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EMOTION REGULATION DIFFICULTIES, DISTRESS TOLERANCE AND PSYCHOPATHOLOGICAL SYMPTOMS

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Emotion Regulation (ER) has been identified as a factor that may be related to psychopathological symptoms. However, evidence about the relationship between ER and psychopathological symptoms is still unspecific. Moreover, although the ability of distress tolerance (DT) has gained increasing attention, it has not yet been sufficiently explored in relation to specific psychopathological symptoms. The aim of the study was to analyze the role of different specific ER mechanisms on various psychopathological symptoms, with particular emphasis on the role of DT. To do so, a correlational study was carried out. A total of 128 university students between 18 and 44 years old (mean age = 26.7, *SD* = 6.14) answered the Distress Tolerance Scale, the Difficulties in Emotion Regulation Scale and the Symptom Check List 90-Revised. For each psychopathological symptom (and for general distress), linear regression were applied. All models were statistically significant with differences in the amount of explained variance and in the predictors. DT predicted symptoms of depression, anxiety, obsessions and compulsions and general distress. The study highlights the importance of the different mechanisms of ER in each specific psychopathological symptom and their implications for mental health.

Keywords: psychopathology; distress; mental health; depression; anxiety; emotion.

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Emotion Regulation (ER) is the sum of extrinsic and intrinsic processes that a person employs to elicit, sustain, monitor, modulate or modify emotional responses, whether in terms of their occurrence, valence, intensity, or duration, in order to achieve specific goals (Thompson, 2019). There are different ER abilities that refer to the prototypical ways in which people understand, perceive, and respond to their emotional experiences. In contrast, emotion dysregulation refers to difficulties in the ability to regulate or modulate emotions in the face of negative situations or events (Gratz & Roemer, 2004). One of the most widely used models of ER is the clinical model of Gratz and Roemer (2004). This model suggests six ER difficulties that people may experience: *Nonacceptance of Emotional Responses, Lack of Emotional Awareness, Lack of Emotional Clarity, Difficulties Engaging in Goal-Directed Behavior, Impulse Control Difficulties*, and *Limited Access to ER Strategies*. Flexible use of different mechanisms of ER allows for successful adaptation to the environment (Berking & Whitley, 2014).

Another complementary ER ability that has gained increasing interest in the last decade is distress tolerance (DT). DT is defined as the ability to tolerate, resist, or endure unpleasant emotion states in order to achieve goals (Zvolensky et al., 2010). Tolerance of negative emotion states is especially important when people face situations in which emotion states cannot be altered. DT has gained interest mainly because of its transdiagnostic implications (Ameral et al., 2017; Cummings et al., 2013; Naragon-Gainey et al., 2017; Zvolensky et al., 2010). Within DT, some authors (e.g., Lynch & Mizon 2011; McHugh & Otto, 2012) propose to distinguish between *distress sensitivity* (cognitive factor reflecting perceived inability to handle distress) and *behavioral tolerance or intolerance* (persistence while distressed or behavioral regulatory responses to alleviate distress). The former refers to the extent to which a person evaluates a situation as unbearable or upsetting. The latter refers to the extent to which a person is willing (or unwilling) to remain in contact with a negative emotional experience.

Several studies (Aldao et al., 2010; Naragon-Gainey et al., 2017, Schäfer et al., 2017) suggest that ineffective ER can lead to the persistence of distress associated with negative events. Thus, difficulties in effectively regulating everyday emotions would prolong the effects of distress and intensify the negativity associated with the unpleasant emotions (Hervás, 2011). Eventually, failures in ER can lead to the onset of symptoms, such as anxiety and depression (McLaughlin et al., 2011).

Previous studies (e.g., Aldao et al., 2010; Khalil et al., 2020) indicate that individuals who report greater difficulties in ER also experience higher levels of distress and are more vulnerable to various types of psychopathological symptoms. For example, problems identifying emotions (i.e., emotional clarity) have been associated with symptoms of social anxiety, depression, and maladaptive behaviors such as

alcohol use and binge eating (Vine & Aldao, 2014). Similarly, difficulties in emotional impulse control have been linked to substance use (e.g., Dingle et al., 2018), aggression (e.g., Dixon et al., 2017), and other various types of symptomatology (e.g., Cheung & Ng, 2019; Fergus & Bardeen, 2014). Other studies (e.g., Dixon et al., 2017; McLaughlin et al., 2011) also emphasize the importance of ER abilities in the development and course of various psychopathological symptoms.

