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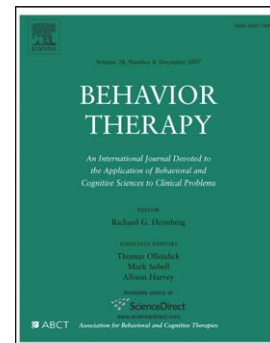|	
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Assessing decentering: validation, psychometric properties and clinical usefulness of the Experiences Questionnaire in a Spanish sample

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1

Abstract

Decentering is defined as the ability to observe one's thoughts and feelings in a detached manner. The Experiences Questionnaire (EQ) is a self-report instrument that originally assessed decentering and rumination. The purpose of this study was to evaluate the psychometric properties of the Spanish version of EQ-Decentering and to explore its clinical usefulness. The 11-item EQ-Decentering subscale was translated into Spanish and psychometric properties were examined in a sample of 921 adult individuals, 231 with psychiatric disorders and 690 without. The subsample of non-psychiatric participants was also split according to their previous meditative experience (meditative participants −n=341− and non-meditative participants −n=349−). Additionally, differences among these three subgroups were explored to determine clinical validity of the scale. Finally, EQ-Decentering was administered twice in a group of borderline personality disorder, before and after a 10-week mindfulness intervention. Confirmatory factor analysis indicated acceptable model fit [$_{sb}\chi^2$=243.8836 (p<.001), CFI=.939, GFI=.936, SRMR=.040, and RMSEA=.06 (.060-.077)] and psychometric properties were found to be satisfactory (reliability -Cronbach's α=.893-; convergent validity -r>.46- and divergent validity -r<−.35-). The scale detected changes in decentering after a 10-session intervention in mindfulness (t=−4.692, p<.00001). Differences among groups were significant (F=134.8, p<.000001), where psychiatric participants showed the lowest scores compared to non-psychiatric meditative and non-meditative participants. The Spanish version of the EQ-Decentering is a valid and reliable instrument to assess decentering either in clinical and non-clinical samples. In addition, the findings show that EQ-Decentering seems an adequate outcome instrument to detect changes after mindfulness-based interventions.

Keywords: Decentering, mindfulness, experiences questionnaire, metacognitive awareness

Introduction

Increased metacognitive awareness has been suggested to underlie the beneficial effects of mindfulness trainings (Bieling et al., 2012; Hölzel et al., 2011). Metacognitive awareness is defined as the ability of not being entangled with the contents of awareness, observing elements of the experience as events and not as static entities (Olendzki, 2005). In a recent comprehensive review on the mechanisms of mindfulness, Hölzel and colleagues proposed that a de-identification from some parts of mental contents could be often experienced even in the earliest stages of mindfulness training (Hölzel et al., 2011). Such "observer perspective" is commonly referred as decentering and is defined as "the ability to observe one's thoughts and feelings in a detached manner, as temporary events in the mind, as neither necessarily true nor reflections of the self" (Kerr, Josyula, & Littenberg, 2011; Safran & Segal, 1990). Enhancement of this ability with mindfulness practice may lead to respond less emotionally to internal and external experiences (Shapiro, Carlson, Astin, & Freedman, 2006). In this sense, mindfulness effects may derive from changes in information processing, by cutting off repetitive styles seen in several disorders (Wells, 2002). However, decentering is not exclusive to mindfulness practicing. There are other therapies such as Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999) or Metacognitive-based Therapy, where decentering constitutes a key process in their beneficial effects, without involving meditation practices (Moritz et al., 2011; van der Heiden, Muris, & van der Molen, 2012; Wells et al., 2010). In this regard, some authors already suggested that efficacy of Cognitive Behavior Therapy (CBT) to treat depression may rely on metacognitive awareness rather than on cognitive-content modification (Teasdale, Segal, & Williams, 1995). In a posterior study (Teasdale et al., 2002), these authors demonstrated that patients with major depression treated with CBT showed higher post-treatment metacognitive awareness compared to a group receiving standard clinical management. Furthermore, lower

3

levels of metacognitive awareness at baseline predicted earlier relapse in subjects who had recently suffered from major depression.

