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Shame, Self-Criticism, Perfectionistic Self-Presentation and Depression in Eating Disorders

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Abstract

The complexity of eating disorder (ED) manifestations has increased the interest in understanding the mechanisms underlying the eating psychopathology and it is now widely accepted that there are multiple risk pathways for both the development and maintenance of eating psychopathology. This study examined the association between external shame and depression. We also investigated the possible mediation effect of self-criticism in the relation between shame and depression. Further to that, the current cross-sectional study inspected whether this mediation exists for different conditional values of perfectionistic self-presentation. 121 women diagnosed with eating disorder according to the Eating Disorder Examination (EDE 16.0D) completed a battery of self-report questionnaires to assess external shame, self-criticism, perfectionistic self-presentation and depression. A mediated-moderation analysis was performed. Results showed that the path from external shame to self-criticism depends on the level of perfectionistic self-presentation whereas the effect of self-criticism on depression is constant. Thus, there is an interaction between external shame and perfectionistic self-presentation on self-criticism which, in turn, affects depression. The internalization of an ideal-self sets up a standard that once compared to the actual self, displays negative self-evaluations and feelings that individuals see as reflecting a bad, inferior and flawed self. In this context, a perfectionistic self-presentation is used to create positive images on the minds of others. Although this style of organization is an adaptive way to deal with specific social contexts once it functions as a buffer in the relationship between shame and self-criticism, perfectionistic self-presentation seems to be a useless strategy since it does not prevent them from depression. Implications for future research are discussed.

Key words: external shame, self-criticism, depression, perfectionistic self-presentation, eating disorders.

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Novelty and Significance

What is already known about the topic?

- Shame is a central component to the development of eating disorders.
- The perceived discrepancies between the real and the ideal-self are at the basis of these negative self-evaluation and feelings. Thus, it is not surprising the relationship between shame and depression.

What this paper adds?

- A perfectionistic self-presentation is then used as an attempt to create positive images and feelings in the minds of others that seems to be an adaptive way to deal with specific social contexts, since it functions as a buffer factor in the relationship between shame and self-criticism.
- Its over-stimulation may lead to feelings of defeat, inferiority, humiliation, more shame, and criticism as individuals still believe some attributes (e.g. weight, body shape) are unacceptable.
- A perfectionistic self-presentation does not prevent Eating Disorder from depression.

Eating Disorders (ED) are one of the most life-threatening psychopathological conditions, characterized by an overwhelming consuming drive to be thin, a fear to

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gain weight and a loss of control over eating (Fairburn, 2008). Despite the massive growth in empirical and clinical research, the ED incidence in literature shows lifetime prevalence rates of 0.4% for anorexia nervosa and 1%-1.5% for bulimia, according to the fifth version of the Diagnostic and Statistical Manual of Mental Disorders (APA, 2013). Nevertheless, the rates of sub-clinical disordered eating seem to be higher, with research showing that approximately over 50% of young woman report a history of chronic dieting (e.g., the use of drink or pills to aid in weight loss efforts) and present intense concerns about body image and eating (Ferreira, Pinto Gouveia, & Duarte, 2014; Patterson, Wang, & Slaney, 2012).

The association between ED and depression has been consistently reported in the literature, with prevalence studies finding up to 80 % comorbidity between these conditions (Green, Scott, Cross, *et al*., 2009; Grilo, White, & Masheb, 2009).

The complexity of ED manifestations has become a challenge and research that sheds light on (effective) evidenced-based treatments is still in its early stages (Duffy & Henken, 2016). As such, there has been an increasing interest in understanding the mechanisms underlying eating psychopathology and it is now widely accepted that there are multiple risk pathways for both the development and maintenance of eating psychopathology (Goss & Gilbert, 2002).