Although there are many studies (e.g., Fergus & Bardeen, 2014; Vine & Aldao, 2014) on the relationship between ER abilities and psychopathological symptoms, most of the reported studies (e.g., Estevez et al., 2020; Han et al. 2016) focus on a few ER mechanisms or on a specific psychopathological process (mainly anxiety and depression). Another very common approach is to use an instrument that assesses different ER abilities and to combine the scores of the different dimensions into a single global index (limiting the understanding about the specificity of each mechanism for each symptom). For example, Han et al. (2016) used Gratz and Roemer's (2004) model to assess the effect of ER difficulties on the psychopathological symptoms of the Derogatis' (1994) model. However, they only indicate that the total difficulties of ER (total score of all ER difficulties) are associated with the general psychopathological distress. Similarly, Dimaggio et al. (2017) rely on the same models and, although they distinguish between the six ER difficulties, they analyze only their relationship with global psychopathological distress. Although these studies make an important contribution, the unification of the indicators into global indices limits the understanding of the relationship between variables.

Regarding DT, the inability to tolerate negative emotions would lead to the use of maladaptive strategies, such as, for example, avoidance or substance use (Jeffries et al., 2016; Zvolensky et al., 2010). This results in a persistence of the distress that can trigger the emergence of psychopathological symptomatology. However, given the relative novelty of interest in DT, studies are still scarce, and practically non-existent in the Latin American context.

Based on this literature review, we formulated the following question: Which specific ER mechanisms are related to which specific type of psychopathological symptoms?

Although there are many studies on the relationship between ER and psychopathological symptoms, the results are still broad and unspecific: many of them focus on only one specific psychological symptom (e.g., anxiety; Dixon et al., 2017), or only one ER mechanism (emotional clarity; Vine & Aldao, 2014), or combine the different ER abilities (or the different psychopathological dimensions) into a single general index. Our approach seeks to provide a broader understanding by considering how the interaction of different mechanisms of ER have differential effects according to the type of psychopathological symptoms assessed. Exploring accurately

the mechanisms that predict, elicit, and sustain distress and psychopathological symptoms would provide relevant information for interventions aimed at improving mental health. Moreover, jointly analyzing both ER difficulties (Gratz & Roemer, 2004) and DT would provide an updated approach that considers the different mechanisms that people use to regulate their emotions (Berking & Whitley, 2014). Therefore, the aim of this study was to analyze the role of different specific ER mechanisms (i.e., Nonacceptance of emotional responses, Lack of emotional awareness, Lack of emotional clarity, Difficulties engaging in goal-directed behavior, Impulse control difficulties, Limited access to ER strategies) on various psychopathological symptoms, with particular emphasis on the role of DT. To do so, this correlational study was carried out. The general hypothesis was: ER abilities, and particularly DT, have differential effects on the different types of psychopathological symptoms, and this effect varies according to the type of symptomatology studied.

METHOD

Participants and Procedure

The sample was non-probabilistic and consisted of 128 Argentinean university students between 18 and 44 years (M = 26.7, SD = 6.14). Nineteen people (14.8%) identified with the male gender and the remaining 109 (85.2%) with the female gender. Previous studies with students from the same university suggest that they generally present a medium to upper-middle socioeconomic status (e.g., del-Valle, 2021). The researchers contacted the students through university activities and explained the objectives of the study. The students were invited to participate voluntarily. Those who agreed were asked to sign an informed consent form. The procedures recommended by the American Psychological Association (2010) for research on human subjects were followed at all times, ensuring the necessary conditions to protect the confidentiality of the data and to act in the best interest of all the participants.

