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A Review of Characteristics and Treatments of the Avoidant Personality Disorder. Could the DBT be an Option?

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Abstract

Avoidant personality disorder (APD) is a frequent disorder whose prevalence has been reported to be as high as 10% in mental clinic outpatients. There is an open debate on whether APD is to be considered a different disorder compared to social phobia (SP), or they are different quantitative manifestations of the same pathologic process. Treatment for APD is mainly based on evidence gathered for SP or SP in co-morbidity with APD. Suggested pharmacological treatment of APD is SSRIs or SNRIs. There is no clear cut evidence in literature that one form of psychotherapy is superior to another for the treatment of APD, also because of the paucity of published evidence. It has been recently suggested that a modified form of the dialectical behavioral therapy (DBT) could be used for the treatment of APD, together with other diagnoses that share over-control as a psychological mechanism. The present contribution reviews the published evidence on APD and describes the main issues that are nowadays debated about this disorder.

Keywords

Avoidant personality disorder, Psychotherapy, Pharmacotherapy, Social angst

Highlights

- Avoidant personality disorder is frequent in the general population.
- It is debated whether avoidant personality disorder is a separated disorder from social angst.
- Treatment for avoidant personality disorder mainly overlaps with the treatment of social angst.
- Avoidant personality disorder is best pharmacologically treated by SSRI or SNRI.
- An adaptation of the dialectical behavioral therapy may represent an option for the psychotherapeutic treatment of avoidant personality disorder.

Introduction

Avoidant personality disorder (APD) has only recently entered the group of personality disorders, together with the publication of the DSM-III in the eighties of the last century. The presence of both social phobia (SP) and AVP in the DSM-III is proof that anxiety can be viewed in two different ways. The first one dating back to the beginning of the last century [1] states that anxiety is to be considered a symptom disorder as the other phobias, the other one states that at least some forms of anxiety are to be interpreted in a broader constellation of trait symptoms that are strictly associated with the psychological makeup of a person [2]. The article that promoted the distinction between APD and SP was published by Turner and colleagues in 1986 [3] but the difference between the two disorders could have been a result of the use of the diagnostic criteria for the APD during the study. These criteria were stringed and requested all 5 APD symptoms to be present in order to diagnose a APD. The same criteria changed in the revision of the DSM-III and were shifted to a polythetic approach, allowing less severe patients to be diagnosed with APD. The inclusion of less severe patients with a diagnosis of APD may be held accountable for the possible overlap between SP and AVP as reported in different studies. The evidence related to this

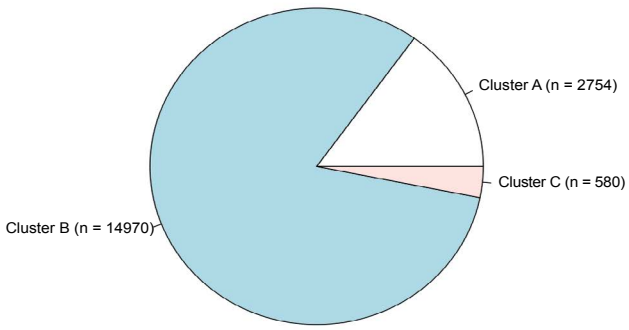

Figure 1: Number of published papers on PumMed for personality disorders organized by clusters.

The most part of articles published on PubMed so far (December 2015) are about cluster B disorders. Keys for designing the plot were for example: "Avoidant personality disorder" NOT ("Dependent personality disorder" OR "Obsessive-compulsive personality disorder") NOT ("Paranoid personality disorder" OR "Schizoid personality disorder" OR "Schizotypal personality disorder") NOT ("Antisocial personality disorder" OR "Borderline personality disorder" OR "Histrionic personality disorder" OR "Narcissistic personality disorder") and related permutations.

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issue is detailed in the body of the present contribution. A long debate in literature still doubts its etiological independence from anxiety disorders, and the current pharmacological prescribing guidelines for APD are in line with such statement, as discussed in the present contribution. Despite being a chronic disorder that is frequent in the general population and among patients that suffer from mental disorders - lifetime prevalence is estimated around 1.5% in the general population and 15.2% among psychiatric patients - , APD has not been one of the main focus in research in the last decades (Figure 1 and Figure 2).

The aim of the present contribution is to identify the main characteristics (part 1 of the present contribution) and the possible pharmacological and non pharmacological treatments for APD (part 2 of the present contribution). Other relevant issues related to the disorder, such as its possible genetic underpinnings, the description of the psychological theories that tried to explain the disorder (attachment and cognitive for example), together with the possible complications of the disorder, are not discussed here, but can be found in a recently published review on the topic [4]. The final part of the present contribution is dedicated to the possible application of a modified version of the Dialectical Behavior Therapy (DPT) to the treatment of the APD.

Methods

Pumbed and PsycInfo were searched for references using the following keywords in permutation: "avoidant AND personality AND treatment"; "avoidant AND (psychodynamic OR cognitive)"; "avoidant AND Dialectical Behavior Therapy". Bibliographies of the single published articles were manually searched in order to complete the collection of the data. Previous reviews and research articles were identified. Inclusion criteria for enrollment in the present work were: 1) shall be written in English; 2) shall be a review or a case-control research article; 3) should focus on treatment of avoidant personality disorder or on epidemiological or etiological investigation; 4) should not be case reports; 5) should not be protocol description. A special precaution was dedicated to the identification of articles reporting negative association findings in order to limit a possible publication bias.

Part 1

Definition of APD

Persons with avoidant (anxious) personality disorder (APD) show a pattern of behavior that originates early during adolescence and is characterized by extreme shyness, feelings of inadequacy and sensitivity to rejection. This cluster of feelings arise from a constitutive and persistent idea of inferiority to other people together with the expectation to be poorly judged by others. Symptoms are expected to be extreme in the presence of APD. A diagnosis is to made with extreme cautiousness in children and adolescents, and only when it causes severe social impairment and personal suffering. Supplementary file 1 presents the DSM-V diagnostic criteria for APD. Supplementary file 2 shows the ICD -10 diagnostic criteria for the same mental disorder. The pattern of behavior during APD must be stable in time and response to a variety of personal and social situations must be inflexible and determining an extreme deviation from what is considered the mean behavior in the cultural background of the person affected by the disorder. It is reported that patients diagnosed with APD tended to be shy during their infancy but their shyness and auto-inhibition of social contacts do not ameliorate as the time passes by, until it becomes so severe as to indicate a diagnosis of APD. Symptoms related to APD ameliorate later in adult life [5], but the disorder seems to be stable over time with 56% of patients diagnosed with APD remaining at or above threshold after two years from the initial interview [6].

Before DSM

The first personality disorder to be classified according to the contemporary scientific perspective was the antisocial personality disorder, which was first defined as a condition of "moral insanity" by Prichard in 1837 [7]. The first systematic description of personality

