History and Epidemiology of OCPD

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Outline

Case example

Mr. AW is a 45 year old accountant. His wife has brought him to the consultation because he is depressed. He is not sleeping, not eating, has lost 5 kilos in weight and is anxious all the time about losing his job. He reports he has recently been struggling at work since the firm was taken over by new employers who are expecting him to complete more auditing work in less time and he is highly anxious about making mistakes. He says he has always been extremely conscientious and noted difficulties delegating his work as well as a tendency to get easily distracted by details. He cites as an example that fact that he would find small discrepancies, e.g., pennies missing at audit, highly distracting and spends longer then he should searching for the source of insignificant error. As a result he is slower than most of his colleagues, but says that the quality of his work is of the highest standard and previously his meticulousness was not seen as a problem. He is angry and critical of his new employers for taking a different attitude. He thinks he has been unfairly treated and is not prepared to change the way he works. He admits to longstanding workaholic tendencies, has almost no social life apart from his relationship with his wife and holds judgmental attitudes. He hoards outdated electrical items in the shed. He is noted to show poor eye contact. His wife describes him as obstinate, rigid and stubborn, but also loyal and trustworthy.

Introduction

Obsessive Compulsive Personality Disorder (OCPD) is characterized by a pervasive and maladaptive pattern of excessive perfectionism, preoccupation with orderliness and details, and need for control over one's environment (Wheaton and Pinto 2017). The *Diagnostic and Statistical*

Manual of Mental Disorders, 5th edition (DSM-5) defines personality disorders (PD) as impairments in personality (self and interpersonal) functioning and the presence of pathological personality traits and categorizes PDs into three different clusters (A, B, and C) depending on its basic dimensions. OCPD is classified as one of three cluster-C ("anxious-fearful") personality disorder types. The DSM-5 specifically emphasizes that OCPD traits of orderliness, perfectionism, and mental and interpersonal control are expressed at the expense of flexibility, openness, and efficiency (APA 2013). New editions of the International Classification of Diseases – 11th Revision (ICD-11) are moving towards a dimensional model of PD assessment, which involves both an evaluation of PD severity (mild, moderate or severe) and of the presence of five stylistic trait domains (i.e., negative affectivity, detachment, disinhibition, dissociality and anankastia) (WHO 2018). Notably, the DSM-5 definition of OCPD considerably overlaps with the ICD-11 proposed trait of "anankastia", which is described as rigid perfectionism, and emotional and behavioral constraints to ensure conformity to standards (WHO 2018).

Despite the recent developments in diagnostic classification, OCPD remains a relatively under-explored area of psychiatry and its nosological status remains controversial (Fineberg et al. 2015). In particular, its relationship to other DSM-5 obsessive-compulsive and related disorders (OCRD), such as obsessive compulsive disorder (OCD) or hoarding disorder, has been debated in the literature (Fineberg et al. 2007; Murphy et al. 2010; Pollak 1987; Pollak 1979). Although current research studies provide evidence that patients with OCRDs have higher rates of many PDs (i.e., not only OCPD) (Bulli et al. 2016; Pena-Garijo, Edo Villamón, Meliá de Alba and Ruipérez 2013; Zhang et al. 2015), the answer to the question whether OCPD represents a mental disorder that falls within or outside the OCRD family varies depending on the method of inquiry used (e.g.,

disordered personality traits, neurodevelopmental profiles or neuropsychological mechanisms) (Fineberg et al. 2007).

Origins of the diagnosis

Over the last century, there have been major changes in the way OCPD is diagnosed, even though this is still heavily influenced by psychoanalytic theory. Janet (1904) was among the first to propose criteria for personality features thought to be relevant for obsessions and compulsions. He described traits of perfectionism, indecisiveness, and reserved emotions as cardinal features for the development of 'psychaesthenic illness' (Pitman 1984). The illness Janet described is now probably considered OCD. Sigmund Freud's work (Freud 1908) on obsessive personality or 'anal-erotic character style', which described traits such orderliness, parsimony, obstinacy, and the need for control (Jones 1918), also contributed greatly to the modern understanding of the diagnosis.

However, Lewis (1935) suggested that 'anal-erotic character style' traits are also commonly found among patients without obsessions. He described two types of obsessional personality "the one obstinate, morose, irritable, the other vacillating, uncertain of himself, submissive".

Abrahams's (1966) proposed definition of 'anal character' included the concept of 'perfectionism', which was thought to be one of the core features. It was believed that traits of 'perfectionism' might *help* an individual to be conscientiousness and persistent with work, but at the same time could produce *negative affective states* resulting in maladaptive social and interpersonal consequences, such as difficulty working cooperatively. These character traits were considered to precede OCD development and were thought to exacerbate OCD symptoms (Kraepelin and Quen 1990; Pitman 1984).