One component that has been referred to as central to the development of eating disorders is shame. Shame is "directly about the self which is focus of evaluation" (Lewis, 1971, p. 30). It is a painful social experience linked to the perception that one is being negatively judged and (is) seen as inferior or unattractive (Gilbert, 2002; Goss & Allan, 2009). As such, these shame individuals are constantly comparing themselves with others, fearing not to be as good and as attractive as they are in valuable domains (Gilbert, Broomhead, Irons, *et al*., 2007).

In the context of ED and particularly for women, physical appearance is often considered as a central self-evaluative domain that individuals use to estimate their social position and to compete for social advantages (Burkle, Ryckman, Gold, Thornton, & Audesse, 1999; Gilbert, Price, & Allan, 1995). Even though the importance of social acceptance as a human motivation, some individuals become constantly under pressure to show talent, ability and positive attributes (Gilbert *et al*., 2007; Pinto Gouveia, Ferreira, & Duarte, 2012).

It is now well established that the perceived discrepancies between the real and the ideal-self are central to several mental health disorders, since they are at the basis of these negative self-evaluation and feelings (Gilbert, 2010; Marklam, Thompson, & Bowling, 2005). Thus, it is not surprising to find a relationship between shame and depression (Andrews, Qian, & Valentine, 2002; Cheug, Gilbert, & Irons, 2004; Kim, Thibodeau, & Jorgensen, 2011, for a meta-analysis review). Nevertheless, literature has shown that this association might be mediated by other variables as ED individuals tend to adopt defensive strategies, such as self-criticism, to deal with others' evaluations (Ferreira, Pinto Gouveia, & Duarte, 2014; Gilbert, Durrant, & McEwan, 2006; Gilbert & Proacter, 2006).

Self-criticism is a type of negative self-judgment and self-scrutiny where one displays a punitive response in the face of one's specific errors, faults or attributes (e.g.,

physical appearance), which may cause social disapproval or rejection (Ferreira *et al*., 2014). As such, self-critical individuals are usually focused on achieving goals once they are pervaded by feelings of inferiority, worthlessness, failure and guilt (Blatt & Zuroff, 1992; Gilbert, Durrant, & McEwan, 2006). In line with that, self-criticism may be understood as a strategy to cope with the shortcomings of an inadequate or inferior perceived self (Gilbert, Clarke, Hemple, Miles, & Irons, 2004). However, this constant self-judgment not only induces more feelings of inferiority and failure, but also renews the need to escape from these feelings. This powerful maladaptive emotion regulation process perpetuates the cycle that maintains the ED (Duffy & Henkel, 2016) and it is often linked to depression (Boujut & Gana, 2014; Fairburn & Harrison, 2003; Fenning & Hadas, 2010; Goss & Fox, 2012; Machado, Machado, Gonçalves, & Hoek, 2007). Indeed, some research in ED has shown the role of self-criticism as an attempt to relieve or escape from the underlying feelings of inferiority and failure (Bardone, Vohls, Abramson, Heatherton, & Joiner, 2000; Goss & Allan, 2009; Goss & Gilbert, 2002; Gupta, Rosenthal, Mancini, Cheavens, & Lyinch, 2008; Steiger, Goldstein, Mongrain, & Van der Feen, 1990). Further to that, several studies have also demonstrated that depressed ED individuals exhibit higher levels of shame, viewing the negative feelings about their bodies and eating as reflecting a bad self (Markham, Thompson, & Bowling, 2005). It is important to underline that according to Gilbert, Clarke, Hemple, Miles, and Irons (2004), self-criticism is not a single process and has different forms, functions and underpinning emotions. Despite more research is needed due to clear limitations of Gilbert *et al*.'s (2004) study (e.g., students sample, age and gender), both forms (e.g., hated-self and inadequate-self) had significant associations with depression. Further to that, previous research in Portuguese population has consistently reported the higher relevance of inadequate self (e.g., a form that is focused on feelings of inadequacy and inferiority due to personal failures and setbacks, and in aspects of the self that need to be corrected or improved) in ED conditions (Ferreira *et al*., 2014). For this reason only the inadequate self is considered in the current study.

