Detection of comorbidity with Borderline Personality Disorder in patients with Bipolar Disorders

Riconoscimento della comorbidità con il disturbo borderline di personalità nei pazienti affetti da disturbo bipolare

L. Lai, S. Pirarba, F. Pinna, B. Carpiniello

Department of Public Health, Section of Psychiatry and Psychiatric Clinic, University of Cagliari, Italy

Summary

Background

Difficulties are frequently encountered in distinguishing between Bipolar Disorder and Borderline Personality Disorder, with differential diagnosis being complicated by the presence of comorbidity. The present study aims to evaluate the utility of the Millon Clinical Multiaxial Inventory-III (MCMI-III) in discriminating patients affected by "pure" Bipolar Disorder from those affected by Bipolar Disorder with Borderline Personality or Other Personality Disorder.

Methods

57 patients (M = 20, F = 37; mean age 47.9 ± 10.8 yrs) affected by BD (BD-I 51%; BD-II 49%) in clinically stable remission were recruited; 28 patients were affected by BD (49.1%), 18 by BD and BPD (31.6%), 11 by BD plus Other Personality Disorders (OPD) (19.3%). Subjects were submitted to SCID-I and SCID-II and rated by the CGI-severity and GAF scales, and MCMI-IIII.

Results

MCMI-III scales focusing on "clinical syndromes" and "severe clinical syndromes" revealed significantly higher mean scores for comorbid patients on all scales, with the exception of somatization and posttraumatic stress scales. In particular, BD + BPD scored highest on Anxiety, Bipolar-manic, Alcohol dependence, Drug dependence and Thought Disorder scales, while BD + OPD scored highest only on the Dysthymia scale. With regard to "clinical personality patterns", highly significant increases in mean scores were obtained for depressive, narcissistic, antisocial, sadistic-aggressive, passive-aggressive scales among BD + BPD patients, who conversely displayed the lowest scores on the obsessive-compulsive scale. Moreover, the highest scores on Avoidant, Dependent and Self-Defeating Scales were obtained by BD + OPD patients, who likewise scored lowest on the Histrionic Scales; no difference in mean scores was detected for the Schizoid scale between BD, BD + BPD, and BD + OPD patients. On taking into account "severe pathology scales", the highest mean scores for the Borderline scale were detected among BD + BPD, and among BD + OPD for Schizotypal Scale; no inter-group differences emerged with regard to the Paranoid scale. Cluster B and C scales discriminated respectively between BD + BPD and BD + OPD patients (Table II).

Conclusions

MCMI-III may prove to be useful in identifying Bipolar patients with comorbid BPD in routine clinical practice.

Key words

Bipolar Disorder • Personality disorder • Comorbidity • Personality dimensions • Millon Clinical Multiaxial Inventory-III

Riassunto

Background

La distinzione fra disturbo borderline di personalità e disturbo bipolare dell'umore comporta frequenti difficoltà, tenendo conto del fatto che la diagnosi differenziale è non raramente complicata dalla presenza di una comorbidità. Il presente studio ha l'obiettivo di valutare l'utilità del MCMI-III nel discriminare pazienti affetti da un disturbo bipolare "puro" rispetto a pazienti affetti da disturbo bipolare in comorbidità con disturbo borderline o con altri disturbi di personalità.

Metodi

Sono stati reclutati 57 pazienti (M = 20, F = 37, età media 47,9 ± 10,8 anni) affetti da disturbo bipolare (BD-I 51%; BD-II 49%) in condizioni di stabilizzazione clinico-sintomatologica; 28 pazienti erano affetti da solo disturbo bipolare (BD) (49,1%), 18 da disturbo bipolare e disturbo borderline di personalità (BD + BPD) (31,6%), 11 (19,3%) da disturbo bipolare e altri disturbi di personalità (BD + OPD). Tutti i soggetti sono stati sottoposti alla SCID-I e alla SCID-II e ad una valutazione mediante le scale CGI-gravità, GAF ed il *Millon Clinical Multiaxial Inventory* (MCMI-III).