Definition of OCPD in DSM

In the DSM-I, OCPD was introduced as a 'compulsive personality disorder' defined by chronic, excessive, or obsessive concern and by adherence to standards of conscience or of conformity. A strong emphasis was placed on rigidity, reduced capacity for relaxation, over-inhibition, over-conscientiousness, and on an inordinate capacity for work (APA 1952).

In its next iteration, the DSM-II added 'obsessive' to compulsive personality disorder and described individuals with this disorder as rigid, over-inhibited, over-conscientious, and over-dutiful (APA 1968). The DSM-II also introduced the term 'anankastic personality', in order to reduce confusion between the personality disorder and OCD. However this new term was subsequently removed from following editions.

In the DSM-III, the terminology returned back to 'compulsive personality' and a feature of 'restricted ability to express warm and tender emotions' was included, which once again distinguished OCPD from OCD. This new feature closely resembled what we would consider, in modern classification, traits of autistic spectrum disorders. Indeed, OCPD and autistic spectrum disorders are commonly mistaken for each other, at least in the clinical psychiatry setting (Gadelkarim et al. 2018, submitted for publication).

Additional personality features included in the definition were perfectionism, insistence that others submit to his or her way of doing things, excessive devotion to work and productivity, and indecisiveness (APA 1980). Later revisions of the third DSM included new criteria, including preoccupation with details (to the extent that the major point of the activity is lost), over-conscientiousness, scrupulousness, inflexibility, lack of generosity, and hoarding (APA 1987). Five criteria were required for the diagnosis.

The eight current DSM-5 criteria for OCPD diagnosis, (1) preoccupation with details, (2) perfectionism interfering with task completion, (3) excessive devotion to work and productivity, (4) over-conscientiousness, (5) hoarding, (6) reluctance to delegate, (7) miserly spending style, (8) rigidity and stubbornness, have not substantially changed since the DSM-IV was introduced in 1994 (APA 1994). The same criteria for diagnosing OCPD were used in DSM-IV-TR (APA 2000) and DSM-5 (APA 2013). The complexity and variation of the type of OCPD is currently addressed through selection of four (or more) of the listed criteria to establish a diagnosis. However the change from five to four criteria has is arguably lowered the diagnostic threshold. Of the DSM-5 criteria, hoarding is perhaps the least specific for OCPD, also occurring in the description of OCD and counting as the principle criterion for the new diagnosis of hoarding disorder (an OCRD). Indeed, suggestions have been made that OCPD may in future be more appropriately classified within the OCRDs disorders, owing to the growing recognition of overlapping clinical and biological factors (Stein et al. 2016).

Prevalence

According to the DSM-5, OCPD is one of the most common PDs in the general population, with a prevalence ranging from 2.1 to 7.9% (APA 2013). While the DSM-5 reports men to be twice as likely to be diagnosed with OCPD, data to support this finding is limited and under investigation (Carter et al. 1999; Grant, Mooney and Kushner 2012; Maier et al. 1992; Nestadt et al. 1991; Torgersen, Kringlen and Cramer 2001).

OCPD is also one of the most commonly identified PDs in clinical samples, both in psychiatric outpatient (Stuart et al. 1998; Zimmerman, Rothschild and Chelminski 2005) and inpatient settings (Rossi et al. 2000). In clinical psychiatry samples, the prevalence is reported to increase to around 25% (Ansell et al. 2010; Pena-Garijo, Edo Villamón, Meliá de Alba and

Ruipérez 2013), and in obsessive-compulsive disorder (OCD) services, to over 30% (Garyfallos et al. 2010; Starcevic et al. 2013).

It is worth noting that prevalence of OCPD in community populations may differ according to the diagnostic manual and questionnaire used. When OCPD was assessed using DSM-III-R criteria, prevalence rates ranged from approximately 1% (Moldin, Rice, Erlenmeyer-Kimling and Squires-Wheeler 1994) to 5% (Bodlund, Ekselius and Lindström 1993) with a median prevalence of 2.2 %. For example, a large community study performed in Australia reported an OCPD prevalence of 3% (Jackson and Burgess 2000) using DSM-III (n= 10,641). Conversely, when the DSM-IV criteria was used, prevalence of OCPD ranged more widely from 1% up to 14% (J. Samuels et al. 2002) (Dereboy et al. 2014), with a median prevalence of 4.6 %. One of the largest US community studies to date using DSM-IV criteria (n=43,093) estimated the OCPD prevalence at 8% (Grant et al. 2004; Grant et al. 2012). This discrepancy could be explained by the change in diagnostic algorithms from DSM-III to the more permissive DSM-IV. However, as no studies directly comparing prevalence rates between the different nosological sets of OCPD as described in DSM-III and DSM-IV have been reported, the definitive reason for the discrepancy has yet to be determined.