Measures

Distress Tolerance Scale

The Spanish adaptation (del-Valle et al., 2020) of the Distress Tolerance Scale (DTS) of Simons and Gaher (2005) was used. The DTS in its original version

consists of 15 items that are organized in 4 dimensions with adequate reliability indicators, namely Tolerance (α = .72), Appraisal (α = .82), Absorption (α = .78) and Regulation (α = .70). The test-retest reliability reported by the authors was also adequate (r = .61, p < .01; Simon & Gaher, 2005). The Argentinean adaptation suggested a two-factor model that explained 47% of the variance and presented a good fit to the data (CFI = .98, AGFI = .97, RMSEA = .05). The first factor referred to the general tendency to evaluate unpleasant situations as tolerable or bearable and was labeled (General DT α = .87). The second factor referred to behavioral ability to sustain negative emotional stimuli or on the contrary to escape from them (DT regulation α = .73). In the present study, the reliability (α) of the dimensions was adequate (.83 and .74 respectively).

Difficulties in Emotion Regulation Scale

The Spanish adaptation (Medrano & Trógolo, 2014) of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) was used. The scale inquiries about clinically relevant difficulties in the regulation of negative emotions. The original scale is composed of 36 items distributed in six factors that represent the six dimensions of the Gratz and Roemer model. The internal consistency (Cronbach's α) of the original scale range between .80 and .89 points. The Argentinean adaptation by Medrano and Trógolo (2014) replicated the original six-factor structure, but reduced the original scale to 28 items. In the present study, the internal consistency indices of the scales oscillated between α = .60 and .89.

Symptom Checklist-90-R

The Spanish adaptation (González de Rivera et al., 2002) of the Symptom Check List-90-R (SCL-90) (Derogatis, 1994) was administered. It consists of 90 items that assess the different groups of psychopathological symptoms of Derogatis' (1994) classification: Somatizations, Obsessive-Compulsive, Interpersonal sensitivity, Depression, Anxiety, Hostility, Phobic anxiety, Paranoid ideation, and Psychoticism. The scale also provides a general index of global perceived distress called General Severity Index (GSI). The GSI is a sensitive indicator of the overall psychological distress (Sánchez & Ledesma, 2009). The SCL-90-R has good psychometric properties (Gempp Fuentealba & Avendaño Bravo, 2008) and has been previously used in the Argentinean population (Sanchez & Ledesma, 2009). In the present study, reliability indices oscillated from .65 to .88.

Statistical Analysis

Reverse items (e.g., item 6 of the DTS) were recoded. Since the SCL-90-R is a psychopathological assessment instrument, it is common to obtain results with leptokurtic distributions and positive skewness (Gempp Fuentealba & Avendaño Bravo, 2008; Sánchez & Ledesma, 2009), especially for some factors such as Phobic Anxiety or Psychoticism. It is also common to observe gender differences for some of the inventory factors (e.g., Derogatis, 1994; González de Rivera et al., 2002). Therefore, we proceeded to calculate the percentile scores for each respondent in each subscale (following the gender-differentiated scales of the adaptation). This transformation solves both the problem of non-normal distributions and the consideration of the effect of gender on the participants' responses. The resulting skewness and kurtosis values were found to be within the acceptable range (following the criterion of skewness and kurtosis values between ±2; George & Mallery, 2016).

Pearson's *r* correlations were then performed to calculate the degree of relationship between the variables under study. Finally, ten linear regression models were analyzed using the Stepwise method. The ten dependent variables considered were the nine psychopathological symptom scales of the SCL-90-R and the GSI. The predicting variables entered were the ER difficulties assessed by the DERS (i.e., Nonacceptance of emotional responses, Lack of emotional awareness, Lack of emotional clarity, Difficulties engaging in goal-directed behavior, Impulse control difficulties, Limited access to ER strategies) and the two dimensions of DT assessed by the DTS (i.e., General DT, DT regulation). Collinearity (VIF) was less than 2 points in all cases. The normality of the residuals of the models was also corroborated, with skewness and kurtosis values between ±2. The effect size of each regression model (f^2) and the statistical power ($1 - \beta$) were also estimated using G*Power.

RESULTS

The degree of association between the variables was analyzed using Pearson's *r* correlations. The results are presented in Table 1.