Risultati

Le scale MCMI-III riguardanti le "sindromi cliniche" e le "sindromi cliniche severe" hanno posto in luce punteggi significativamente superiori nei pazienti con comorbidità fatta eccezione per quanto riguarda le scale relative alla "somatizzazione" e allo "stress postraumatico". In particolare, nei pazienti affetti da

Correspondence
Dr. Bernardo Carpiniello, Department of Public Health-Section of Psychiatry, University of Cagliari, via Liguria 13, 09127 Cagliari, Italy • Tel. +39 070 41518 • Fax: +39 070 480083 • E-mail: bcarpini@iol.it

BD + BPD sono emersi i punteggi più alti alle scale di ansietà, bipolare-maniacale, dipendenza da alcol, dipendenza da sostanze, e disordini del pensiero, mentre i pazienti affetti da DB + OPD hanno dimostrato i punteggi più alti alla scala della distimia. Per quanto riguarda le scale dei "Patterns clinici di personalità" sono emersi punteggi medi significativamente più elevati alle scale relative ai patterns depressivo, narcisistico, antisociale, sadico-aggressivo, passivo-aggressivo tra i pazienti affetti da BD + BPD, i quali al contrario hanno dimostrato i punteggi più bassi alla scala ossessivo-compulsiva. Viceversa, i pazienti affetti da BD + OPD hanno dimostrato i punteggi più alti alle scale dei patterns evitante, dipendente, e autofrustrante e quelli più bassi alla scala istrionica. Nessuna differenza è emersa fra i tre gruppi di pazienti per quanto riguarda la scala schizoide. Prendendo in considerazione le scale relative alle "patologie gravi", i punteggi in assoluto più elevati alla scala Borderline sono emersi fra pazienti affetti da BD + BPD mentre quelli relativi alla scala schizotipica sono emersi fra i soggetti affetti da BD + OPD; nessuna differenza fra i tre gruppi per quanto concerne la scala paranoide. Infine le scale dei Cluster B e C discriminavano rispettivamente i soggetti affetti da BD + BPD e da BD + OPD (Tab. II).

Conclusioni

Il MCMI-III si dimostra strumento utile nella pratica clinica routinaria al fine di individuare pazienti bipolari affetti da comorbidità con disturbo borderline di personalità.

Parole chiave

Disturbo bipolare • Disturbo di personalità • Comorbidità • Dimensioni di personalità • *Millon Clinical Multiaxial Inventory-III*

Introduction

Based on a series of evidences including high rates of comorbidity, frequent overlapping of symptom features, risk factors and response patterns to pharmacological treatments between borderline personality (BPD) and major mood disorders, particularly Bipolar Disorders, some authors have raised the question as to whether BPD is an independent disease or might possibly be more appropriately classified as belonging to the spectrum of mood disorders [1-3]. Accordingly, three possible hypotheses have been put forward: 1) BPD is a variant of affective disorders; 2) borderline personality predisposes to mood disorders; 3) the two disorders may have etiological features in common [4 5]. These hypotheses have lead to a controversy which remains unresolved [6-11].

From a clinical point of view, differential diagnosis between these two disorders may prove exceedingly difficult [12]. Affective instability, explicitly included as a criterion for borderline personality (DSMIVTR), may characterize even bipolar disorders [13], whilst impulsivity, another recognized feature of BDP, may be found among bipolar patients [14 15]. Thus, a major issue from a clinical perspective is represented by the difficulty of diagnosing patients presenting with both affective instability and impulsivity, clinical features commonly shared both by Bipolar patients and Borderline patients [13 16]. Diagnostic problems are further complicated by the high rate of comorbidity between bipolar disorder and cluster B and C personality disorders [17 18]. In particular, comorbid borderline personality disorders are detected in a percentage of cases ranging from 7% to 41% in bipolar patients [17-21]. These diagnostic difficulties have been confirmed by several recent studies, revealing not only a problem of underdiagnosis of bipolar disorder, but also an equally marked occurrence of overdiagnosis [22]. Moreover, a very recent study regarding 82 outpatients previously diagnosed as having a bipolar disorder that was not confirmed when they were interviewed by means of the Structured Clinical Interview for DSMIV, revealed that these patients overdiagnosed with bipolar disorder were significantly more likely to be diagnosed with other disorders, and in particular borderline personality disorder [23]. This finding confirms the intrinsic difficulties encountered in differential diagnosis between BDP and BD.

