OBSESSIVE-COMPULSIVE PERSONALITY DISORDER AND PERSONALITY ORGANIZATION: IMPLICATIONS FOR PSYCHOSOCIAL FUNCTIONING

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Abstract

Objective: This study evaluated whether the tendency of patients with obsessive-compulsive personality disorder (OCPD) to exhibit varying degrees of functional impairment could be explained by their underlying level of personality organization (PO).

Method: Twenty-three outpatients with OCPD and twenty-five age and sex matched healthy controls completed measures of global, relational and occupational functioning, satisfaction for their daily activities, and PO.

Results: OCPD patients exhibited lower psychosocial functioning than controls across all the examined domains, and their functional impairment correlated with increased difficulties in PO. Specifically, greater identity diffusion and greater use of primitive defenses accounted for the association between OCPD status and lower satisfaction and enjoyment in daily functioning.

Conclusions: These preliminary findings suggest that the extensive difficulties in the capacity to "work and love" exhibited by OCPD patients could be explained by their distorted self-other representations and use of maladaptive defense styles.

Key words: obsessive-compulsive personality disorder; personality organization; psychosocial functioning

Declaration of interest: none

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Introduction

Obsessive-compulsive personality disorder (OCPD) is characterized by excessive perfectionism, orderliness, and control (American Psychiatric Association [APA] 2013, APA 2000, APA 1994). Symptoms include preoccupation with rules and details, rigidity, difficulty delegating tasks, over-conscientiousness, miserliness, excessive devotion to work, and an inability to discard worthless items (APA 2013, Samuel et al. 2012). The prevalence of OCPD is estimated between 8% and 9% in outpatient settings (Zimmerman et al. 2005) and between 2% and 8% in the general population (Grant et al. 2012). An OCPD comorbidity has been found to enhance relapse and suicide risk in depressed patients (Grilo et al. 2010, Diaconu and Turecky, 2009). In addition, OCPD patients, along with Borderline Personality Disorder (BPD) patients, represent the most frequent users of mental health services and pose a major economic burden to society in terms of lost productivity (Skodol et al. 2005a).

Factor analytic studies pointed out two core features underlying an OCPD diagnosis: rigidity (which indicates interpersonal control and resistance to change) and perfectionism (which encompasses the tendency toward cognitive and interpersonal control (Ansell et al. 2008). Such features have been found to be stable at a 2-year follow-up (McGlashan et al. 2005).

Consistently, individuals with OCPD are often described as rigid and controlling (Pinto et al. 2008); they show a need for interpersonal control that can lead to hostility and occasional explosive outbursts of anger at home and work (Villemarette-Pittman et al. 2004) and to significant distress and impairment. The centrality of functional impairment to a OCPD diagnosis is also highlighted by the alternative DSM-5 model for PDs, which posits that disturbances in the domains of Self functioning (i.e., Identity, Self-Direction) and Interpersonal functioning (i.e., Empathy, Intimacy) represent the core of personality psychopathology. According to this model, OCPD patients exhibit characteristic difficulties in Identity ("Sense of self predominantly from work or productivity; constricted experience and expression of strong emotions"); Self-direction ("Difficulty completing tasks and realizing goals, associated with rigid and unreasonably high and inflexible internal standards of behaviour; overly conscientious and moralistic attitudes"); Empathy ("Difficulty understanding and appreciating the ideas, feelings, or behaviors of others"); and Intimacy ("Relationships seen as secondary to work and productivity, rigidity and stubbornness negatively affect relationships with others") (APA 2013, p.768).

However, information regarding the global functioning and quality of life of individuals with OCPD is rather controversial.

In the general population OCPD, as compared with other Personality Disorders (PDs), does not seem to be associated with reduced quality of life (Cramer et al. 2006), occupational/relational difficulties (Ulrich et al.

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2007) nor decreased global functioning (Crawford et al. 2005). Findings from clinical samples, though, are more mixed.