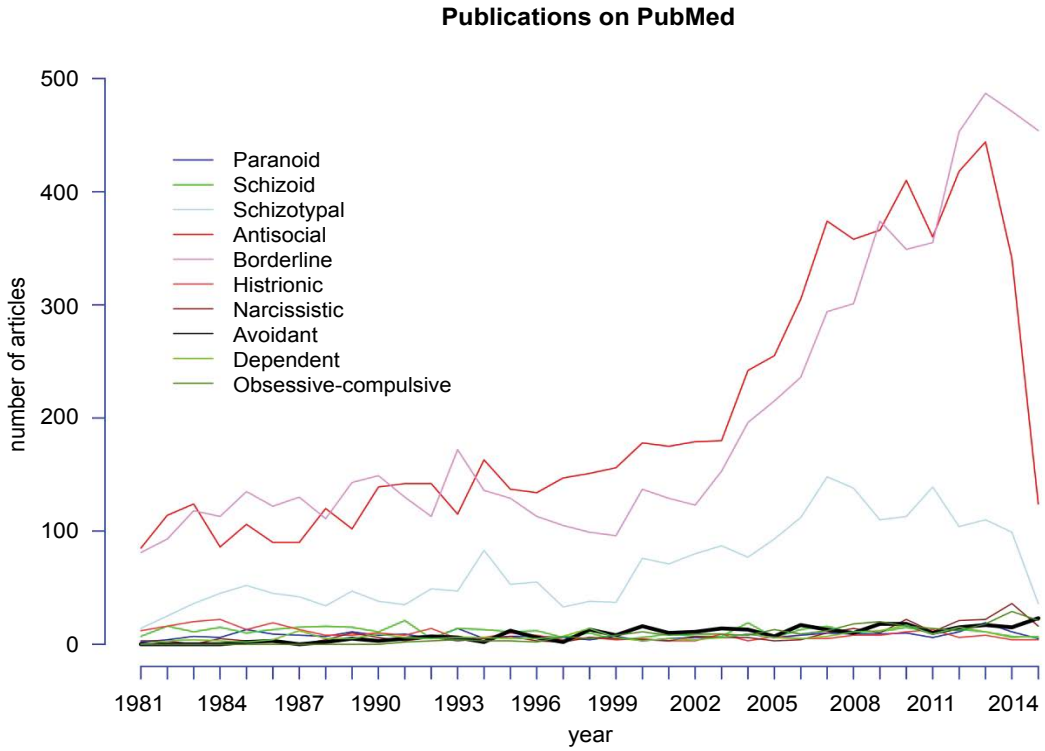

Figure 2: Number of published articles on PubMed for personality disorder organized per kind.

The Antisocial and Borderline disorders attracted much attention by Authors during the last thirty years. Keys for designing the plot were for example: "Avoidant personality disorder" NOT ("Dependent personality disorder" OR "Obsessive-compulsive personality disorder") NOT ("Paranoid personality disorder" OR "Schizoid personality disorder" OR "Schizotypal personality disorder") NOT ("Antisocial personality disorder" OR "Borderline personality disorder" OR "Histrionic personality disorder" OR "Narcissistic personality disorder") and related permutations.

disorders as separated from the other psychiatric disorders, and not only precursors of them, was done by Schneider in 1923 [8]. This first classification did not include APD. Instead, the affectionless personality (antisocial and schizoid personality disorders), the labile personality (borderline personality disorder), the anankastic personality (obsessive compulsive personality disorder) and the depressive personality (depressive personality disorder) were described.

APD in DSM

The first DSM (DSM-I) appeared in 1952. In this first classification of the DSM, personality disorders were qualified by an absence of subjective anxiety, and little or no sense of distress, with mental or emotional distress being much less important compared to the patters of action and behavior. The DMS-II appeared in 1968 with a broader and more sophisticated classification of personality disorders, which did nevertheless not include APD. In the DSM-III (1980) personality disorders were classified in the Axis II, which was a relevant choice, because clinicians were then invited to consider a diagnosis for personality disorder for all of their patients. The DSM-III also brought another relevant change in the classification of personality disorders, providing a number of symptoms for each disorder. Of note, the set of criteria was polythetic, none of them was necessary or sufficient alone to have a diagnosis of a specific personality disorder. It was with the DSM-III that the APD was classified within cluster C together with the obsessive compulsive, dependent and passive-aggressive. The DSM-IIIR was published in 1987 and brought no substantial changes to the diagnosis of APD, nor did the DSM-IV in 1994 or more recently, in 2013, the DSM-5. The diagnostic criteria of APD in DSM-5 are reported in supplementary file 1. Of note, two different approaches are implemented in the DSM-5 in order to diagnose a personality disorder. The first one is categorical in nature and represents the continuation of the DSM-IV, this is embedded in the section II of the DSM-5. On the other hand, the section III of the DSM-5 implements an alternative model for the conceptualization and the diagnosis of personality disorders, which is dimensional in nature. Following this latter system a number of impaired core functioning would be common for all personality disorders, including core impairments in self (identity and self-directedness) and interpersonal functioning (empathy and intimacy). This impairments represent the cluster A of this classification. In the cluster B are reported the variants that may differentiate the personality disorders as they are classified in the section II. A list of maladaptive domains that are composed and differentiated in 25 facets are described in different groups including: negative emotionality, detachment, antagonism, disinhibition, psychoticism and a general severity indicator. The APD was the only one of the personality disorders to be incremented by non-specific traits [9], and additional diagnostic information for this specific personality disorder have been proposed to be depressivity and perseveration [10].

The APD was one of the last of personality disorders to be included in the historical classification of these disorders. This historical aspect is also consistent with the difficulties to tell apart APD from other anxiety disorders that are classified in Axis I of the DSM.

Prevalence of ADP

APD is one of the most frequent personality disorders [11,12]. Lifetime prevalence is estimated around 1.5% in the general population and 15.2% among psychiatric patients [13]. The 12 month prevalence of APD was 2% in the UCLA family study [14], a population sample in the Norway reported a lifetime prevalence of 2.7% [15], which was consistent with what reported in an American epidemiological sample, 2.4% [16]. A Swedish investigation reported a much higher prevalence of the disorder, 6.6%, under a self-administered questionnaire [17]. The National Survey of Mental Health and Wellbeing (NSMHWB) reported an estimated 12 month prevalence of 1.5% for APD [18] in a Australian sample from the general population. Table 1 reports a detail of some selected evidence on this topic.

Table 1: Research evidence on the treatment of APD. Prevalence and comorbidity.

Article	Kind of study	Sample	Result	Limits	APD without SP*
Skodol et al. [6]	Clinical based, epidemiological study, follow up of 2 years	600 patients with PD or MDD and no PD followed for at period of to years. APD n = 137.	Symptoms of PD remain stable over time, APD patients had better outcome regarding employment function but a worse result regarding social relationships, but not social functioning.	Positive association bias in assessing relationship quality (< % of PD was in a relationship at the beginning of the study). Limited follow up period for testing changes in PD.	Yes
Zimmerman et al. [12]	Community based, epidemiological study	859 Psychiatric outpatients	1/3 of the enrolled patients had a PD. APD had the higher % of being diagnosed as a single PD (58.7%) along with the HPD (66.7%) APD had also high OR of comorbid PD with cluster A and cluster B PD APD had a significant association with a diagnosis of MDD, GAD and Panic Disorder (~ 20 - 25% of co-diagnosis)	The study was conducted in a private practice group that does not target patients without a health insurance and lower-income patients. No follow-up.	Yes
Asarnow et al. [14]	Community and clinical based epidemiological study	Probands of childhood onset schizophrenia (n = 148), relatives of ADHD patients (n = 368) and community controls (n = 206)	Risk of APD was higher in COS probands (9.41 %) vs. controls (1.67 %)	Large confidential intervals are reported	No

Reichborn-Kjennerud et al. [15]	Population based epidemiological study	Adult female-female twin pairs. 1427 pairs (898 monozygotic and 529 dizygotic) were included in the analysis and had valid data	The prevalence of APD was 2.7%. 32.5% of subjects with APD also had PD 30.6% of subjects with generalized social phobia also had APD 18.3% of subjects with PD also had APD	Based on females twins only	Yes
Cox et al. [16]	Epidemiological investigation based on a previous survey on Alcohol and Related Conditions	34905 individuals representing the general population in 50 United States	Lifetime prevalence of APD = 2.4% Lifetime prevalence of SP = 2.8% 36.4% of individuals with SP had also APD	The survey was not initially focused on personality disorders	Yes
Tillfors et al. [17]	Epidemiologically identified probands of individuals with SP	1000 women and 1000 men randomly sampled in the greated Stockholm area	A 2 to 3 fold increased RR of social anxiety as a function of a positive parental history of SP or APD, alone or in combination Familial aggregation of SP was not modulated by other diagnoses in axis I or II, indicating that SP and AVP may not be separated disorders	Diagnosis was made through a self-questionnaire	Yes
Lampe et al. [18]	Epidemiological study on the general population	10641 individuals enrolled in the Australian National Survey of Mental health and Well Being	APD 12 month prevalence = 1.5% 28.9% of individuals with SP also had APD.	Non specific for APD	No
Lampe et al. [19]	Epidemiological study on the general population	381 individuals enrolled in the Australian National Survey of Mental health and Well Being	APD 12 month prevalence = 2.3%; F:M ratio = 1.5 26% of subjects with SP also had ADP; F:M ratio = 2	Small sample size	Yes
Hummelen et al. [20]	Epidemiological study involving 12 units of the Norwegian network of Psychotherapeutic Day Hospitals	2192 individuals enrolled in the study	39 % had APD, 48% of whom also had SP	The units that contributed to the enrollment are specialized in personality disorders, this could create a selection bias or over diagnosis of the disorders when compared to the general population.	Yes
Torgersen et al. [98]	Epidemiological study in the general population	2053 individuals from the general population	5% of the population had APD	/	No
Grant et al. [99]	Epidemiological study in the general population	43093 respondents in the National Institute on Alcohol Abuse and Acloholism's 2001-2002 National Epidemiologic Survey on Alchol and Related Conditions	2.4% of the population had APD	Non specific for APD	No