Thus, the distinguishing of bipolar patients with or without BPD comorbidity is an outstanding problem. In view of the well known difficulties in adopting structured clinical interviews in common clinical practice, self-administered personality evaluation instruments might be of use in discriminating between bipolar disorders with and without BPD; in particular, the Millon Clinical Multiaxial Inventory-III (MCMI-III) [24] seems to be a highly suitable candidate for this purpose, in view of its dimensional approach covering a variety of clinical personality patterns, severe personality pathology and clinical syndromes often missed in the categorical evaluation [25]**.** Starting from these premises, the aim of the present study, as part of a ongoing study project on comorbidity between bipolar and personality disorders, was to test the usefulness of MCMI-III in discriminating bipolar disorders with and without comorbid borderline B personality disorder.

Materials and Methods

Methods

Criteria applied for inclusion in the study were: age 18-65 years; lifetime diagnosis of bipolar I or bipolar II disorder according to DSMIVTR criteria [26]; absence of current depressive, manic/hypomanic or mixed episode according to DSMIV criteria, together with stable clinical remission over the last month and providing of informed consent to take part in the study. Exclusion criteria were: patients with a past or current schizophrenic, schizoaffective or other psychotic disorder; patients with a past or current mental disorder due to a medical condition; current mental retardation or other significant cognitive disturbances;

current severe physical illness; concurrent alcohol and/or other substance abuse/dependence. All consecutive outpatients attending a university community mental health centre who fulfilled the above mentioned criteria were enrolled in the study. Following routine protocols, patients were diagnosed by a senior psychiatrist on the basis of a non-structured clinical interview. They were also submitted to SCID I [27] and SCID II [28] by a fellow in psychiatry (LL) trained in conducting the interviews, to confirm the diagnosis of bipolar disorder type I or II and evaluate the presence of a concurrent personality disorder. Clinical history and demographical data were collected from clinical records. Severity of psychopathology was evaluated by means of the Clinical Global Impression severity scale (CGI-s) [29] and Global Assessment Functioning (GAF) scale [30]. Personality characteristics were evaluated using the Italian Version [31] of the MCMI III [24], a 175 item self-administered questionnaire which takes into consideration 25 scales: 11 focusing on "moderate personality disorders" (schizoid, avoidant, depressive, dependent, histrionic, narcissistic, antisocial, sadistic-aggressive; obsessive-compulsive; passive-aggressive; masochistic), 3 assessing severe personality disorders (schizotypic, borderline, paranoid); 6 moderate clinical syndromes (anxiety, somatization, mania, disthymia, alcohol dependence, substance dependence,posttraumatic stress disorder); and 3 scales evaluating severe clinical syndromes (thought disorder, major depression, delusional disorder), as well as 4 control scales. Ratings at each MCMI-III scale are expressed as Base Rate (BR) scores. Patients were also assessed by other self evaluation tools such as the Barratt Impulsiveness Scale [32] and the Aggression Questionnaire [33] to ascertain additional personality traits (results not reported here).

Statistical analysis

Statistical analysis was performed by means of statistical package SPSS-11. Pearson's Chi square test and Fisher Exact Test were used for non continuous variables. T test for independent samples and One-Way Analysis of Variance with post hoc Bonferroni's Test were used for continuous variables.

Sample

The sample selected for the present study on the basis of the above mentioned inclusion/exclusion criteria was originally made up of 60 subjects. 3 subjects refused to take part in the study. The final sample comprised 57 bipolar patients (29 bipolar I 51%, 28 bipolar II, 49%), 20 males (35.1%) and 37 females (64.9%); mean age was 47.9 ± 10.8 yrs (males: 45.2 ± 10.15; females: 49.03 ± 11.21, t = -1.269, df = 55, p = 0.210); mean years of education were 10.77 ± 3.89 (males: 10.0 ± 3.34; females: 11.84 ± 4.11, t = -1.714, df = 55, p = 0.09); 22 patients (38%) were employed (males: n = 8,40%; females: n = 14, 37.8%), 35 (62%) were unemployed (males: n = 12, 60%; females: n = 23, 62.2%; chi square test = 0.016, df = 1, p = 0.901); 21 (36.8%) patients were married (males: n = 9, 45%; females: n = 12, 32.4), 36 were singles (males: n = 11, 55%; females: n = 25, 67.6%, chi square test = 0.424, df = 1, p = 0.515). An Axis II comorbidity was found in 50.8% of the sample. 28 patients were affected by bipolar disorder (49.1%), 18 by bipolar disorder and borderline personality disorder (31.6%), 11 (19.3%) by bipolar disorder and other personality disorders (obsessive-compulsive n = 2; obsessive-compulsive+schizoid N = 1; avoidant N = 2; paranoid n = 2; histrionic n = 1; dependent n = 1, not otherwise specified n = 3). No difference was detected among BP, BP/BPD and BP/OPD patients with respect to education, marital status, and occupation. All patients were submitted to routine treatment (clinical monitoring psychopharmacological treatment, supportive psychotherapy).