Teasdale and co-authors initially designed a measure of metacognitive awareness, but it was so time-consuming that precluded its application in more practice-oriented settings (Teasdale et al., 2002). Soon after, an alternative scale, the Experiences Questionnaire (EQ) was developed and it was designed to assess decentering so as to operationalize changes occurred during metacognitive-based therapies. Some studies demonstrated that EQ was capable to catch the implication of decentering in both recovery and protection against relapse in a randomized clinical trial with patients suffering MDD (Fresco, Segal, Buis, & Kennedy, 2007b; Segal et al. 2006). Particularly, gains in decentering were greater in patients who responded to CBT than in those who responded to antidepressant medications; and responders to CBT with higher EQ-Decentering scores appeared to be more protected against further relapses. Higher decentering scores observed in CBT responders but not in antidepressant medication responders may indicate that such capability is not only mediated by clinical improvement, as it normally happens with other psychological vulnerability markers (i.e. dysfunctional attitudes or attributional styles; Ingram (1990) for a revision). It is reasonable to think that improvements in decentering may be specific to psychotherapy. Surprisingly, only few studies have addressed decentering changes, measured with EQ-Decentering, related to mindfulness interventions (Carmody, Baer, Lykins, & Olendzki, 2009, Fresco et al., 2007b; Tanay, Lotan, & Bernstein, 2012).

The EQ is a brief and easy to administer scale validated by Fresco and colleagues (Fresco et al., 2007a). Initial psychometric analyses did not confirm a two-factor structure of the original scale, but subsequent confirmatory analyses indicated a unifactorial decentering construct that fitted data well. The items of the decentering factor assesses three facets: the ability to distinguish one's self from one's thoughts, the ability not to accustomedly reacting to one's negative experiences and the capacity for self-compassion (Fresco et al., 2007a). As mentioned

above, decentering seems to be an active element in both former cognitive therapies and more recent therapies such as mindfulness and acceptance. Therefore, translation and validation of the EQ-Decentering gains interest so as to provide a measure that truly assess this construct. However, the factor structure of the EQ-Decentering subscale has not been replicated yet, and other languages versions are needed. The purpose of the current investigation is to study the unifactorial structure and the psychometric properties of the Spanish version of the EQ. Additionally, this study encompasses the ability of EQ to measure decentering in meditators, and its use in other psychiatric disorders apart from depression.

Method

PARTICIPANTS

The study sample was constituted by 921 individuals (66.8% women) who were invited to voluntarily participate in the present study, without receiving any money compensation. The subsample of non-psychiatric volunteers comprised 690 subjects, (64.8 % women, mean age was 39.6 (SD: 11.8) ranging from 18 to 75) and was recruited from the Nursing and Psychology Schools and from an online-recruitment using an internet-based commercial system (www.surveymonkey.com; Portland, OR, USA). After inclusion into the study, participants were asked about meditative experience in a closed question ("have you ever practiced any kind of meditation?", if they responded 'yes', then other questions had to be answered: "what kind of meditation?"; "how long have you been practicing meditation?"; "how often do you practice per week?"; "how long do you practice in each session?"). In the subsample of non-psychiatric volunteers, 341 individuals reported meditative experience (average meditative experience was 7.15 years) and 349 reported no meditative experience.

The subsample of patients with psychiatric disorders was composed of 231 participants, 72.7 % women; with a mean age of 34.5 (SD: 11.3) ranging from 18 to 68. These patients were

5

recruited from the psychiatric outpatient facilities of the Hospital de la Santa Creu i Sant Pau and the Althaia Foundation. Participants met DSM-IV criteria for borderline personality disorder (BPD; n=59), major depressive disorder (MDD; n=44), eating behavior disorder (n=70) or cocaine dependence (n=58). None of the patients reported previous meditative experience when asked similarly to non-psychiatric participants. Exclusion criteria for patients were: (1) acute phase of the disease or psychotic disorder (2) mental retardation (3) sensory deficiencies or (4) linguistic difficulties that do not allow filling the questionnaires out.