A critical self-to-self-relationship has also been linked with perfectionism as the striving to achieve flawlessness (Flett & Hewitt, 2002; Hewitt *et al*., 2003). Even though the relevance of perfectionism in ED has been well documented, only recently has attention been paid to the interpersonal expression of perfectionism (e.g., perfectionistic self-presentation, Hewitt *et al*., 2003).

As such, the need to appear perfect by actively promoting one's supposed perfection, by non-displaying one's perceived imperfections, and by hiding or avoiding disclosing one's imperfections, seems to have important associations with eating psychopathology. Further to that, research has also shown that the association between perfectionistic self-presentation and eating disorders symptoms is not direct but is mediated by other variables. However, scarce research has shed light on the possible intervening variables in ED patients. Specifically, it is unclear how perfectionistic self-presentation relates to self-criticism as well as the pathways through which these two defensive mechanisms (e.g., self-criticism and perfectionistic self-presentation) operate in ED.

This study aims at filling some of these gaps in the current knowledge regarding the role of self-criticism and perfectionistic self-presentation in ED. As such, this study

examined the association between external shame and depression. We also investigated the possible mediation effect of self-criticism in the relation between shame and depression. Further to that, the current study inspected whether this mediation exists for different conditional values of perfectionistic self-presentation. It is the combination of both self-criticism and perfectionistic self-presentation on a single mediated-moderation, that makes this study unique, since several studies have already shown the strong association between shame, depression and self-criticism (Dunckley & Grilo, 2007; Dunckley, Zuroff, & Blankstein, 2003; Gilbert *et al*., 2004; Gilbert & Irons, 2006). However, despite the relevance of perfectionism in ED, very few studies have looked at these associations regarding how perfectionistic self-presentation relates to self-criticism, as well as the pathways through which these two strategies operate in eating psychopathology. Regarding the associations between the variables under study, positive associations between external shame, self-criticism and depression are expected. Thus it is expected that women who believe that they are held negatively in the mind of others presented high depression. Those women have also negative views about themselves, are self-critical, extremely focused on mistakes and self-deficits. Regarding the associations between shame, perfectionistic self-presentation and self-criticism, it is expected that women who believe they are held negatively in the mind of others and perceived themselves as inadequate and inferior, also have an increased need to appear perfect by promoting one's supposed perfection, by non-displaying one's perceived imperfections, and by hiding or avoiding disclosing one's imperfections. Finally, it is expected that the strength of the indirect effects of shame on depression through self-criticism will be dependent on the level of perfectionistic self-presentation (e.g. more prevalent in individuals with low levels of perfectionism). Specifically, it is expected that the indirect path from external shame to self-criticism will be dependent on the level of perfectionistic self-presentation. Also, the effect of self-criticism on depression is expected to be constant.

METHOD

Participants

Patients were eligible to participate if they had a primary diagnosis of Eating Disorder, according to the EDE 16.0D (Fairburn *et al*., 2008; Ferreira *et al*., 2006). Patients were excluded on the basis of having severe depression, psychotic disorder, personality disorder, substance misuse problems and also those with intellectual impairment (e.g., learning disability, Alzheimer's dementia). These criteria were assessed by a clinician.

160 adults with ED were invited to participate. One hundred and thirty individuals delivered consent forms (*response rate*= 75.6 %). Nine were excluded due to not meeting the inclusion and exclusion criteria, or because they had more than 10% missing data. Thus, a total of 121 participants with a mean age of 23.26 years (*SD*= 7.772) and an average of 12.36 years of education (*SD*= 3.080) completed the study between 2008 and 2010. The participants had the following distribution by diagnosis: 28% Bulimia Nervosa, 36.8% Anorexia Nervosa, and 35.2% Eating Disorder not otherwise specified.

The sample is considered to be a convenience sample (not representative). Demographics information is presented in Table 1. The educational background demonstrates no

Table 1. Sample demographic characteristics.

