Comparing the acceptability of a positive psychology intervention versus a cognitive-behavioral therapy for clinical depression

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HOW TO CITE THIS ARTICLE:
Abstract

There is growing evidence on the efficacy of positive psychology interventions (PPI) to treat clinical disorders. However, very few studies have addressed their acceptability. The present study aimed to analyze two key components of acceptability (i.e., client satisfaction and adherence to treatment) of a new PPI programme, the Integrative Positive Psychological Intervention for Depression (IPPI-D), in comparison to a standard CBT programme in the treatment of clinical depression. One hundred twenty-eight women with a DSM-IV diagnosis of major depression or dysthymia were allocated to a 10-session IPPI-D or CBT group intervention condition. Results showed that both interventions were highly acceptable for participants. Attendance rates were high and there were no significant differences between conditions. However, the IPPI-D condition showed significantly higher client satisfaction than the CBT condition. Moreover, acceptability did not differ based on participants’ severity of symptoms, regardless of condition. These findings encourage further investigations of the applicability of PPI in clinical settings in order to broaden the range of acceptable and suitable therapies for depressed patients.

Keywords: Acceptability, Adherence, Client satisfaction, Cognitive-behavioral therapy, Major depression, Positive psychology.
Key Practitioner Message

- This study sheds light on the client satisfaction and adherence to a positive intervention.

- For participants, positive psychology interventions (PPI) may be more satisfactory than CBT as PPI are framed within a positive mental health model and, consequently, may reduce the risk of stigmatization.

- Because acceptability of treatments and preferences may affect the efficacy of treatments, this study provides an excellent opportunity to offer professionals more therapeutic options to tailor treatments to clients’ needs and expectations.
Introduction

New models of health care, both for physical and mental health problems, emphasize the need of finding interventions that are ‘feasible, low-cost (affordable), and appropriate to implement within the constraints of a local health system’ (WHO, 2011, p. 2). With regard to psychological treatments, the Consolidated Standards of Reporting Trials Statement (CONSORT) considered the assessment of credibility and acceptability of treatments an essential aspect in the evaluation of their quality (Moher, Schulz, & Altman, 2001). The development of new interventions based on positive psychology principles, provides an excellent opportunity to address this issue. As it has been the case in other types of interventions (Hayes, Long, Levin, & Follette, 2013), most of the research on the utility of these new positive interventions is still mainly focused on their efficacy (Bolier et al., 2013; Weiss et al., 2016). Yet, paying more attention to research on the acceptability of these interventions could provide relevant information on their applicability and utility relative to other interventions.

This general lack of research on acceptability is particularly problematic for the treatment of common mental health problems, like anxiety or depression, because available evidence-based treatments are not fully satisfactory to promote clinically significant changes in the majority of patients (Cuijpers, van Straten, Andersson, & van Oppen, 2008). The high rates of dropouts (Fernandez, Salem, Swift, & Ramtahal, 2015; Hans & Hiller, 2013) and the high number of residual symptoms after treatment (Paykel, 2008) lead some experts to consider that the overall quality of available treatments for depression is poor (McIntyre & O’Donovan, 2004). In conclusion, as the NICE guidelines for depression have emphasized, there is a need for more research about the acceptability and practicality of available treatment options (NICE, 2009).
One of the most widely used definitions of treatment acceptability was proposed by Kazdin (2000). He defined it as the extent to which consumers (e.g., clients, patients) found a particular procedure or intervention to be fair, appropriate, and consistent with their expectations of treatment. Examining acceptability allows us to determine whether treatments are satisfactory for both clients and practitioners and whether they are ready to be disseminated and implemented with success in real settings (Lennox & Miltenberger, 1990). From an applied perspective, premature discontinuation of treatment is a major concern (Cahill et al., 2003). Professionals need treatments that are not only efficacious, but also likely to be followed and completed by clients. Together, these characteristics increase the probability of full recovery, highlighting that client’s perception of treatment is highly valuable. Previous research has pointed out that interventions that are acceptable are more likely to be sought out and followed by participants once they have entered into treatment (Reimers, Wacker, Cooper, & DeRaad, 1992; Kazdin, 1996). Therefore, treatment acceptability is an important topic as it could be a path for reducing the rates of therapeutic non-compliance, one of the main challenges that clinicians face (Chabrol, Teissedre, Armitage, Danel & Walburg, 2004).