Results

Clinical Variables

Clinical variables of patients with BD, BD/BPD and BD/OPD are reported in Table I. No difference was found between groups for age at onset of Bipolar Disorder and duration of illness. GAF mean score was significantly higher among BD patients, CGI mean score was significantly higher in BP/OPD patients. No significant difference in mean number of drugs taken per patient was detected. Mean number of attempted suicides was significantly higher among BP/BPD patients both respect to BD and BD/OPD patients.

MCMI-III

Mean scores at MCMI-III are reported in Table II. Assessment of clinical personality patterns revealed highly significant increased mean scores for depressive, narcissistic, antisocial, sadistic-aggressive, passive-aggressive scales among BD + BPD patients, who conversely displayed the lowest scores in obsessive-compulsive scale; BD + OPD patients showed the highest scores in Avoidant, Dependent and Self-Defeating Scale and the lowest scores in Histrionic Scales; no difference in mean scores for schizoid scale was found between BD, BD + BPD and BD + OPD patients. When Severe Pathology Scales were taken into account, the highest means scores in Borderline scale was detected among BD + BPD and in Schizotypal Scale among BD + OPD scale; no intergroup differences were found at Paranoid scale. With regard to "clinical syndromes" scales, BD + BPD patients

TABLE I.
Clinical Characteristics of the sample according to diagnosis. *Caratteristiche cliniche del campione in funzione della diagnosi.*

	BD	BD + BPD	BD + OPD	Total	Statistics
Mean Age (± sd) at onset of Bipolar Illness	27.79 ± 11.18	26.28 ± 10.87	31.91 ± 17.16	28.11 ± 12.35	F = -0.720 df = 56 p = 0.491
Mean duration (± sd) of illness (yrs)	22.54 ± 10.08	18.17 ± 11.35	14.36 ± 13.14	19.58/-11.37	F = 2.349 df = 56 p = 0.105
Mean number of drugs prescribed	2.38 ± 1.09	2.56 ± 0.96	2.40 ± 1.07	2.44 ± 1.04	F = 0.151 Df = 51 P = 0.860
Mean score (± sd) at CGI	3.21 ± 0.68	3.61 ± 0.60	3.82 ± 0.6o	3.46 ± 0.68	F = 4.190 df = 56 p = 0.02
Mean score (± sd) at GAF	69.64 ± 5.64	65.17 ± 9.18	63.36 ± 3.82	67.02/-7.67	F = 3.744 df = 2,54 p = 0.03*
Mean number of attempted suicides	0.54 ± 1.07	1.67 ± 1.68	0.85 ± 0.44	0.85 ± 1.35	F = 5.914 Df = 54 p = 0.005**

BD: Bipolar Disorder; BD + BPD: Bipolar Disorder + Borderline Personality Disorder; BD + OPD: Bipolar Disorder + other Personality Disorder; * post-hoc test = BD > BD + OPD, p = 0.034; ** post-hoc test = BD + BPD > BD, p = 0.012; BD + BPD > BD + OPD, p = 0.012.

were characterized by significantly higher mean scores at anxiety, bipolar-manic, alcohol dependence, and Drug-dependence scale, while BD + OPD patients achieved the highest scores in dysthymia scale; no difference in somatization and Posttraumatic stress disorder scale was found between groups. In scales assessing "severe clinical syndromes" BD + BPD patients rated significantly higher at Thought Disorder scale, while no difference between groups were found at Major Depression and Delusional Disorder scales. Finally, when scales of "Clusters" were examined, BD + BPD patients were significantly higher on "B" and BD + OPD patients on "C" subscale. No difference was found between groups was found for cluster "A" scale