Some studies report that OCPD patients are not dysfunctional - rather, they could even be hyper-functioning (Westen and Muderrisoglu 2003, Hertler 2014, Ryder et al. 2007, Jovev and Jackson 2004); further, they exhibit significantly lower social and particularly occupational impairment than patients with other PDs (i.e., Avoidant, Schizotypal and Borderline PDs) (Hengartner et al. 2014a, Skodol et al., 2002, Skodol et al., 2005a), although their functional impairment does not decrease at a 2-year follow-up (Skodol et al. 2005b). Conversely, other studies found that OCPD is significantly related to reduced quality of life, conflicts in the workplace, living alone, distress in friendships and conflicts with friends, having no partner, and distress in partnership, thus suggesting a particular impairment in interpersonal functioning (Hengartner et al. 2014b). For instance, Cain and Colleagues (Cain et al. 2015) recently found that individuals with OCPD reported hostile dominant interpersonal problems and high interpersonal distress; in fact, OCPD individuals reported being overly controlling, vindictive, and cold in their interpersonal relationships, suggesting that OCPD is associated with unique interpersonal styles and deficits. Finally, Steenkamp and Colleagues (Steenkamp et al. 2014) suggested that OCPD may be characterized by rigid emotional constriction, over-control and difficulties in several emotional domains and consequent interpersonal dysfunction as compared with healthy controls.

Thus, these conflicting results on the varying degree of psychosocial functioning among patients with OCPD require clarification.

One useful way to shed light on OCPD patients' psychosocial functioning is by considering their underlying level of personality organization (PO). According to object relations model of personality pathology (Kernberg 1984) three levels of PO constitute a continuum of severity of personality pathology, from the lower psychotic level, through the borderline level, to the higher neurotic level. Three main dimensions—Identity, Defense mechanisms, and Reality-testing—represent the foundation of personality organization. Identity integration corresponds to a stable, flexible, and realistic inner experience of self and others; Identity diffusion, on the other hand, refers to superficial and polarized representations of self and others. Defense mechanisms mediate internal conflicts between competing impulses and feelings; the array of individual defenses can vary from mature and flexible mechanisms that allow dealing with everyday life demands, to an immature and rigid defense style interfering with adaptive functioning. Lastly, reality-testing can be defined as the process of relating one's self to the external world and distinguishing between inner and outer reality. Individuals functioning at the neurotic level show intact reality testing, identity integration, and a generally mature defense style. Borderline personality organization is characterized by a generally intact reality-testing, in the context of a fragmented and inconsistent sense of self and others. Identity diffusion is the trademark of borderline personality organization and is sustained by the use of primitive defense mechanisms—above all, splitting. This tendency to view the world and other people in a polarized manner results in severe interpersonal problems. Finally, the psychotic level of personality organization is mainly characterized by severe distortions of reality-testing. According to this classification, OCPD patients may be organized either at the neurotic or at the borderline level (Kernberg 1984). Thus, the underlying level of PO could explain previous contrasting findings on the association between OCPD and psychosocial (dys)function. However, to our knowledge no study has yet empirically investigated the level of PO in OCPD patients versus non-OCPD controls nor its association with functional impairment. Evaluating whether OCPD patients exhibit a lower level of PO than controls is necessary in order to clarify whether such difficulties in PO explain their decreased psychosocial functioning.

Therefore, this study evaluated whether OCPD patients, as opposed to controls, exhibit lower overall, occupational and relational functional impairment and perceived quality of life, as well a lower level of PO; we further hypothesized that the association between OCPD status and psychosocial dysfunction would be accounted for by their lower levels of PO.