Typical indicators of treatment acceptability are adherence and client satisfaction (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010). In the case of psychotherapy for depression, dropout rates (i.e., a common proxy indicator of adherence) have ranged between 0% and 43% (Cuijpers et al., 2008; Swift & Greenberg, 2014). When comparing different psychotherapy modalities for depression (i.e., cognitive-behavioral therapy; CBT, nondirective supportive therapy, behavioral activation therapy, psychodynamic therapy, problem-solving therapy, interpersonal psychotherapy and social skills training), CBT, despite its extended use and being one of the most researched therapeutic options, has shown a significantly higher dropout rate than other psychotherapy modalities, while problem-solving therapy has shown the lowest dropout rate (Cuijpers, van Straten, Andersson, & van
Oppen, 2008). Some meta-analytic evidence has shown that, when CBT dropout rates have been compared among different diagnoses, the highest rate is found in depression (36.4%), far from the average dropout rate (26.2%) found in CBT interventions for other mental health problems (Fernandez et al., 2015). Other recent meta-analyses have suggested lower rates when establishing a difference between randomized and non-randomized clinical trials for depression. These meta-analyses have found that the dropout in CBT was 17% in randomized clinical trials (Cooper & Conklin, 2015) and 25% in non-randomized effectiveness studies (Hans & Hiller, 2013). Concerning the acceptability of group CBT for depression, a meta-analysis showed a striking result: there were no significant differences in dropout rates between group CBT and non-active control conditions (Okumura & Ichikura, 2014). The same result was obtained when comparing group CBT with middle-intensity group-based psychosocial interventions (e.g., relaxation training, psycho-education) (Okumura & Ichikura, 2014).

A more direct way to examine acceptability is exploring client satisfaction. Surprisingly, there are only a few studies comparing interventions for depression on client satisfaction. In a pioneer study, Scott & Freeman (1992) compared antidepressant medication, CBT by a psychologist, counselling and case work by a social worker and routine care by a general practitioner. At a significant level, participants reported that counselling and case work better met their needs as compared to both CBT and routine care for their problems. Additionally, counselling and case work showed a higher score on global evaluation of treatment than routine care or antidepressant medication. In another study, Ward et al. (2000) compared CBT with non-directive counseling and standard care for depressed patients. Client satisfaction scores at the 4-month follow-up were higher in both psychotherapy groups compared with standard care. However, a 12-month follow-up revealed that only patients in the non-directive counselling condition were significantly more satisfied than the ones in the standard care condition. In general, this overall pattern of results reveals that, when compared
to other psychological treatments, treatment acceptability for CBT, despite its high efficacy, is relatively lower. Given the growing popularity of evidence-based PPI, and their demonstrated efficacy (Bolier et al., 2013; Sin & Lyubomirsky, 2009), it becomes relevant to address their acceptability in order to tailor treatments to clients’ needs and expectations, as the person-activity model has proposed (Layous & Lyubomirsky, 2013). In one of the few studies that has analyzed acceptability of PPI, Schueller and Parks (2012) explored the use and enjoyment of positive psychology exercises in a website intervention aimed at reducing depressive symptoms in a non-clinical sample from the general population. Even though there were no significant differences in the use of the exercises available, in 5 of the 6 exercises enjoyment was positively associated with the extent of use at the 6-week follow-up. A similar study using positive psychology online exercises in a broad non-clinical sample showed that participants liked the positive psychology exercises more than the placebo control exercises (Gander, Proyer & Ruch, 2016). Additionally, participants also reported more personal benefit from positive psychology exercises than from the placebo control exercises. This research group has also found indicators, in line with the person-activity model (Layous & Lyubomirsky, 2013), that predicted happiness and depressive symptoms 3.5 years after completion of a positive psychology intervention in a non-clinical sample (Proyer, Wellenzohn, Gander, & Ruch, 2015). Specifically, these authors found that continued practice, preferences for some exercises, and early reactivity in happiness predicted long term changes in happiness. However, only continued practice and early reactivity in depression predicted long term changes in depression. Although PPI have also been used to treat clinical disorders (e.g., Fava et al., 2005; Johnson, Gooding, Wood, Fair & Tarrier, 2012; Meyer, Johnson, Parks, Iwanski & Penn, 2012; Riches, Schrank, Rashid & Slade, 2016; Seligman, Rashid & Parks, 2006), very few studies have assessed the acceptability of these interventions. In an interesting exception, Huffman et al. (2014) applied nine positive psychology exercises aimed at decreasing hopelessness and increasing optimism in patients
hospitalized for suicidal thoughts or behaviors. Although there was no control condition, participants completed almost 90% of assigned exercises and perceived them as easy to complete, with no significant differences between exercises. Similarly, in a pilot study of positive psychotherapy for people with schizophrenia, with no control condition, Meyer et al. (2012) found that the intervention was feasible as evidenced by the high rates of attendance (similar rates to other effective interventions for schizophrenia) and the amount of practice outside the group reported by participants. Kahler et al. (2015) assessed the feasibility and acceptability of a positive smoking cessation intervention for smokers with low positive affect. Client satisfaction and enjoyment of the treatment’s positive focus were very high. Attendance was also high, and although the sample was too small to draw strong conclusions, participants reported a moderate to extreme perceived usefulness of the programme.

Research comparing multicomponent programmes based in positive psychology with other programmes has yielded mixed results. A study comparing positive psychotherapy with dialectical behavior therapy (DBT) in university students with significant psychopathology (Uliaszek, Rashid, Williams, & Gulamani, 2016) showed that attrition was significantly higher and attendance significantly lower in the positive psychotherapy group than in the DBT group. However, another recent study comparing a combined group programme of CBT and PPI with treatment as usual (TAU) in clinically depressed participants found no differences in attrition, and preliminary findings revealed a superior efficacy of the combined programme (Carr, Finnegan, Griffin, Cotter, & Hyland, 2016). In sum, despite increasing interest in this research area, evidence on the acceptability of PPI is still limited, especially in people suffering from severe psychological disorders.

