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Abstract

Depression is a major public health problem that affects a significant proportion of young adults, such as college students. A process-based approach has been proposed for its study, which seeks to identify transdiagnostic psychological variables that can be the target of change in psychotherapeutic interventions. The purpose of this paper was to analyze the interrelation between a set of process variables (cognitive fusion, rumination, and experiential avoidance), as well as to examine the relationship between each of these variables and depression in 368 college students aged 18–29 years (M = 21.35, SD = 2.36, 77.7% female). Cognitive fusion and rumination were found to comprise an overarching variable termed hyperreflexivity, while experiential avoidance constituted a different construct. By analyzing a structural equation model, it was found that only hyperreflexivity predicted depression significantly. These findings and their possible implications for clinical practice are discussed. Further study of hyperreflexivity as a superordinate variable of relevance to psychopathology is recommended.
Keywords: Depression, cognitive fusion, rumination, experiential avoidance, hyperreflexivity.

Evitación experiencial e hiperreflexividad como variables asociadas a depresión: un enfoque basado en procesos

Resumen

La depresión es un problema importante de salud pública que afecta a una proporción significativa de adultos jóvenes, como los estudiantes universitarios. Para su estudio se ha propuesto un enfoque basado en procesos, que busca identificar variables psicológicas transdiagnósticas que puedan ser objeto de cambio en las intervenciones psicoterapéuticas. El propósito de este trabajo fue analizar la interrelación entre un conjunto de variables de proceso (fusión cognitiva, rumia y evitación experiencial), así como examinar la relación entre cada una de estas variables y la depresión en 368 estudiantes universitarios de entre 18 y 29 años (M = 21.35, DE = 2.36, 77.7 % mujeres). Se halló que la fusión cognitiva y la rumia conformaban

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una variable global denominada hiperreflexividad, mientras que la evitación experiencial constituía un constructo diferente. Al analizar un modelo de ecuaciones estructurales, se encontró que solo la hiperreflexividad predecía significativamente la depresión. Se discuten estos resultados y sus posibles implicaciones para la práctica clínica. Se recomienda seguir estudiando la hiperreflexividad como una variable supraordinada de relevancia para la psicopatología.

Palabras clave: Depresión, fusión cognitiva, rumia, evitación experiencial, hiperreflexividad.

Introduction

Depression is positioned as a major public health problem, occurring in 5% of the adult population worldwide (Pan American Health Organization, 2021; World Health Organization, 2021). People who develop this diagnosis are more likely to present negative, absolutist and extreme thoughts (Beck et al., 1979). It also generates emotional distress, which results in the abandonment of important activities (Morales, 2017). Depression is differentiated from other disorders by the decrease in social interaction and loss of interest in activities that the individual used to do in the past (Huarcaya-Victoria, 2020). It is estimated that 45% of university students present medium to high levels of depression (Sánchez et al., 2021). Similarly, it is observed that the prevalence of depression in this population is high, on a scale of two out of ten students (Auerbach et al., 2018). Then, it can be stated that depression occurs with high frequency in university students (Gutiérrez et al., 2021; Vinaccia & Ortega, 2020). In addition, beyond the condition of being a university student, some studies have observed a high prevalence of depression in the young adult age group, especially in the context of the COVID-19 pandemic (Alzahrani et al., 2022; Lupton-Smith et al., 2022; Shah et al., 2021; Wang et al., 2020; Xiong et al., 2020). The pandemic had different consequences on mental health, such as increased levels of anxiety and depression due to the constant workload of university students, even more so with the restrictions associated with COVID-19 containment (Hernandéz-Yépez et al., 2022). Interpersonal relationships, economic income and the perception that university students had of the pandemic were affected, thus worsening psychological health (Muñoz-Martínez & Naismith, 2022).

The transdiagnostic approach defends the idea of studying psychological problems as processes. This view encompasses the processes of change as a way to explain various symptoms of psychiatric disorders (Hofmann et al., 2021; Mansell, 2019). It emphasizes the need to identify variables common to different conditions that, traditionally, have been studied separately (Harvey et al., 2004). In this sense, the aim is to predict various health outcomes from a global model. In the context of depression, some transdiagnostic variables studied are experiential avoidance (Hayes et al., 1996), cognitive fusion (Gillanders et al., 2014) and rumination (Nolen-Hoeksema et al., 2008).

