Applying the unified protocol to a single case of major depression with schizoid and depressive personality traits

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Abstract

Background: The study presents the use of the Unified Protocol (UP) in a case of a male diagnosed with major depressive disorder and schizoid and depressive personality traits. The therapeutic focus of UP is to identify maladaptive behaviors of emotion regulation and to train new regulation strategies such as cognitive re-appraisal or emotional exposure exercises. **Method:** This is a single-case research study. The intervention was carried out in twenty 1-hour sessions for 6 months. After treatment completion, follow-ups were conducted at three, six, and twelve months. **Results:** The results of the 12-month follow-up revealed a clinically significant change in depressive symptomatology ($RCI_{BDI-II} = -5.51$), negative affect ($RCI_{NEGATIVE\ PANAS} = -3.61$), quality of life (RCIICV-Sp = 4.61) and schizoid (RCIMCMI-III-Schizoid = -4.36) and depressive (RCIMCMI-III-Depressive = -5.24) personality traits. Schizoid and depressive personality traits did not interfere with the application, course, and compliance with treatment. These results are discussed with regard to similar studies, also based on the use of the UP to work on emotion regulation in the treatment of emotional disorders with clinical comorbidity. **Conclusions:** The training of emotion regulation strategies through UP could be an effective proposal to treat emotional disorders with pathological personality traits comorbidity.

Keywords: Unified Protocol, major depressive disorder, personality traits, emotion regulation, comorbidity.

Resumen

Aplicando el protocolo unificado en un caso de depresión mayor y rasgos de personalidad depresivos y esquizoides. **Antecedentes:** presentamos la utilización del Protocolo Unificado (PU) en un caso de un hombre diagnosticado con Trastorno Depresivo Mayor y rasgos de personalidad Esquizoides y Depresivos. El PU se centra en identificar las conductas de regulación emocional desadaptativas y entrenar en nuevas estrategias de regulación como la re-evaluación cognitiva o la exposición emocional. **Método:** estudio de investigación de caso único. La intervención se desarrolló en 20 sesiones de 1 hora de duración durante 6 meses. Se realizaron seguimientos a los 3, 6 y 12 meses. **Resultados:** a los 12 meses de seguimiento se produjo un cambio clínico significativo en la sintomatología depresiva ($RCI_{BDI-II} = -5.51$), afecto negativo ($RCI_{NEGATIVE\ PANAS} = -3.61$), calidad de vida (RCIICV-Sp = 4.61) y rasgos de personalidad esquizoides (RCIMCMI-III-Esquizoide = -4.36) y Depresivos (RCIMCMI-III-Depresivos = -5.24). Los rasgos de personalidad no interfirieron en la implementación, curso y adherencia al tratamiento. Los resultados se discuten con respecto a estudios similares basados en la utilización del PU para el entrenamiento en regulación emocional en casos con comorbilidad clínica. **Conclusiones:** el entrenamiento en estrategias de regulación emocional a través del PU puede ser una propuesta efectiva para el tratamiento de trastornos emocionales con rasgos de personalidad patológicos comórbidos.

Palabras clave: Protocolo Unificado, trastorno depresivo mayor, rasgos de personalidad, regulación emocional, comorbilidad.

It is estimated that each year, 38.2% of the European population will suffer a mental disorder. Major depressive disorder (MDD), which affects 6.9% of the population of Europe (Wittchen et al., 2011), is one of the most prevalent mental disorders. According to the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5, American Psychiatric Association [APA], 2013), MDD is defined as the presence of depressed mood and loss of interest or pleasure for at least two weeks. These symptoms cause clinically significant distress and deterioration in areas that are important for the person, such as family, social, or work settings.

