



Well-being in patients with schizophrenia, mood and personality disorders attending psychiatric services in the community. A controlled study

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ABSTRACT

Background: Poor attention is paid by recent research to the prevalence of mental well-being in psychiatric patients and the comparison between groups with different diagnoses. Data suggest that the presence of mental illness does not necessarily mean the absence of well-being, particularly in stable outpatients.

Methods: A consecutive series of 375 patients attending two community mental health centers was given the Mental Health Continuum Short Form (MHC-SF) and the Clinical Global Impression – Severity scale. Diagnoses were made after the MINI Neuropsychiatric Interview and a chart review of all relevant clinical information. The flourishing category and the three components of MHC-SF were used to rate well-being. A total of 274 controls were taken from the employees at a local firm.

Results: The rates of flourishing mental health were: 33.1% schizophrenia, 36.6% bipolar disorder, 23.3% unipolar depression, 24.4% cluster B personality disorder, and 53.3% controls ($p < 0.001$). The comparison of the three MHC components across diagnostic groups found that unipolar depression and cluster B personality patients had significantly lower scores compared to bipolar and schizophrenia patients. Flourishing mental health was detected more often in males than females (34.9% vs. 24.1% - $p < 0.05$). For schizophrenia patients indices of well-being were better in those on depot medications.

Conclusions: Psychiatric outpatients with major mental illness have lower rates of well-being compared to controls, although about one-third is flourishing. Patients with unipolar depression and cluster B personality disorder may deserve special attention when planning intervention for fostering well-being.

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1. Introduction

Mental health was defined by the World Health Organization as a state of well-being in which the individual realizes his or her own abilities, can cope with stresses, works productively, and is able to contribute to the community [1]. This definition is rooted in the *hedonic* tradition that values feelings of happiness and the *eudaimonic* tradition that focuses on positive functioning in personal and social life. The distinction between hedonic and eudaimonic well-being has been supported by recent research [2,3] that also showed that a two continua model can better explain the relationship between mental illness and mental health, which are both related and distinct.

Lamers et al. [4] have noted that an individual suffering from mental illness may have relatively high positive mental health and that the

absence of psychopathology is neither necessary, nor sufficient to ensure a productive life. Depression is probably the diagnosis most related to the absence of well-being, but the relationship seems to be more complex, so that a languishing state of mental health can still be present even if depression is not observable, and there can be some cases where the diagnosis of depression doesn't necessarily mean languishing mental health.

The usefulness of evaluating well-being in psychiatric patients is manifold. In NEMESIS-2, a community study with a 3-year follow-up, it was reported that a flourishing state reduced the potential for incident mood and anxiety disorders [5]. In a recent meta-analysis of interventions on psychological well-being Weiss et al. [3] found a moderate effect size ($d = 0.44$), with greater effects in clinical groups and in individual interventions. Authors concluded that the promotion of psychological well-being seems to be best suited to clinical populations who have more impaired levels of psychological well-being and greater room for improvement. Furthermore, the persistence of a languishing mental state could indicate the need for more active pharmacological intervention to mitigate residual symptoms.

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The prevalence of well-being in outpatients with major psychiatric disorders has been poorly investigated by recent research, with the focus often being on issues such as quality of life in relation to drug treatments [6–8]. We undertook a study to investigate the prevalence of well-being in a random sample of patients attending two community mental health centers, with a focus on schizophrenia, mood disorders and cluster B personality disorders, and to test which variables were associated with better well-being scores.

2. Materials and methods

2.1. Sample

The study was conducted at the University Psychiatric Unit of the Department of Mental Health of the city of Brescia. The Psychiatric Unit catchment area is about two thirds of people living in the city and surrounding area, totaling 250,592 inhabitants. It comprises an acute hospital ward, a rehabilitation center, medium-long term facilities, and two community mental health (CMH) centers. The latter regularly visit all the psychiatric unit patients and implement comprehensive treatment plans. All patients attending the CMH centers from January 1st to April 30th 2016 were included in our study. Inclusion criteria were a diagnosis of schizophrenia, mood disorder, cluster B personality disorders, age 18+, IQ > 70 and comprehension of spoken Italian. Exclusion criteria were: CGI-S scores of 4 or more, a diagnosis of an organic brain disorders, and a diagnosis of alcohol or substance abuse/dependence in the last 6 months. Controls were taken from workers employed in a firm operating on the outskirts of the city, who were over 18 year-old without a diagnosis of mental illness after a psychiatric interview.

All subjects were tested by a medical doctor (V.S.) with four years of clinical experience in psychiatry.

2.2. Assessment

Basic sociodemographic and clinical information was collected using a standard demographic questionnaire which also collected data on psychotropic prescriptions.

The Mental Health Continuum Short Form [9] is a self-rated questionnaire structured according to three dimensional factors: emotional, social, and psychological [3]. It measures positive mental health with 14 items that describe various feelings of well-being. The ratings of

frequency of every feeling in the past month are rated on a 6-point Likert scale (never, once or twice a month, about once a week, two or three times a week, almost every day, every day). The scale contains 3 emotional well-being (EWB) items, 6 psychological well-being (PWB) items, and 5 social well-being (SWB) items. The emotional items belong to the hedonic domain, while the 6 psychological and the 5 social items belong to the eudaimonic domain. Along with the three corresponding scales, the MHC-SF defines the *flourishing* category of well-being as at least one hedonic item and at least six eudaimonic items being rated as positive over the course of every/most days of the last month. The factorial structure and the discriminant validity of the three MHC-SF dimensions were tested in an Italian validation study which also found links to external variables collected in seven different questionnaires [10].