Cognitive fusion is understood as the literal belief in thoughts. In this process, the individual makes no distinction between their cognitions and the narrative of these (Hayes et al., 2012). This construct is based on Acceptance and Commitment Therapy and the associated contextual-behavioral model of psychopathology (Hayes et al., 2012). This therapy seeks to promote psychological flexibility and, in this way, reduce the impact of cognitions on the person's actions. Bardeen and Fergus (2016) found that cognitive fusion had a high correlation with depressive symptoms ($r = .67$). Likewise, Cookson et al. (2020) found that these two variables had a moderate to large correlation ($r = .44$).

Rumination is defined as a pattern of repetitive thoughts and behaviors that make attention focus on oneself, depressive symptoms, and their causes, meanings and consequences (Nolen-Hoeksema et al., 1993). It is composed of two factors: brooding and reflection. Of these two dimensions, only brooding has shown a consistent association with psychopathology, while less clear results are presented in reflection (García et al., 2017; González et al., 2017). Brooding is characterized by being focused on negativistic rumination about oneself and situations, obtaining as a response a passive comparison of the current situation with unachieved ideals (Thanoi & Klainin-Yobas, 2015). According to the literature, brooding rumination is strongly associated with depression; for instance, García et al. (2017) found a correlation of .70 between these variables.

Research on cognitive fusion stems from the studies conducted by Hayes et al. (1999) and the Acceptance and Commitment Therapy tradition. On the other hand, rumination has been studied mainly within the framework of the response style theory (Nolen-Hoeksema, 1991). Despite this

disparity in origin, both variables can be conceptualized as part of a higher-order psychological construct. This aligns with the suggestion that numerous concepts utilized in psychological studies possess significant similarities, even though they may have originated from different sources (Hong & Cheung, 2015; Mansell & McEvoy, 2017). This is also connected to the so-called jangle fallacy, which pertains to the scenario where two distinct measures that have dissimilar names actually assess the same phenomenon (Lawson & Robin, 2021). In the case of cognitive fusion and rumination, this hypothesis is, in fact, endorsed by the high correlations between them (Lucena-Santos et al., 2018; Romero-Moreno et al., 2015; Valencia, 2020). This hypothetical overarching construct coincides with the theoretical proposal of hyperreflexivity, which is characterized by intensified self-consciousness, as well as the individual's becoming detached from their natural and social environment (Pérez-Álvarez, 2008). Therefore, it is possible to interpret rumination and cognitive fusion as two aspects of the same global construct: hyperreflexivity. This is also in alignment with the integrative approach in psychotherapy, which recognizes that much of the disagreements between different psychotherapy models stem from a linguistic issue: the use of different terms to describe the same phenomenon (Goldfried, 2019). Indeed, some intervention proposals aim to combine various techniques from different psychotherapeutic models into a single intervention (Barlow et al., 2017), but this requires clarifying which processes of change are involved, so that different terms are not used for the same process (Nuttgens, 2023). There are several proposals to base psychotherapy research on processes or mechanisms of change, including both traditional (Goldfried, 2019) and more recent approaches (Hofmann, 2020; Hofmann & Hayes, 2019).

The concept of hyperreflexivity suggests that an excessive focus on self-awareness and self-reflection can lead to a range of psychological difficulties, including cognitive fusion and brooding rumination, as well as other forms of psychological distress (Pérez-Álvarez, 2014). From this perspective, cognitive fusion can be seen as a specific manifestation of hyperreflexivity, in which an individual becomes overly identified with their thoughts and feelings, leading to inflexible and maladaptive behavior patterns (Pérez-Álvarez, 2012b). Similarly, brooding rumination can

be seen as a manifestation of hyperreflexivity in which an individual becomes excessively self-critical and self-focused, leading to prolonged negative mood states and impaired problem-solving abilities (Ferro-García & Valero-Aguayo, 2017). Overall, the concept of hyperreflexivity provides a broader framework for understanding the relationship between cognitive fusion, brooding rumination, and other forms of maladaptive self-awareness and self-reflection. By addressing hyperreflexivity as a higher-order construct, interventions can be designed to target the underlying processes that contribute to a range of psychological difficulties, rather than focusing solely on specific symptoms or behaviors.