			N	*%*	*M*	*SD*
Marital state		Single	99	81.8		
		Married	17	14.0		
		Separate/ divorced	3	2.5		
		Widowed	2	1.6		
Profession	Others		47	38.84		
	Students		74	61.16		
Age					23.26	7.772
Education					12.36	3.080

associations with the variables under study.

Instruments

Demographic variables (gender, age, marital status, profession and years of education) were assessed with a general checklist designed for this study.

Other as Shamer Scale (OAS; Allan, Gilbert, & Goss, 1994; Goss, Gilbert, & Allan, 1994; Portuguese version by Matos, Pinto Gouveia, & Duarte, 2011), is an 18-item self-report scale that measures external shame on a five-point Likert scale (0-4) (e.g. "I feel other people see me as not quite good enough" and " I think that other people look down on me"). Total scores can range from 0 to 72 with higher scores on this scale indicative of higher external shame. A Cronbach's α of .92 was reported in the original study of this scale (Goss, Gilbert, & Allan, 1994).

Depression, Anxiety and Stress Scale (DASS-42: Lovibond & Lovibond, 1995; Portuguese version by Pais Ribeiro, Honrado, & Leal, 2004) is a 42-item self-report measure that assesses depression, anxiety and stress symptoms, in a four-point Likert scale (0-3). On the original version, Lovibond and Lovibond (1995) found that the subscales have high internal consistency (Depression subscale Cronbach's α= .91; Anxiety subscale Cronbach's α= .84; Stress subscale Cronbach's α= .90). The Portuguese adaptation has a Cronbach's α ranged between 0.83 and 0.93 (Pais Ribeiro, Honrado, & Leal, 2004). Validity of the Portuguese adaptation was demonstrated by the associations between items and the scales to which they belong and, by the lack of association between items and scales to which they do not belong (Pais Ribeiro, Honrado, & Leal, 2004). For the purpose of this study only the depression subscale was used.

The Forms of Self-Criticism and Self-Reassuring Scale (FSCSRS: Gilbert, Clarke, Hempel, Miles, & Irons, 2004; Portuguese version by Castilho & Pinto Gouveia, 2011) is a 22-item self-report scale, aimed at measuring people's critical and reassuring evaluative responses to a setback or a failure in a five-point Likert scale, ranging from 0 ("Not at all like me") to 4 ("extremely like me"). It comprises two sub-scales of self-criticism (i.e. inadequate-self and hated-self) and a self-reassurance scale. The Cronbach alpha values were .90 for the inadequate-self and .86 for both the hated-self and self-reassurance (Gilbert et al., 2004). For the purpose of this study, only the inadequate-self sub-scale was used.

The Perfectionistic Self-Presentation Scale (PSPS; Hewitt, Flett, Fehr, Habke, & Fairlie, 1996; Hewitt *et al*., 2003; Portuguese version by Ferreira, Pinto Gouveia & Durate, 2013), is a 27-item multidimensional scale that assesses the individual's need to appear

perfect to others. It comprises three subscales: perfectionistic self-promotion, non-display of imperfection, and nondisclosure of imperfection (e.g., "I do not care about making mistakes in public", "I strive to look perfect to others", "Admitting failure to others is the worst possible thing"). These subscales are correlated to each other since all represent the broader construct of perfectionism (Hewitt *et al*., 2003). Research has indicated that the PSPS has adequate levels of internal consistency and high levels of test-retest reliability over a 2-month period, with test-retest correlations ranging from .74 to .84. In the current study, a composite score based on all the items was used.