Discussion

Prior to discussion of the results obtained, several limitations of the present study should be acknowledged. First, the sample examined was made up of patients judged to be in "stable" remission, mainly to avoid the possible influence of a highly symptomatic status on personality assessment [17]. The authors did however include "remitted" patients who no longer met criteria for depressive, manic, mixed or hypomanic episodes according to DSMIVTR in the study, thus not excluding the possibility of persisting subsyndromal status which may have influenced, at least in part, personality evaluation. Secondly, the sample investigated was relatively small and comprised a mixed sample of bipolar patients, thus limiting the possibility of achieving a separate evaluation of the impact of axis II comorbidity on bipolar I and bipolar II patients. Moreover, the overall high level of axis II comorbidity found in the present study is likely to have been influenced by the referral patterns employed in our unit, which often receives secondary and tertiary referrals from other centres, thus resulting in the sample including numerous complex cases. Conversely, the exclusion of patients affected by comorbid alcohol and/or drug abuse/dependence may have reduced the generalizability of findings obtained. A further limitation is represented by the lack of a control group of patients with BPD alone, a difficulty encountered in similar studies, due to the relative scarcity of such individuals, with 80% or more of BPD patients being affected by comorbid mood disorders [34]. Fifty-one percent of bipolar patients observed in the present study were affected by a comorbid personality disorder, a finding exceeding figures obtained in clinical studies reported in literature: a previous study conducted in the same country by Rossi et al. [18] found a 42% prevalence rate of comorbid personality disorder among bipolar patients, while Brieger et al. [20] reporting pooled data from seven studies estimated a comorbidity rate of 45.2%. This finding appears to be of considerable importance, particularly in view of the fact that in routine clinical practice the use of standardized diagnostic techniques is infrequent and detection of comorbidity may be overlooked [35]; indeed,

TABLE II.
Mean scores (± s.d) on the MCMI-III scales according to diagnostic group. *Punteggi medi (± d.s) alle scale MCMI-III in funzione della diagnosi.*

Scales	BD	BD + BPD	BD + OPD	Statistics
Clinical Personality Patterns				
Schizoid	56.43 (22.82)	58.00 (25.70)	73.36 (27.57)	F = 1.964, N.S.
Avoidant	40.04 (31.61)	44.61 (27.65)	78.26 (28.45)	F = 6.670, p = 0.003 BD + OPD > BD p = 0.002 BD + OPD > BD + BPD, p = 0.015
Depressive	54.00 (32.51)	83.39 (19.06)	80.82 (18.88)	F = 8.143, p = 0.001 BD + BPD > BD, p = 0.002 BD + OPD > BD, p = 0.02
Dependent	50.43 (30.34)	62.33 (25.46)	76.73 (18.09)	F = 3.997, p = 0.025 BD + OPD > BD, p = 0.025
Histrionic	59.96 (17.89)	56.39 (16.04)	41.18 (21.09)	F = 4.258, p = 0.019 BD > BD + OPD, p = 0.016
Narcissistic	62.96 (18.43)	70.78 (17.97)	48.36 (24.10)	F = 4.530, p = 0.015 BD + BPD > BD + OPD, p = 0.012
Antisocial	43.00 (22.58)	69.94 (14.05)	58.64 (24.58)	F = 9.540, p = 0.000 BD + BPD > BD, p = 0.000
Aggressive	51.64 (24.13)	69.17 (11.90)	61.73 (20.93)	F = 4.393, p = 0.017 BD + BPD > BD, p = 0.015
Compulsive	60.61 (12.76)	39.06 (15.07)	50.09 (12.73)	F = 14.01, p = 0.000 BD > BD + BPD, p = 0.000
Passive-Aggressive	62.50 (29.90)	83.78 (18.65)	76.36 (26.69)	F = 3.800, p = 0.029 BD + BPD > BD, p = 0.029
Self-defeating	47.43 (33.21)	66.22 (24.16)	76.55 (23.46)	F = 4.821, p = 0.012 BD + OPD > BD, p = 0.02
Severe Personality Pathology				
Schizotypal	29.36 (31.96)	60.22 (23.67)	66.36 (23.89)	F = 10.060, p = 0.000 BD + BPD > BD, p = 0.002 BD + OPD > BD, p = 0.002
Borderline	44.32 (30.35)	82.22 (18.51)	67.55 (22.11)	F = 12.189, p = 000 BD + BPD > BD, p = 0.000 BD + OPD > BD, p = 0.044
Paranoid	54.07 (23.62)	65.56 (26.00)	57.55 (36.58)	F = 0.983, NS
Clinical Syndromes				
Anxiety	56.71 (28.89)	75.39 (24.11)	71.82 (22.08)	F = 3.156, p = 0.051
Somatoform	41.71 (24.59)	57.83 (30.15)	50.82 (24.19)	F = 2.092, NS
Bipolar-manic	53.14 (26.40)	73.39 (12.71)	60.91 (22.85)	F = 5.883, p = 0.005 BD + BPD > BD, p = 0.012
Dysthymia	46.07 (28.05)	67.89 (18.58)	69.27 (23.62)	F = 4.526, p = 0.015 BD + BPD > BD, p = 0.015 BD + OPD > BD, p = 0.032
Alcohol-dependence	45.36 (26.37)	61.89 (14.18)	59.64 (15.57)	F = 3.877, p = 0.027 BD + BPD > BD, p = 0.040
Drug dependence	45.21 (22.99)	62.06 (15.36)	51.18 (22.55)	F = 3.539, p = 0.034 BD + BPD > BD, p = 0.029
Post-traumatic	44.80 (21.90)	47.88 (19.87)	50.88 (18.90)	F = 0.37 NS