A recent study with a large sample of several hundred patients with clinical depression has shown that there is a high discrepancy between the therapeutic goals of practitioners versus clients. While doctors and psychiatrists in this study considered reducing symptoms to be the main goal of therapy, patients believed that treatment should be aimed at
increasing their life satisfaction and general well-being (Demyttenaere et al., 2015a) and the magnitude of this discrepancy positively predicted a worse response to the treatment at 6 months (Demyttenaere et al., 2015b). Thus, it is possible that positive interventions improve the acceptability of therapy for depression as they may better align with patients’ expectations for the key therapeutic targets. A fact that should not be ignored is that a large number of people with mental health problems do not seek help (e.g., Thompson, Hunt, & Issakidis, 2004). This is especially true in the case of people who are less prone to reveal personal thoughts and feelings or those who experience stigma associated with their psychological problems (Vogel, Wester, & Larson, 2007). It is possible that using a positive mental health framework accompanied by specific techniques focused on enhancing well-being might help reduce the treatment gap found for many psychological difficulties (e.g., Thompson et al., 2004). Some individuals may be more willing to receive help through approaches focused on increasing well-being rather than receiving treatments focused on mental symptoms and difficulties.

The study of interventions’ acceptability is still a novel area and more research is needed to clarify the relationship between acceptability and efficacy of the treatments that are implemented in the clinical practice. The aim of the present study was to test the acceptability of the IPPI-D programme in comparison to a standard CBT programme in the treatment of clinical depression. Based on the previous studies just described (Carr et al., 2016; Demyttenaere et al., 2015a; 2015b), the first hypothesis was that the IPPI-D programme would be more acceptable (i.e., have greater adherence and client satisfaction) than the CBT programme. Additionally, based on previous research showing that psychological interventions, whether CBT treatments (DeRubeis et al., 2005) or PPI (Chaves, Lopez-Gomez, Hervas, & Vazquez, 2017), are efficacious for severely depressed patients, the second hypothesis was that acceptability would not differ based on the severity of participants’ symptoms.
Methods

Design and participants

One hundred twenty-eight women with a DSM-IV-TR (APA, 2000) diagnosis of major depressive disorder or dysthymia were blindly allocated to the IPPI-D \( n = 62 \) or CBT \( n = 66 \) intervention condition (for details, see Chaves et al., 2017; Lopez-Gomez, Chaves, Hervas, & Vazquez, 2017). Figure 1 illustrates the participants CONSORT diagram\(^1\).

Participants were adults (mean age \( = 52.02; \ SD = 10.58 \)) recruited in a women’s center, linked to the community health system. Women directly applied for the intervention programmes or were referred by a local healthcare agency. The Faculty Ethics Committee approved the study protocol and participants signed an informed consent document in order to participate in the study. Exclusion criteria for the study were: substance abuse or dependence disorder (present), manic or hypomanic episodes (past or present), psychotic disorder (past or present), and a cognitive status (e.g., dementia or intellectual disability) that might prevent participants to follow the interventions.

\(^1\) The previous article of this study (Chaves et al., 2017) analyzed 96 participants, which was the sample size of the study at that time.
Figure 1. Participants CONSORT diagram. CBT = cognitive-behavioral therapy; IPPI-D = integrative positive psychological intervention for depression.
**Intervention Conditions**

Both intervention programmes (CBT and IPPI-D) consisted of 10 weekly, 2 hour sessions in a group format. Five groups for each condition were included in this study. Each session of the IPPI-D and CBT programmes had the same structure (i.e., a review of the prior session’s homework, an introduction to the topic of the day, a presentation of the session goals, a brief discussion among participants, in-session exercises, a summary of the key ideas, and a homework assignment).

The CBT programme used in this study was an adaptation of the Spanish version of the Group Cognitive-Behavioral Therapy of Major Depression Manual (Muñoz, Aguilar-Gaxiola, & Guzman, 1995), based on the widely used Coping with Depression course (Lewinsohn et al., 1984). The programme is a highly structured psychoeducational and applied cognitive-behavioral intervention that has been shown to be efficacious for depression (Cuijpers, Muñoz, Clarke, & Lewinsohn, 2009). The programme starts with a session that is dedicated to establishing the intervention goals, norms, and treatment rationale. Next, a module of two sessions of behavioral activation is included, that consists of pleasurable activities scheduling, time management, and goal setting. The next three sessions are focused on cognitive restructuring of negative cognitions and include skills from Rational Emotive Therapy (Ellis & Dryden 1987) and Cognitive Therapy (Beck et al., 1979). The last part of the programme is dedicated to social skills, where communication styles are analyzed and assertive skills are practiced. The final session focuses on relapse prevention and includes a closing activity for the group.