Regarding the specific comorbidity between MDD and schizoid personality disorder (Sch-PD), a prediction interval of .00 to .42 was found (*p*<.001) (Friborg et al., 2014). Schizoid personality is defined by a dominant pattern of detachment in social relations and a narrow range of expression of emotions in interpersonal settings (APA, 2013). Like the rest of the PDs, it begins to develop in the early stages of adulthood and is present in various contexts. According to the criteria of the DSM-5 (APA, 2013), the most characteristic signs and symptoms are: lack of desire for intimate relationships, choice of solitary activities, shows little or no interest in sexual experiences with another person, enjoys few or no activities, does not usually have close friends other than first-degree relatives, is indifferent to praise or criticism of others, and acts emotionally cold, with detachment or flat affect.

Regarding depressive PD (Dep-PD), the theory of Millon proposes the existence of a pessimistic/melancholic personality profile characterized by despair, defenselessness, fatalism, feelings of uselessness, abandonment, asceticism, exhaustion, and woefulness (Millon, 2011).

The emotional difficulties that are typical of MDD and Sch-PD and Dep-PD leads us to hypothesize that a treatment based on emotion regulation could be effective for these pathologies, even when they appear to be comorbid. In this sense, the transdiagnostic approach may be a coherent alternative, as it focuses on the study of the common factors and dimensions of different disorders (or groups of disorders). In this sense, people with emotional disorders (EDs; anxiety disorders, mood disorders and related disorders), eating disorders, or PDs share clear emotional deficits that lead them to use very maladaptive regulation strategies, for example, the suppression or avoidance of emotions (e.g., Brown & Barlow, 2009). Therefore, the transdiagnostic perspective highlights the role of emotion regulation as a key concept to understand and treat disorders that present deficits in emotion regulation (Brown & Barlow, 2009). The team of Dr. David H. Barlow designed and tested a treatment to address emotion dysregulation, the so-called Unified Protocol (UP) (Barlow et al., 2011). The UP includes components of cognitive-behavioral therapy that have shown their efficacy in the treatment of specific EDs.

There are only two case studies published so far where the UP was applied in individual format to a person with a primary diagnosis of depression, and neither of them was carried out in Spain. Boswell, Anderson, and Barlow (2014) described the case of a 63-year-old woman with MDD and generalized anxiety disorder (GAD) who was treated with the UP (22 sessions) in the University of Boston. They found a clinically significant decrease between the pre- and posttest in depressive and anxious symptomatology. Hague, Scott, and Kellett (2015) applied the UP (8 sessions) in a clinical center to 67-year-old woman with a primary diagnosis of MDD and GAD. At posttest, depressive symptomatology was below the clinical cut-off point and was maintained at the 3-month follow-up.

There is still little evidence of the effectiveness of the UP when comorbidity presents with PD or pathological personality traits (e.g., impulsivity). The study of Sauer-Zavala, Bentley, and Wilner (2016) described the application of the UP in 5 cases with a diagnosis of borderline PD, showing its efficiency to significantly reduce the severity of the borderline personality traits as well as an increase in the participants' emotion regulation skills. More recently, the work of Bentley (2017) showed the effectiveness of the UP in the case of a woman with non-suicidal self-injury attempts, social anxiety disorder, and GAD. After 16 sessions of treatment, the patient experienced a significant reduction in suicidal behaviors and showed improvements in her ability to respond more adaptively to intense emotions.

On the one hand, the goal of this study is to describe the intervention of the UP in individual format carried out in a single case with a primary diagnosis of MDD and schizoid and depressive personality traits in the context of a public mental health center in Spain; on the other hand, to report the long-term (12-month follow-up) clinical improvement in terms of clinical syndromes and personality traits and to determine whether the presence of schizoid and depressive personality traits interferes with the course of and compliance with treatment. Lastly, we wished to know the participant's opinion of the UP.