Procedure

After previous ethics' committee approval, attendees at two National Mental Health Services and a private practice of psychotherapy, were recruited. Participants were fully informed about the purpose of the study, the procedures involved, that their cooperation was voluntary and that the data were confidential. Patients were screened with the Eating Disorder Examination (EDE 16.0D; Fairburn, Cooper, O'Connor, 2008; Ferreira, Pinto Gouveia, & Duarte, 2006), which was administered by the last author. Afterwards, they were given questionnaire packs that contained information sheets, consent forms, and a series of validated self-report questionnaires designed to measure external shame, self-criticism, perfectionistic self-presentation and depression. In line with ethical requirements, it was also emphasized that the anonymity of the participants and the clinicians not involved as authors were taken into account. The study had a cross-sectional design with self-report measures.

Data analysis

Descriptive, preliminary and product-moment correlation analyses were performed using SPSS-AMOS V.22. Product-moment correlation analyses were performed to examine the associations between external shame, self-criticism, depression and perfectionistic self-presentation.

The mediated-moderation analysis was performed using SPSS-AMOS V.22. The presence of multivariate outliers was assessed with the squared Mahalanobis Distance (DM^2). The mediated-moderation analysis was performed to explain how a given effect occurs. For instance, mediated-moderation occurs when the strength of an indirect effect (i.e. the indirect effect of external shame on depression through self- criticism) depends on the level of the moderator (i.e. perfectionistic self-presentation). External shame is assumed to be the independent variable as measured by OAS, depression is assumed to be the dependent variable as measure by DASS-42 and, both self-criticism and perfectionistic self-presentation as measured by FSCSRS and PSPS are assumed to be mediator and moderator, respectively. The tested model derives from previous research that has looked at the relationships between the variables separately (Figure 1). The model fit was evaluated using several descriptive fit indices: χ^2, comparative fit indices (CFI), root mean square error of approximation (*RMSEA*) and its *p*-value for H0: $RMSEA \leq .05$, Tucker-Lewis Index (*TLI*), Aike information criterion (*AIC*), Browne-Cudeck criterion (*BCC*) and expected cross-validation index (*ECVI*). The following cut-off criteria were

considered: (1) *CFI* and *TLI* values equal to 0.90 or greater; (2) *RMSEA* values of 0.06 or below (Hu & Bentler, 1999; Kline, 1998). The indirect effects were analysed with

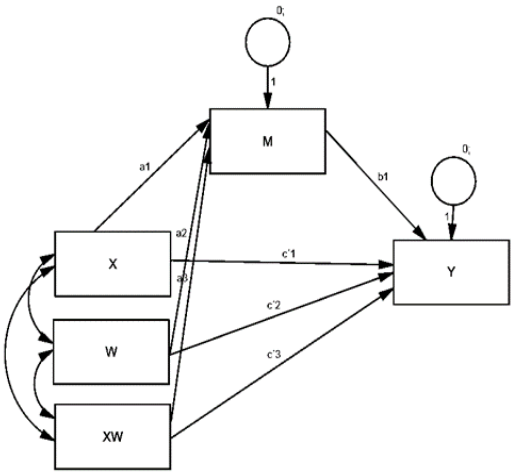

Figure 1. Mediated-Moderation Model: X= Independent Variable (e.g., External Shame); W= Independent Variable/ Moderator Variable (e.g., Perfectionistic Self-Presentation); M= Mediator Variable (e.g., Self-Cristicism); Y= Dependent Variable (e.g., Depression).

Bootstrap resampling as described in Marôco (2014).

RESULTS

Based on Kolmogorov-Smirnov test, some variables had statistically significant deviation from the normal curve. However, a close inspection of the skewness and kurtosis showed that this deviation was not problematic for further inferential analysis (i.e. all within [-0.5; 0.5] interval) (Tabachnik & Fidell, 2007). Means and standard deviations of all the variables under study are shown in Table 2.

Spearman correlations showed no correlations between educational background and variables under study. In addition, the Cronbach's alphas obtained in this study show the suitability of the measures (OAS= .941 ; FSCRS Inadequate-Self= .861; PSPS= .913; DASS-42 Depression= .965).