Table 1

Correlations Between Emotion Regulation Mechanisms and Psychopathological Symptoms and Distress

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. SCL SOM	–																
2. SCL OBS	.45**	–															
3. SCL SEN	.38**	.63**	–														
4. SCL DEP	.52**	.72**	.65**	–													
5. SCL ANS	.56**	.65**	.50**	.67**	–												
6. SCL HOS	.42**	.48**	.49**	.55**	.43**	–											
7. SCL AFO	.33**	.37**	.36**	.46**	.59**	.32**	–										
8. SCL PSI	.45**	.65**	.68**	.69**	.56**	.53**	.53**	–									
9. SCL PAR	.25**	.53**	.68**	.59**	.41**	.51**	.47**	.66**	–								
10. SCL GSI	.69**	.82**	.74**	.87**	.80**	.65**	.57**	.80**	.67**	–							
11. General DT	-.26**	-.54**	-.39**	-.50**	-.43**	-.29**	-.29**	-.41**	-.33**	-.50**	–						
12. DT regulation	-.01	-.16*	-.02	-.10	-.03	.06	.06	.03	-.11	-.06	.43**	–					
13. DERS non-acceptance	.36**	.45**	.44**	.49**	.49**	.36**	.40**	.45**	.33**	.49**	-.45**	-.18*	–				
14. DERS clarity	.16*	.36**	.33**	.34**	.27**	.27**	.36**	.36**	.29**	.35**	-.30**	-.06	.24**	–			
15. DERS goals	.31**	.51**	.41**	.44**	.39**	.35**	.25**	.41**	.33**	.47**	-.49**	-.10	.48**	.19*	–		
16. DERS impulse	.28**	.53**	.46**	.45**	.46**	.46**	.35**	.44**	.45**	.53**	-.44**	-.09	.56**	.33**	.56**	–	
17. DERS awareness	.03	.13	.09	.06	-.03	.05	.07	.02	-.01	.06	-.21*	-.09	-.02	.35**	.03	.07	–
18. DERS strategies	.27**	.43**	.35**	.46**	.34**	.26**	.34**	.41**	.32**	.45**	-.61**	-.15*	.48**	.28**	.59**	.53**	.23**

Note. SCL = Symptom Check List, SOM = Somatizations, OBS = Obsessive-Compulsive, SEN = Interpersonal sensitivity, DEP = Depression, ANS = Anxiety, HOS = Hostility, AFO = Phobic anxiety, PSI = Psychoticism, PAR = Paranoid ideation, GSI = General Severity Index, DT = Distress Tolerance, DERS = Difficulties in Emotion Regulation Scale. *$p < .05$, **$p < .01$.

Direct and moderate correlations were found between most of the variables. Psychopathological symptoms and distress (GSI) were directly associated with most of the ER difficulties, indicating that the greater the difficulties reported, the greater the distress and the symptoms. The correlations were inverse with DT (specifically with the General DT subscale), indicating that the greater the participants' capacity to tolerate emotional distress, the lower the presence of psychopathological symptoms and the lower the distress experienced. The DT regulation subscale (with two exceptions) did not show statistically significant associations. Similarly, the Lack of emotional awareness subscale did not show statistically significant correlations with

the rest of the variables (except for a moderate relationship within the instrument and a low relationship with General DT).

Table 2

Linear Regression Models: Effect of Emotion Regulation Mechanisms on Psychopathological Symptoms and Distress

Dependent variable	Steps in the model	r^2	F	Predictors	β	f^2	$1 - \beta$
Somatizations	1	.13	18.52**	Nonacceptance	.36	.15	.991
Obsessive-Compulsive	4	.44	24.14**	General DT	–.28	.79	1.000
				Impulse control difficulties	.24		
				Difficulties engaging in goal-directed behavior	.21		
				Lack of emotional clarity	.16		
Interpersonal sensitivity	3	.29	16.65**	Impulse control difficulties	.26	.41	.999
				Nonacceptance of emotional responses	.25		
				Lack of emotional clarity	.19		
Depression	3	.37	23.76**	General DT	–.31	.59	1.000
				Nonacceptance of emotional responses	.31		
				Lack of emotional clarity	.18		
Anxiety	3	.32	19.71**	Nonacceptance of emotional responses	.28	.47	.999
				General DT	–.21		
				Impulse control difficulties	.21		
Hostility	1	.21	33.38**	Impulse control difficulties	.46	.27	.999
Phobic anxiety	2	.24	19.42**	Nonacceptance of emotional responses	.23	.32	.999
				Lack of emotional clarity	.22		
Psychoticism	3	.31	18.62**	Nonacceptance of emotional responses	.28	.45	.999
				Lack of emotional clarity	.25		
				Difficulties engaging in goal-directed behavior	.23		
Paranoid ideation	1	.20	31.15**	Impulse control difficulties	.45	.25	.999
Global Severity Index (GSI)	3	.39	26.63**	Impulse control difficulties	.29	.64	1.00
				General DT	–.28		
				Lack of emotional clarity	.21		