Experiential avoidance (EA) is a psychopathological construct proposed by Acceptance and Commitment Therapy as a human-contextual way of understanding psychological problems and occurs when a person is not willing to live with their private experiences (Hayes et al., 1996). EA can be understood as a recurrent pattern in which the individual gets trapped in a vicious circle in the presence of any aversive stimulus that produces the need to eliminate it (Wilson & Luciano, 2002). Thus, previous studies have shown that depression is associated with EA. Berzonsky and Kinney (2019) found that these two variables had a correlation of .61; very similarly, Cookson et al. (2020) found a correlation of .58.

As noted, previous studies show that depression is associated with rumination, EA and cognitive fusion. However, these antecedents present some important limitations. First, most of them used the Acceptance and Action Questionnaire II (AAQ-II) as a measure of EA. There is a strong line of research that has questioned the interpretation of the AAQ-II as a measure of EA (Rochefort et al., 2018; Tyndall et al., 2019; Wolgast, 2014). Some researchers have criticized the AAQ-II for not being able to clearly differentiate between process and outcome and for lacking sufficient discriminant validity in relation to negative affectivity or neuroticism (Rochefort et al., 2018; Wolgast, 2014). If this instrument does not measure EA, it is questionable to make theoretical interpretations in this regard. It is necessary to attempt to replicate these findings with other instruments that provide clearer measures of EA (e.g., Valencia, 2019). To address these concerns, alternative measures like the Brief Experiential Avoidance Questionnaire (BEAQ; Gámez et al., 2014) have

been proposed. The BEAQ may be a more focused measure of experiential avoidance compared to the AAQ-II since it has greater discriminant validity from psychological distress. While the AAQ-II and BEAQ are correlated, recent research has raised concerns about the validity of the AAQ-II, as its items may be more closely associated with measures of depression, anxiety, or stress than with experiential avoidance (Tyndall et al., 2019). A second limitation of previous studies is that some of the variables studied could be measuring the same global construct, but are artificially separated because they come from different research traditions (Hong & Cheung, 2015; Mansell & McEvoy, 2017). In fact, high correlations have been consistently observed between rumination and cognitive fusion (Lucena-Santos et al., 2018; Romero-Moreno et al., 2015; Valencia, 2020), supporting the hypothesis that both variables could be measuring a larger construct called *hyperreflexivity* (Pérez-Álvarez, 2008).

Therefore, the present study had the following objectives: 1) To analyze the interrelationship between the process variables, considering the hypothesis that cognitive fusion (CF) and brooding rumination could be measuring the same latent variable of hyperreflexivity. 2) To examine the relationship between each of these variables and depression, controlling for the effect of the others. The results of the present investigation will allow a better theoretical understanding of the variables studied. Likewise, it will identify which of them are more closely associated with depression. The latter is of particular relevance in the context of university students, who have been identified as a population with high levels of depression and other associated psychopathologies (Auerbach et al., 2018; Vidal-Arenas et al., 2022).

Methods

Study Type

At the most basic level, this is a cross-sectional study. According to the classification of Ato et al. (2013), the present study follows an explanatory design with latent variables. This design consists of the analysis of the relationships between variables based on a theoretical model of the interrelationship between them. Furthermore, these are latent variables because they are estimated through a structural equation model, which seeks to control for measurement error.

Participants

The sample consisted of 368 people (77.7% women), who met the inclusion criteria of being university students and being between 18 and 29 years of age (the "young adult" group according to the Peruvian Ministry of Health). The sampling was non-probabilistic by convenience; as for the sample size, no formal calculation was made. The sample was restricted to this age group because, as mentioned, young adults are a population of interest for the study of depression, especially in the context of the COVID-19 pandemic. The sample size was arbitrarily set according to the number of people who agreed to participate. The mean age was 21.35 (SD = 2.36). Most participants were from private universities (57.3%) and slightly more than half resided in Metropolitan Lima (54.1%). Students from different semesters were included; a greater accumulation of responses in a specific semester was not observed. On the other hand, it was found that the majority were psychology students (42.9%). Notably, half of the sample (51.4%) had significant depressive symptomatology (PHQ-9 score ≥ 10). This was a convenience sample, as data were obtained only from people who agreed to participate after the survey was shared on the researchers' social networks.