A group programme based on positive psychology for treating major depression was created for the purpose of this study mainly using interventions that have been shown to be effective in increasing positive functioning or alleviating depressive symptoms (Bolier et al. 2013; Sin & Lyubomirsky, 2009). The Integrative Positive Psychological Intervention for Depression (IPPI-D) protocol included hedonic interventions (aimed at increasing positive
affect, savoring, emotion regulation, gratitude and optimism) as well as eudaimonic interventions (i.e., promoting positive relationships, compassion, personal strengths, purpose in life and resilience). The programme includes a first session that is dedicated to establishing the intervention goals, norms, and treatment rationale. The following three sessions are focused on the hedonic component of well-being. Positive emotion enhancement, savoring exercises, and positive emotion regulation techniques are practiced. Additionally, participants were introduced to acceptance attitudes, and practiced gratitude and optimism exercises during these sessions in order to increase well-being. The following five sessions of the programme are focused on the eudaimonic component of well-being. These sessions are dedicated to promote positive relationships and teaching kindness and self-compassion. Furthermore, in this module, participants were encouraged to use their character strengths in new ways, to search for meaning in everyday life, and to start developing resilience to face difficulties. The last session dealt with relapse prevention and includes a closing activity for the group, as in the CBT programme. A more detailed description of the IPPI-D programme can be found elsewhere (Chaves, Lopez-Gomez, Hervas, & Vazquez, submitted).

**Measures**

*Clinical and psychological functioning*

At the beginning and the end of the intervention, participants were clinically assessed using a structured interview (Structured Clinical Interview for the DSM-IV, SCID-I; First, Spitzer, Gibbon, & Williams, 1996) and a protocol of self-report measures. The main measure to assess the efficacy of the treatments was the Beck Depression Inventory-II, which evaluates severity of depressive symptoms (BDI-II; Beck et al., 1996; Sanz, Navarro, Vazquez, 2003; \( \alpha = .87 \)). Participants also completed a wide array of psychological measures covering relevant aspects of cognitive, emotional and behavioral functioning in depression. Depressive cognitive style was measured by assessing automatic thoughts (Automatic
Thoughts Questionnaire, ATQ-30; Hollon & Kendall 1980; Vazquez, 2006; $\alpha = .96$), rumination (Ruminative Response Style, RRS; Nolen-Hoeksema & Morrow 1991; Hervas, 2008; $\alpha = .76$), and thought suppression (White Bear Suppression Inventory, WBSI; Wegner & Zanakos 1994; Gonzalez et al. 2008; $\alpha = .75$). Emotional functioning was assessed with measures of positive and negative affect (Positive and Negative Affect Schedule, PANAS; Watson, Clark, & Tellegen, 1988; Lopez-Gomez, Hervas, & Vazquez, 2015; $\alpha = .82$ for positive affect, $\alpha = .83$ for negative affect), anxiety symptoms (Beck Anxiety Inventory, BAI; Beck & Steer, 1990; Sanz & Navarro, 2003; $\alpha = .91$), responses to positive affect (Responses to Positive Affect Questionnaire, RPA; Feldman et al. 2008; $\alpha = .75$ for dampening, $\alpha = .82$ for emotion-focus, $\alpha = .78$ for self-focus), and emotion regulation difficulties (Difficulties in Emotion Regulation Scale, DERS; Gratz & Roemer, 2004; Hervas & Jodar 2008; $\alpha = .89$). Additionally, reward and punishment systems were assessed by the Behavioral Inhibition System and Behavioral Approach System Scales (BIS/BAS trait version; Carver & White 1994; Hervas & Vazquez 2013a; $\alpha = .58$ for BIS, $\alpha = .74$ for BAS). Furthermore, using a comprehensive perspective of recovery, positive functioning measures were also included in the study. Thus, optimism (Life Orientation Test-Revised, LOT-R; Scheier et al. 1994; Ferrando et al. 2002; $\alpha = .62$), psychological well-being (29-item version of the Ryff’s Psychological Well-Being Scales, PWBS; Diaz et al. 2006; $\alpha = .84$), life satisfaction (Satisfaction With Life Scale, SWLS; Diener et al. 1985; Vazquez, Duque, & Hervas, 2013; $\alpha = .81$), enjoyment (Enjoyment Orientation Scale, EOS; Hervas & Vazquez 2006; $\alpha = .79$), and hedonic and eudaimonic well-being (Pemberton Happiness Index, PHI; Hervas & Vazquez 2013b; $\alpha = .79$) were assessed; for details, see Chaves et al. (2017).

_Treatment acceptability_

Client satisfaction with treatment was assessed with the Client Satisfaction Questionnaire (CSQ-8; Nguyen, Attkisson, & Stegner, 1983; Roberts, Attkisson, & Mendias, 1984). The CSQ-8 contains 8 items concerning treatment quality, expectations and
needs reached, satisfaction and help received (e.g., ‘How would you rate the quality of the counseling you received?’; ‘To what extent has the programme met your needs?’) rated with a 4-point scale where 1 reflects ‘very low satisfaction’ and 4 reflects ‘very high satisfaction’ ($\alpha = .73$). Four additional questions were included in order to have a broader picture of client satisfaction (i.e., ‘To what extent do you think you have made progress in solving your problem with this treatment?’, ‘How would you rate the treatment?’, ‘To what extent have your therapists shown competence about the topic?’, ‘To what extent have your therapists been understanding and thoughtful with you?’) rated with a 11-point Likert scale where 0 shows ‘very low satisfaction’ and 10 shows ‘very high satisfaction’.

