Moreover, body image flexibility was shown to negatively correlate with these negative memories and emotions related with body image, and with binge eating severity and BMI. Although weaker in strength, results also revealed that memories of negative body-image focused interactions, body image shame, binge eating symptoms, and decreased body image flexibility were associated with increased BMI.

Moreover, the path model, which examined the effect of early body image-related bullying and teasing experiences on binge eating symptoms and BMI, mediated by body image shame and body image flexibility, was found to account for a total of 40% of the variance of binge eating severity variance and for 14% of the variance of BMI and provided evidence in support for the hypothesized indirect effects. In fact, the results revealed that recollections of being teased, picked on, name-called or rejected because of one's body image by one's peers or parents, was indirectly associated with binge eating symptoms and BMI, with this effect operating via the hypothesized mediating mechanisms. In particular, these findings provided evidence supporting the hypothesis that these negative interaction experiences may become associated with shame feelings about the self because of one's physical appearance. In addition, our data suggests that it is through an increase in this specific negative emotional experience that such negative memories impact binge eating symptoms, even when accounting for the effect of depressive symptoms. The findings also provided preliminary evidence to support the hypothesis that body image flexibility is a particularly important self-regulatory mechanism operating on the relationship between negative internal experiences and difficulties with eating behaviour and weight. In fact, the examined model suggested that decreased body image flexibility significantly mediated the effect of recollections of body image-related victimization experiences and current body image shame on binge eating severity scores and increased BMI.

The present findings are consistent with prior research and contribute to accumulating evidence on the factors and mechanisms underlying deregulated eating behaviour (e.g., Ferreira et al., 2011; Duarte & Pinto-Gouveia, 2014; Duarte et al., 2015a; Moore et al., 2014). In particular, this study corroborates mounting empirical data demonstrating that body image-related self-evaluation and emotional processes play a determinant role in the understanding of binge eating symptoms and weight regulation (Duarte et al., 2014; Duarte et al., 2015a; Lillis & Kendra, 2014; Webb & Forman, 2013). Therefore, our results support the idea that the dimension of body image should be considered in assessment and intervention protocols for full syndrome and sub threshold binge eating. Moreover, the evidence provided by the current study aligns with scholarship postulating that negative internal experiences do not necessarily lead to psychological maladjustment and suffering, and that the ability to flexibly accept such negative experiences while engaging in adaptive actions committed with one's optimal wellbeing, plays a determinant role in this link (Hayes, 2004). In fact, the findings suggest that the extent to which individuals binge eat as a means to momentarily alleviate or escape negative internal experiences may be influenced by their ability to mindfully accept them without engaging in such reactive damaging behaviours. These associations were less expressive in relation to BMI, but point out to the significant relationship between higher body image flexibility and healthy weight status (Kelly et al., 2014; Wendell et al., 2012) and merits therefore further empirical scrutiny in future research that includes participants with greater weight diversity.

Clinically, our results suggest the relevance of assessing body image-related negative experiences, and the defensive maladaptive function of disordered eating symptoms (e.g., Goss & Allan, 2010), and highlight that body image flexibility is a potential process of change that should be therapeutically addressed. In particular, the current study seems to support the potential beneficial effect of compassion and acceptance-based approaches that

focus on building psychological flexibility regarding difficult or unwanted emotions, memories, or negative self-evaluations. These treatment approaches aim therefore at changing individuals' relationship with such internal experiences rather than attempting to control, diminish or avoid them, and at helping them to engage in adaptive actions with self-kindness (e.g., Baer, Fisher, & Huss, 2005; Juarascio, Forman, & Herbert, 2010; Lillis & Kendra, 2014; Sandoz, Wilson & DuFrene, 2010; Tirch, Schoendorff, Silberstein, Gilbert, & Hayes, 2014).

The current study has several limitations, including its cross-sectional design, which precludes conclusions regarding causality. Also, the use of self-report data on retrospective experiences does not permit ruling out response bias. In addition, although this study was conducted in a large sample of women from the general community, which corresponds to population of interest to examine the continuum of disordered eating behaviours, the current findings cannot be extended to male participants. Moreover, the number of people reporting moderate or severe binge eating in the current study was small and thus results should not be generalized to samples of individuals struggling with weight management difficulties or eating disorders. Nonetheless, our findings point out to important research directions to be examined in longitudinal studies examining the effect of childhood and adolescence experiences of body image-related bullying and teasing in individuals' disordered eating and body weight over time. Moreover, forthcoming studies should explore the current findings in experimental studies examining the beneficial effect of therapeutic approaches that cultivate a mindful accepting and compassionate attitude in face of difficult experiences and challenges related to body image (Goss & Allan, 2010; Juarascio, Forman, & Herbert, 2010; Lillis & Kendra, 2014; Sandoz et al., 2010; Tirch et al., 2014). Thus, although further research is necessary, the current study contributes for a greater understanding of the potential factors operating on the emergence of binge eating behaviours, and for the identification of the

mechanisms that can be therapeutically addressed in the early prevention of disordered and in the promotion of healthy eating behaviours and body image attitudes.

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Table 1. Means (M), Standard Deviations (SD), Cronbach's alpha (α) and correlation coefficients between the study's variables.

	<i>M</i>	<i>SD</i>	α	BIVES Peers	BIVES Parents	BISS	BIAAQ	BES	BMI
BIVES Peers	1.45	0.77	.92	1					
BIVES Parents	1.26	0.59	.91	.49**	1				
BISS	0.88	0.77	.94	.37**	.36**	1			
BIAAQ	27.28	15.03	.96	-.36**	-.37**	-.72**	1		
BES	6.48	6.05	.86	.25**	.33**	.58**	-.58**	1	
BMI	22.69	3.59	-	.15**	.17**	.36**	-.33**	.35**	1
DEP	3.52	3.90	.87	.23**	.19**	.38**	-.36**	.28**	.07*

Note:

* $p < .05$; ** $p < .001$

BIVES = Body Image Victimization Experiences Scale; BISS = Body Image Shame Scale; BIAAQ = Body Image Acceptance and Action Questionnaire; BES = Binge Eating Scale; DEP = DASS21 depression subscale; BMI = Body Mass Index

Figure 1. Path model representing the association between body image-related victimization experiences and binge eating symptoms and BMI, mediated by current body image shame and body image flexibility, with standardized estimates and square multiple correlations ($N = 853$).

Figure(s)