Ten linear regression models were then tested, considering the psychopathological dimensions of the SCL-90-R and the GSI as the dependent variables: Model (1), Somatizations; Model (2), Obsessive-Compulsive; Model (3), Interpersonal sensitivity; Model (4), Depression; Model (5), Anxiety; Model (6), Hostility; Model (7), Phobic anxiety; Model (8), Psychoticism; Model (9), Paranoid ideation; Model (10), GSI. In all cases, the independent variables were the six ER difficulties assessed by the DERS and the two dimensions of DTS. The results of the ten models are presented in Table 2.

All the models analyzed were statistically significant and showed high statistical power. The models with the greatest explained variance were Obsessive-Compulsive and GSI. The model with the least explained variance was Somatizations. The effect size was large for the models of Obsessive-Compulsive, Interpersonal sensitivity, Depression, Anxiety, Psychoticism and GSI, and moderate for the models of Somatizations, Hostility, Phobic anxiety and Paranoid ideation.

Regarding the predicting variables, Nonacceptance and Impulse control difficulties were significant predictors in six of the ten models. In addition, both difficulties were the main predictors in different models. The dimension Lack of emotional awareness, which had not presented statistically significant correlations with any of the psychopathological symptoms, was not a predictor in any of the models analyzed. Interestingly, although Limited access to ER strategies had presented associations with psychopathological symptoms, was not a predictor in any model when interacting with the rest of the predicting variables.

In turn, General DT was a significant predictor in four of the ten models analyzed. For Depression and Obsessive-Compulsive, DT presented the highest standardized beta. As previously indicated with the correlations, the higher the general ability to tolerate distress, the lower the presence of symptoms of anxiety, depression, obsessions and compulsions and the lower the general index of distress. Regarding DT regulation, consistent with the results of the correlations, this dimension was not a predictor in the analyzed models.

DISCUSSION

Accurately understanding the mechanisms that predict, generate, and sustain distress and psychopathological symptoms is a preliminary step in promoting well-being and mental health. Therefore, the aim of this study was to analyze the role of different specific ER mechanisms on various psychopathological symptoms, with particular emphasis on the role of DT. Direct and moderate correlations were

found between the different ER mechanisms and psychopathological symptoms. The findings suggest that the greater the difficulty in regulating negative emotions and the lower the DT, the greater the symptoms and the perceived distress. It is important to note that, except for Obsessive-Compulsive, the remaining indicators of the SCL-90 did not show relationships with the DT regulation dimension. This is consistent with previous studies on the validity of this dimension within the DTS (del-Valle et al., 2020; Rokosz & Poprawa, 2021). Similarly, no correlations were found for the Lack of emotional awareness dimension of the DERS, supporting previous evidence (e.g., Koich Miguel et al., 2017) about the validity problems for this subscale in Gratz and Roemer's (2004) model. Future studies should examine the validity of such dimension or consider the possibility of reformulation.

In the regression analyses, the ER mechanisms that proved to be predictors varied according to the symptom analyzed. Little-explained variance was observed for Somatizations, and only Nonacceptance of emotional responses proved to be a predictor. This is similar to that reported by Vatan and Pellitteri (2016). The authors indicated that of all psychopathological symptoms, Somatization obtained the lowest explained variance, although in their case only Limited access to ER strategies proved to be a predictor. The findings are also partially consistent with Wolz et al. (2015), who found no association between any of the ER difficulties and somatization symptoms in the general population. Compared to the rest of the symptomatic dimensions of Derogatis' (1994) classification, Somatizations is that with a greater physiological accent, compared to other manifestations of a more cognitive or emotional nature (e.g., depression). Therefore, it is possible that the low explained variance is because ER mechanisms do not play such an important role as in other symptoms with a greater emotional nature, such as anxiety or depression.