Furthermore, the prevalence of OCPD as reported by the DSM-5 review considerably differs from that reported in the DSM-IV review, despite the fact that the diagnostic criteria have barely changed. This variation may be partly explained by the fact that the DSM-5 committee had access to a greater number of community studies, performed since the preparation of the previous manual.

Volkert, Gablonski and Rabung (2018) provide the most up to date systematic review and meta-analysis of the prevalence of PD in the general adult population in Western countries (five

studies, 55 216 individuals. They report an overall OCPD prevalence rate of 2.36% (1.50 –3.39).

The study also found considerable heterogeneity in the prevalence of OCPD, which was attributed

to the increased risk of bias associated with the use of self-rated rather than expert-rated diagnostic

assessments. Research has concluded that studies using the self-rating assessments of PDQ and

SCID-II consistently report higher prevalence rates for the majority of PDs in general. This was

also the case for OCPD, as the prevalence estimate including self-rated diagnostic assessment was

significantly higher in comparison to expert rated assessments (4.32% vs. 2.36%) (Volkert,

Gablonski and Rabung 2018). One possible explanation could be that some of the self-rated traits

of OCPD, such as perfectionism or extreme responsibility, might actually be desirable in Western

cultures and associated more with general orientation toward achievement. Thus, respondents

might choose to fill the questionnaire in a socially desirable form.

Systematic Prevalence Analysis

For the purposes of this chapter, we used a systematic approach to identify studies to

provide an updated prevalence report. English language databases (Medline, PsycInfo) from 1980

to 2018 were searched for studies reporting OCPD prevalence in otherwise healthy community

samples. Studies were included if they (1.) reported prevalence rates of OCPD in the community

sample or general adult population (minimum mean age 18 years) (2.) identified OCPD personality

disorders with standardised diagnostics according to the DSM-III to DSM-5 or ICD-10 and (3.)

were published in English or had an English abstract with reported prevalence. Further details of

the search technique are available from the authors. The search produced 27 articles reporting 26

studies involving 78944 participants suitable for prevalence analysis (Table 1).

PLACE TABLE 1 ABOUT HERE

This analysis included a greater number of studies than did the metaanalysis by Volkert, Gablonski and Rabung (2018) mainly due to addition of a few recent studies published in 2017 and 2018 (Gawda and Czubak 2017; Irfan et al. 2018). As expected, the observed prevalence differed between studies using the DSM-III/DSM-III-R and the DSM-IV. Those studies using the DSM-III/DSM-III-R reported considerably lower prevalence rates (2.8% [95% CI, 1.8% to 4.1%]) i.e., on average by a three percentage points) than studies using DSM-IV (5.8% [95% CI, 3.2% to 9.2%]). Studies using self-rated OCPD diagnoses also produced higher reported prevalence rates than studies using observer-rated scales. For example, two studies employing self-rated scales reported unusually high OCPD prevalence rates (Becoña et al. 2013; Dereboy et al. 2014) ranging from 14.1% up to 36.6%. The preference for studies utilizing self-rated methods for OCPD assessment may be because of the time and expense required to administer clinical interviews. In general, we found that there is still a shortage of adequate population based studies with sufficient sample sizes to accurately determine the prevalence of OCPD. None of the studies have so far used DSM-5 criteria to estimate the prevalence of OCPD. A cross-national database of OCPD epidemiology in the general adult population would allow better assessment of the worldwide prevalence of the disorder.

Age of onset

Whereas PD is by definition longstanding and pervasive, due to a shortage of prospective studies analyzing the development of PD in youth, it is difficult to determine with clarity the usual age of onset of OCPD. Many clinicians are reluctant to diagnose PDs during youth, viewing pediatric personality deviations instead as reflective of given developmental stages. Yet evidence exists that certain youth are at increased risk for the eventual development of PDs as adults (Guilé and Greenfield 2004). A longitudinal study by Bernstein et al. (1993) performed in 733 youth

ranging in age from nine to 19 years found the prevalence of OCPD to exceed 13.4 % i.e. above that usually seen in adult samples. Another follow-up study by Lewinsohn et al. (1997) reported a prevalence rate of OCPD in young people of 8 %. Both studies used DSM-III criteria to define OCPD. However, the study by Lewinsohn et al. (1997) required only three diagnostic trait criteria, and therefore the rate may be viewed as inflated. Additional studies suggest that individuals with OCD comorbid with OCPD show a particularly early age of onset of OCD, implying the psychopathology in the form of OCPD traits starts early in life (Coles et al. 2008; Fineberg et al. 2007).