Results showed a moderate and positive correlation between external shame and depression (r= .585; $p\leq$ .001). Results also showed a strong and positive correlation between external shame and self-criticism (r= .62; $p\leq$ .001) (see Table 3).

Results showed a moderate and positive correlation between perfectionistic self-presentation and external shame (r= .590; $p\leq$ .001) and also with self-criticism (r= .502; $p\leq$ .001), with high levels of perfectionistic self-presentation associate with both high levels of external shame and self-criticism (see Table 4).

The mediated-moderation model of external shame, self-criticism and perfectionistic self-presentation on depression adjusted to 121 women is depicted in Figure 2. It was addressed by examining the significance of the interaction term, and constraining the

Table 2. Mean (*M*), Standard Deviation (*SD*), skewness, kurtosis and, minimim-maximum for the variables under study.

	M	*SD*	Skewness	Kurtosis	Minimum-Maximum
External Shame	37.49	14.00	.291	-.560	10-72
Self-Criticism	24.89	7.13	-.579	-.109	8-36
Perfectionistic Self-Presentation	125.87	27.35	-.161	-.659	67-181
Depression	21.01	12.73	.219	-1.204	0-42

Table 3. Correlation between External Shame, Self-Criticism (Inadequate-self), Perfectionistic Self-Presentation, and Depression.

	External Shame	Self-Criticism	Perfectionistic Self-Presentation
External Shame	-	-	-
Self-Criticism (Inadequate-Self)	.621***	-	-
Perfectionistic Self-Presentation	.590***	.502***	-
Depression	.585***	.623***	.414***

Note: ***= $p \leq .001$.

Table 4. Standardized coefficients of the model that tests the effect of Perfectionistic Self-Presentation in the mediated-moderation model.

	Estimates	*SD*	*z*	*p*
Self-Criticism← External Shame	.616	.035	8.883	***
Self-Criticism← Interaction term	-.193	.001	-2.789	.005
Depression← Self-Criticism	.423	.154	4.909	***
Depression← External Shame	.322	.078	3.731	***

Note: ***= $p \leq .001$.

attention to the indirect effects of external shame on depression through self-criticism. The main question is whether the mediation is influenced by different conditional values of perfectionistic self-presentation (moderate variable) or not.

Based on *p*-values, three path coefficients were removed: perfectionistic self-presentation→depression (*B*= .012; *SE*= .041; *p*= .770; β= .025), external shame*perfectionistic self-presentation→self-criticism (*B*= .042; *SE*= .023; *p*= .066; β= .160). The model showed a good fit to the variance-covariance structure ($\chi^2_{(3)}$= 3.506; *p*= .320; *CMIN/DF*= 1.169; *CFI*= .997; *TLI*= .991; *PCFI*= .299; *RMSEA*= .037, *p*[*rmsea* ≤.05]= .447).

All predictors, as theorized by the model, explained 45% of depression's variability (Figure 2). External shame showed a direct effect ($\beta_{\text{Depression.ExternalShame}}$= .32; $p \leq .001$) and a mediating effect through self-criticism ($\beta_{\text{Depression.SelfCriticism}} \times \beta_{\text{SelfCristicism.ExternalShame}}$= .26; *p*= .001; 95% CI [162, .391]) on depression of .58. This means that depression increased by about .26 standard deviations for every increase (a full standard deviation) in external shame via its prior effect on self-criticism.

Moreover the interaction term (e.g., external shame × perfectionistic self-presentation) also showed a mediating effect on depression through self-criticism ($\beta_{\text{Depression.SelfCriticism}} \times \beta_{\text{SelfCriticism.ExternalShame*PerfectionisticSelf-Presentation}}$= -.08; *p*= .006; 95% CI [-.158, -.025]; see Figure3). Thus, a mediated-moderation effect was shown since there is an indirect effect of external shame on depression through self-criticism, but this mediation exists for different values of perfectionistic self-presentation. Specifically the path from external shame to self-criticism was influenced by the level of perfectionistic self-presentation, whereas the effect of self-criticism on depression was constant. This seems to indicate

that the more that people scoring high in external shame try to hold a perfectionistic high standard, the more likely they will be depressed. They are likely to fall into depression if