Methods

Participants and procedure

This study involved 23 patients with OCPD and 25 sex and age matched healthy controls (HC). The clinical group was recruited among outpatients seeking treatment at an Italian community-based Department of Mental Health. HC were recruited in the local community through advertisements and word of mouth. In order to be eligible for the study, all participants had to be between 18 and 65 years old. OCPD patients were referred to the study investigators by their treating clinicians, and were included in the study only if their OCPD diagnosis was confirmed by means of the Structured Clinical Interview for DSM-IV Axis II (SCID-II) (First et al. 1997). Exclusion criteria for the clinical group were: cognitive impairment (based on clinical judgment); and a current or past history of psychotic disorder as well as active bipolar disorder and substance use disorders, as assessed by the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I) (First et al 2002). HC were included in the study only if they endorsed less than 4 positive items for any PD at the SCID-II screener, if they were free from current or past psychiatric disorders (SCID-I) and did not report any clinically relevant level of psychopathology at the Global Severity Index of the Symptom Check-List-90-Revised (T-score < 64) (Derogatis 1994, Prunas et al. 2012).

Following the diagnostic assessments, participants completed a demographic questionnaire, an inventory assessing their level of PO, and a questionnaire evaluating their degree of satisfaction with their daily functioning; finally, they were interviewed about their current level of overall, social/occupational and relational functioning (see below). All the interview-based assessments were carried out by two senior-level residents in psychiatry. The Local Ethical Authority approved the study protocol.

Materials

Current psychosocial functioning

The *Global Assessment of Functioning Scale* (GAF) (APA 2000) is a clinician-rated scale evaluating current overall psychological, social and occupational functioning. The GAF includes the impact of symptom severity on functioning, but does not include impairment in functioning due to physical or environmental limitations. Scores range from 10 ("Persistent danger of severely hurting self or others, OR persistent inability to

maintain minimal personal hygiene, OR serious suicidal act with clear expectation of death") to 100 ("Superior functioning in a wide range of activities […] No symptoms").

The *Social and Occupational Functioning Assessment Scale* (SOFAS) (APA 2000) is also a clinician-rated scale that though focuses exclusively on the individual's level of social and occupational functioning and is not directly influenced by the overall severity of the individual's psychological symptoms. Further, any impairment that is due to general medical conditions are considered in making the SOFAS ratings. Scores range from 10 ("Persistent inability to maintain minimal personal hygiene. Unable to function without harming self or others or without considerable external support, e.g., nursing care and supervision") to 100 ("Superior functioning in a wide range of activities").

The *Global Assessment of Relational Functioning Scale* (GARF) (APA 2000) is a clinician-rated scale that was used to indicate an overall judgment of the functioning of a family or other ongoing relationship on a hypothetical continuum ranging from competent, optimal relational functioning to a disrupted, dysfunctional relationship. GARF scores of 81-100 indicate that "The individual is functioning satisfactorily from self-report participants and from perspective of observers […]". Scores of 61-80 indicate that "Functioning of the individuals is somewhat unsatisfactory […]". Scores of 41-60 indicate that "Relational unit has occasional times of satisfying and competent functioning together, but clearly the relationship is dysfunctional […]". Unsatisfying relationships tend to predominate. Scores of 21-40 indicate that "Relational unit is seriously dysfunctional; forms and time periods of satisfactory relating are rare […]". Scores of 1-20 indicate that "Relational unit is too dysfunctional to retain continuity of contact or attachment […]". These ratings are based on three basic variables that describe system functioning: 1) Problem solving (i.e., skills in negotiating goals, rules and routines; adaptability to stress; communication skills, ability to resolve conflicts); 2) Organization (i.e., maintenance of interpersonal roles, subsystem boundaries, and hierarchical functioning; coalitions and distribution of power, control, and responsibility; 3) Emotional climate (i.e., tone and range of feelings; quality of caring, empathy, involvement, and attachment/commitment; sharing of values; mutual affective responsiveness, respect, and regard; quality of sexual functioning). These variables may be considered the organizational structure of a system with certain rules about who does what, when, where, and why; the communication processes that develop, sustain, and adapt those structural guidelines; and the emotional result of family members feeling safe, supported, heard and understood.

The *General Activities* scale of the *Quality of Life Enjoyment and Satisfaction Questionnaire* (Q-LES-Q) assesses the self-reported broad functional impairment in various areas of daily functioning. It includes 16 items evaluating the individual's degree of enjoyment and satisfaction experienced during the past week across various areas (i.e., work, relationships, leisure, housing etc.). Items are scored on a 5-point Likert scale (from 1 = very poor satisfaction, to 5 = very good satisfaction), with higher scores reflecting better functioning and quality of life. In this sample, the internal consistency of the Q-LES-Q General Activity scale was excellent ($\alpha = 0.92$).