Measures

Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014)

The CFQ is a measure that assesses the degree of literality with which people interpret their own thoughts. It consists of 7 items (e.g. "*I tend to get very entangled in my thoughts*") that are answered with a 7-option Likert-type scale (1 = *never true*, 7 = *always true*). An existing Spanish version (Ruiz et al., 2017), which had been used before in Peruvian university students (Valencia & Falcón, 2019), was used in the present study. In that previous study, the CFQ was found to have a unidimensional structure, which was invariant between sexes; also, the reliability in that study was high (ω = .92). Higher scores reflect a higher level of cognitive fusion. In the present sample, reliability was excellent (α = .94).

Ruminative Response Scale—Brooding (RRS-B; Treynor et al., 2003)

The RRS consists of 10 items that evaluate two dimensions: reflection and brooding. It is answered on a Likert scale from 1 (*almost never*) to 4 (*almost always*). For the present study, only the 5 items of the brooding dimension were used, which has shown a clearer association with psychopathology (Takano & Tanno, 2009). The Spanish version used is an adaptation of an existing version (Cova et al., 2009) and its detailed psychometric properties have been presented elsewhere (Valencia & Paredes-Angeles, 2022). Specifically, the brooding dimension was found to have a stronger association with depression, even independently of the effect of a general rumination factor. Reliability of the 5-item brooding dimension was good in the present sample ($\alpha = .82$).

Avoidance of Suffering Questionnaire (ASQ; Valencia, 2019)

It was constructed seeking to overcome the limitations of the instruments previously used to measure experiential avoidance. This measure is based on the Brief Experiential Avoidance Questionnaire (BEAQ; Gámez et al., 2014), so it can be considered a short, modified version of it. It consists of 6 items that are answered with a six-option Likert scale (1 = *completely disagree*, 6 = *completely agree*). It was developed in a Peruvian university population and has demonstrated a unidimensional structure, as well as adequate reliability ($\omega = .82$). A higher score on this instrument indicates greater experiential avoidance. The ASQ showed good internal consistency reliability in the present study ($\alpha = .83$).

Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001)

It consists of 9 items that measure depressive symptomatology. They are answered with a four-option Likert scale (0 = *Not at all*, 4 = *Almost every day*). For the present study, modifications were made to the existing Spanish version, taking into consideration the recommendations made by an expert judgment for the Peruvian context (Calderón et al., 2012). A similar modified version has been used in Peruvian national surveys and has shown adequate psychometric functioning (Villarreal-Zegarra et al., 2019). In the present sample, reliability was $\alpha = .92$.

Procedure

Data collection was carried out asynchronously through a survey in digital format, using a Google form. Prior coordination was also made with teachers and students from various universities in Metropolitan Lima so that they could share the form through their social networks. The data were collected during the months of August, September and October 2021 (COVID-19 state of emergency period). At the beginning of the form, a section was inserted to present the informed consent where the objective of the project was explained, as well as the voluntariness and anonymity of the participation. The project was reviewed and approved by the ethics committee and the Research Department of the School of Psychology of the Universidad Autónoma del Perú. Due to the anonymous nature of the instrument application, it was not possible to establish a referral system for people with high scores on the depression scale.

Data analysis

Structural equation modeling (SEM) was performed with a robust maximum likelihood method (MLR; Yuan & Bentler, 2000). Initially, the analysis was planned to be performed with the WLSMV estimator and using in all cases the items as observed variables in the model. However, due to convergence problems, we decided to change the estimator. Likewise, depression was redefined as a latent variable with a single indicator (the sum of the PHQ-9 items). As per the recommendations of the specialized literature, the error term of this single indicator was set at $s^2_{Yi}(1 - \rho)$, where s^2_{Yi} is the variance of the observed variable and ρ is the reliability of the variable (Brown, 2015). Following Savalei (2019), a value of .80 was set for ρ.

The analysis was conducted in two phases: first, a measurement model and, second, a structural model (Kline, 2016). In the first phase, three models were tested: (a) one with four correlated first-order factors; (b) a three-factor model, in which brooding and CF items loaded on a single factor; and (c) one in which brooding and CF were first-order factors influenced by a second-order factor called Hyperreflexivity (Figure 1). Based on theoretical parsimony and statistical fit, a model was selected in this first phase. The second phase was then tested, in which depression was regressed on process-based variables.