The study protocol was approved by the local Ethical Committee, and all participants signed a consent form indicating their willingness to participate. They were informed about the purpose of the study and they were told that their answers would be treated confidentially.

MEASURES

Decentering Questionnaire

Experiences Questionnaire (EQ; Fresco et al., 2007a) is a 20-item self- report scale, in which participants rate items on a 7-point Likert-type scale (1=never to 7=all the time), assessing decentering and rumination. Based on the psychometric characteristics of the original scale – which showed poor loadings of other items placed on rumination factor and a robust structure for decentering factor (Fresco et al., 2007a)–, only the EQ-Decentering is used for the present study. It is an 11-item self-report measure of decentering. Items are rated on a 5-point Likert scale (1= never to 5=always). Original scale of EQ showed high internal reliability [Cronbach's alpha= .90 (Fresco et al., 2007a).

Mindfulness Measurements

Spanish version of Five Facet Mindfulness Questionnaire (FFMQ; Cebolla et al., 2012) is an instrument based on five independently developed mindfulness questionnaires and consists of five subscales: observing, describing, acting with awareness, non-judging of inner experience,

and non-reactivity to inner experience (Baer et al., 2008). This is a 39-item scale rated on a 5-point Likert scale (1= never or very rarely true to 5= very often or always true). Cronbach's α for the Spanish version of FFMQ range from .8 to .91 (Cebolla et al., 2012). Spanish version of Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003; Soler et al., 2012a) is a 15-item self-report measure that assesses frequency of mindfulness states in daily life. Items are rated on a 6-point Likert scale (1=never, 6=always). Reliability of the Spanish MAAS scale is high (α=.89; Soler et al., 2012a).

Acceptance and Action Questionnaire

Spanish version of Acceptance and Action Questionnaire (AAQ-II; Hayes et al., 2004; Ruiz, Langer Herrera, Luciano, Cangas, & Beltrán, 2013) is a 9-item self-report measure of experiential avoidance. Items are rated on a 7-point Likert scale (1= never true, 7= always true) with higher scores indicating greater experiential avoidance. Spanish version of this scale has a Cronbach's α between .75 and .93 (Ruiz et al., 2013).

Clinical severity scales

State subscale of the Spanish version of Spielberger State Anxiety Inventory (STAI-S; Guillén-Riquelme & Buela-Casal, 2011) is composed by 20 items based on a 4-point Likert scale and it was designed to assess current anxiety level. Reliability for State subscale of the STAI is .94. Spanish version of Center of Epidemiologic Studies-Depression scale (CES-D; Soler et al., 1997) is an self-administered instrument that evaluates depressive symptomatology in the previous week. It is a 20-item scale rated between 0 (never or less than a day) to 3 (a lot, always or between 5 and 7 days). Cronbach's α of the Spanish version is .90. Spanish version of Depression, Anxiety and Stress Scales short-form (DASS-21; Bados, Solanas, & Andrés, 2005; Lovibond & Lovibond, 1995) is a set of 3 self-report scales where respondents rate the extent to which they have experienced depression, anxiety and stress using a 4-point severity/frequency

scale over the past week. Cronbach's α values for Depression, Anxiety and Stress subscales are, respectively: .84, .70 and .82. Borderline Symptom List – 23 (BSL-23; Bohus et al., 2008; Soler et al., 2013) is a 23 item self-rating instrument used to assess the typical symptomatology and severity of BPD. The original instrument and the validated Spanish version has shown good psychometric properties, with high internal consistency and capacity to discriminate BPD from other Axis I diagnosis (Bohus et al., 2008) and levels of severity among patients with BPD. The scale shows high reliability (Cronbach's α=.95).