Personality organization

The *Inventory of Personality Organization* (IPO) (Lenzenweger et al. 2001, Preti et al. 2015) is a 57-item self-report measure of PO. It comprises three scales: Identity Diffusion (example item: "I see myself in totally different ways at different times"), Primitive Defenses (example item: "I need to admire people in order to feel secure"), and Reality Testing (example item: "I can't tell whether certain physical sensations I'm having are real, or whether I am imagining them"). Items are rated on a 5-point rating scale (from 1= "never true of me", to 5= "always true of me"). Higher scores indicate greater impairment in PO (i.e., lower level PO). In this sample, the reliability of the IPO scales was as follows: Identity Diffusion: α=0.91; Primitive defenses: α=.88; Reality Testing: $\alpha = 0.91$.

Statistical analysis

OCPD patients and HC were compared in terms of their socio-demographic features using *t* test for independent samples and χ^2 test, as appropriate. Descriptive statistics were performed to detail Axis I and II disorders rates in the clinical sample. Differences between patients and HC in current levels of overall, social/occupational and relational functioning, self-reported satisfaction with daily functioning as well as level of PO were evaluated using *t* test for independent samples. Pearson's correlations were performed between IPO scores and levels of psychosocial functioning (GAF, SOFAS, GARF and Q-LES-Q scores). Finally, we planned to follow-up with a series of mediation analyses (Process for SPSS, Model 4; Hayes, 2013) to evaluate whether the tendency of OCPD patients to experience poorer psychosocial functioning than HC could be explained by the IPO dimensions that were found to differentiate patients and HC and that were found to be correlated with psychosocial functioning.

Results

Sample characteristics

In terms of demographic features, the OCPD group did not differ from HC in age, gender distribution, work status, nationality, and percentage of individuals currently being involved in a romantic relationship; however, OCPD patients were more likely to be married and less likely to live alone than controls (**table 1**). **Table 2** details the comorbidity rates in the OCPD group. With respect to psychosocial functioning, OCPD patients showed lower overall, social/occupational and relational functioning than controls, as well as less satisfaction for their current level of functioning. Finally, they exhibited higher identity diffusion and greater use of primitive defenses than HC (**table 3**).

Correlations between psychosocial functioning and personality organization

The IPO Identity Diffusion scale was inversely related with GARF scores ($r = -.284$, $p = .05$) and with the Q-LES-Q General Activity Scale ($r = -.570$, $p < .001$). The IPO Primitive Defenses scale negatively correlated with GAF ($r = -.293$, $p = .04$), GARF ($r = -.286$, $p = .05$), SOFAS ($r = .286$, $p = .04$) scores as well as with the Q-LES-Q General Activity Scale ($r = -.633$, $p < .001$). Gender, age and educational level were unrelated

Table 1. *Socio-demographic features of the study sample*

	OCPD *n*=23	**HC** *n*= 25	**Test value** (*t* or χ^2)	***p***
Age	39.20±12.6	37.10±10.5	-.642	.524
Sex (Female)	8 (40.0%)	10 (34.8%)	.139	.709
Nationality (Italian)	25(100%)	21(91.3%)	2.268	.132
Years of Education	14.0±3.7	16.2±3,8	2.055	.046
Marital Status			11.835	.019
- Legally married	11 (47.8%)	2 (8%)		
- Living together	2 (8.7%)	6 (24%)		
- Separated	0	2 (8%)		
- Divorced	0	1 (4%)		
- Single	10 (43.5%)	14 (56%)		
Current romantic relationship	13 (56.5%)	8 (32%)	2.927	.087
Living status			13.280	.004
- With parents	10 (43.5%)	3 (12.0%)		
- With spouse/children	9 (39.1%)	5 (20.0%)		
- Alone	2 (8.7%)	12 (48%)		
- Other	2 (8.7%)	5 (20.0%)		
Work status			3.546	.471
- Full time	14 (61.0%)	17 (68.0%)		
- Part time	1 (4.3%)	1 (4.0%)		
- Student	5 (21.7%)	7 (28.0%)		
- Housekeeper	1 (4.3%)	0 (0)		
- Unemployed	2 (8.7%)	0 (0)		