Family History

Research on twins suggests that OCPD is highly heritable (Torgersen et al. 2000; Gjerde et al. 2015). Other data suggest a specific shared heritability exists across OCPD and other OCRDs. For example, OCPD, OCRDs and autism spectrum disorder cluster not only in the same patients (Hofvander et al. 2009) but also in their family members (Anderluh, Tchanturia, Rabe-Hesketh and Treasure 2003; Bienvenu et al. 2012; Calvo et al. 2009; Hollander et al. 2003; Nestadt et al. 2000; Ozyurt and Besiroglu 2018; Samuels et al. 2000), suggesting that these disorders may share genetic factors in their aetiology. In the study by Samuels et al (2000) the first-degree relatives of probands with OCD showed an increased prevalence of OCPD and high neuroticism scores. In the family study by Calvo et al. (2009), the parents of pediatric OCD probands showed a higher incidence of DSM-IV OCPD compared to the parents of healthy control children, even after parents with OCD were excluded. In a further study, OCPD was the only PD to co-occur significantly more often in the relatives of OCD probands than in relatives of controls after adjusting for OCD in the relatives (Bienvenu et al., 2012). Another family study found that obsessional personality traits may be a specific familial risk factor for anorexia nervosa – an eating

disorder with prominent obsessive- compulsive psychopathology (Lilenfeld et al. 1998). Hollander et al. (2003) reported that obsessive-compulsive traits or disorder were more likely to be found in the parents of autistic children if these children showed compulsive behaviours, indicating the possibility that the familial risk shared across OCPD, OCD and ASD diagnoses relates to the presence of compulsive behaviour patterns.

Impact

OCPD is associated with significant deficits in interpersonal and intrapersonal function (Cain, Ansell, Simpson and Pinto 2015) and, in the case of psychiatric comorbidity, often predicts a poor response to treatment (see below). However, despite its prevalence, the impact of OCPD on psychosocial function remains poorly researched. Existing studies have shown that even after controlling for comorbid psychiatric disorders, individuals with OCPD show notably high rates of engagement in primary health care use (Sansone, Hendricks, Gaither and Reddington 2004; Sansone, Hendricks, Sellbom and Reddington 2003), suggesting OCPD carries a significant health services burden and cost. For example, compared with patients with major depressive disorder, patients with OCPD were found to be three times as likely to receive psychotherapy (Bender et al. 2001; Bender et al. 2006). Another study found that individuals with OCPD reported comparable impairment in psychosocial functioning and quality of life as those with OCD – one of the most disabling neuropsychiatric disorders (Pinto et al. 2014). A further study in a small sample of OCD patients found an association between the presence of OCPD and poor social communication, as well as high rates of unemployment, even above that associated with the comorbid OCD (Gadelkarim et al. 2018, submitted for publication).

Whereas the DSM-III emphasised communication problems such as insisting others submit to his or her way of doing things, associated with the lack of awareness of the feelings elicited by

this behavior, communication problems are not currently emphasised in the diagnostic descriptions of OCPD. Yet many clinicians would endorse this as a cardinal feature. Poor social communication may also explain why many people with OCPD find interpersonal relationships difficult (Cain et al. 2015) and the high rates of marital disharmony reported for this group (Reddy and Maitri 2015; Reddy, Vijay and Reddy 2016) including the incidence of explosive aggressive outbursts (e.g. Villemarette-Pittman et al. 2004). Hoarding is another key OCPD behaviour that is likely to impact on interpersonal relationships. A better understanding of the nature of these behavioural aspects of OCPD may identify fruitful targets for therapeutic intervention.

Comorbidity

Co-existence of two or more illnesses, at rates exceeding those expected, may be explained by shared aetiological (environmental and/or genetic) factors (Fineberg et al. 2007). Several DSM axis-I disorders are commonly seen in individuals with OCPD. In the McGlashan et al. (2000) Collaborative Longitudinal Personality Disorders Study, performed in a clinical sample of 668 individuals, the most commonly reported diagnoses comorbid with OCPD were major depressive disorder (75.8%), generalised anxiety disorder (29.4%), alcohol abuse/dependence (29.4%), drug abuse/dependence (25.7%), and OCD (20.9%).