Method

Participant

Jordi (pseudonym) is an unemployed 47-year-old Spanish male with university studies. He is an only child and lives with his parents. His mother has fibromyalgia and receives treatment with antidepressants, and his father has had a diagnosis of schizophrenia since Jordi was a child. He is the primary caregiver of his parents and currently has no partner. He has no previous history of psychological or pharmacological treatments. He came to the mental health center of Rafalafena in Castellón (Spain) referred by his family doctor and, at the time of the first interview with the psychologist (first author), he was receiving pharmacological antidepressant and anxiolytic treatment. For the past 2 months, Jordi presented depressive symptoms such as a marked sadness, disappointment with family and friends, apathy, anhedonia, hopelessness, social withdrawal, primary insomnia, and loss of appetite. In addition, he sometimes experiences episodes of rage, frustration, and irritability and, occasionally, loss of control of impulses (yelling, throwing things, kicking animals).

Jordi describes himself as not very emotional or expressive with others. He tends to avoid uncomfortable social situations (cafes and supermarkets, among others) and says that he prefers to be alone. He blames his current situation and symptoms on various life events: a) his father's acute psychotic crisis when he was young ("since then, I noticed that I could not be normal"); b) his subsequent attending a boarding school away from his environment (town, family, and friends); c) several romantic break-ups ("sometimes I've started a relationship knowing that it was not positive"); d) work problems when he was employed as a teacher in a compulsory secondary education center ("some colleagues were not very professional"); and e) difficulties to maintain social relations ("people only think about themselves", "they should know how I feel", among others). Jordi believes that he does not function like other people and does not have a normal life.

Instruments

Before beginning the process of evaluation, Jordi signed the data confidentiality and informed consent document.

Structured Clinical Interview for Axis I Disorders of the DSM-IV (SCID-I; First, Spitzer, Gibbon, & Williams, 1999). This clinical interview is used to assess the diagnostic criteria of mood and anxiety disorders based on DSM criteria. The reliability and validity indexes were appropriate.

The Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996; Spanish adaptation of Sanz, Perdigón, & Vázquez, 2003) evaluates depressive symptoms. It consists of 21 items with four response options (0 = *not at all* to 3 = *very much*), reflecting the severity of the symptomatology. Scores range from 0 to 63 points. The inventory has a high internal consistency, with an alpha coefficient of .87.

The Beck Anxiety Inventory (BAI; Beck & Steer, 1988; Spanish adaptation of Sanz, García-Vera, & Fortún, 2012) evaluates anxious symptoms. It consists of 21 items that are rated on a Likert-type scale ranging from 0 (*not at all*) to 3(*severe*). The total score ranges from 0 to 63 points. The BAI has high internal consistency, with a Cronbach alpha of .90.

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; Spanish adaptation of Sandín et al., 1999) measures positive and negative affect with 20 items, 10 per dimension. Items are rated on a 5-point Likert-type, ranging from 1 (*not at all*) to 5 (*very much*). Internal consistency is good for both dimensions: .89 for Positive Affect and .91 for Negative Affect. More recently Ortuño-Sierra, Santarén-Rosell, Pérez de Albéniz, and Fonseca-Pedrero (2015) found an internal consistency scores ranging from .80 to .86. in a sample of adolescent and young adults.

The Quality of Life Index-Spanish version (ICV-Sp; Mezzich et al., 2000) is a self-report instrument to measure quality of life made up of 10 items. Items are rated on a 10 point scale, ranging from 1 (*poor*) to 10 (*excellent*). The instrument has a test-retest reliability coefficient of .89 and adequate rates of applicability, reliability, and validity.

The Escala de Inadaptación ([Maladjustment Scale] EI; Echeburúa, Corral, & Fernández-Montalvo, 2000) reflects how maladjustment affects work and/or study, social life, free time, couple relationship, family life, and the degree of global maladjustment. The scale consists of 6 items, ranging from 0 (*not at all*) to 5 (*very much*). The total score ranges from 0 to 30.

Higher scores indicate greater maladjustment. The scale presents a mean score of 18.04 (*SD*= 6.26) in clinical population, a test-retest reliability of .86, and the internal consistency is .94.