PROCEDURE

Non-psychiatric participants (n=690) filled out the questionnaires online (following an internet protocol) or on paper in a university classroom. Subjects of the clinical subsample (n=231) completed all the questionnaires during an outpatient clinic visit at the hospital. EQ-Decentering was translated from English into Spanish by two native bilingual English-Spanish speakers. An English native speaker –with experience in translating scientific texts– back-translated the resulting Spanish version into English. Any discrepancies between the Spanish and English versions were resolved by agreement. The AAQ-II, MAAS, STAI-S, and CES-D were only obtained from the clinical sample. DASS was only administered to non-psychiatric participants for an easy assessment of affective symptoms. A subsample of 42 BPD patients underwent a 10-session of dialectical behavior therapy mindfulness module (Soler et al., 2012b) and EQ-Decentering was administered before and after this module.

DATA ANALYSES

A Confirmatory Factor Analysis (CFA) was applied to test whether the data fit the unifactorial model of the EQ-Decentering using the whole sample (n=921). Maximum likelihood CFA was conducted using the EQS 6.1 program (Bentler, 1985). Following Kline recommendations

(Kline, 2010), a combination of statistics was used to estimate the goodness of fit. Maximum likelihood with robust correction was used to avoid distributional problems of data set. Therefore, the following indexes were used: Satorra-Bentler chi-square ($_{sb}\chi^2$), which incorporates a scaling correction for the chi-square statistic when distributional assumptions are violated; comparative fit index (CFI) to assess the adequacy of each model , which compares the fit of the model to a null model and establishes the absence of relationships among the variables; goodness of fit index (GFI) was also used to measure the proportion of variance-covariance accounted for by the proposed model (CFI and GFI>.90); standardized root mean square residual (SRMS) and root mean squared error of approximation (RMSEA) which penalize models that are not parsimonious and are sensitive to misspecified factor covariance (RMSEA and SRMR<.08). These fit statistics and the chi-square were selected based on their performance and stability (Bentler & Bonet, 1980).

Internal reliability of EQ-Decentering subscale was explored with Cronbach's α coefficient as well as with the method of two halves with Spearman-Brown correction. Test-retest reliability of the EQ-Decentering was studied by means of a Pearson's correlation in a subsample of 33 subjects of the non meditative experienced group that were evaluated twice in a 1-2 weeks interval. Convergent construct validity of the EQ-Decentering was calculated using Pearson's correlations with subscales of the FFMQ and MAAS. Divergent validity was assessed by correlating EQ-Decentering with DASS-21, STAI-S and AAQ scales. We hypothesized that decentering may demonstrate a significant positive correlation with mindfulness scales and significant negative correlations with experiential avoidance (AAQ-II) and clinical scales (i.e. DASS-21 and STAI-S).

The usefulness of the EQ-Decentering as an outcome measure was explored with a Student's t means comparison in the subsample who received 10 weeks of mindfulness intervention. To finally determine whether response to treatment entailed both gains in

decentering and in psychiatric symptoms, patients were split into responders and non-responders using the median score on BSL-23 (median=1.57; BSL-23<=1.6 responders; BSL-23>1.6 non-responders). Similarly to Fresco et al. (Fresco et al., 2007a), clinical validity of the scale was also examined by comparing the EQ-Decentering scores of non-psychiatric participants –with and without meditative experience– and patients. This analysis was performed by means of a one-way ANOVA. Post hoc t-test analyses were also performed in order to acknowledge differences among clinical and control groups. All data were analyzed using the PASW Statistics 19.0 software package for Windows.

Results

All demographics and clinical data of all participants are displayed in Table 1.

Following the criteria mentioned above, CFA revealed a unifactorial structure of the EQ-Decentering subscale, in which all goodness fit indexes fell within the cutoff range for acceptable fit: $_{sb}\chi^2$=243.8836 (p<.001), CFI=.939, GFI=.936, SRMR=.040, and RMSEA=.06 (.060-.077). The factor loadings of all EQ-Decentering items are shown in Table 2.