As part of the institutional assessment of the quality of the intervention, a 3-item client satisfaction questionnaire was included covering length of the intervention, group atmosphere, and group participation using a 5-point response scale where 1 reflects ‘very low satisfaction’ and 5 reflects ‘very high satisfaction’. There was also one final item, rated in a dichotomous way, asking participants whether they would or would not recommend the treatment to another person. Besides client satisfaction questionnaires, dropout rates were also analyzed as a proxy indicator of acceptability.

**Statistical Methods**

An Intention to treat (ITT) approach was applied to the data. Following Newman’s recommendations (Newman, 2014), a Maximum Likelihood (ML) estimate was performed via EM algorithm. With the ITT sample, chi-square and t-tests were used to confirm that there were no significant initial differences between groups in regards to demographic variables. A series of t-test analyses were performed to assess possible differences in adherence and client satisfaction between intervention conditions. Likewise, possible differences in dropout rates between intervention conditions and between levels of depression severity at baseline were analyzed via chi-square tests. Additionally, two-factor ANOVAs
were conducted to explore the interaction between intervention condition and depression severity at baseline. In the first one, attendance was the dependent variable. In the second one, client satisfaction (i.e., CSQ-8) was the dependent variable. The same analysis was used to explore the interaction between intervention condition and experiencing a clinically significant change at the end of the intervention on client satisfaction. Associations between CSQ-8 and baseline characteristics were explored using bivariate correlations in both intervention conditions. Chi-square tests were used to explore differences between conditions in clinical diagnosis and clinically significant change (i.e., reduction of more than 50% on post-treatment BDI-II score) at the end of the interventions. Data were analyzed using SPSS (version 20.0).

**Table 1. Baseline characteristics**

<table>
<thead>
<tr>
<th></th>
<th>CBT (n = 66)</th>
<th>IPPI-D (n = 62)</th>
<th>Group differences</th>
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</thead>
<tbody>
<tr>
<td><strong>Demographic characteristics</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mean age</td>
<td>50.94 (10.98)</td>
<td>53.18 (10.10)</td>
<td><em>t</em> = -1.20, <em>p</em> = .23</td>
</tr>
<tr>
<td>Married or cohabitating, %</td>
<td>66.7</td>
<td>58.1</td>
<td><em>χ²</em> = .68, <em>p</em> = .41</td>
</tr>
<tr>
<td>Primary or lower studies, %</td>
<td>56.1</td>
<td>51.6</td>
<td><em>χ²</em> = .11, <em>p</em> = .74</td>
</tr>
<tr>
<td>Employed, %</td>
<td>15.1</td>
<td>16.1</td>
<td><em>χ²</em> = .001, <em>p</em> = 1</td>
</tr>
<tr>
<td><strong>Clinical characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean BDI-II score</td>
<td>37.42 (10.68)</td>
<td>34.66 (10.13)</td>
<td><em>t</em> = 1.49, <em>p</em> = .14</td>
</tr>
<tr>
<td>Severe depressive symptoms (BDI-II ≥ 29), %</td>
<td>80.03</td>
<td>72.6</td>
<td><em>χ²</em> = .68, <em>p</em> = .41</td>
</tr>
<tr>
<td>Any other current Axis I diagnosis, %</td>
<td>65.1</td>
<td>48.4</td>
<td><em>χ²</em> = 3.01, <em>p</em> = .08</td>
</tr>
<tr>
<td>Antidepressant medication, %</td>
<td>63.6</td>
<td>59.7</td>
<td><em>χ²</em> = .08, <em>p</em> = .78</td>
</tr>
<tr>
<td>Mean number of sessions attended</td>
<td>7.43 (2.42)</td>
<td>7.13 (2.78)</td>
<td><em>t</em> = .64, <em>p</em> = .52</td>
</tr>
</tbody>
</table>

*Note.* Standard deviations are shown in parenthesis; BDI-II = Beck Depression Inventory-II; CBT = cognitive-behavioral therapy; IPPI-D = integrative positive psychological intervention for depression.
Results

Baseline characteristics and adherence to the interventions

Table 1 displays the baseline characteristics of the participants. Eleven participants (16.7%) dropped out in the CBT condition and twelve (19.4%) in the IPPI-D condition. No significant difference was found in dropout rates between conditions ($p = .87$). Reasons cited by participants for discontinuing their participation in the intervention were having an illness or accident that prevented them from attending intervention (2 in CBT group, 3 in IPPI-D group), conflicting schedules (3 in CBT group, 6 in IPPI-D group), lack of appropriateness of the intervention (2 in CBT group, 2 in IPPI-D group), or no specific reason (4 in CBT group, 1 in IPPI-D group).