The Millon Multiaxial Clinical Inventory (MCMI-III; Millon, Davis, & Millon, 1997; Spanish adaptation of Cardenal & Sánchez, 2007) consists of 175 items that assess 14 patterns of personality and 10 clinical syndromes. The items have two response options (true-false). According to the MCMI-III, for each one of the patterns, a prevalence score between 75 and 85 indicates a clinical personality trait, whereas scores over 85 indicate a chronic and moderately severe level of functioning, that is, a PD. The MCMI-III has good psychometric properties, with test-retest reliability between .84 and .96, and internal consistency higher than .80.

Procedure

Jordi was recruited from one of the collaborative mental health centers participating in a multicenter clinical trial study actually in process in Spain (NCT03064477, clinical Trial ID). The entire process was carried out by a psychologist with 12 years' experience in evaluation and CBT for ED. In addition, the therapist (first

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Table 1
Description of the treatment modules, number of sessions, and information about the work performed by Jordi

Module (Sessions)	Information about Jordi's work
Module 1. Improve motivation and commitment to treatment (Session 1)	Goal 1: actively seek work Goal 2: increase social activity
Module 2. Understanding emotions (Sessions 2-3)	Record ARC of emotional experiences: Antecedents: Argument with parents, visits or messages from friends who ask him how he feels. Responses: - Physiological: body tension, agitation. - Cognitive: "They ignore me", "They aren't concerned about me", "I don't want to tell anyone how I feel". - Emotion-driven behaviors: shouting, kicking pets, not replying to messages, smoking more. Consequences: - Short-term: relief of stress, decrease of sadness and rage. - Mid- and long-term: social isolation, low activity, frustration, and amotivation
Module 3. Training in emotional awareness. Learning to observe experiences (Sessions 4-5)	Mindfulness exercises in daily life: working in the garden (touching the ground with his hands), picking mushrooms (smelling the damp grass). Anchoring in the present through breathing
Module 4. Evaluation and cognitive reappraisal (Sessions 6-7)	Most frequent thinking errors: Catastrophizing ("I will never find work"), jumping to conclusions ("I'm not going to control myself and he/she will not call again"), generalization ("people only care about themselves")
Module 5. Emotional avoidance and emotion-driven behaviors (Sessions 8-9)	- Explicit behavioral avoidance: avoiding cafes or places where he can meet acquaintances, not seeking jobs or not going to temporary work agencies, not attending social events. - Subtle behavioral avoidance: no eye-contact, not bringing up topics of conversation that can generate an argument. - Cognitive avoidance: relativizing, ruminating, daydreaming about a better life with social, romantic, and professional success. - Safety signals: carrying a folder when walking down the street ("if I did not, I would feel too exposed to people"). - Emotion-driven behaviors: leaving a place, yelling, hitting pets, not answering messages or phone calls, procrastinating, smoking more
Module 6. Awareness and tolerance of physical sensations (Session 10)	Interoceptive exposure to the physical sensations of sweaty hands (through gloves) and dry throat (breathing cold air through the throat)
Module 7. Emotional interoceptive and situational exposure (Sessions 11-16)	Emotional exposure hierarchy to anxiety: Asking people with experience about ecological agriculture, staying at the grocery store with his mother, staying in places where acquaintances might come in (cafeteria), walking through places with a lot of people without the folder. Emotional exposure hierarchy to anger: Proposing activities to friends, answering WhatsApps from friends, accompanying his parents to the doctor, remaining in an argument between his parents without participating, remaining in social activities and interacting, answering personal questions. Emotional exposure hierarchy to sadness: Reading job vacancies, leaving undone work in the garden for the next day, watching his father ("always wrapped up in himself"), talking about a friend who died with his widow.
Module 8. Achievements, maintenance and relapse prevention (Session 17)	He should keep practicing the exercises of modules 3, 4 and 7. The new goals are: to increase social activities, tolerate his parents' reactions, and devote time to ecologic agriculture as a possible job opportunity

author) received certification from the Unified Protocol Institute of the University of Boston as a trainer and researcher of the UP.