Co-morbidity of ADP

APD segregates with Axis I and Axis II psychiatric disorders. The rate of co-morbidity is especially high for social phobia (SP), to the point that question arose as to whether APD and SP should be treated as two different diseases, or they should be better described as a continuum. Lampe and colleagues [19] reported that 26% of patients with SP have also APD, and 37.3% of patients with APD also have SP. The presence of both disorders was associated with a higher degree of distress, also when controlling for depression and substance abuse, which would suggest the presence of two different diseases rather than an overlapping in diagnosis [16]. In the NESARC study 39.5% of patients with APD also had SP, the rate of co-morbidity was as high as 32.5% in a female twin study [15] and the rate of co-morbidity was estimated to be higher in a large outpatient sample in Norway, where 48% of patients with APD also had SP [20]. Other reports show a somehow lower level of co-morbidity between SP and APD [21]. A high degree of co-morbidity between APD and depressive disorder has also been reported [22], and one third of patients with anxiety disorders is expected to have APD according to some reports [21]. Stuart and colleagues found out that APD's traits are common among all the three clusters of personality disorders according to the DMS-IIIR [23], and Zimmerman and colleagues reported that while the prevalence of APD in their sample was as high as 14.7%,

the prevalence of the APD together with other personality disorders was as high as 58.7% and it was one of the first-ranked personality disorder in co-morbidity with other personality disorders in the sample under analysis (OR = 12.3 in combination with schizoid personality disorder and OR = 4 in combination with paranoid personality disorder $p < 0.01$) [12]. Table 1 reports a detail of some selected reports on this topic.

Are SP and APD different disorders?

Evidence for APD and SP being two different diseases: The question whether SP and APD should be treated as single entities or as a continuum is an ongoing open debate in literature. The current classifications (DSM, ICD), describe two different entities and some lines of evidence are consistent with this. For example, the prevalence of SP is as high as 13% in some reports [24], the 12 month prevalence in the United States would be as high as 7% [25-27]. This prevalence is higher than what reported for APD, and a difference prevalence would point to two different disorders. Moreover, the degree of overlap between the two disorders might be related to the used diagnostic criteria, as discussed in [20]. A large longitudinal investigation involving 1,471 twin subjects indicated that qualitative and not only quantitative differences would exist between SP and APD [28]. An interesting study was conducted by Huppert and colleagues to test – among others – that SP and APD respond different to the treatment, which would suggest the presence of different etiological processes at the basis of the disorders. As a result, it was reported that there was overall no difference in response between the groups, but the presence of APD was associated with a faster improvement during the initial phase of the treatment, an event that was interpreted in the light of the more severe symptomatology that affects patients with both disorders, which would result in a faster amelioration of symptoms during the first phases of the treatment [29].

Evidence for APD and SP being a single disease: Tillfors and colleagues reported that SP and APD are best described as a continuum when they are analyzed in the context of the familiar aggregation of social phobia [17]. The same conclusion was drawn by Ralevski and colleagues who investigated a sample of 224 patients with APD and 101 patients with both diagnoses [30]. According to this conceptualization, APD would be a more severe variant of SP [31,32]. A large recent study on SP and APD involving 16,399 individuals with SP and 2,673 individuals with APD suggests that the two disorders are etiologically related and may represent different results of a common biological process [33]. Finally, Hummelen and colleagues underlined that the diagnosis of APD or SP can be the result of a different understanding of social phobia. In the first case, SP would be the result of a specific psychological makeup, which together with a constellation of other characteristics or symptoms, would increase the risk for a diagnosis of APD. On the other case, SP can be considered as one of the different phobias and can be conceptualized as an anxiety disorder [20]. This differentiation is consistent with the initial conceptualization of the two disorders that was included in the DSM-III: SP as an excessive fear of performing in social situations, and APD as a problem of forming close interpersonal relationships due the feelings described earlier in this text. In their extensive review on this topic, Alden and colleagues suggested that a categorical approach would be not as efficacious as a dimensional approach in order to understand and better diagnose persons who experience angst in association with social situations [21]. In particular, the dimensions of social anxiety, avoidance of novel situations, depressed mood and nature of interpersonal difficulty would provide useful in the understanding of the relationship between APD and SP.

Part 2

Pharmacological treatment: Background

There is no currently drug treatment approved for the treatment of personality disorders. Pharmacological treatment is nevertheless used in practice "off-label" [11,34]. The use of pharmacological treatment in personality disorders is in most cases aimed to stabilize patients' symptoms in order to facilitate psychosocial interventions and psychotherapy [11]. The same concept can be applied to APD. The pharmacological treatment of APD as the principal diagnosis and with no other co-morbidities has not been extensively investigated in literature. The current agreement on the pharmacological treatment of APD is based on the assumption that there exists a significant overlap between APD and SP in terms of response to pharmacological treatments, and there is no evidence that the two disorders differ in terms of biological correlates [11].

Pharmacological treatment of APD

Guidelines for the biological treatment of personality disorders have been published by the World Federation of Societies of Biological Psychiatry (WFSBP) IN 2007 [11]. Authors suggest that SSRIs and Venlafaxin may be effective in addressing the biological treatment of APD. Reversible inhibitors of mono-amino-oxydase (moclobemide and brofaromine) are to be considered second line treatments for APD / SP. Irreversible mono-amino-oxydase inhibitor (phenelzine) should not used because of the risk of serious side effects [34]. To the best of our knowledge, there is no published evidence on the efficacy of the use of second generation anti-psychotics or mood stabilizers for the treatment of APD.

Psychological treatments: Background

Anxiety is conceptualized in different ways in psychodynamic and cognitive oriented treatments. Anxiety as a symptom is of prime relevance in the theory of psychodynamics. Starting with the work of Freud in the beginning of the last century, anxiety was regarded as a result of the threads associated with impulses [35,36]. The object relation theory and self psychology [37-39] showed that the origin of conflict may be the fear of annihilation, persecution, separation, fusion or disintegration. When anxiety is over-represented, it becomes itself a symptom. The psychodynamic theories of anxiety do not generically dismiss the biological aspects of the disease [40,41]. A disturbed self-concept would be a central component of anxiety according to Hoffman [42], which would result in a disturbed self-esteem and unrealistic expectations about the reaction of others in social environment. Gabbard [40] suggested that anxiety is the result of the desire to be at the center of the others' attention, associated with the unrealistic expectation, that the others will give a negative evaluation. The anticipated negative response from disapproving parental figures might be involved in the process. Patients that express anxiety in social environments have been found to have an insecure attachment style [43], and separation anxiety would be central in anxiety disorders as a reaction to the fear of losing an important bond with the caregiver, when moving towards independence.

In line with these studies, Ainsworth [44] showed that the mothers of these children express a rejection of the normal children's needs of dependency, and Grossmann and Grossmann [45] observed a mother struggling to accept and contain the sadness of children that later developed APD. On the opposite side of Winnicott [46] reports the same need of defensive distancing in children who have parents too intrusive, pushy or too involved, as a risk factor for a later development of APD. In the evaluation of Mahler relational models [47] it gives much importance to interpersonal transactions that include the responses, reactions and coping styles of the parents in the separation -individuation process. The answers they provide to the growth of the child become are crucial for the overcoming of separation anxiety aroused by the awareness of separation between self and the agent of the maternal care.