No significant differences in baseline characteristics were found in the dropout rates between the two intervention conditions (all $ps > .05$). However, regardless of intervention condition, participants who completed the interventions did differ at baseline from those who dropped out on the LOT-R pessimism subscale, $t(125) = -2.34$, $p = .02$, Cohen’s $d = 0.54$, 95% CI [.08-.99], and the BAS sensitivity to reward subscale, $t(125) = -2.42$, $p = .02$, Cohen’s $d = 0.56$ [95% CI: .10, 1.02]. Participants with higher scores in pessimism and sensitivity to reward were significantly more likely to discontinue the interventions.

Pre- and post-assessments were collected for 55 participants (83.3%) in the CBT condition and 47 participants (75.8%) in the IPPI-D condition, the difference in number of participants being a nonsignificant difference ($p = .40$). Following an ITT model, missing data were imputed analyzing all the assigned participants to each condition.

The mean number of sessions attended was $7.42$ ($SD = 2.42$) and $7.13$ ($SD = 2.78$) in the CBT and IPPI-D conditions respectively. Among completers of the interventions, these means reached $8.29$ ($SD = 1.46$) sessions in the CBT group, and $8.24$ ($SD = 1.61$) sessions in the IPPI-D group. Analyzing only the participants who dropped out, the mean number of
sessions attended was 3.09 ($SD = 1.3$) and 2.5 ($SD = 1.51$) respectively. None of these differences between intervention conditions reached statistical significance (all $ps > .33$). Additionally, number of sessions attended was not related to depression symptoms (BDI-II), neither at baseline nor at the end of the interventions (all $ps > .34$).

**Client satisfaction**

Table 2 displays the results for client satisfaction. T-test analyses showed significant differences between intervention conditions in CSQ-8 (that includes items concerning treatment quality, expectations and needs reached, satisfaction and help received), and progress made during the intervention. Participants in the IPPI-D condition showed significantly higher mean scores in both variables (i.e. CSQ-8 and progress made) than participants in the CBT condition.

For both interventions, the lowest mean in client satisfaction was found in the desirable length of the intervention. When asked whether they would recommend the intervention to others, all participants from both groups reported that they would.
Table 2. Client satisfaction for the intervention conditions

|                              | CBT  
|------------------------------|-----|-------|----|
|                              | (n = 66) | IPPI-D  
|                              | (n = 62) | Group differences |
| CSQ-8ª                       | 28.42 (2.17) | 29.48 (1.87) | $t = -2.95, p = .004^{**}$ |
|                              |          |        | $d = .52$ |
|                              |          |        | 95% IC: .17-.87 |
| Progress madeᵇ               | 7.15 (1.44) | 7.75 (1.42) | $t = -2.38, p = .02^*$ |
|                              |          |        | $d = .42$ |
|                              |          |        | 95% IC: .06-.77 |
| Quality of the interventionᵇ | 8.76 (1.12) | 8.94 (.92) | $t = -.99, p = .32$ |
| Therapists’ competenceᵇ      | 9.73 (.49) | 9.75 (.56) | $t = -.21, p = .83$ |
| Therapists’ understandingᵇ   | 9.83 (.41) | 9.85 (.41) | $t = -.22, p = .83$ |
| Length of the interventionᶜ  | 2.83 (1.05) | 2.88 (1.17) | $t = -.26, p = .80$ |
| Group atmosphereᶜ            | 4.08 (.88) | 4.32 (.72) | $t = -1.69, p = .09$ |
| Group participationᶜ         | 3.89 (1.02) | 3.86 (1.25) | $t = .14, p = .89$ |
| Recommendation of the intervention (Yes/No) | 100% | 100% | No difference |

Note. Standard deviations are shown in parenthesis; CBT = cognitive-behavioral therapy; CSQ-8 = Client Satisfaction Questionnaire 8; IPPI-D = integrative positive psychological intervention for depression; $d =$ Cohen’s $d$; $^{*} p < .05$; $^{**} p < .01$; $^{ª}$ CSQ-8 total score range from 4 to 32; $^{b}$ ratings based on 11-point Likert scales; $^{c}$ ratings based on 5-point Likert scales.

Acceptability, baseline severity and improvement

A two-factor ANOVA was conducted to explore the interaction between depression severity at baseline and intervention condition on attendance. The sample was divided in two categories, mild and moderate depression (BDI-II < 28) versus severe depression (BDI-II $\geq 29$) –see cut-off scores in Beck, Steer and Brown (1996). The analyses revealed neither a significant interaction nor a main effect of depression severity or intervention condition on attendance (all $ps > .50$). Likewise, a two-factor ANOVA showed that there was no
significant interaction between intervention condition and depression severity at baseline on client satisfaction, measured with CSQ-8, as well as no significant main effects of depression severity or intervention condition (all $ps > .60$).

Results related to dropout (i.e. discontinuation of the intervention) did not reveal a significant difference between intervention conditions among severely depressed participants ($p = .90$). The same result was found among non-severely depressed participants ($p = 1$). In addition, no significant differences in dropout based on participants severity were found in any intervention condition (all $ps = 1$).