Intervention

The UP program was conducted in 20 individual sessions. Each session lasted approximately one hour and all were carried out face-to-face in the Jordi's referral mental health center. The first sessions were dedicated to the evaluation, diagnosis, and treatment plan ($n = 3$). The following 9 sessions were held once a week and thereafter every two weeks ($n = 8$). Upon treatment completion, follow-ups were conducted at three, six, and twelve months. Therapeutic components and techniques used are summarized in Table 1.

Data analysis

The raw scores in the assessment instruments are presented. The percentage of change (PC) from pre-test was used to calculate the increase or reduction of the patient's scores from the beginning to the end of treatment and the follow-ups, comparing the difference between the two. We also used the reliable change index (RCI; Jacobson & Truax, 1991), which is defined as a statistical index that assesses the clinically significant change obtained. According to its authors, clinically significant change occurs when the patient returns to normal functioning (a value equal to or greater than 1.96).

Results

Jordi was diagnosed according to DSM-IV-TR criteria (APA, 2000) with 296.23 (F32.2), Major depressive disorder, single, severe episode with mixed features. In Table 2, we observe high scores in depressive symptomatology (BDI-II) equivalent to severe at pre-treatment, whereas at post-treatment and in the follow-ups, the scores were equivalent to absence of depression ($RCI= -5.51$, $p<.05$). This was corroborated with the SCID-I (First et al., 1999),

Table 2
Normative data, raw scores and reliable change index of the clinical measures at pretest, posttest and at the 3, 6, and 12-month follow-ups

	Normative data	Pretest	Postest	3-MF	6-MF	12-MF	RCI (Pre-12 MF)	IN
	M (SD)	RS	RS (PCP)	RS (PCP)	RS (PCP)	RS (PCP)		
BDI-II	9.2 (7.5)	21	7 (66.6)	13 (38.09)	6 (71.42)	0 (100)	-5.51	SC
BAI	8.54 (10.3)	8	6 (25)	11 (-37.5)	7 (12.5)	13 (-62.5)	1.08	NC
PANAS-PA	30.23 (6.16)	21	24 (-14.28)	21 (0)	26 (-23.80)	22 (-4.76)	.35	NC
PANAS-NA	20.61 (6.54)	28	24 (14.28)	20 (28.57)	21 (33.33)	18 (35.71)	-3.61	SC
ICV-Sp	6.98 (1.11)	3.7	4.2 (-13.51)	4.0 (-8.10)	5.4 (-45.94)	6.1 (-64.86)	4.61	SC
EI	2.22 (1.66)	2.4	2.4 (0)	1.5 (37.5)	1.8 (25)	1.5 (37.5)	-1.02	NC

Note: M: Mean; SD: Standard deviation; RS: Raw score; PCP: percentage of change from Pretest. MF: month of follow-up; RCI: reliable change index; IN: interpretation; SC: significant change; NC: no change; BDI-II: Beck Depression Inventory-II; PANAS-PA: Positive and Negative Affect Schedule -Positive affect; PANAS-NA: Positive and Negative Affect Schedule -Negative affect; ICV-Sp: Quality of Life Index- Spanish; EI: Maladjustment Scale

Table 3
Normative data, raw scores, percentage of change, and prevalence and reliable change index in personality profiles of the MCMI-III at pretest, posttest, and at the 6- and 12-month follow-ups