This given, subjects with pathologic anxiety would avoid situations in which such a case-scenario may happen. Personality development unfolds in a play between contact and separation, the recognition and affirmation of the Self. With the purpose of reconciling these opposing tendencies the Benjamin [48] defines the "paradox of needs recognition" as the need for acceptance that leads to the dependence on the other. The resolution of the paradox lies in the same paradox, which must be maintained as a constant tension between the recognition and affirmation of self, a dynamic that involves the

recognition of the need for interdependence. Bornstein [49] describes a continuum that passes from dependence maladaptive (submission), to interdependence (relatedness) and arrives to the unyielding independence (detachment devoid of relationships). Some individuals placed extreme of unyielding independence have high dependency needs that keep out of consciousness by means of denial and reaction formation. There is therefore a dependent personality disorder disguised as pseudo-independence. Counter-dependent individuals would disapprove the expression of needs and look down the signs of emotional vulnerability in themselves and in others, with a prevailing affection of shame, and the need to compensate with some secret area of addiction, as a substance or ideology. Avoidant personality can then be seen as a relational perversion in which the natural need of addiction is turned upside down in a defensive counter-dependence where the prevailing intra-psychic conflict seems to be Finding versus Dependence. The pathological dependent relationships deal with the inability to reconcile the antithetical needs but necessary and, in particular, with the denial of the need for recognition and distortion of this need in the domain [50]. By this way the avoidance of social situations becomes a way to dominate the anxiety as a warning sign of involvement and therefore of dependence.

According to the psychodynamic model of the avoidant personality, avoidant patterns are characterized by deemed safe in staying away from certain dangers and how to deal with anxiety is tying it to specific situations and feared to be avoided. Psychological functioning is therefore organized around themes that include the anaclitic-avoidant issues. Phobic individuals may be afraid of their suffering and the awareness of their own emotional states. Like the patients with the alexithymic avoidant need to be accompanied to recognize, name and express their emotions.

These would be the reasons why subjects with anxiety would actively prefer to avoid social contacts, or develop anxiety when they are in social environments. Psychodynamic interventions were deemed to be "possibly efficacious" when treating a fan of psychiatric disorders [51] which can be considered as a result of the scattered published evidence available for psychodynamic oriented psychotherapies in specific disorders. This is because efficacious treatments are defined after being reported as efficacious in at least two different RCTs [51]. Psychodynamic treatments are not targeted on precise diagnoses by their nature, as they focus on specific underlying mechanisms including affect regulation, mentalization, internalized object relations and insecure attachment, rather than on specific symptoms. This approach may represent a limitation when it comes to judge the efficacy of a psychodynamic treatment alone or in comparison with other kinds of treatments. For this reason, unifying psychodynamics treatments for assessing the efficacy of the psychodynamic treatment of anxiety disorders, including the APD, have been proposed [52].

Psychological treatment options for APD. Psychological treatments: Evidence on APD as a primary diagnosis

Alden and colleagues [53] reported on 10-week cognitive behavioral group therapy for 76 patients with APD and reported on the efficacy of the treatment as a whole, but it was also not evident that any specific aspect of the treatment was superior to any other, and treatment provided better results that non-treatment for subjects with APD. The treatment was focused on a specific techniques such as the establishing of specific goals within the groups, group discussion, therapist interest and support, clarification of problems and goals. Specific aspects were: 1) identifying the fears underlying the avoidant pattern, 2) increasing awareness and 3) shifting focus from fear to action. Graduated exposure and training of interpersonal skills were also part of the treatment together with focus on intimate relationships. Emmelkamp and colleagues [54] reported on a sample of pure APD patients, randomized to a 20 weeks psychodynamic or cognitive treatment. As a result, patients in the cognitive group (n = 21) reported significant better results compared to patients in the psychodynamic group (n = 23) and the benefits of both treatments were maintained after 6 months. Both treatments were better than the control group. Rees and colleagues [55] recently reported on the efficacy of a brief cognitive therapy, but the sample was composed of only two subjects, so the conclusions of efficacy driven by the Authors cannot be generalizable.

Psychological treatment options for APD. Psychological treatments: Evidence on APD not as a primary diagnosis

Few RCTs on psychodynamic oriented psychotherapies for anxiety disorders have been published so far. A selection of published evidence is reported in table 2. Overall, the available evidence suggests that psychodynamically oriented psychotherapies are effective in treating anxiety disorders as a whole, but a large-scale RCT comparing psychodynamic and cognitive psychotherapies for social anxiety reported that rates for response and remission were 52% and 26% for psychodynamic interventions and 60% and 36% for cognitive psychological interventions [56]. An ultra-brief psychodynamic treatment was investigated by Beretta and colleagues [57] on a sample of 27 patients with cluster C personality disorder out of 70 patients included in the analysis. The intervention was a formalized four-time session psychodynamic oriented intervention. 33% of patients showed an amelioration of clinical symptomatology at the end of intervention and it is reported that results were maintained after 6 months from the treatment. Winston and colleagues [58] investigated a sample of 81 patients with personality disorders who were randomized to a psychodynamic oriented brief psychotherapy (40 weeks) and to another form of psychotherapy. Authors reported efficacy of both interventions compared to the waiting list, and no difference in efficacy was detected between the two different forms of psychotherapy. Only a part of the initial sample was diagnosed with APD, so these results are to be generalized to APD with cautiousness. Another study conducted by Svartberg and colleagues in 2004 [59] found that both the psychodynamic and the cognitive psychotherapies were effective in treating a sample of 50 subjects with cluster C personality disorder. Results were maintained after 2 years follow-up. In particular, after 2 years follow-up, 54% of the patients treated with psychodynamic psychological treatment and 42% of patients treated with cognitive psychological treatment had recovered. APD was present in 64% of patients treated with the short dynamic psychotherapy and 60% of patients treated with the cognitive behavior treatment. Again, results are not generalizable to APD, due to the heterogeneity of diagnosis in the samples, but they are still suggestive that both the psychodynamic and the cognitive treatments are effective in treating APD. A mixture of dynamic and cognitive treatments were used in a interesting survey in Norway which took advantage of "The Norwegian Network of Psychotherapeutic Day Hospitals", which envisages group therapies for patients with personality disorders and other psychiatric diagnoses [60]. The sample included a set of personality disorders (n = 1010) among other psychiatric diagnoses (n tot = 1234), and APD was present as the main diagnosis in 253 subjects. Treatment was effective for all patients, including APD, but patients without personality disorder experienced better outcomes compared with patients with both Axis I and Axis II diagnoses. Nevertheless, after one year follow-up, both groups showed similar developments. APD showed results that did not exceed those found for the other personality disorders. These studies are of relevance in addressing the efficacy of psychodynamic or cognitive treatments for patients with personality disorder and APD in particular. Nevertheless, the number of patients involved in each study and the substantial lack of studies that focused on the APD mandate cautiousness in interpreting the data. APD has a strong overlap of symptoms with anxiety disorders as coded in the Axis I of the DSM, and the high co-morbidity between anxiety disorders and APD may suggest that results from the studies that implicated psychotherapies in the treatment of anxiety disorder may provide results that are useful for the investigation of the effect of the same therapeutic strategies in APD patients. Classically, cognitive based interventions for anxiety disorders focus on the detection of internal and external anxiety cues, and the development of strategies to deal with the somatic and psychological symptoms [61-64]. In particular, it is relevant in the approach used by cognitive interventions to: 1) recognize anxiety; 2)

Table 2: Psychotherapeutic interventions in APD.