Figure 1

Graphical Representation of the Measurement Models Under Study
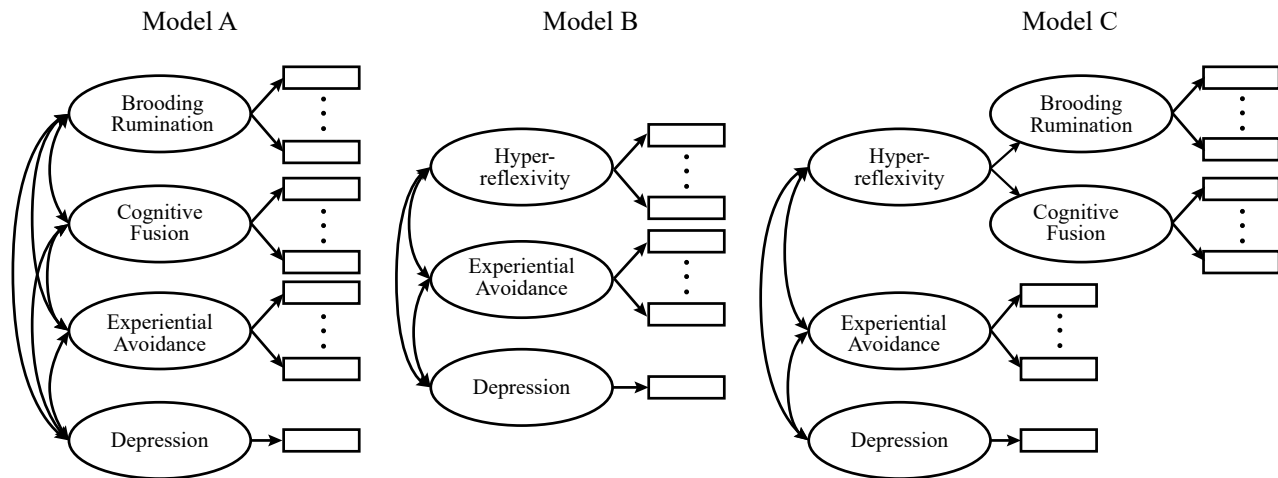
Note. The ellipses indicate the presence of other indicators. For simplicity, unique variances are not plotted.

Model fit was assessed with the following indices (goodness-of-fit criteria are reported): CFI > .95, TLI > .95, RMSEA < .06 and SRMR < .08 (Hu & Bentler, 1999). In addition, in the case of measurement models, the Aikake information criterion (AIC) and Bayesian information criterion (BIC) were used, which provide error measures that penalize model complexity, thus helping to select models with adequate parsimony. All analyses were performed with the lavaan package (version 0.6-8) implemented in the R program (version 4.0.3).

Results

Measurement model

First, the models presented in Figure 1 were examined. As shown in Table 1, the fit was suboptimal for all three models. When examining the modification indices, it was observed that item 1 of the ASQ ("*One of my big goals is to be free from painful emotions*") presented problematic performance, as it also behaved as an indicator of other latent variables. After removing this item, the three models

were reanalyzed (this time renamed D, E and F) and an increase in fit was observed.

Models D and F obtained very similar fit indices, but when examining the parsimony-corrected indices (AIC and BIC), model F was chosen (Table 1). Moreover, the interfactor correlation between brooding and CF was very high ($\varphi = .80$) in Model D, suggesting that both variables overlap conceptually and are, in fact, two aspects of the same variable of higher hierarchy (hyperreflexivity). Consequently, we started from model F to construct the structural model presented in the next section. Regarding the interfactor correlations of Model F, EA presented small to moderate correlations with hyperreflexivity ($\varphi = .27$, 95% CI [.15, .40], $p < .001$) and with depression ($\varphi = .19$, 95% CI [.06, .32], $p = .004$). Hyperreflexivity, on the other hand, presented a high correlation with depression ($\varphi = .88$, 95% CI [.82, .93], $p < .001$).