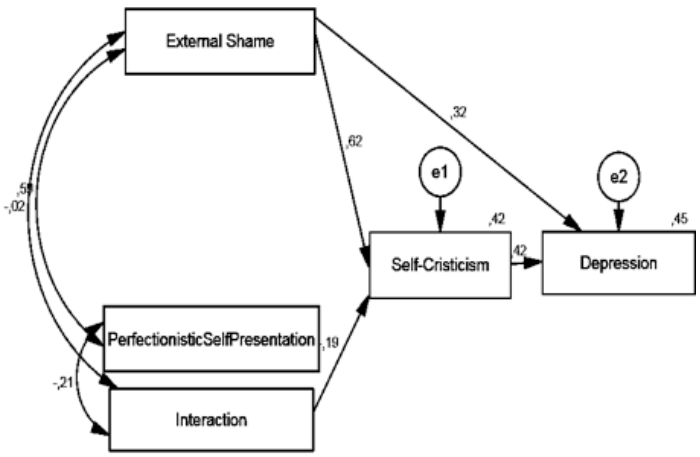

Figure 2. Mediated-Moderation Model.

these high standards cannot be maintained or if their flaws are likely to become known.

DISCUSSION

The first step of this study confirmed that external shame and depression were related in theoretically predictable ways. Like in previous research, our results showed that higher shame was associated with the onset of depressive symptoms (Dunckley, Zuroff, & Blankstein, 2003; Gilbert & Irons, 2006; Gilbert *et al*., 2004) and this pathway is increased by self-criticism (Dunckley & Grilo, 2007). This relationship is well established in the literature and it appears to be strong across several measurement types, different groups (Mills, 2005) and both clinical and non-clinical population (Alland, Gilbert, & Goss, 2004; Kim, Thibodeau, & Jorgensen, 2011; Tangney, Wagner, & Grawzom, 1992).

Secondly, we investigated whether the possible mediation effect of self-criticism in the relation between shame and depression exists for different conditional values of perfectionistic self-presentation. Our tested model showed that self-criticism is a significant mediator of the relationship between the experience of shame and depression, accounting for 45% of the total variance in depression. Therefore, shame still has a direct effect on depression, however the use of a self-critical mechanism seems to have a central contribution in this relation to a point. These findings are consistent with previous research that found self-criticism as a strategy to cope with shortcomings of an inadequate or inferior perceived self (Gilbert *et al*., 2004), an attempt to relieve or escape from the underlying negative feelings (Bardone, Vohls, Abramson, Heatherton, & Joiner, 2000; Goss & Allan, 2009; Goss & Gilbert, 2002; Gupta, Rosenthal, Mancini, Cheavens, & Lyinch, 2008). Research has also highlighted that this constant self-judgment promotes even more feelings of inferiority and failure, the need to escape, and that it perpetuates

the cycle which maintains the ED (Duffy & Henkel, 2016).

As in previous research this critical self-to-self-relationship is also linked to a perfectionistic self-presentation (Flett & Hewitt, 2002; Hewitt *et al*., 2003). Generally, the results showed that the strength of the indirect effect of self-criticism on the relationship between external shame and depression depends on the level of perfectionistic self-presentation. Specifically, our results showed that the use of a perfectionistic self-presentation, to create a positive image or to induce positive affect, did not actually prevent those women with ED, who believed that they are held negatively in the mind of others (e.g., external shame) from feelings of inferiority, worthlessness or failure. Furthermore, the results also showed that once shame experiences are internalized by these women, perfectionism proves to be an ineffective strategy since it does not prevent them from getting depressed. Thus, it seems that it is mainly those women with external shame, who use a perfectionistic self-presentation as a compensatory strategy to deal with self-criticism, who tend to depress more. Indeed, this kind of strategy seems to be an ineffective attempt that condemns them to failure, giving rise to more shame and self-criticism.