Analysing the whole sample ($N = 128$), 53% of the participants in the CBT condition and 54.8% of the participants in the IPPI-D condition no longer had a diagnosis of major depression or dysthymia at the end of the treatment. In line with this, 43.9% of the participants in the CBT condition showed a clinically significant change (i.e., a reduction in BDI-II score of more than 50%; see Dimidjian et al. 2006; Strauman et al. 2006). In the IPPI-D condition, 45.2% experienced a clinically significant change. Differences between conditions did not reach statistical significance (all $ps > .95$)$^2$.

A two-factor ANOVA was conducted to analyze the interaction between experiencing a clinically significant change during the intervention and intervention condition on the CSQ-8. No significant interaction was found ($p = .66$), but there was a significant main effect of experiencing a clinically significant change on CSQ-8, $F(1,124) = 7.54 , p = .007$, Cohen’s $d = .49$, 95% CI [.13, .84]. Participants who had experienced a clinically significant change had higher scores on CSQ-8 ($M = 29.50, SD = 1.79$) than those who did not ($M = 28.50, SD = 2.22$).

$^2$ A series of repeated measures group x time MANOVAs on clinical measures and positive functioning measures showed an identical pattern of results reported in Chaves et al. (2017) with the sample of 96 participants that was then recruited.
Client satisfaction and baseline characteristics

Possible associations between client satisfaction, measured with CSQ-8, and baseline characteristics were also explored. CSQ-8 was significantly associated with the mean number of sessions attended, regardless of condition. In the CBT condition, the CSQ-8 was significantly associated with the SWLS ($r = .30, p = .01$) and the PWBS Positive relationships scale ($r = .39, p = .001$). In the IPPI-D condition, significant associations between CSQ-8 and ATQ-30 ($r = .32, p = .01$), RRS brooding subscale ($r = .37, p = .003$) and BAS ($r = -.29, p = .02$) were found. CSQ-8 was not significantly associated with any other outcome measure assessed regardless of intervention condition, including baseline BDI-II (all $ps > .07$).

Discussion

Results indicated that both IPPI-D and CBT programmes were highly acceptable for participants. Attendance rates were high and less than 20% of participants dropped out from the study, with no significant differences between intervention conditions. This figure is lower than the ones reported by several meta-analyses about depression treatments (Cuijpers et al., 2008; Fernandez et al., 2015 Hans & Hiller, 2013). When compared to other studies that have implemented PPI programmes for clinical depression, the attrition rate of the present study is lower than the one reported in Carr et al. (2016) study but higher than the one reported in Seligman et al. (2006) although in the latter case the sample size was small ($N = 13$).

Among completers, session attendance was very high. Participants attended on average more than 80% of the sessions, with no significant differences between intervention conditions, and around 20% percent of the sample attended all 10 sessions. This attendance rate was very similar to the attendance reported in the depression study by Carr et al. (2016)
and in the smoking cessation study by Kahler et al. (2015), which was 79.1% and 78% respectively.

The first hypothesis, which predicted that PPI would be more acceptable than CBT in our depression intervention, received partial support. While there was no significant difference in terms of adherence, there were some significant differences in terms of client satisfaction. Outcomes revealed some significant differences in favor of the IPPI-D programme on the main measure of client satisfaction (i.e., the CSQ-8). It is worth noting that CSQ-8 average scores in many different health care settings, samples and services have indicated a lower client satisfaction than our study’s outcome (Attkisson & Greenfield, 2004). Moreover, despite the scarcity of data about client satisfaction for psychological interventions measured with the CSQ-8, the figures found are also lower than the ones of the present study (Houghton & Saxon, 2007; Richards et al., 2013; Sabourin et al., 1989).

Along with the CSQ-8, this study included some complementary aspects of client satisfaction (see Table 2). Participants were extremely satisfied with the quality of the intervention, and the therapists’ competence and understanding, with no significant differences between intervention conditions. These results reveal that the therapist’s attitude in the IPPI-D programme in terms of their focus on the nurturing of positive emotions and psychological strengths (and lack of focus placed on negative cognitions or dysfunctional behaviors) was as satisfactory as the CBT therapist’s focus on correcting negative thoughts and difficulties. Furthermore, participants in the IPPI-D group were more likely to report higher satisfaction with the progress made during the intervention than participants in the CBT group. All participants from the two groups would recommend the intervention they received to someone else, which is coherent with participants’ high levels of satisfaction with the interventions and perception of their utility.

In sum, both programmes were highly acceptable for participants and there were only significant differences between intervention conditions in terms of client satisfaction. Results
regarding the efficacy of both interventions (IPPI-D and CBT) in this sample of patients revealed no significant differences between conditions. Yet, interestingly, the average effect sizes of change in clinical variables and positive functioning variables were always in favor of the IPPI-D programme (Chaves et al., 2017). Future research is needed to test whether this overall tendency in favor of the IPPI-D programme reaches statistical significance when increasing statistical power by using larger sample sizes.