Conversely, OCPD rates are elevated in patient groups presenting with primary DSM axis-I disorders. For example, OCPD frequently occurs in patients with OCD, with a range of 20 to 34% (Albert, Maina, Forner and Bogetto 2004; Eisen et al. 2006; Garyfallos et al. 2010; Lochner et al. 2011, Starcevic et al. 2013). OCPD has been found to be more prevalent in those with early onset OCD (Pinto et al. 2006). Individuals with OCPD with or without comorbid OCD tend to have poorer mental flexibility on laboratory testing (Fineberg et al. 2007; Fineberg et al. 2015) Those with comorbid OCD show poorer CBT outcomes, especially when perfectionism, is more

pronounced (Pinto, Liebowitz, Foa and Simpson 2011), and a greater risk of OCD chronicity (Wewetzer et al. 2001) and relapse (Eisen et al. 2013), suggesting a possible neurodevelopmental aetiology for this comorbid subgroup. Indeed, in a recent, as yet unpublished study of an OCD cohort limited by small size, OCPD associated strongly with unemployment and with traits of autism spectrum disorder (Gadelkarim et al. 2018 submitted for publication).

Recent studies also indicate that OCPD shows considerable overlap with eating disorders such as anorexia nervosa and binge eating disorder (Halmi et al. 2005; Kountza et al. 2018). Reported overlap is from 26% to 61% for patients with anorexia nervosa (Anderluh, Tchanturia, Rabe-Hesketh and Treasure 2003; Kountza et al. 2018) and from 10 % to 26% (Friborg et al. 2014; Karwautz et al. 2003) for patients with binge eating disorder. Current research on perfectionism has illustrated its predictive utility in eating disorder symptoms (Ghandour et al. 2018), and has highlighted its association with OCPD (von Ranson 2018; Anderluh, Tchanturia, Rabe-Hesketh and Treasure 2003; Grilo 2004). Research on personality traits has also indicated perfectionism as a vulnerability factor for body dysmorphic disorder (Buhlmann, Etcoff and Wilhelm 2008; Schieber et al. 2013).

OCPD was found to be the most common PD among patients with depressive disorders (30.8%) (Rossi et al. 2001) (see clinical example) and, together with paranoid PD, is a significant predictor of reduced probability of remission (Agosti, Hellerstein and Stewart 2009). A six-year prospective study by Grilo et al. (2010) found that patients with OCPD were among those with the highest risk for depressive relapse. OCPD was also found to be the most common PD among patients with bipolar affective disorders (32.4%) (Angst et al. 2005), dysthymic disorder in elderly individuals (17.1%) (Devanand et al. 2000), panic disorder with agoraphobia (26.7%) (Brooks et al. 1991), and without agoraphobia (Albert et al. 2004). A study analysing the association of PDs

with the prospective 7-year course of anxiety disorders, including aspects of rates of remission, relapse, new episode onset and chronicity of disorders, found that OCPD patients had negative prognostic significance for generalized anxiety disorder, OCD, and agoraphobia (Ansell et al. 2011). Our preliminary study of patients with anxiety and mood disorders found that the presence of OCPD was related to worse Health-Related Quality of Life (HRQoL) and perceptions of general health, independent of socio-demographic and clinical characteristics (Gecaite et al. 2018).

OCPD Assessment

Structured interviews are commonly used to measure OCPD. The most commonly used include the Structured Clinical Interview for DSM-IV axis II personality disorders (SCID-II) (First 1997), International Personality Disorder Examination Screener (IPDE) (Slade, Peters, Schneiden and Andrews 1998), Structured Interview for Personality Disorders (SIDP) (Pfohl, Blum and Zimmerman 1997), and the Diagnostic Interview for Personality Disorders (DIPD) (Zanarini, Frankenburg, Chauncey and Gunderson 1987). Acceptable inter-rater reliability is observed in studies using SCID-II, DIPD and SIDP (Clark and Harrison 2001).

There are no established rating instruments for assessing the severity of OCPD as a whole (Fineberg et al. 2007). However, evaluation of individual diagnostic criteria has been used to estimate severity in several studies (Ansseau 1996; Calvo et al. 2009; Pinto, Liebowitz, Foa and Simpson 2011). The observer rated Compulsive Personality Assessment Scale (CPAS; [Fineberg et al. 2007]) has been partially validated in clinical and community-based samples and translated into various languages (Table 2). It demonstrates face validity, mapping directly on each of the DMS-5 diagnostic criteria for OCPD. It also shows aspects of construct validity: CPAS scores positively correlated with neurocognitive concomitants of OCPD (cognitive inflexibility) in a small community-derived sample (Fineberg et al. 2015), and with clinical factors including fatigue

in mood and anxiety disorders patients (Burkauskas et al. 2018) and autism spectrum traits in OCD patients (Gadelkarim et al. 2018, submitted for publication). Advantages of the CPAS include the fact that it is quick and easy to apply (8 items), can potentially be adapted as a self-rating instrument, and as it measures each of the DSM-criteria, it can be used to support diagnosis using both a dimensional (each item scored 0-4) as well as threshold approach (four or more items scoring>= 3).