Two additional CFA models were performed for clinical and non-clinical participants, using the same criteria. Both CFA revealed a unifactorial structure of the EQ-Decentering subscale with acceptable goodness fit indexes: $sb\chi2$= 67.1797 (p<.001), CFI=. 971, GFI=.931, SRMR=.046, and RMSEA=.073 (.053-.092); $sb\chi2$= 216.9789 (p<.001), CFI=. 904, GFI=.919, SRMR=.052, and RMSEA=.077 (.067-.087), respectively.

The EQ-Decentering demonstrated good internal consistency in the whole sample (Cronbach's α=.893). Split-halves reliability coefficient with the Spearman-Brown correction, confirmed reliability findings for the whole sample with a value of .868. Regarding test-retest reliability, a correlation of .876 (p<.001) was found between first and second assessment, providing good temporal stability.

The EQ-Decentering results correlated positively and significantly with measures of mindfulness with *r* values above .46 (individual *r* values for each measure are displayed in Table 3). Besides, statistically significant negative correlations were found between EQ-Decentering and measures of anxiety (STAI-S, DASS-21 anxiety), depression (CES-D, DASS-21 depression), stress (DASS-21 stress) and experiential avoidance (AAQ-II; see Table 3). Additionally, correlations with mindfulness scales were carried out by splitting the whole sample in psychiatric patients, non meditative experienced individuals and meditative experienced participants. The results showed that EQ-Decentering correlated similarly with MAAS and four of the FFMQ facets (r>.3 p<.005) with the exception of Observe facet in which meditative experienced participants showed the highest correlation (r=.5, p<.001) while psychiatric participants, the lowest (r=.2, p<.05).

Mean EQ-Decentering score at baseline was 25.59 (SD: 7.23) and 30.05 (SD: 7.46) post-treatment. These results showed that EQ-Decentering was able to detect improvements in decentering after mindfulness intervention with significant mean differences between pre and post intervention (t= −4.692; df=41, p<.00001) with a medium effect size (*d*=.60). The scores on EQ-Decentering were significantly different between responders and non-responders (mean=33.1, SD=5.3 and mean=23.1, SD=6.7, respectively; F=18.9; df=1,26; p=.0001; Cohen's *d= 1.66*).

One-way ANOVA showed a significant main effect of group (F=134.8; df=2,902; p<.000001). Post hoc Bonferroni analyses of group differences pointed that all groups differed significantly among them (p<.001), where the most significant difference was between patients and meditative participants (Table 4).

11

Discussion

The results reveal that the Spanish version of the EQ-Decentering has a confirmed one-factor structure with acceptable fit indexes and shows similar psychometric characteristics of the original measure (Fresco et al., 2007a). The 11-item scale has good internal and test-retest reliability and fine convergent and divergent validity with other scales of mindfulness and clinical screening, respectively. In addition, EQ-Decentering subscale demonstrates a capability to distinguish among psychiatric and non-psychiatric subjects. These findings bring about a useful and clinically-relevant measure of decentering, a construct known to probably be underneath the effectiveness of meta-cognition based therapies, mindfulness interventions and even CBT (Leigh & Bowen, 2005; Mac Killop & Anderson, 2007).

Correlation results showed very satisfactory convergent and divergent validities. Indeed, scores on EQ-Decentering subscale were positively correlated with all measures of mindfulness: FFMQ subscales (observe, describe, act with awareness, non-judge, non-reactivity to inner experience) and MAAS. By contrast, EQ-Decentering was negatively correlated with measures of anxiety, depression, stress and avoidance (STAI-S, DASS, CES-D and AAQ). These findings are in complete accordance with the original validation of the scale, where negative correlations with experiential avoidance, anxiety and depression symptoms were reported, as well as positive correlations with reappraisal ability to emotion regulation (Fresco et al., 2007a). When exploring relations between EQ-Decentering and FFMQ facets separating subsamples, convergent validity was confirmed, with the exception of Observe facet, where the best correlations appeared in those participants with meditative experience. This seems to confirm some kind of specificity of observation in meditative experience but not in decentering itself. Accordingly, Baer and colleagues (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) found that only four of the FFMQ facets (i.e. all except Observe) were truly components of an overall mindfulness construct.