Structural model

Model F (i.e. that with a higher-order hyperreflexivity factor) was modified to include two regression slopes, as presented in Figure 2. The fit of this model was adequate, $\chi^2(131) = 254.90$, $p < .001$, CFI = .96, TLI = .96, RMSEA = .05, SRMR = .06. In this model it was observed

Table 1

Fit Indices of the Measurement Models Under Study

Model	χ^2	df	CFI	TLI	RMSEA	SRMR	AIC	BIC
A. Brooding and CF as first-order factors	366.60	147	.94	.93	.06	.09	21735.67	21977.97
B. Items of Brooding and CF load on a single factor	499.29	150	.90	.89	.08	.09	21877.52	22108.10
C. A second-order factor comprising Brooding and CF	366.40	148	.94	.93	.06	.09	21733.69	21972.08
D. Same as A, without ASQ's item 1	255.04	130	.96	.96	.05	.06	20452.27	20682.85
E. Same as B, without ASQ's item 1	387.13	133	.92	.91	.07	.07	20594.07	20812.93
F. Same as C, without ASQ's item 1	254.90	131	.96	.96	.05	.06	20450.27	20676.94

Note. In all cases, the estimator was MLR. In addition to Brooding Rumination and Cognitive Fusion, the latent variables Experiential Avoidance and Depression were included. The selected measurement model is highlighted in italics. All *p*s < .001.

that, when hyperreflexivity and EA were entered simultaneously as predictors of depression, only the former was statistically significant (and had a large coefficient). EA, on the other hand, was not significant and its confidence interval indicated values of at most small magnitude (Figure 2). Likewise, both predictors showed a correlation of medium magnitude (φ = .27).

Discussion

The present study examined, through structural equation modeling, the interrelationship between different process variables (cognitive fusion, rumination, and experiential avoidance) and their association with depression. It was found that cognitive fusion and rumination were best conceptualized as part of a larger construct (hyperreflexivity). Also, it was observed that only hyperreflexivity, but not experiential avoidance, significantly predicted depression when both variables were examined simultaneously.

The described results show how rumination and cognitive fusion are part of a single construct. This is related to what is suggested by Romero-Moreno et al. (2015), who consider that the grouping of both variables would contribute to a better understanding of their effect on psychological problems. In the present study, the correlation between these two variables was very high when examined in Model D (φ = .80), which is even higher than values reported in previous studies (O'Loughlin et al., 2020; Romero-Moreno et al., 2015). This discrepancy may be due to the use of latent variables in our study, which allows us to obtain estimates uncontaminated by measurement error. Taken together, our data indicate that rumination and fusion form the same global variable. A possible explanation is that one is involving the other; that is, cognitive fusion would be involved in the rumination process (Kerr, 2010). Given the above, both cognitive processes would be forming a construct called hyperreflexivity, which, in turn, is present in all psychological disorders, notably in depression and anxiety (Pérez-Álvarez, 2008).

The data obtained show that hyperreflexivity has a high correlation with depression (φ = .88), as well as functioning as a predictor of depression. Within the literature, hyperreflexivity is also known as self-focused attention (Pérez-Álvarez, 2008) and is related to various psychological problems (Davey & Wells, 2006). Thus, hyperreflexivity would act as a causal factor that triggers a series of symptoms characteristic of psychopathology such as depression (Pérez-Álvarez, 2012a). Although the literature on hyperreflexivity is still scarce, it is possible to connect our findings with those of previous studies that evidence a high correlation between cognitive fusion and rumination with depression. For example, cognitive fusion has been found to be related to higher levels of depression (Bardeen & Fergus, 2016; Cookson et al., 2020). As for rumination, only the brooding dimension has shown a consistent association

Figure 2

Structural model predicting depression from process variables
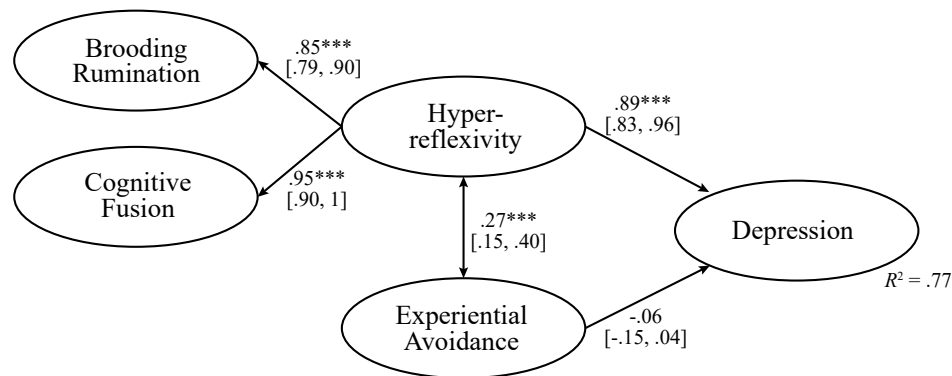
Note. The standardized coefficients are presented together with their 95% confidence intervals, reported in square brackets. For simplicity, the indicators for each latent variable are not presented.