Regarding Obsessive-Compulsive, the regression model presented the largest effect size and the greatest explained variance. Lack of emotional clarity, Difficulties engaging in goal-directed behavior, Impulse control difficulties and General DT were the predictors. This is similar to that reported by Fergus and Bardeen (2014), who found that predictors of obsessive-compulsive symptoms were Impulse control difficulties, Lack of emotional clarity, and Suppression of emotional expression (the latter study did not consider the role of DT). It is possible to conclude that, for Obsessive-Compulsive symptoms (intrusive thoughts, constant worry, rituals, etc.), it is important to recognize the emotions experienced, to be able to control impulsive and disruptive acts and thoughts, to overcome them by guiding behavior, and to be able to tolerate the distress they generate if necessary (Cougle et al., 2012). This illustrates what is proposed by Berking and Whitley (2014): ER occurs as a consequence of the coordinated interaction of different skills.

For Interpersonal sensitivity, the predicting variables were Impulse control difficulties, Nonacceptance and Lack of emotional clarity. This differs from that reported by Vatan and Pellitteri (2016) for whom Limited access to ER strategies was the only predictor of this dimension. However, it is similar to that reported by Wolz et al. (2015) in eating disorders population, in whose study five of the six ER difficulties of Gratz and Roemer's model were associated with this type of symptoms (except Lack of emotional awareness). On the other hand, although correlations were found between interpersonal sensitivity and DT, the latter was not predictive of the model once the effect of all ER mechanisms were considered together. Hence, being or not being able to tolerate negative emotions would not be one of the predictors of experiencing feelings of inferiority, shame, or inhibition in relationships with others (or at least not if the effect of other ER skills is considered jointly).

With respect to depressive symptomatology, General DT was the first predictor of the model, followed by Nonacceptance and Lack of emotional clarity. The results for the depressive symptoms were similar to those of the anxiety dimension, where the predictor variables were Nonacceptance of emotional responses, General DT and Impulse control difficulties. The findings support the importance of the identification and acceptance of emotions in this type of disorders (Cheung & Ng, 2019; Vine & Aldao, 2014). Regarding Impulse control difficulties as a predictor of anxiety, different studies (e.g., Cheung & Ng, 2019; Estevez et al., 2020) have previously reported association between these variables. Authors such as Dixon et al. (2017) highlight that people suffering from anxiety disorders (e.g., generalized anxiety disorder) present greater negative urgency and greater difficulties in controlling it, giving rise to the characteristic manifestations of these disorders. Similar are the findings of Cougle et al. (2012) regarding obsessive thoughts. Likewise, DT has also been previously associated with depressive and anxiety symptoms, so the findings of the present study are consistent with previous literature (e.g., Ameral et al., 2017; Sandín et al., 2017).

For the Hostility dimension, Impulse Control Difficulties was the only predicting variable and the effect size was moderate. Consistently, previous studies have reported that difficulties in controlling emotional impulses are associated with aggressiveness (e.g., Dixon et al., 2017) and hostility (Vatan & Pellitteri, 2016; Wolz et al., 2015). In this sense, those people who experience greater problems in managing impulses derived from negative emotions, have a greater tendency to express them through outbursts of anger, rage and tend to feel like harming or hitting others (Dixon et al., 2017).

Regarding phobic anxiety, the predictor variables were Nonacceptance of emotional responses and Lack of emotional clarity. The results are consistent with previous studies (e.g., Jacobs et al., 2008; Vatan & Pellitteri, 2016) although the evidence

regarding the effect of ER mechanisms on phobias is still scarce. For its part, DT was not shown to be associated with phobic anxiety, which coincides with that reported by Laposa et al. (2015), although it disagrees with the findings of other authors such as Addicks et al. (2017). The phobic anxiety dimension attempts to assess the different variants of the phobic experience, understood as a persistent, irrational, and disproportionate fear. However, the symptoms (items) included in the SCL-90-R are characteristic mainly of agoraphobia and social phobia rather than specific phobia (Derogatis, 1994). Given that DT studies are scarce and still very novel, it is possible that future work distinguishing between different types of phobias may better explain the reported discrepancies.