(follows)

Table II (continues).

Scales	BD	BD + BPD	BD + OPD	Statistics
Severe Clinical Syndromes				
Thought disorder	42.79 (27.83)	66.22 (16.44)	63.55 (16.83)	F = 6.866, p = 0.002 BD + BPD > BD, p = 0.004 BD + OPD > BD, p = 0.041
Major depression	44.43 (29.68)	62.56 (31.72)	63.91 (34.25)	F = 2.546, NS
Delusional disorder	40.68 (27.44)	60.28 (26.73)	52.64 (33.55)	F = 2.689, NS
Clusters				
Cluster A	43.36 (21.84)	60.72 (19.68)	65.18 (24.42)	F = 4.043,p = 0.023
Cluster B	52.46 (12.75)	69.50 (11.62)	53.45 (13.29)	F = 11.063, p = 0.000 BD + BPD > BD, p = 0.000 BD + BPD > BP + OPD, p = 0.004
Cluster C	53.04 (19.66)	57.00 (14.86)	70.00 (15.67)	F = 3.699, p = 0.031 BD + OPD > BD, p = 0.027

BD: Bipolar Disorder; BD + BPD: Bipolar Disorder + Borderline Personality Disorder; BD + OPD: Bipolar Disorder + Other Personality Disorder.

examination of clinical records of cases included in this study revealed how an axis II diagnosis was present only in a minority of cases (7/29, 24.1%). With regard to the main sociodemographic and clinical characteristics of the samples, "pure" bipolar patients do not differ significantly from patients with borderline or other comorbid personality disorders. However, mean scores obtained at CGI-s were significantly higher in comorbid cases than in "pure" bipolars, although in both sub-samples the degree of severity was low (mean scores of approx. 3.7 in the presence of comorbidity and 3.2 in non-comorbid patients), indicating the presence of residual symptoms, as expected in patients in stable remission. The presence of less pronounced mean GAF scores in comorbid patients (approx. 65 compared to approx. 70 non-comorbid patients) demonstrated a poor functional status in these subjects. Taken together, these results are largely convergent with findings emerging from other clinical studies [17 36 37]. In particular, in line with the findings of the present study, George et al. [17] reported more severe symptoms and psychosocial adjustment in comorbid subjects than in bipolar patients in remission. In the present study the rate of attempted suicides was approx. three times higher in bipolar patients with comorbid BPD respect to "pure" BP and 7.6 times higher than in bipolar patients with other comorbid personality disorders, a difference that may not be linked to significant differences in duration or severity of illness, type of treatments or sociodemographic variables of subsamples examined. As shown in literature, suicidality characterizes both bipolar disorders [38 39] and personality disorders [40], particularly cluster B personality disorders [41], more specifically borderline personality disorder [42]**.** The findings of this study, therefore, indicate that comorbidity with BPD considerably increases the risk of self-harm in bipolar patients. The finding is consistent with results reported by Moran et al. [43] and Ucok et al. [44] who showed a significant major risk of attempted or complete suicide among psychotic patients with comorbid PDs compared to patients lacking comorbidity. Results are also in line with those obtained by Garno et al. [45], demonstrating how lifetime suicide attempts in bipolars are significantly associated with cluster B comorbidity.