	Normative data	Pretest	Postest		6-MF		12-MF		RCI (Pre-12 MF)	IN
	M (SD)	RS (PREV)	RS (PCP)	PREV	RS (PCP)	PREV	RS (PCP)	PREV		
Schizoid	5.19 (3.65)	15 (77)	10 (33.33)	65	10 (33.33)	66	6 (60)	46	-4.36	SC
Avoidant	4.28 (4.30)	12 (68)	5 (58.33)	43	7 (41.67)	61	4 (66.67)	35	-3.29	SC
Depressive	3.85 (4.73)	14 (76)	7 (50)	53	0 (100)	1	0 (100)	1	-5.24	SC
Dependent	6.13 (4.54)	4 (27)	3 (25)	20	2 (50)	14	1 (75)	8	-1.17	SC
Histrionic	16.04 (4.82)	4 (12)	5 (-25)	15	8 (-100)	25	8 (-100)	25	1.46	SC
Narcissistic	13.94 (4.32)	11 (62)	10 (9.09)	60	11 (0)	63	12 (-9.1)	72	.41	NC
Antisocial	7.16 (4.61)	5 (43)	5 (0)	43	6 (-20)	52	3 (40)	27	-.77	NC
Aggressive	7.58 (5.32)	9 (62)	9 (0)	62	3 (66.67)	23	7 (22.22)	53	-.66	NC
Compulsive	14.78 (5.10)	15 (47)	15 (0)	47	13 (13.33)	42	18 (-20)	58	1.04	NC
Negativistic	7.09 (5.16)	15 (69)	8 (46.67)	53	4 (73.33)	28	4 (73.33)	28	-3.78	NC
Self-destruc.	3.17 (4.07)	6 (61)	3 (50)	36	0 (100)	1	0 (100)	1	-2.62	NC
Schizotypal	3.07 (7.12)	6 (61)	5 (16.67)	60	3 (50)	37	1 (83.33)	13	-1.24	SC
Borderline	4.91 (4.17)	8 (61)	6 (25)	51	2 (75)	18	3 (62.5)	27	-2.11	SC
Paranoid	5.37 (4.88)	4 (40)	3 (25)	30	1 (75)	11	0 (100)	1	-1.45	NC

Note: M: Mean; SD: Standard deviation; RS: Raw score; PREV: Prevalence; PCP: percentage of change from Pretest. MF: month of follow-up; RCI: Reliable Change Index; IN: interpretation; SC: significant change; NC: no change: Self-destruc.: Self-destructive

which showed absence of clinical criteria for the diagnosis of MDD at post-treatment and in the follow-ups.

Regarding the results of anxious symptoms, the BAI scores fluctuated over time but always remained within the intervals of mild symptoms (Beck & Steer, 1988). The PANAS results showed an increase of positive affect and a decrease of negative affect after treatment but at the 12-month follow-up, the scores of positive affect returned to pre-treatment levels, and negative affect decreased significantly (RCI = -3.61, p<.05). With regard to the ICV-Sp, higher scores were obtained after the intervention and at the follow-ups (RCI= 4.61, p<.05). In the EI, the scores were lower after treatment and at follow-up although the difference did not reach clinical significance.

In the MCMI-III, scores indicating pathological personality traits were obtained (scores between 75 and 85) in the schizoid (1) and depressive (2B) personality profiles, as well as high scores in the negativistic (8A) and avoidant (2A) profiles. After the intervention, Jordi presented no scores higher than 75 in any of the scales, so we ruled out clinical personality traits or PD. The results were maintained at the 12-month follow-up.

Jordi's rating of the treatment he received was positive and he stated that it approached the goals set at the beginning of the treatment. He reported that he was satisfied with the treatment and highlighted its ease of comprehension ("presents clear and concrete concepts") and its consistency ("it is as if everything was drawn together"). He considered the frequency and duration of the treatment to be adequate and stated that it helped him improve. On a range from 0 (*not at all*) to 10 (*very much*), he rated with an 8 the support obtained in the different modules of the UP to regulate his emotions adaptively. Jordi would recommend the UP to other people if they needed it.

Discussion

This work is one more contribution in the line of research on the clinical utility of the UP in the context of the Spanish public mental health. In this case, the aim of the authors is to demonstrate that the UP is clinically useful, not only for primary diagnoses of anxiety but also for the treatment of MDD, and it has also proved to be beneficial for schizoid and depressive personality traits.