The present investigation has both strong and weak aspects. Although this study used a relatively large sample of individuals with ED there are some areas that warrant attention. Generally, the findings were based on cross-sectional data, which precludes causality attributions in our conclusions. It is also relevant to highlight that the sample was only composed by women. In line with this it would be valuable that additional research includes men, since previous literature has shown gender differences not only in how shame affects but also in how it expresses itself and is played out in therapy. Research has also shown that there is a high prevalence level of ED among adolescents (Mustapic, Marcink, & Vargek, 2015). As such, it would be relevant to further explore the suitability of the current model in this specific population and also in both anorexia and bulimia, separately. This would enable the development of more effective sets of interventions focused on the prevention of detrimental mechanisms.

Implications for future work are in line with previous research on shame aversion and particularly with Manjrekar, Schoenleber, and Mu (2013). On the one side, our results show that the direct path between shame and depression is stronger than the indirect path (mediated by self-criticism). On the other side, our results also show that besides its buffer role, perfectionistic self-presentation does not prevent individuals from feeling depressed. So, future investigations should integrate shame aversion in the model since, more than helping individuals with ED to deal with shame feelings, it is important to explore the antecedent mechanisms involved in shame-regulating behavior. Accordingly, high shame aversion seems to provide the motivation to engage in problematic eating behaviors and to develop dysfunctional eating attitudes. A number of theorists suggest that the tendency to be self-critical or self-reassuring emerges from early parenting and attachment experiences (Mikulincer & Shaver, 2004) with self-critical self-to-self-relating styles being especially associated with hostile or neglectful parenting. As such, the vulnerability to depression depends on how sensitive one is to social threats, how one explains those threats and copes with setbacks, and the kind of thoughts and feelings that one generates toward oneself.

Future studies should also explore other functions related to hated-self. In fact, it is well established in the literature that self-criticism has two particular functions, but the present study only explores the specific function of self-criticism related to avoiding mistakes, to self-correct and to self-improve in the context of external shame, since previous research in Portuguese population has constantly showed it to have a higher relevance in these specific conditions (Ferreira, Pinto Gouveia, & Duarte, 2014; Pinto Gouveia, Ferreira, & Duarte, 2012). It is also important that future research explores if these identified mechanisms are the same for women and men, since literature has shown that the number of men suffering from ED is increasing (Hudson et al., 2007).

The current study shows that women with ED have experiences consistent with shame phenomenology. These results suggest that these women experience themselves as existing negatively in the minds of others (i.e. as unattractive, flawed, and worthless). So, the awareness of a possible exposure to perceived flaws and failures functions as an external trigger and activates the fear of negative judgments and evaluations (Gilbert & Procter, 2006). These shame experiences are also associated with high levels of self-criticism, thus these women tend to see them as inferior, inadequate or bad (Gilbert, 1998; Gilbert & Procter, 2006).

The internalization of this ideal-self sets up a standard that once compared to the actual self, displays several behaviors aimed at appearing perfect to others and to avoid the perceived imperfections (Hewitt, Flett, & Ediger, 1995). So, it seems that, rather than viewing their body dissatisfaction and eating difficulties as problematic behaviors, they view their negative self-evaluations and feelings as reflecting a bad, inferior and flawed self that they try to hide. A perfectionistic self-presentation is than used as an attempt to create positive images and feelings in the minds of others. This style of organization seems to be an adaptive way to deal with specific social contexts, since it functions as a buffer factor in the relationship between shame and self-criticism. However, our results also showed that an over-stimulation may lead to feelings of defeat, inferiority, humiliation and even more shame and criticism as individuals are no longer able to take pleasure from their achievements and they still believe these attributes (e.g. weight, body shape) are unacceptable. So perfectionistic self-presentation does not prevent them from depression.

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