The second hypothesis was fully confirmed. Participants with severe depression found the intervention just as acceptable as participants with mild or moderate depression, regardless of the assigned intervention condition. Additionally, no intervention was more acceptable for participants with severe depression than the other. These findings are in line with the finding that IPPI-D is at least as efficacious as CBT to treat severely depressed participants (Chaves et al., 2017). This is a promising result as it suggests, if future research supports it, the extended applicability of PPI toward the treatment of a wide range of depression severity. It seems plausible that creating intervention programmes specifically tailored to the specific needs of clinical populations (e.g., Chaves et al., 2017; Carr et al., 2016) may increase their acceptability as reflected, for instance, by low dropout rates. Positive interventions where these adjustments are not taken into account may face problems related to the credibility of the intervention and, consequently, lead to high dropout rates (Uliaszek et al., 2016).

Regarding the exploratory analyses on associations between variables and treatment satisfaction, some interesting results emerged. Within the CBT group, higher pre-intervention levels of life satisfaction and positive relationships, predicted higher treatment satisfaction. Within the IPPI-D group, pre-intervention levels of brooding, automatic negative thoughts, and sensitivity to reward were related to later treatment satisfaction. Although, a positive association between an initial negative cognitive set (i.e., brooding and repetitive negative contents) and later satisfaction with therapy is unexpected, it opens new ways to consider the
viability of positive interventions based on empirical predictions. Parallel results have been found in large clinical trials of depression where CBT unexpectedly works better for those participants with less negative cognitions (i.e., dysfunctional attitudes) – Sotsky et al. (1991). Some preliminary evidence shows that in fact IPPI-D could work better for those participants with more comorbidity and negative thoughts (Lopez-Gomez, Chaves, Hervas, & Vazquez, 2016), but the precise mechanisms that operate to achieve a good therapeutic response are still ignored.

The present study has some limitations. The sample of participants is socio-demographically homogeneous (i.e., middle aged women with a low educational level), and the acceptability of the treatments might be different in other type of samples. In regard to the sample size, although it would be desirable to have included more participants, it could be considered a large sample according to the average size of standard clinical trials (Barth et al., 2013). Additionally, there was a sort of ceiling effect found in most of the measures of client satisfaction which reduces sensitivity to detect subtle changes that could exist between both interventions. It could be possible that scales with wider ranges of responses might provide better measures of change. Finally, at this initial stage of the development of PPI, qualitative studies on all the involved actors (i.e., patients and therapists) would be a valuable resource to detect further differences in acceptability among therapeutic modalities.

Future research should also analyze the acceptability of PPI in more heterogeneous and larger samples of people with depression. Moreover, the acceptability of PPI for other clinical disorders should also be examined. In recent years, studies applying PPI to treat severe mental disorders such as schizophrenia (Johnson et al., 2012; Meyer et al., 2012; Riches et al., 2016) and generalized anxiety disorder (Fava et al., 2005) have been developed. Systematic assessment of acceptability may shed light on the plausibility of extending the use of these techniques to wider audiences.
Research on the acceptability of different treatment programmes might also focus on each of the components or modules of the programmes rather than on the acceptability of the programmes as a whole. Although in the field of CBT there has been research showing the acceptability of different components of the therapeutic packages (e.g., imaginary vs in vivo exposure) in problems like obsessive compulsive disorders (Sookman & Steketee, 2007) or panic disorders (Cox, Fergus, & Swinson, 1994), the acceptability of components of CBT for depression has comparatively received much less attention. Therefore, research focused on more fine-grained analyses of the acceptability of programme’s components is needed for available evidence-based therapies for depression.

The present study adds some relevant information to the psychotherapy field. It provides support for the high and comparable adherence to CBT and PPI programmes for clinical depression in a large clinical trial. Furthermore, it shows participants’ severity of depression did not affect the overall acceptability of the programmes, which is particularly relevant to novel positive psychology interventions. The study also indicates that, although participants’ satisfaction was very high in both conditions, whenever differences between conditions emerged they were always in favor of the PPI condition.

These results have relevant clinical implications. Firstly, the study of acceptability of interventions for depression is especially important for professionals as therapeutic non-compliance is one of the main obstacles in their daily practice (Chabrol et al., 2004). Finding interventions that are satisfactory for clients may help to increase attendance and therefore increase the likelihood of recovery. Also, it could be possible that some individuals may be more willing to receive help through approaches focused on increasing well-being rather than through approaches focused on symptoms and difficulties. For example, people who are less prone to reveal personal thoughts and feelings or those who experience stigma are reluctant to seek professional help (Vogel et al., 2007). In these cases, well-being approaches may be
more acceptable. Secondly, finding acceptable treatments may also help to reduce the
treatment gap found for many psychological problems (Thompson et al., 2004).

Overall, the study’s findings encourage further investigations of the applicability of
PPI in clinical settings in order to make progress toward being able to offer a more diverse
range of acceptable and suitable therapies for depressed patients.
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Informed Consent: Informed consent was obtained from all individual participants included in the study.

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