As already mentioned, decentering is sensitive to meditation practice. However, EQ had not been previously used to compare this ability between individuals with and without meditation experience. Our findings showed that individuals with meditative experience had significantly higher decentering ability than the rest of comparative groups (i.e. non meditative individuals and patients). Interestingly, EQ-Decentering scores showed the highest correlation with non-reactivity to inner experience of the FFMQ, suggesting that this mindfulness facet resembles one of the elements of decentering, i.e. the ability not to habitually react to one´s negative experience. Scores in other mindfulness facets and MAAS also showed significant correlations with EQ-Decentering indicating again some overlap between mindfulness and decentering. In this regard, most of the contemporary psychological models describe mindfulness as a meta-cognitive process where a given subject approaches any mental experience independently to the content but to the experience itself (Teasdale, 1999). Indeed, any mindfulness-based intervention highlights the idea that "thoughts are not facts". And what is more, other mindfulness questionnaires (e.g. Toronto Mindfulness Scale) asses decentering, although not as a core aspect of mindfulness but a by-product of the training itself (Tanay, 2013). Our findings also showed that the lowest scores in decentering corresponded to patients suffering from different psychiatric conditions (i.e. cocaine dependence, eating disorders and borderline personality disorder) and not exclusively MDD, as reported by Teasdale and colleagues (Teasdale et al., 2002; Fresco et al., 2007a). Such low scores may be indicative of poor decentering as a transdiagnostic vulnerability factor, similarly to self-focused attention that could be shared among mental disorders (Ingram, 1990). Altogether, this is congruent with Fresco's conceptualization of decentering as a necessary capability for a healthy cognitive, psychological and social functioning. As Teasdale et al. (Teasdale et al., 2002) suggested, increases in meta-awareness after standard CBT could underlie latter clinical improvements associated to intervention. Remarkably, Bieling et al. (2012) found that depressed patients who received acute

antidepressant medication experienced increased decentering, and the authors suggested that this increase may be a byproduct of depressive improvement. By contrast, long-term decentering increases were only observed in remitted patients receiving a mindfulness-based cognitive therapy but not in those remitted patients with medication alone. Such increases in decentering were predicitive of depressive symptoms after 6-month follow-up, and could, therefore, be useful in preventing relapses. Therefore, although low decentering appears to be a characteristic of clinical conditions, this capability might be trainable. In this regard, those patients who underwent a 10-week mindfulness intervention significantly improved decentering, for which EQ-Decentering showed a capacity to detect such changes. Lastly, increments in decentering capability might underlie more durable treatment response, as accounted by Fresco et al. (Fresco et al., 2007b), and EQ-Decentering is the instrument of choice to assess them.

There are some methodological issues that deserve a comment. First, recruitment of the sample was heterogeneous as participants were enrolled from different pools by convenience sampling. In addition, measurement invariance was not tested and constitutes a limitation as it is not possible to know whether EQ behaves similarly across populations, raising questions about the appropriateness of using the scale in different samples. However, the advantages of this type of sampling are the easiness with which data can be gathered, but the disadvantages are the lack of representativeness of the sample. Linked to this issue, by recruiting part of the sample in the web might have biased the results. Second, alternative solutions were not tested with the CFA, although other factor solutions might have provided similar or enhanced model fits. However, 1-factor structure adhered to the theoretical model proposed by Fresco and colleagues. Third, it is not possible to assure that non-psychiatric participants were completely healthy and not suffering from any mental illnesses. Finally, changes in EQ-Decentering after a mindfulness intervention were explored in the subsample of patients with BPD, providing a moderate effect size. However, the results still offered valuable information of the psychometric characteristics of the

EQ-Decentering, as patients with BPD are seriously disturbed clients with difficulties to engage in meditation (Dimidjian & Linehan, 2003).