Article	Kind of study	Sample	Result
Alden [53]	Randomized controlled study	76 APD unmarried subjects (34 F) randomized to (10 weeks treatment): 1. waiting list 2. skill training 3. graduated exposure 4. a regimen targeting intimate issues	Patients in the waiting list control group ameliorated significantly less than patients in the other groups. No dramatic differences were found in the 3 active arms of the study, regimen #4 was associated with a slight increase in the frequency of the social activities.
Emmelkamp et al. [54]	Randomized controlled study	62 APD patients randomized to (20 weeks treatment): 1. brief dynamic therapy-based 2. cognitive - behavioral therapy 3. waiting list	Cognitive behavioral treatment was associated with better results in a number of measures including the avoidant scale and the SPAI social phobia test. CBT was the only treatment to be effective against PDBQ dependent and PDBQ obsessive symptoms.
Leichsenring et al. [56]	Multicenter randomized controlled trial	495 patients with SP (25% had also APD) were randomized to: 1. CBT 2. psychodynamic therapy 3. waiting list	Remission rates for the 3 groups were: 36%, 26% and 9%. Response rates for the 3 groups were: 60%, 52% and 15%. Both CBT and psychodynamic intervention were significantly more efficacious than the control group. CBT was significantly more efficacious for remission rates, but not for response rates.
Beretta et al. [57]	Open label study	70 patients (27 with cluster C diagnosis) were treated with an ultra-brief psychodynamic intervention (4 times session, Gilleron 1989)	33% of patients ameliorated at the end of the treatment. Results were maintained after 3 and 6 months.
Wintson et al. [58]	Randomized controlled study	81 patients with personality disorders (36 with APD) were randomized to (40 weeks treatment on average): 1. brief adaptive psychotherapy 2. short-term dynamic psychotherapy 3. waiting list	Patients in the two active arms ameliorated significantly more than the patients in the control group.
Svartberg et al. [59]	Randomized study	50 patients with cluster C diagnosis (16 with APD) randomly assigned to (40 weeks treatment): 1. short-term psychodynamic treatment 2. CBT	There were no significant differences between groups at termination and follow-up
Karterud et al. [60]	Open label study	1244 patients consecutively admitted to eight different treatments programs. 1010 diagnosed with PD, 481 had APD. The treatment programs are based on group therapy and typically consist of a mixture of psychodynamic and CBT groups.	The completion rate was 76%, having a diagnosis of PD was associated with a higher risk of early termination. 59% of patients were taking medications at admittance. This number increased to 68% in the course of the treatment. Patients were discharged with a better performance in a number of tests including: GAF, CGI, CIP and QoL.

PD: personality disorder; MDD: major depressive disorder; APD: avoidant personality disorder; SPAI: social phobia anxiety inventory; PDBQ: personality disorder belief questionnaire; CBT: cognitive-behavioral therapy; GAF: global assessment of functioning; CGI: global severity indenx; CIP: circumplex of interpersonal problems; QoL: quality of life

clarify thoughts and cognitions that are associated with the symptom; 3) develop coping skills and 4) evaluate outcome. Behavioral methods include modelling, exposure to the event that is cause of anxiety for the subject, role playing and relaxation. Self control strategies such as self-observation, self-modification, self-evaluation and self-reward are central in the cognitive approach to mental disorders [65]. A number of meta-analyses showed the superiority of CBT to treatment as usual for the treatment of anxiety disorders (see for example the recent work by Watss and colleagues, [66] or [67] or [68]), also when administered online [69]. Brown and colleagues reported that as much as 47% of patients could no longer been diagnosed with APD after a cognitive intervention. Nevertheless, the superiority of the CBT over the psychodynamic oriented treatments has been recently questioned [68,70] and more studies are needed to address this point.

Focus on Dialectical Behavioral Therapy (DBT)

DBT is a CBT that specifically addresses skills deficits and issues related to motivation for change. DBT is mainly used for the treatment of borderline personality disorder. DBT was first employed in 1991 by Linehan and colleagues [71] for the treatment of chronic suicide behavior in patients with borderline personality disorder. It is a complex therapy, normally delivered over one year, which uses CBT, mindfulness, acceptance and dialectics in order to trigger amelioration in the management of emotions and behaviors. The efficacy of DBT has been proved for the treatment of borderline personality disorder [72], but results of DBT are better compared to other forms of psychotherapy when para-suicide behavior is concerned. This treatment is thought to be effective through the

regulation of emotions, whose dysregulation is considered to be one of the most relevant characteristics of borderline personality (see [73,74] for a review). Interestingly though, Davenport and colleagues [75] reported that DBT was able to ameliorate consciousnesses and agreeableness, but had poor effect on neuroticism. Neuroticism indicates a number of personality traits that encompass negative feelings such as envy, fear, anxiety, jealousy and loneliness [76]. It appears that these traits are not changed after DBT, but an increased consciousness about them and the development of skills to control their effects towards the inner balance of emotions may provide useful in limiting their impact towards mood, impulse and behavior. The core areas in which DBT is expected to help patients with borderline disorder are: 1) attentional control; 2) emotion regulation; 3) skills for interpersonal communication and 4) distress tolerance skills [77], the desired therapeutic effect is thought to be obtained through "a balanced synthesis of both acceptance and change" [78] and the word dialectic stands for the effort of synthesize opposites in dialectic philosophy. In the case of borderline patients, opposites to be integrated may well be represented by conflicting emotions and acute changes in the emotional state. Opposites in the case of APD may be represented by the desire of being together with the other persons, and the acute fear to be unsuccessful in doing that. DBT includes weekly sessions with the therapist, group therapies in which skills for interpersonal communication and distress tolerance are empowered and the possibility to give phone calls to individual therapists in case of acute distressing situations. DBT was also employed for the treatment of eating disorders. The two disorders, borderline personality disorder and eating disorder, concur in about 34% of individuals [79]. Common to the two disorders, a set of behavior is used to achieve control over emotions [80], and invalidating environment is thought to be central in the development of the borderline personality disorder, and invalidation may result in the families of patients with eating disorders, due to the role played by body's weight in western societies. These aspects and the frequent co-morbidity provided the rational for trying the DBT in patients with eating disorders. Overall, DBT is considered effective against eating disorders [81], even though the settings have been often modified in order to meet the specific needs of the treated population. Those modifications included: additional groups, removal of individual sessions, inclusion of family sessions, or added investigator-created modules focused on eating, nutrition, or body image. The introduction of new strategies within the DBT, such as the contingency management has also been proposed for the treatment of eating disorders with DBT [82]. Contingency management is defined as the notion that the consequences of a behavior influences the odds, that that behavior is acted again. It is a classical aspect of behavioral treatments and may involve reinforcement, punishment, extinction and other behavioral techniques. It is important to note, that the effects of DBT in eating disorders where often compared with the waiting list of patients, so it is now not possible to address the question whether DBT is better than other forms of treatment for eating disorders. Van Dijk and colleagues recently demonstrated that DBT is effective in the treatment of adults with bipolar disorder, showing that depressive symptoms, acute interventions after 6 months from the intervention and a decreased number of drops-out resulted from the application of DBT in bipolar disorder [83]. DBT was also applied to a limited number of young patients with bipolar disease (n = 14), with positive results in adjunct with pharmacological treatments of patients. As expected, DBT was particularly efficacious in decreasing suicide ideation together with depressive symptoms in the group of patients [84]. Feldman and colleagues provided evidence that DBT may be useful in the treatment of resistant depression, with a particular focus on the relation between emotional processing and depressive symptom: the interaction of the two dimensions resulted in decreased depressive symptoms in patients in treatment with DBT, and increased depressive symptoms in patients in the waiting list [85]. Consistently, DBT showed promising results in the treatment of depressed older adults [86,87]. This last finding is of particular relevance, because psychotherapies are generally offered to young individuals, on the assumption that they would be effective within persons that will develop themselves to a great extent in the future. Thus, age limits and severity of symptoms should not discourage the use of psychotherapy in borderline patients, and also in other groups of patients [85,87,88]. DBT has been adapted for the treatment of other personality disorders. A group in England developed a cognitive therapy called manual-assisted cognitive-behavioral therapy (MACT), focused on the analysis of maladaptive behaviors, the providing of techniques for handling negative emotions and tolerance to distress. A first pilot study in 1999 provided promising results for this technique [89]. Feigenbaum applied DBT to a group of patients with personality disorders, without focus on a specific personality disorder [90]. The total number of patients included in the DBT group was 25, 11 patients completed the study for DBT and 17 and 14 patients were reachable for follow up for DBT and the treatment as usual respectively. 7 out of them had antisocial personality disorder, 9 out of them had avoidant personality disorder. The other personality disorders were less represented. No sensitivity analysis was performed, this also due to the small number of patients involved in the analysis. The final finding, was that DBT was as effective as the treatment as usual in decreasing clinical risk and distress. Due to the small number of patients included in the group, it is possible to assume that the study had not enough power to detect a difference between the two treatments. DBT was successfully used for the treatment of antisocial personality disorder [91]. An interesting approach was recently used by Lynch and colleagues [92] in the definition of a Radically Open-Dialectical Behavior Therapy (RO-DBT), which is not focused on a single diagnosis, but rather tries at address a number of disorders that are difficult to treat for the shared characteristic of maladaptive over-control. Examples might be anorexia, chronic depression – or at least some of the patients with chronic depression – and obsessive compulsive personality disorder. A core concept of RO-DBT is that the emotional loneliness that patients experience is a result to a low openness and social signaling deficits which are in direct associated with the problem of over-control. This might be well the issue with APD, during which patients controls the risk of the anticipated frustrating social relationships, by systematically avoiding them.