The results obtained in the significant decrease of depressive symptoms are similar to those obtained by other authors (e.g., Boswell et al., 2014; Farchione et al., 2012; Hague et al., 2015). In this case, the results obtained with the PANAS show that the UP had a greater influence at the long term decreasing negative affect than increasing positive affect. In spite of the fact that some studies that have found significant changes both in the reduction of negative affect and in the increase of positive affect (Farchione et al., 2012; Osma, Castellano, Crespo, & García-Palacios, 2015), in the study of Bullis, Fortune, Farchione, and Barlow (2014), a significant long-term (6 months) change was found in the decrease of negative affect (ESsg = 1.00) and a not very significant change in the increase of positive affect (ESsg = -.53). These data show, on the one hand, that the UP positively influenced the variable of generalized biological vulnerability (Suárez, Bennett, Goldstein, & Barlow, 2009), corroborating the malleability of negative affect over time and with adequate treatment (Barlow et al., 2014). On the other hand, regarding positive affect, the results could also be explained by Jordi's lack of practice in some emotion regulation strategies that could

have benefitted him more in the increase of positive affect, for example, focusing on the present moment or exposing himself emotionally to different social activities.

The results also reveal the improvement in quality of life and the decrease of maladjustment following the intervention. We consider that these positive outcomes could be explained because UP program emphasizes the idea of learning and practicing emotional regulation skills in order to achieve personal, meaningful, and concrete life aims. Thus, all the exercises and efforts are related with the participants' vital needs. In the pilot study that we carried out in Spain (Osma et al., 2015), we obtained similar results both in the increase of quality of life (ICV-Sp going from 6.53 to 7.5) and in the reduction of maladjustment (EI going from 14.37 to 3.5).

Regarding schizoid and depressive PD traits, the outcomes obtained indicates that improvement in emotion regulation can positively influence pathological personality traits. No data regarding the benefits of the UP in the treatment of schizoid and depressive personality traits have been published so far but there are publications in the case of the borderline traits (Sauer-Zavala et al., 2016) and in cases with clinical comorbidity between EDs and self-injurious behaviors (impulsive traits) (Bentley, 2017). Preliminary results from this and other studies suggest that learning strategies of emotion regulation through the UP in patients with EDs and pathological personality traits produces clinical benefits and a significant increase in quality of life.

We highlight the patient's positive assessment of the UP as well as his satisfaction with all its components, which have helped to regulate his emotions. He attended all the appointments, showing a high compliance with treatment. Therefore, schizoid and depressive personality traits did not affect treatment compliance. In addition, Jordi did not request additional appointments with his psychologist in the intervals between the follow-ups. It is important to apply psychological treatments that are positively valued by patients who have shown high compliance. In this sense, the frequency and duration of sessions positively influenced his compliance and, therefore, the clinical improvement. It is necessary to rethink the way we currently apply psychological interventions in public mental health contexts (frequency and duration of appointments) to improve their efficacy and compliance.

Finally, and regarding the limitations of the study, results from this single case-study must be interpreted prudently. Single case-studies have a descriptive goal, especially when it comes to new therapeutic techniques or interventions, as was the aim of the present work. In this sense, despite we have been used a single-case design with repeated data (pretest-posttest- 3, 6 and 12 months follow-up) and the quantitative data and the intervention have been clearly specified, the study would have been much improved by the addition of a baseline period. Moreover, the evaluation would have been improved with the addition of a structured clinical interview for personality disorders and with the collection of family and friends data. Future research should test the generalization of the results especially regarding the acceptability, efficacy and effectiveness of the UP for the treatment of ED in public mental health settings. In conclusion, this single case-study offers initial support concerning the adoption of an emotional regulation based intervention, such as the UP, within adults with ED and personality pathology comorbidity, specifically schizoid and depressive traits.

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