In summary, the Spanish version of the EQ-Decentering is a valid and reliable instrument to measure decentering either in clinical and non-clinical samples (meditative naïve or not). In addition, the findings also show that EQ-Decentering is an adequate outcome instrument to detect changes after metacognition-based therapies and mindfulness-based interventions.

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17

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Table 1. Demographics of all participating subjects (n=921).

	Psychiatric Sample (n=231)	Non-psychiatric Sample (n=690)	p
Gender (% women)	72.7%	64.8%	.029
Age	34.49 ±11.3	39.57 ±11.8	<.001
Years of education	10.03 ±3.6	15.95 ±2.97	<.001

Footnote: Values represent means and SD (±) or percentages when appropriated.

Table 2. Item factor loadings.

EQ items	M ± SD	λ	r_tot
1- Soy más capaz de aceptarme a mí mismo como soy.	3.69 ±1.03	.759	.694
2- Puedo enlentecer mi pensamiento en momentos de estrés.	3.08 ±0.95	.606	.575
3- Me doy cuenta de que no me tomo las dificultades de forma tan personal.	3.19 ±1.01	.672	.631
4- Puedo separar mis pensamientos y sentimientos de mi mismo.	2.94 ±1.03	.740	.708
5- Puedo tomarme tiempo para responder a las dificultades.	3.37 ±0.92	.722	.675
6- Me puedo tratar de forma amable.	3.67 ±0.96	.760	.697
7- Puedo observar sentimientos desagradables sin ser arrastrado hacia ellos.	3.29 ±0.95	.722	.681
8- Tengo la sensación de que soy completamente consciente de lo que está sucediendo a mi alrededor y dentro de mí.	3.64 ±0.85	.499	.482
9- Veo que, en realidad, no soy mis pensamientos.	3.22 ±1.11	.485	.470
10- Soy consciente de sentir mi cuerpo como un todo.	3.42 ±1.12	.587	.565
11- Veo las cosas desde una perspectiva más amplia.	3.59 ±0.95	.770	.731

Footnote: Means (M), standard deviations (SD), standardized factor loadings (λ one-factor solution), and corrected item-total correlations (r_tot) for EQ items.

Table 3: Correlations of the EQ with clinical measures and mindfulness measures

	EQ
Convergent Validity	
MAAS	.576**
FFMQ Observe	.463**
FFMQ Describe	.507**
FFMQ Act awareness	.540**
FFMQ Nonjudge	.586**
FFMQ Nonreact	.723**
Divergent Validity	
STAI-S	-.351*
CESD	-.497**
DASS-21 Depre.	-.538**
DASS-21 Anx.	-.468**
DASS-21 Stress	-.563**
AAQ	-.655**

Footnote: ME= Control group with meditative experience; NME= Control group without meditative experience. * $p < 0.005$, p**< 0.001

Table 4: EQ scores among patients (n=216), participants with meditative experience (ME; n=341) and without meditative experience (NME; n=348).

	Patients	ME	NME	ANOVA	Post hoc	*d*
					Clinical<ME*	-1.33
EQ Mean±SD	31.926 ±7.85	41.196 ±5.99	36.836 ±6.12	F=134.8 p<.000001	Clinical<NME*	-0.7
					ME>NME*	0.72

Footnote: Means and SD are reported. ANOVA and Bonferroni post hoc analyses and effect sizes (Cohen's *d*) are represented. *p<.001

Highlights

27

- EQ-Decentering shows a unifactorial structure and high internal and test-retest reliability, and convergent and divergent construct validity.

- Changes in EQ-Decentering were observed after a 10-session mindfulness intervention in a subsample of patients with Borderline Personality Disorder.

- Differences among groups (i.e. non-psychiatric volunteers with or without meditative experience, and psychiatric volunteers) were significant, where psychiatric participants showed the lowest scores in EQ-Decentering.