Can DTB be adapted to APD?

To the best of our knowledge, the applicability of DBT to APD has not been investigated by independent groups in literature, so that the question addressed in the title of this paragraph cannot be properly answered. In order to adapt DBT to the treatment of other mental disorders, it is important that three theoretical point are discussed and proved true during the phases of adaptation or later on. This statement finds its rational in the concept that DBT was developed and proved efficacious to decrease self-harm behavior and emotional dysregulation in patients with borderline personality [77]. When transferred to the treatment of another diagnosis, three assumptions are made: 1) the diagnosis that should be treated with DBT includes emotional dysregulation, 2) DBT treatment is efficacious in treating emotional dysregulation in the diagnosis under analysis and 3) the effect of DBT is to reduce the symptoms that characterize the diagnosis under analysis. When applying these points, it is possible to say that patients with APD diagnosis do not show the same amount of emotional dysregulation as patients with borderline personality disorder. This simple clinical observation would dampen the application of DBT to APD. It has been nevertheless reasoned that DBT may be used for the treatment of emotional symptoms that are found in the opposite extreme compared to the emotions that characterize borderline patients. These symptoms may be related to the concept of over-control. A number of patients that are diagnosed with anorexia, obsessive compulsive disorder or chronic depression may display a pattern of thoughts or behavior that are characterized by over-control [93-95]. Following this evidence, Lynch and colleagues proposed a modified DBT for the treatment of disorders that share over-control as a determining psychological factor associated with the severity of the symptomatology [96]. These disorders include paranoid personality disorder (PPD), obsessive–compulsive personality disorder (OCPD), avoidant personality disorder (APD), non-BPD anorexia-nervosa, and chronic depression.

The original goal of DBT is to reduce impulses and highly variable and massive emotions that characterize the disorder. The adaptation of DBT that promotes openness and flexibility while reducing rigid thinking. A minimum length of 28 weeks is suggested by Authors, together with a skills training group. Skills are the same suggested by Linehan [77], with the exception of distress tolerance skills and with a new skill targeted on the acceptance and forgiveness.

Conclusion

APD is a frequent personality disorder characterized by extreme shyness and isolation associated with the fearful expectation of being negatively judged by the others, together with the actual desire of being in social situations. Characteristics of the disorder are the high co-morbidity with anxiety disorders as described in the Axis I of the DSM. Subjects with APD are highly socially incapacitated and bare a quantity of personal suffering which may be poorly recognized by others due to the tendency of these subjects to isolate themselves. Research on the treatment of APD is still in its infancy, and there is a lack of evidence based treatments for this kind of disorder [54,97]. Pharmacological treatment of APD is mainly based on the use of SSRI and SNRI, even though this assumption is mostly based on the efficacy of these drugs on anxiety disorders coded in the Axis I. Psychological interventions may also be used for the treatment of APD but there is not enough evidence in literature to sustain that a treatment is preferable to another one. A limited number of published evidence investigated the effects of cognitive psychotherapy on samples of APD patients, where APD was the main diagnosis [53-55]. Results point into the direction of the efficacy of the treatment compared to non treatment at all. Due the high efficacy of DBT in the treatment of borderline personality disorder, it has been suggested that the same technique, together with some specific modifications that more precisely tailor the core of APD, may be used. This modified DBT treatment has been proposed by Lynch and colleagues [96], and it is based on the assumption that over-control may be a relevant strategy that subjects with APD developed in order to balance their inner psychological balance. Further research is mandatory to investigate the efficacy of this modified DBT model on APD.

Conflicts of Interest

Authors declare no conflict of Interest.

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References

1. Janet P, Raymond F (1908) Les obsessions et la psychasthenie. Felix Alcan, Paris.
2. Theodore Millon (2011) Disorders of Personality: Introducing a DSM/ICD Spectrum from Normal to Abnormal. (3rd Edition), John Wiley & Sons New York, USA.
3. Turner SM, Beidel DC, Dancu CV, Keys DJ (1986) Psychopathology of social phobia and comparison to avoidant personality disorder. J Abnorm Psychol 95: 389-394.
4. Lampe L (2016) Avoidant personality disorder as a social anxiety phenotype: risk factors, associations and treatment. Curr Opin Psychiatry 29: 64-69.
5. (2013) Diagnostic and statistical manual of mental disorders. American Psychiatric Association.
6. Skodol AE, Pagano ME, Bender DS, Shea MT, Gunderson JG, et al. (2005) Stability of functional impairment in patients with schizotypal, borderline, avoidant, or obsessive-compulsive personality disorder over two years. Psychol Med 35: 443-451.
7. Prichard J A (1837) Treatise on Insanity and Other Disorders Affecting the Mind. Carey & Hart Philadelphia, USA.
8. Schneider K (1958) Psychopathic personalities. Cassel, London.
9. Few LR, Miller JD, Rothbaum AO, Meller S, Maples J, et al. (2013) Examination of the Section III DSM-5 diagnostic system for personality disorders in an outpatient clinical sample. J Abnorm Psychol 122: 1057-1069.
10. Hopwood CJ, Thomas KM, Markon KE, Wright AG, Krueger RF (2012) DSM-5 personality traits and DSM-IV personality disorders. J Abnorm Psychol 121: 424-432.
11. Herpertz SC, Zanarini M, Schulz CS, Siever L, Lieb K, et al. (2007) World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for biological treatment of personality disorders. World J Biol Psychiatry 8: 212-244.
12. Zimmerman M, Rothschild L, Chelminski I (2005) The prevalence of DSM-IV personality disorders in psychiatric outpatients. Am J Psychiatry 162: 1911-1918.
13. Loranger AW, Sartorius N, Andreoli A, Berger P, Buchheim P, et al. (1994) The International Personality Disorder Examination. The World Health Organization/Alcohol, Drug Abuse, and Mental Health Administration international pilot study of personality disorders. Arch Gen Psychiatry 51: 215-224.
14. Asarnow RF, Nuechterlein KH, Fogelson D, Subotnik KL, Payne DA, et al. (2001) Schizophrenia and schizophrenia-spectrum personality disorders in the first-degree relatives of children with schizophrenia: the UCLA family study. Arch Gen Psychiatry 58: 581-588.
15. Reichborn-Kjennerud T, Czajkowski N, Torgersen S, Neale MC, Ørstavik RE, et al. (2007) The relationship between avoidant personality disorder and social phobia: a population-based twin study. Am J Psychiatry 164: 1722-1728.
16. Cox BJ, Pagura J, Stein MB, Sareen J (2009) The relationship between generalized social phobia and avoidant personality disorder in a national mental health survey. Depress Anxiety 26: 354-362.
17. Tillfors M, Furmark T, Ekselius L, Fredrikson M (2001) Social phobia and avoidant personality disorder as related to parental history of social anxiety: a general population study. Behav Res Ther 39: 289-298.
18. Lampe L, Slade T, Issakidis C, Andrews G (2003) Social phobia in the Australian National Survey of Mental Health and Well-Being (NSMHWB). Psychol Med 33: 637-646.
19. Lampe L, Sunderland M (2015) Social phobia and avoidant personality disorder: similar but different? J Pers Disord 29: 115-130.
20. Hummelen B, Wilberg T, Pedersen G, Karterud S (2007) The relationship between avoidant personality disorder and social phobia. Compr Psychiatry 48: 348-356.
21. Alden LE, Laposa JM, Taylor CT, Ryder AG (2002) Avoidant personality disorder: current status and future directions. J Pers Disord 16: 1-29.
22. Parker G, Roussos J, Austin MP, Hadzi-Pavlovic D, Wilhelm K, et al. (1998) Disordered personality style: higher rates in non-melancholic compared to melancholic depression. J Affect Disord 47: 131-140.
23. Stuart S, Pfohl B, Battaglia M, Bellodi L, Grove W, et al. (1998) The cooccurrence of DSM-III-R personality disorders. J Pers Disord 12: 302-315.
24. Grant BF, Hasin DS, Stinson FS, Dawson DA, Patricia Chou S, et al. (2005) Co-occurrence of 12-month mood and anxiety disorders and personality disorders in the US: results from the national epidemiologic survey on alcohol and related conditions. J Psychiatr Res 39: 1-9.
25. Kessler RC, Petukhova M, Sampson NA, Zaslavsky AM, Wittchen H -U (2012) Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. Int J Methods Psychiatr Res 21: 169-184.
26. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE (2005) Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 62: 617-627.
27. Ruscio AM, Brown TA, Chiu WT, Sareen J, Stein MB, et al. (2008) Social fears and social phobia in the USA: results from the National Comorbidity Survey Replication. Psychol Med 38: 15-28.
28. Torvik FA , Welander-Vatn A , Ystrom E , Knudsen GP , Czajkowski N, et al. (2015) Longitudinal Associations Between Social Anxiety Disorder and Avoidant Personality Disorder: A Twin Study. J Abnorm Psychol 125: 114-125.
29. Huppert JD, Strunk DR, Ledley DR, Davidson JR, Foa EB (2008) Generalized social anxiety disorder and avoidant personality disorder: structural analysis and treatment outcome. Depress Anxiety 25: 441-448.
30. Ralevski E, Sanislow CA, Grilo CM, Skodol AE, Gunderson JG, et al. (2005) Avoidant personality disorder and social phobia: distinct enough to be separate disorders? Acta Psychiatr Scand 112: 208-214.
31. Van Velzen CJ, Emmelkamp PM, Scholing A (2000) Generalized social phobia versus avoidant personality disorder: differences in psychopathology, personality traits, and social and occupational functioning. J Anxiety Disord 14: 395-411.
32. Ansell EB, Pinto A, Edelen MO, Markowitz JC, Sanislow CA, et al. (2011) The association of personality disorders with the prospective 7-year course of anxiety disorders. Psychol Med 41: 1019-1028.
33. Isomura K, Boman M, Ruck C, Serlachius E, Larsson H, et al. (2015) Population-based, multi-generational family clustering study of social anxiety disorder and avoidant personality disorder. Psychol Med 45: 1581-1589.
34. Ripoll LH, Triebwasser J, Siever LJ (2011) Evidence-based pharmacotherapy for personality disorders. Int J Neuropsychopharmacol 14: 1257-1288.
35. Freud S (1926) Inhibitions, symptoms and anxiety 20, Hogarth Press, 12-66.
36. Freud S (1923) The ego and the id 19, Hogarth Press, 12-66.
37. Kernberg O (1976) Object relations theory and clinical psychoanalysis.
38. Klein M (1946) Notes on some schizoid mechanisms. Int J Psychoanal 27: 99-110.
39. Kohut H (1977) The restoration of the self. The University of Chicago press Chicago, USA.