Several studies conducted previously applied the Millon Clinical Multiaxial Inventory in the psychological assessment of patients affected by bipolar mood disorder: Choca et al. [46] used MCMI-I to evaluate patients with major affective disorders, Wetzler et al. [47] compared unipolar and bipolar patients by means of MCMI-II and Turley et al. [48] used MCMI-II in recent onset bipolar disorder. However, the present study was the first to apply MCMI-III in the comparison of bipolar patients with and without comorbid personality disorder. Results obtained at "clinical syndromes" and "severe clinical syndromes" scales of MCMI-III revealed significantly higher mean scores for comorbid patients at all scales, excluding somatization and posttraumatic stress scales; in particular BD + BPD achieved the highest scores in several scales such as Anxiety, Bipolar-manic, Alcohol dependence and Drug dependence and Thought Disorder scales, whilst BD + OPD showed the highest scores only at Dysthymia scale. However, the most significant increase in rating from a clinical point of view (BR scores ≥ 74) was detected in BD + BPD for anxiety, bipolar-manic scales. These results suggested a more pronounced presence of anxiety and mood-related symptoms in BD patients with comorbid BPD, even when judged in clinical remission, a finding which may be interpreted as expression of the intrinsic affective component of BPDs.

As expected, comorbid bipolar patients rated statistically significant different scores for all "personality patterns" scales (with the sole exception of the schizoid scale) and "severe pathology of personality" scales (excluding the "paranoid" scale). BD + BDP displayed the highest scores in the majority of scales including depressive, narcissistic, antisocial, sadistic-aggressive, passive-aggressive and Borderline scales and the lowest for obsessive-compulsive scales while BD + OPD rated higher scores at Avoidant, Dependent, Self-Defeating and Schizotypal scales; on taking into account only clinically relevant scores (≥ 74) BD + BPD achieved exceedingly high scores at "depressive", "self-defeating" and "borderline" scales of personality patterns while BD + OPD showed very high scores at "Avoidant" scale. With regard to the BD + BPD sample the results obtained seem to reflect the intrinsic clinical characteristics of borderline personality disorders, whilst for BD + OPD they likely reflect the composition of this subsample, mainly constituted by cluster C disorders (approx. 70% pts of this group). The latter hypothesis seems to be confirmed by the higher scores obtained at "cluster B" scales and "cluster C" scales respectively by BD + BPD and by BD + OPD. Interestingly, the very low scores achieved by BP + BDP patients at obsessive-compulsive scale may be interpreted as a confirmation of the hypothesis that obsessive-compulsive dimension should no longer be considered a trait of the anxiety domain but rather as an extreme of a personality trait ranging from excessive self-control to impulsivity, as indicated by studies showing an inverse correlation between impulsivity measures and obsessive-compulsive disorders [49 50]. As a consequence, the finding in bipolar patients deemed in clinical remission of higher than expected scores at clinical scales regarding mood and anxiety dimensions, of exceedingly high scores at scales intrinsically linked to BPD (borderline) or evaluating affective dimensions of personality (depressive, self-defeating), and very low scores at obsessive-compulsive scale possibly indicating marked impulsivity traits, may orient the clinician to suspect a comorbidity with borderline personality disorder, which might have been missed on the basis of clinical evaluation alone. Thus, in the light of the importance of this comorbidity in terms of course, outcome and therapeutic management of bipolar patients, the possibility of improving diagnostic accuracy by means of a user-friendly self-evaluation instrument such as MCMI-III may be of particular relevance in routine clinical practice.

To conclude, the results obtained in the present study underline the general utility of MCMI-III in distinguishing between patients affected by "pure" bipolar disorder and bipolar patients with comorbid personality disorders; in particular, the tool clearly differentiates bipolar patients with comorbid borderline personality disorder from patients with other personality disorders

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