Table 2. *DSM-IV Comorbidity rates in the OCPD sample (n=23)*

	N	**%**
Axis I Diagnoses	22	95.7
Depressive Disorder	4	17,4
Bipolar Disorder	5	21.7
Adjustment Disorder	1	4.3
Anxiety Disorder NOS	2	8.7
Obsessive-Compulsive Disorder	5	21.7
Panic Disorder	2	8.7
Anorexia Nervosa	3	13
Axis II Diagnoses	7	30.4
Narcissistic Personality Disorder	3	42.7
Avoidant Personality Disorder	2	28.7
Dependent Personality Disorder	1	14.3
Passive-Aggressive Personality Disorder	1	14.3

Table 3. *Overall psychosocial functioning (GAF), social/occupational functioning (SOFAS), relational functioning (GARF), daily functioning and quality of life (Q-LES-Q), IPO scores and general psychopathology severity (SCL-90R GSI) in OCPD patients and HC*

	OCPD *n*=23	**HC** *n*= 25	***t***	***p***
GAF ratings	76.6±14.1	91.6±7.4	4.666	<.001
GARF ratings	75.87 ±15.0	90.4±7.9	4.254	<.001
SOFAS ratings	78.17±15.00	93.00±6.9	4.452	<.001
Q-LES-Q General Activities	62.78±19.9	81.84±16.5	3.619	.001
IPO- Identity Diffusion	2.09±0.6	1.69±0.5	-2.381	.02
IPO- Primitive Defenses	2.11±0.6	1.65±0.5	-2.801	.007
IPO- Reality Testing	1.67±0.5	1.42±0.5	-1.675	.10
GSI (SCL-90-R)	1.98±0.68	1.44±0.47	-3.222	.002

with GAF, GARF, SOFAS and Q-LES-Q scores (all r_s < 0.1, all p_s > .5)

Mediation analyses

As can be seen in **figure 1**, we found a significant mediating role of both greater Identity Diffusion and greater Primitive Defenses (IPO) in the relation between OCPD status and decreased self-reported daily functioning and satisfaction (Q-LES-Q General Activities Scale).