40. Gabbard GO (1992) Psychodynamics of panic disorder and social phobia. Bull Menninger Clin 56: A3-13.
41. Miller LA, Taber KH, Gabbard GO, Hurley RA (2005) Neural underpinnings of fear and its modulation: implications for anxiety disorders. J Neuropsychiatry Clin Neurosci 17: 1-6.
42. Hoffmann, Sven Olaf (2003) Soziale Angste: Die psychodynamische Perspektive in Konzeptbildung und Behandlungsansätzen. Psychother Im Dialog 4: 32-41.
43. Bowlby JA (1988) secure base: Clinical applications of attachment theory.
44. Mary D Salter Ainsworth, Mary C Blehar, Everett Waters, Sally Wall (1978) Patterns of attachment: assessed in the strange situation and at home. Lawrence Erlbaum Associates Hillsdale New Jersy, USA.
45. Grossman K (1991) The cultural context of infancy 2.
46. Winnicott D (1970) Sviluppo affettivo e ambiente. Studi sulla teoria dello sviluppo affettivo.
47. Mahler M, Pine F, Bergman A (1978) La nascita psicologica del bambino.
48. Lorna Smith Benjamin (1996) Interpersonal Diagnosis and Treatment of Personality Disorders (2nd Edition). Guilford Press New York, USA.
49. Bornstein RF (1993) The Dependent Personality.
50. (2001) Vittorio Lingiardi La personalità e i suoi disturbi. Un'introduzione.
51. Chambless DL, Hollon SD (1998) Defining empirically supported therapies. J Consult Clin Psychol 66: 7-18.
52. Leichsenring F, Salzer S (2014) A unified protocol for the transdiagnostic psychodynamic treatment of anxiety disorders: an evidence-based approach. Psychotherapy (Chic) 51: 224-245.
53. Alden L (1989) Short-term structured treatment for avoidant personality disorder. J Consult Clin Psychol 57: 756-764.
54. Emmelkamp PM, Benner A, Kuipers A, Feiertag GA, Koster HC, et al. (2006) Comparison of brief dynamic and cognitive-behavioural therapies in avoidant personality disorder. Br J Psychiatry 189: 60-64.
55. Rees CS, Pritchard R (2015) Brief cognitive therapy for avoidant personality disorder. Psychotherapy (Chic) 52: 45-55.
56. Leichsenring F, Salzer S, Beutel ME, Herpertz S, Hiller W, et al. (2013) Psychodynamic therapy and cognitive-behavioral therapy in social anxiety disorder: a multicenter randomized controlled trial. Am J Psychiatry 170: 759-767.
57. Beretta V, de Roten Y, Drapeau M, Kramer U, Favre N, et al. (2005) Clinical significance and patients' perceived change in four sessions of brief psychodynamic intervention: characteristics of early responders. Psychol Psychother 78: 347-362.
58. Winston A, Laikin M, Pollack J, Samstag LW, McCullough L, et al. (1994) Short-term psychotherapy of personality disorders. Am J Psychiatry 151: 190-194.
59. Svartberg M, Stiles TC, Seltzer MH (2004) Randomized, controlled trial of the effectiveness of short-term dynamic psychotherapy and cognitive therapy for cluster C personality disorders. Am J Psychiatry 161: 810-817.
60. Karterud S, Pedersen G, Bjordal E, Brabrand J, Friis S, et al. (2003) Day treatment of patients with personality disorders: experiences from a Norwegian treatment research network. J Pers Disord 17: 243-262.
61. Borkovec TD, Newman MG, Pincus AL, Lytle R (2002) A component analysis of cognitive-behavioral therapy for generalized anxiety disorder and the role of interpersonal problems. J Consult Clin Psychol 70: 288-298.
62. Borkovec TD, Ruscio AM (2001) Psychotherapy for generalized anxiety disorder. J Clin Psychiatry 62: 37-42.
63. Butler G, Fennell M, Robson P, Gelder M (1991) Comparison of behavior therapy and cognitive behavior therapy in the treatment of generalized anxiety disorder. J Consult Clin Psychol 59: 167-175.
64. Ladouceur R, Dugas MJ, Freeston MH, Léger E, Gagnon F, et al. (2000) Efficacy of a cognitive-behavioral treatment for generalized anxiety disorder: evaluation in a controlled clinical trial. J Consult Clin Psychol 68: 957-964.
65. Silverman WK, Kurtines WM, Ginsburg GS, Weems CF, Lumpkin PW, et al. (1999) Treating anxiety disorders in children with group cognitive-behaviorial therapy: a randomized clinical trial. J Consult Clin Psychol 67: 995-1003.
66. Watts SE, Turnell A, Kladnitski N, Newby JM, Andrews G (2015) Treatment-as-usual (TAU) is anything but usual: a meta-analysis of CBT versus TAU for anxiety and depression. J Affect Disord 175: 152-167.
67. Twomey C, O'Reilly G, Byrne M (2015) Effectiveness of cognitive behavioural therapy for anxiety and depression in primary care: a meta-analysis. Fam Pract 32: 3-15.
68. Cuijpers P, Sijbrandij M, Koole S, Huibers M, Berking M, et al. (2014) Psychological treatment of generalized anxiety disorder: a meta-analysis. Clin Psychol Rev 34: 130-140.
69. Rooksby M, Elouafkaoui P, Humphris G, Clarkson J, Freeman R (2015) Internet-assisted delivery of cognitive behavioural therapy (CBT) for childhood anxiety: systematic review and meta-analysis. J Anxiety Disord 29: 83-92.
70. Leichsenring F, Leibing E (2003) The effectiveness of psychodynamic therapy and cognitive behavior therapy in the treatment of personality disorders: a meta-analysis. Am J Psychiatry 160: 1223-1232.
71. Linehan MM, Armstrong HE, Suarez A, Allmon D, Heard HL (1991) Cognitive-behavioral treatment of chronically parasuicidal borderline patients. Arch Gen Psychiatry 48: 1060-1064.
72. Binks CA, Fenton M, McCarthy L, Lee T, Adams CE, et al. (2006) Psychological therapies for people with borderline personality disorder. Cochrane Database Syst Rev 25.
73. Valentine SE, Bankoff SM, Poulin RM, Reidler EB, Pantalone DW (2015) The use of dialectical behavior therapy skills training as stand-alone treatment: a systematic review of the treatment outcome literature. J Clin Psychol 71: 1-20.
74. O'Connell B, Dowling M (2014) Dialectical behaviour therapy (DBT) in the treatment of borderline personality disorder. J Psychiatr Ment Health Nurs 21: 518-525.
75. Davenport J, Bore M, Campbell J (2010) Changes in personality in pre- and postdialectical behaviour therapy borderline personality disorder groups: a question of self-control. Aust Psychol 45: 59-66.