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The 49-item Pathological Obsessive Compulsive Personality Scale, is a self-report measure of maladaptive OCPD traits and severity that has also recently been validated (Sadri et al. 2018). It has five sub-scales: difficulty with change, emotional over-control, rigidity, maladaptive perfectionism, and reluctance to delegate (Pinto, Ansell and Wright 2011). Self-report versions of OCPD questionnaires could also be derived larger inventories designed for PD assessment, such as the Millon Clinical Multiaxial Inventory-III (MCMI–III) (Millon, Davis and Millon 1997), SCID–II–Personality Questionnaire, and the Personality Diagnostic Questionnaire (PDQ) (Hyler et al. 1992; Samuel and Widiger 2010). However, these tools may show a large variability in their representation of particular diagnostic criteria.

Specific OCPD traits may also be assessed using trait questionnaires, such as the Multidimensional Perfectionism Scales (Stöber 1998), or the Hoarding Rating Scale-Self-Report (Tolin, Frost, Steketee and Fitch 2008), which is a self-report version of the Hoarding Rating Scale-Interview (Tolin, Frost and Steketee 2010), and is a briefer measure containing five items, including level of clutter in living spaces, difficulty in discarding possessions, excessive acquisition of items, emotional distress regarding hoarding behavior, and impaired functioning due to hoarding.

All the aforementioned questionnaires still have to be tested for their sensitivity and specificity in capturing DSM-5 OCPD across a broad range of different populations and cultures, and identifying whether these traits are sensitive to change over time – a prerequisite for planning treatment trials.

Diagnostic efficiency and stability

It is recognized that personality disorders represent relatively stable disorders. For example, in the study by Bernstein et al. (1993), young subjects with an initial diagnosis of OCPD were 15 times more likely to be given the same diagnosis 2 years later than were subjects without the initial diagnosis. However, it is also recognized that certain maladaptive traits may improve with the passage of time. Indeed, dimensional evaluation has suggested that OCPD may be characterized by maladaptive trait constellations that are stable in their structure, but can change in severity or expression over time (Grilo et al. 2004a).

A study analyzing PD trait stability over time, concluded that PDs are hybrids of traits and symptomatic behaviors, and that the interaction of these elements over time could help to determine the diagnostic stability of a particular PD (McGlashan et al. 2005). An early study investigating the diagnostic efficiency of the criteria required for an OCPD diagnosis found that the presence of three criteria (rigidity and stubbornness, perfectionism, and reluctance to delegate tasks) was generally predictive of the ongoing presence of the diagnosis (Grilo et al. 2001).

In a further longitudinal 24 months follow-up study of OCPD, traits such as 'preoccupation with details', 'rigidity and stubbornness', and 'reluctance to delegate' were predictive of primarily stable cases of OCPD (Grilo et al. 2004b). The least prevalent and most changeable criteria in OCPD over the two year time period were miserly and strict moral behaviors, suggesting that relatively fixed criteria are more trait-like and attitudinal, whereas the intermittent and reactive

criteria are more behavioral. Recent findings have confirmed these results, indicating that rigid perfectionism represents a core trait, expressed both in self-report and clinical interview data in OCPD cases (Liggett and Sellbom 2018).

OCPD may therefore be best conceptualized as a disorder characterized by rigid perfectionism and poor central coherence, with other traits influencing how the disorder manifests in individual cases (Liggett, Sellbom and Bach 2018). Thus, it has also been noted that a large proportion of OCPD subjects do not remain at the diagnostic threshold for a personality disorder for long, and that the average number of criteria present decreases significantly over even just 12 months (Shea et al. 2002). When evaluated categorically, OCPD rates dropped below diagnostic threshold on a blind 24-month reassessment in 60% of initially diagnosed adult cases (Grilo et al. 2004b), casting question on the usefulness of a categorical method of diagnosis.