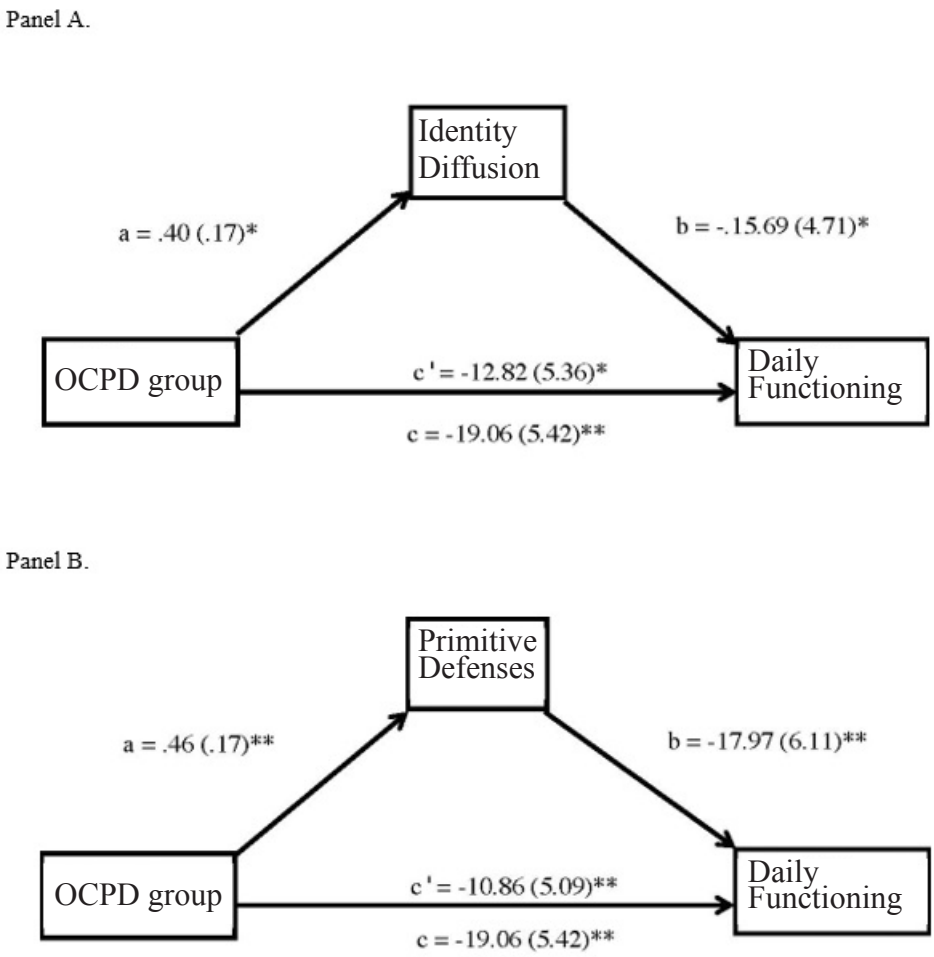
The OCPD group was significantly associated with greater identity diffusion (a = .40, p = .02); in turn, greater identity diffusion was significantly associated with lower self-reported daily functioning (b = -.15.69, p = .002). The indirect effect of OCPD group on lower Q-LES-Q scores via higher identity diffusion (ab) was significant, with a point estimate for identity diffusion of -6.24 (and a bias-corrected and accelerated 95% CI of -13.68 to -1.69), indicating mediation (R^2 = .41, p < .001). Additionally, the total effect of OCPD group on decreased levels of daily functioning was significant (c = -19.06, p = .001), as well as the direct effect (c'= -12.82, p = .02). The ratio of the total effect of group on functional impairment that was explained by greater identity diffusion ([ab/ab+ c'] X 100) was 32.7% (**figure 1**, *Panel A*).

Similarly, the OCPD group was significantly associated with greater use of primitive defenses (a = .46, p = .009); in turn, greater primitive defenses were significantly associated with lower self-reported daily functioning (b = -.17.97, p = .005). The indirect effect of OCPD group on lower Q-LES-Q scores via higher use of primitive defenses (ab) was significant, with a point estimate for identity diffusion of -8.20 (and a bias-corrected and accelerated 95% CI of -16.19 to -2.82), indicating mediation (R^2 = .46, p < .001). Additionally, the total effect of OCPD group on decreased levels of daily functioning was significant (c = -19.06, p = .001), as well as the direct effect (c'= -10.86, p = .04). The ratio of the total effect of group on functional impairment that was explained by greater identity diffusion ([ab/ab+ c'] X 100) was 43% (**figure 1**, *Panel B*).

Thus, lower levels of personality organization explained the tendency of OCPD patients to report greater self-reported daily functional impairment, as assessed by the Q-LES-Q. Conversely, the mediation models evaluating whether identity diffusion and primitive defenses mediated the association between OCPD status and clinician-rated psychosocial functioning (i.e.., GAF, GARF and SOFAS scores as dependent variables) were all non-significant (all normal theory tests for indirect effects: p > .50).

Discussion

Figure 1. *The relationship of OCPD group vs. control group to decreased daily functioning is mediated by higher levels of identity diffusion (Panel A) and greater use of primitive defenses (Panel B). Note. n=48; Values = B -i.e., unstandardized coefficients- (SE). * p<.05; **p<.01. Identity Diffusion: IPO Identity Diffusion scale; Daily Functioning: Q-LES-Q General Activity scale; Primitive Defenses: IPO Primitive defenses scale*



This study evaluated whether OCPD patients, as compared with non-OCPD controls, exhibit greater functional impairment than controls across a broad range of domains (i.e., global, occupational and relational functioning as well as self-report impact on quality of life), and whether this association could be explained by underlying difficulties in personality organization.