The symptoms of psychoticism presented a low explained variance, and the predicting variables were Nonacceptance of emotional responses, Lack of emotional clarity and Difficulties engaging in goal-directed behavior. This result disagrees with what was found by Vatan and Pellitteri (2016), who reported that the only ER difficulty that explained this type of symptomatology is Limited access to ER strategies. However, in Wolz et al.'s (2015) study, symptoms of psychoticism were associated with Nonacceptance, Lack of emotional clarity, and Limited access to ER strategies. Similarly, Pollock et al. (2015) found that the Psychoticism tends to be associated with all ER difficulties, but particularly with Lack of emotional clarity (i.e., with emotional stimulus processing and recognition). On DT, Sandín et al. (2017) also report no relationships between this ER mechanism and Psychoticism. It is possible that DT is not related to the characteristic symptoms of this dimension (i.e., feelings of loneliness, schizoid lifestyle, auditory hallucinations, lack of intimate relationships, etc.). However, the evidence in this regard is still scarce and requires further exploration.

For Paranoid ideation the effect size was moderate and the only predicting variable was Impulse control difficulties. The results are similar to those reported by Wolz et al. (2015), who found that the relationships between ER difficulties and this dimension were low. For its part, DT was also not a predictor of this type of symptomatology. As mentioned earlier, it is possible that DT plays a more prominent role in the symptoms that manifest themselves in emotional expressions (i.e., mood disorder), compared to symptoms derived from paranoid ideation and psychoticism, with a lower emotional imprint and a greater pathological nature.

Finally, regarding the general distress (GSI), the ER mechanisms explained 45% of the variance, with a high effect size, resulting as predictors Impulse control difficulties, General DT, and Nonacceptance. Different studies (e.g., Dimaggio et al., 2017; Han et al., 2016) have shown that ER difficulties are associated with self-reported distress. Importantly, of the two difficulties in the model that were found to be predictors, one is mainly linked to the processing of emotions (i.e., Nonacceptance

of emotional responses), while the other corresponds to their moderation or regulation (i.e., Impulse control difficulties). This, again, supports the proposition of both Berking and Whitley (2014) and Gratz and Roemer (2004) about the importance of, not only the management of emotions itself, but also of their processing (in this case, their acceptance). In addition, General DT was also found to be a predictor of general distress, which is similar to previous studies about the importance of this mechanism in affectivity and psychopathology (Ameral et al., 2017; Cummings et al., 2013; Zvolensky et al., 2010).

To conclude, this study contributes to prior knowledge by jointly considering the role of the different difficulties of ER and DT. Instead, studies tend to evaluate the effect of ER based on the use of some specific strategies, or only on some particular mechanisms (Vine & Aldao, 2014). Thus, the findings of the present study represent a step forward in considering the interaction of different mechanisms of ER (Berking & Whitley, 2014). Second, the present study contributes because different mechanisms of ER seem to have different effects according to the type of psychopathological symptoms assessed. In this sense, performing differentiated analyses (instead of unified as observed in other studies, e.g., Dimaggio et al., 2017; Han et al., 2016) allows us to more clearly visualize the effects of the different ER mechanisms for each type of psychopathological symptom. Finally, a more detailed knowledge of the mechanisms that predict, elicit, and sustain distress and psychopathological symptoms is a preliminary step toward promoting mental health and well-being.

However, some limitations should be considered. First, it should be noted that this study worked integrally with self-report measures, which have several advantages but also several limitations (del-Valle & Zamora, 2021). Second, although the sample size was adequate for the type of statistical analyses performed, the study has low representativeness. A larger sample size would imply more precise estimates and a greater possibility of generalization. In addition, a greater representation of male participants would be advisable. Third, the individual socioeconomic level of each participant was not inquired. Fourth, the study was correlational retrospective research, so results have a limited explanatory power. Fifth, it would be interesting to have been able to test a clinical sample. It is recommended that future studies to investigate the effect of ER mechanisms, and specifically DT, in clinical samples, to determine whether the results found in this study are replicable in these populations. Moreover, despite the diffusion of Derogatis' (1994) clinical model, there are other more updated proposals on the taxonomy of psychopathology, such as the proposal by Kotov et al. (2017). Future studies could investigate the role of ER mechanisms considering this or other alternative models of psychopathological symptoms.

CRediT Author Statement

Macarena Verónica del-Valle (51%): conceptualization, methodology, software, validation, formal analysis, resources, writing (original draft), supervision, writing (review and editing).

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