Threshold versus dimensional models of OCPD

Within the 'threshold' or categorical model of PDs, general criteria must be met, including clinically significant distress or impairment in social, occupational or other domains of functioning. In the case of OCPD, once these general criteria have been met, four or more of the eight listed items are also required to complete the diagnosis as a categorical entity. This model has its challenges, as raters often disagree on the number of diagnostic criteria needed (Zanarini et al. 2000). Some authors have suggested that a dimensional model, where pathological traits are assessed based on their degree of presence (i.e., rather than making a presence or absence judgment), is a more meaningful approach to diagnosis resulting in a higher inter-rater reliability (Lobbestael, Leurgans and Arntz 2011; Widiger and Simonsen 2005).

There are various different dimensional approaches to PD classification. One of the most established dimensional approaches is the five-factor model (FFM) (Bagby and Widiger 2018). A

meta-analytic review (Samuel and Widiger 2008) suggests that success in using the FFM as a proxy measure of OCPD largely depends on the questionnaire used. For example, the Millon Clinical Multiaxial Inventory-III or the Schedule for Non-adaptive and Adaptive Personality better capture conscientiousness as compared with the structured interview for the Five-Factor Model of Personality or the NEO Personality Inventory - Revised.

The DSM-5 alternative PD model in Section III also covers PD function in a dimensional way. However, this section was included more for research purposes than for clinical use. Thus, the clinical utility of the dimensional models are still under active investigation and the debate on how best to define DSM OCPD, from a diagnostic standpoint, is yet to be resolved (De Fruyt, De Clercq, van de Wiele and Van Heeringen 2006).

Other dimensional models have been proposed to assess OCPD. One includes dimensions of "perfectionism" (i.e., preoccupation with details, perfectionism, excessive devotion to productivity) and "rigidity" (i.e., rigidity, reluctance to delegate, hyper-morality), reflecting underlying interpersonal and intrapersonal control (Ansell, Pinto, Edelen and Grilo 2008). Another dimensional three factor approach proposes assessing "perfectionism", "rigidity" and "miserliness" (i.e., misery spending style, inability to discard) (Grilo et al. 2004b). The upcoming ICD-11 proposes the deletion of all specific types of PDs, with the focus placed instead on the severity of disturbances in interpersonal functioning, and specific traits, such as 'anankastic', acting as secondary qualifiers (WHO 2018).

Hypothetically, dimensional OCPD models may be of particular value for translational research aiming to link specific aspects of phenomenology with underpinning neurocognitive substrates, as individual traits (or dimensions) may map more closely onto these substrates than does the categorical diagnosis, and for the trans-diagnostic investigation of underpinning

neurobiology, as independent dimensions may be measured across diverse disorders, and treatment targets.

Summary

- OCPD is a common, disabling and relatively neglected psychiatric disorder.

- OCPD is characterized by stable neurocognitive traits such as perfectionism, rigidity and a focus on detail, with associated behavioral tendencies such as behaviors aimed at achieving intra or inter-personal control, hoarding and miserliness that adversely affect psychosocial function and impair quality of life.

- The nosological status of OCPD remains uncertain, as it is noted to share diagnostic traits and clinical overlap with certain Obsessive Compulsive And Related Disorders, including OCD, body dysmorphic disorder and hoarding disorder, and with neurodevelopmental disorders such as Autism Spectrum Disorder.

- Dimensional models for OCPD have been proposed and if validated may be of value for translational research into the underpinning biology and treatment.

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Table 1. Prevalence of Obsessive Compulsive Personality Disorder According to DSM-III/DSM-III-R and DSM-IV criteria

Authors	Country	Population	Rating	No. of Subjects	Instrument of Evaluation	Version	OCPD prevalence range
Reich, Yates and Nduaguba 1989	US	Community sample of adults	SR	235	PDQ	DSM-III	10.6-20.1
Zimmerman and Coryell 1989	US	First-degree relatives of normal controls	OR	797	SIDP	DSM-III	1.2-3.2
Maier et al. 1992	DE	Control probands recruited in the general population	OR	452	SCID-II	DSM-III-R	1.1-4.0
Black et al. 1993	US	Comparison subjects requited through advertisement	OR	127	SIDP	DSM-III	3.8-14.0
Bodlund, Ekselius and Lindström 1993	SE	Students and their partners	SR	133	SCID-Screen	DSM-III-R	1.7-9.6
Samuels et al. 1994	US	Community sample of adults	OR	762	SPE	DSM-III	0.5-2.2
Moldin, Rice, Erlenmeyer-	US	General population	OR	302	PDE	DSM-III-R	0.1-2.4