***$p < .001$

with psychopathology, including depression (García et al., 2017; González et al., 2017). These data are congruent with those found in the present study, as a positive correlation is found between the variables cognitive fusion and brooding rumination with depression.

Regarding the relationship between EA and depression, previous research indicated values between .47 and .58 (Cookson et al., 2020; Cribb et al., 2006; Moroz & Dunkley, 2019; Stein et al., 2020). Moreover, in one study, a correlation as high as .73 was found (Bardeen & Fergus, 2016). In our research, on the other hand, the bivariate correlation between EA and depression was notably lower ($\varphi = .19$) and further decreased to nonsignificance when controlling for the effect of hyperreflexivity. This may be explained by the fact that, in most previous studies, the AAQ-II (or its previous version, the AAQ) was used to assess EA. However, as noted in the literature, it is questionable to interpret scores on this instrument as measures of EA (Rochefort et al., 2018; Tyndall et al., 2019; Wolgast, 2014). The questionnaire used in the present study, on the other hand, aims to overcome previous limitations by providing a unidimensional measure of EA that is not contaminated by content irrelevant to the construct (Valencia, 2019). Thus, it is possible that the results of previous studies may have overestimated the association between EA and depression, as the measures of EA used did not adequately discriminate against other

variables (e.g., negative affect). On the other hand, it is also possible that our results are different due to the specific characteristics of the sample (i.e., young adults who were studying at university). It is important to examine whether our results are replicated when studying more heterogeneous samples.

Our findings also have potential clinical implications, as they open the possibility of studying hyperreflexivity within psychopathology, being able to assess it and intervene more accurately and effectively, as this variable is strongly associated with various psychological problems (Davey & Wells, 2006). Likewise, the importance of studying transdiagnostic variables, such as hyperreflexivity, from a process-based model, lies in the possibility of leaving aside categorical and classificatory clinical diagnoses to focus on processes common to different conditions. This provides a solution to two important aspects within the clinic: (a) it allows therapists to focus their intervention on procedures of broad effect for a spectrum of problems that the client may present, and (b) it reduces the overlap that exists between different clinical categories (Hofmann et al., 2021; Hofmann & Hayes, 2022; Mansell, 2019).

The present study had some limitations that deserve mention. First, the cross-sectional nature of the data precludes establishing causal relationships. Second, all variables were measured with self-report instruments, so different results could be found if direct behavioral measures were used.

Third, although we started from a solid theoretical basis for the construction of the model, part of this process was exploratory (e.g., the exclusion of one indicator to improve model fit); therefore, future studies should test our proposed model in new samples. Fourth, it should be noted that we worked with a convenience sample, which may limit the generalizability of our results (Hanel & Vione, 2016); indeed, the high prevalence of participants with depressive symptomatology (51.4%) suggests that our data are not representative of the general population. Future studies may examine the validity of the proposed model in higher risk populations (Villarroel & Terlizzi, 2020). Fifth, we did not establish a referral system for individuals with high levels of depression; this is certainly an ethical limitation of this study and should be considered in future projects. Despite these limitations, this research has the strength of using a measure of experiential avoidance that aims to overcome the limitations of previous instruments. Because of this, the present findings provide a more realistic understanding of this variable. Also, the use of a SEM methodology allows controlling the measurement error of the variables and, thus, obtaining more precise estimates of the associations between variables. Future research should both replicate and expand the present results, especially by including more diverse samples, more health-related outcomes (besides depression), as well as culturally relevant variables.

In conclusion, the present study found that brooding rumination and cognitive fusion were better understood as parts of an overall construct: hyperreflexivity. Likewise, when EA is measured with an instrument that seeks to overcome the limitations of the previous ones, the association between EA and depression decreases markedly. When hyperreflexivity and EA are entered together in a predictive model, only the former is a significant predictor of depression. It is suggested that future research continues to examine the role of hyperreflexivity in psychopathology and develops appropriate measures for this construct.

Acknowledgments

Conflict of interest

The authors declare that they have no conflicts of interest.

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