76. Thompson E R (2008) Development and Validation of an International English Big-Five Mini-Markers. Personality and Individual Differences 45: 542-548.
77. Marsha M Linehan (1993) Skills training manual for treating borderline personality disorder. Guilford Press, New York City.
78. Lynch TR, Chapman AL, Rosenthal MZ, Kuo JR, Linehan MM (2006) Mechanisms of change in dialectical behavior therapy: theoretical and empirical observations. J Clin Psychol 62: 459-480.
79. Zanarini MC, Frankenburg FR, Vujanovic AA, Hennen J, Reich DB, et al. (2004) Axis II comorbidity of borderline personality disorder: description of 6-year course and prediction to time-to-remission. Acta Psychiatr Scand 110: 416-420.
80. McCabe E, LaVia M, Marcus (2004) in Handbook of eating disorders and obesity, JK Thompson.
81. Bankoff SM, Karpel MG, Forbes HE, Pantalone DW (2012) A systematic review of dialectical behavior therapy for the treatment of eating disorders. Eat Disord 20: 196-215.
82. Wisniewski L, Ben-Porath DD (2015) Dialectical Behavior Therapy and Eating Disorders: The Use of Contingency Management Procedures to Manage Dialectical Dilemmas. Am J Psychother 69: 129-140.
83. Van Dijk S, Jeffrey J, Katz MR (2013) A randomized, controlled, pilot study of dialectical behavior therapy skills in a psychoeducational group for individuals with bipolar disorder. J Affect Disord 145: 386-393.
84. Goldstein TR, Fersch-Podrat RK, Rivera M, Axelson DA, Merranko J, et al. (2015) Dialectical behavior therapy for adolescents with bipolar disorder: results from a pilot randomized trial. J Child Adolesc Psychopharmacol 25: 140-149.
85. Feldman G, Harley R, Kerrigan M, Jacobo M, Fava M (2009) Change in emotional processing during a dialectical behavior therapy-based skills group for major depressive disorder. Behav Res Ther 47: 316-321.
86. Lynch TR, Cheavens JS, Cukrowicz KC, Thorp SR, Bronner L, et al. (2007) Treatment of older adults with co-morbid personality disorder and depression: a dialectical behavior therapy approach. Int J Geriatr Psychiatry 22: 131-143.
87. Lynch TR, Morse JQ, Mendelson T, Robins CJ (2003) Dialectical behavior therapy for depressed older adults: a randomized pilot study. Am J Geriatr Psychiatry 11: 33-45.
88. Barnicot K, Katsakou C, Bhatti N, Savill M, Fearns N, et al. (2012) Factors predicting the outcome of psychotherapy for borderline personality disorder: a systematic review. Clin Psychol Rev 32: 400-412.
89. Evans K, Tyrer P, Catalan J, Schmidt U, Davidson K, et al. (1999) Manual-assisted cognitive-behaviour therapy (MACT): a randomized controlled trial of a brief intervention with bibliotherapy in the treatment of recurrent deliberate self-harm. Psychol Med 29: 19-25.
90. Feigenbaum JD, Fonagy P, Pilling S, Jones A, Wildgoose A, et al. (2012) A real-world study of the effectiveness of DBT in the UK National Health Service. Br J Clin Psychol 51: 121-141.
91. Quinn A, Shera W (2009) Evidence-based practice in group work with incarcerated youth. Int J Law Psychiatry 32: 288-293.
92. Lynch TR, Hempel RJ, Dunkley C (2015) Radically Open-Dialectical Behavior Therapy for Disorders of Over-Control: Signaling Matters. Am J Psychother 69: 141-162.
93. Casper RC, Hedeker D, McClough JF (1992) Personality dimensions in eating disorders and their relevance for subtyping. J Am Acad Child Adolesc Psychiatry 31: 830-840.
94. Klein DN, Arnow BA, Barkin JL, Dowling F, Kocsis JH, et al. (2009). Early adversity in chronic depression: clinical correlates and response to pharmacotherapy. Depress Anxiety 26: 701-710.
95. Pinto A, Steinglass JE, Greene AL, Weber EU, Simpson HB (2014) Capacity to delay reward differentiates obsessive-compulsive disorder and obsessive-compulsive personality disorder. Biol Psychiatry 75: 653-659.
96. Lynch TR, Cheavens JS (2008) Dialectical behavior therapy for comorbid personality disorders. J Clin Psychol 64: 154-167.
97. Ulrike Feske, Dianne L Chambless (1995) Cognitive behavioral versus exposure only treatment for social phobia: A meta-analysis. Behavior Therapy 26: 695-720.
98. Torgersen S, Kringlen E, Cramer V (2001) The prevalence of personality disorders in a community sample. Arch Gen Psychiatry 58: 590-596.
99. Grant BF, Stinson FS, Dawson DA, Chou SP, Ruan WJ (2005) Co-occurrence of DSM-IV personality disorders in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. Compr Psychiatry 46: 1-5.

Supplementary File 1

DSM V criteria for avoidant personality disorder.

A pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

1. Avoids occupational activities that involve significant interpersonal contact because of fears of criticism, disapproval, or rejection.
2. Is unwilling to get involved with people unless certain of being liked.
3. Shows restraint within intimate relationships because of the fear of being shamed or ridiculed.
4. Is preoccupied with being criticized or rejected in social situations.
5. Is inhibited in new interpersonal situations because of feelings of inadequacy.
6. Views self as socially inept, personally unappealing, or inferior to others.
7. Is unusually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing.

Supplementary File 2

ICD – 10 criteria for avoidant personality disorder.

A. The general criteria for personality disorder are met.

B. At least four of the following are met:

1. Persistent and pervasive feelings of tension and apprehension.
2. Belief that oneself is socially inept, personally unappealing or inferior to others.
3. Excessive preoccupation about being criticized or rejected in social situations.
4. Unwillingness to get involved with people unless certain og being liked.
5. Restrictions in lifestyle because of need of security.
6. Avoidance of social or occupational activities that involved significant interpersonal contact, because of fear of criticism, disapproval or rejections.