Kimling and Squires-Wheeler 1994						
Klein et al. 1995	US	Normal controls and their relatives	OR	229	PDE	DSM-III-R	1.0-5.6
Lenzenweger, Loranger, Korfine and Neff 1997	US	Students	OR	258	IPDE	DSM-III-R	0-1.4
Jackson and Burgess 2000	AU	Community sample of adults	SR and OR	10641	IPDE	DSM-III	2.8-3.4
Torgersen et al. 2001	NO	Community sample of adults	OR	2053	SIDP-R	DSM-III-R	1.4-2.6
Ekselius, Tillfors, Furmark and Fredrikson 2001	SE	Community sample of adults	SR	557	DIP-Q	DSM-IV	5.6-10.3
Samuels et al. 2002	US	Community sample of adults	OR	742	IPDE	DSM-IV	0.6-2.3
Albert, Maina, Forner and Bogetto 2004	IT	Subjects invited through family doctor	OR	101	SCID-II	DSM-IV	0.6-8.4
Crawford et al. 2005	US	Community sample	OR	716	SCID-II	DSM-IV	3.3-6.6

Wu, Clark and Watson 2006	US	Students	SR	418	SNAP-2	DSM-IV	2.8-7.0
Coid et al. 2006	UK	Community sample of adults	OR	626	SCID-II	DSM-IV	1.0-3.3
Moran et al. 2006	AU	Community sample of adults	OR	1943	SAP	DSM-IV	4.8-7.0
Lindal and Stefansson 2009	IS	Community sample of adults	SR	805	DIP-Q	DSM-IV	5.6-9.4
Cheng, Huang, Liu and Liu 2010	CN	Students	OR	7675	IPDE	DSM-IV	0.8-1.3
Grant et al. 2004; Grant, Mooney and Kushner 2012	US	Community sample of adults	OR	43093	AUDADIS-IV	DSM-IV	7.7-8.2
Becoña et al. 2013	ES	Community sample of adults	SR	1081	IPDE	DSM-IV	33.8-39.6
Oltmanns, Rodrigues, Weinstein and Gleason, 2014	US	Community sample of adults	OR	1630	SIDP-IV	DSM-IV	2.8-4.7
Dereboy et al. 2014	TR	Community sample of adults	SR	774	DIP-Q	DSM-IV	11.7-16.7
Gawda and Czubak 2017	PL	General population	OR	1460	SCID-II	DSM-IV	7.9-11.4

| Irfan et al. 2018 | PK | Students | OR | 1334 | IPDE | DSM-IV | 0.002-0.4 |

Note: AUDADIS-IV – Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM-IV Version; DIP-Q – DSM-IV Personality Questionnaire; DSM - Diagnostic and Statistical Manual; IPDE – International Personality Disorder Examination Screener; PDE – Personality Disorder Examination; PDQ – Personality Diagnostic Questionnaire; SAP – Standardised Assessment of Personality; SCID-II - Structured Clinical Interview for DSM-IV Axis II Disorders; SIDP-R – The Structured Interview for Personality Disorders-Revised; SNAP-2 – Schedule for Nonadaptive and Adaptive Personality-2; SPE – Standardized Psychiatric Examination; OCPD – Obsessive Compulsive Personality Disorder.

Table 2. Compulsive Personality Assessment Scale

Compulsive Personality Assessment Scale (CPAS)

Subject's name   _____   Date of birth   ___ / ___ / ___

Rater's name   _____   Date of rating   ___ / ___ / ___

Items refer to a stable pattern of enduring traits dating back to adolescence or early adulthood. Use the questions listed as part of a semi-structured interview.

For each item circle the appropriate score:
0 = absent; 1 = mild; 2 = moderate; 3 = severe; 4 = very severe.

ITEM	RATING				
1. Preoccupation with details Are you preoccupied with details, rules, lists, order, organisation or schedules to the extent that the major aim of the activity is lost?	0	1	2	3	4
2. Perfectionism Would you describe yourself as a perfectionist who struggles with completing the task at hand?	0	1	2	3	4
3. Workaholism Are you excessively devoted to work to the exclusion of leisure activities and friendships?	0	1	2	3	4
4. Over-conscientiousness Would you describe yourself as over-conscientious and inflexible about matters of morality, ethics or values?	0	1	2	3	4
5. Hoarding Are you unable to discard worn-out or worthless objects even when they have no sentimental value?	0	1	2	3	4
6. Need for control Are you reluctant to delegate tasks or to work with others unless they submit to exactly your way of doing things?	0	1	2	3	4
7. Miserliness Do you see money as something to be hoarded for future catastrophes?	0	1	2	3	4
8. Rigidity Do you think you are rigid or stubborn?	0	1	2	3	4
Total:					

Adapted from: Fineberg NA, Sharma P, Sivakumaran T, et al: Does obsessive-compulsive personality disorder belong within the obsessive-compulsive spectrum? CNS Spectr 12:467–482, 2007

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