Three main findings emerged.

Firstly, OCPD patients showed lower psychosocial functioning than HC across a broad range of domains, i.e., global functioning due to symptom burden (GAF), social and occupational functioning (SOFAS), relational functioning (GARF), and self-report daily functioning and quality of life (Q-LES-Q). These results are in keeping with previous findings of reduced psychosocial functioning and quality of life among OCPD patients (Hengartner et al. 2014b, Steenkamp et al. 2015), which are likely driven by their affective rigidity, their hyper-controlling attitude and difficulties in experiencing and expressing emotions. Conversely, the current results do not confirm that OCPD patients are well-adapted and/or hyperfunctioning in the occupational arena, possibly because of their increased Conscientiousness (Skodol et al.,2005, Cramer et al. 2006, Crawford et al. 2005, Ulrich et al. 2007, Samuel and Widiger, 2010). At least in this sample of treatment-seeking OCPD outpatients, it might be that the traits of rigidity and control foster interpersonal and relational difficulties in the work place (i.e., hostility, anger outbursts), which in turn result in lower occupational functioning and decreased quality of life.

Secondly, OCPD patients exhibited greater identity diffusion and higher use of primitive defenses than non-clinical controls. This finding suggests that some OCPD patients may indeed function at the borderline level of PO.

Thirdly, identity diffusion and primitive defenses were associated with greater psychosocial impairment on all the domains examined (i.e., global, occupational and relational functioning as well as quality of life). In particular, the association between OCPD status and decreased daily functioning and perceived satisfaction with it was explained by the increased identity diffusion and primitive defenses exhibited by individuals with OCPD. In other words, the difficulty to rely on in-depth, integrated view of self and others and the tendency to distort reality when facing internal and external stressors might represent major mechanisms through which OCPD patients develop difficulties in psychosocial adjustment.

Overall, the present results encourage a deeper understanding of the level of disturbances in self-other representations among individuals with OCPD, and suggest a potential way through which previous contrasting findings on psychosocial adjustment in OCPD could be reconciled. Clinical OCPD samples, such as the one enrolled in the current study, could be characterized by difficulties in PO, which in turn could impair their psychosocial adjustment and lead them to seek treatment, possibly by means of their comorbid psychopathology. By contrast, when OCPD patients function at a neurotic level of PO, they might show intact or even enhanced functioning in occupational areas, due to their increased conscientiousness and perseveration that may represent adaptive features within work environments, thereby fostering the achievement of a better social and economic status (Hengartner et al. 2014a, Ulrich et al. 2007, Samuel and Widiger 2010; Westen and Muderrisoglu 2003, Kernberg 1984). This is likely to be the case for non-clinical individuals with OCPD from the community, who could also exhibit no or little psychopathology comorbidity and therefore do not seek treatment.

This study is limited by the small sample size, which makes the results provisional and in need of replication within larger populations. For instance, we found no evidence that the level of PO accounted for the association between OCPD status and clinician-rated psychosocial functioning, although identity diffusion was actually inversely related with GARF scores, and primitive defenses negatively correlated with GAF, GARF and SOFAS. Larger studies could be powered to detect such an effect. Furthermore, future studies should compare PO and functional impairment among OCPD patients, other clinical control groups (e.g., BPD samples), and non-clinical individuals with OCPD, whose personality structure might be organized at the neurotic level, thus accounting for their preserved psychosocial functioning.

In conclusion, this study suggests that treatment-seeking individuals with OCPD exhibit extensive impairments across various domains of functioning and decreased enjoyment and satisfaction with their overall daily activities. Further, their decreased self-reported daily functioning is explained by their distorted self-other representations and use of maladaptive defense styles.

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