The Mini International Neuropsychiatric Interview [11] is a brief structured interview that was used to diagnose the major Axis I psychiatric disorders in DSM-IV and ICD 10. The inter-rater reliability of the Italian version of the Mini was tested in 50 psychiatric outpatients [12] and all the kappa values were above 0.73, indicating a good level of agreement.

The Clinical Global Impression-Severity [13] was given to estimate actual severity of illness and to screen patients with unstable conditions. Patients with scores of 4 or above were not included in the sample.

All assessment schedules (CGI-S, MINI, MHC-SF) were given as part of the routine clinical practice at the CMH centers. The final decision on a patient diagnosis according to DSM-IVTR [14] was made after a joint evaluation of three major sources: the Mini interview, the treating psychiatrist, and the hospital discharge diagnosis (if present).

2.3. Statistical analysis

The comparison of patients and controls used Chi² for categorical and Student *t*-test for parametric variables. A logistic regression analysis was applied to weight for differences between patients and controls when predicting well-being, while an analysis of variance with covariates was applied to the three parametric components of the MHC-SF. Data were analyzed with SPSS Version 23.00.

3. Results

Three-hundred and seventy five subjects were included in the clinical sample and 274 in the control group. The diagnoses were:

Table 1
Sociodemographic, clinical features, and flourishing mental health in psychiatric outpatients and controls.

Variable	Psychiatric outpatients (375)	Controls (274)	Test	(p)
Males - % (n°)	45.9 (172)	48.9 (134)	Chi ² = 0.47	
Age - mean (s.d.)	49.76 (13.32)	43.36 (14.57)	<i>t</i> = 5.81	***
Education (years) – mean (s.d.)	11.14 (3.95)	13.01 (4.25)	<i>t</i> = 5.78	***
Living alone - % (n°)	40.3 (151)	55.8 (153)	Chi ² = 14.80	***
Without salary/benefits - % (n°)	50.7 (190)	6.9 (19)	Chi ² = 136.69	***
Physical illness - % (n°)	56.5 (212)	15.3 (42)	Chi ² = 111.12	***
Treatment for physical illness % (n°)	39.5 (148)	12.4 (34)	Chi ² = 56.11	***
Mean CGI-S score (s.d.) ^a			<i>F</i> = 14.2	***
All diagnoses	2.79 (0.50)			
Schizophrenia	2.90 (0.30)			
Bipolar disorder	2.63 (0.62)			
Unipolar depression	2.57 (0.60)			
Cluster B personality disorder	2.88 (0.46)			
Flourishing MHC - % (n°)				
All diagnoses	29.1 (109)	53.3 (146)	Chi ² = 43.0	***
Schizophrenia	33.1 (51)		4 d.f	
Bipolar disorder	36.6 (15)			
Unipolar depression	23.3 (21)			
Cluster B personality disorder	24.4 (22)			

^a Patients only.

*** *p* < 0.001.

Table 2
Variables associated with a flourishing state in a group of 375 patients with severe mental illness.

Variable	Flourishing % (n°)	Test	(p)
Sex		Chi ² = 4.71	*
Males	34.9 (60)		
Females	24.1 (49)		
Age	–	t = 0.68	
Education years	–	t = 0.70	
Living status		Chi ² = 0.01	
Not alone	29.1 (44)		
alone	29.0 (65)		
Salary/benefits		Chi ² = 2.34	
Supported	33.0 (61)		
Without salary/benefits	25.3 (48)		
Physical health		Chi ² = 0.19	
No physical illness	27.5 (45)		
Any physical illness	30.2 (64)		
Treatment for physical illness		Chi ² = 0.12	
No treatment	28.2 (64)		
Any treatment	30.4 (45)		

* =p < 0.05.

schizophrenia 41.1% (154), bipolar disorder 10.9% (41), unipolar depression 24.0% (90), and cluster B personality disorders 24.0% (90). The main sociodemographic and clinical features of patients and controls are reported in Table 1.

Patients were older, less educated, more often living with their family, without a salary, and with more physical illnesses. The rates of a flourishing state according to diagnoses were 33.1% in schizophrenia, 36.6% in bipolar disorder, 23.3% in unipolar depression, 24.4% in cluster B personality disorders, and 53.3% in controls (Chi², 4 d.f., 43.0, p < 0.001). The associations of a flourishing state with the main sociodemographic variables are reported in Table 2. The only significant association was with male sex (34.9% in males vs. 24.1% in females – Chi² 4.71, p < 0.05). Age, education, living status, salary/benefits, and physical health were not significantly associated. EWB, SWB, and PWB were also tested and male sex was associated with better scores. SWB was better in those receiving salary/benefits (8.80 vs. 7.13 – t = 2.70, p < 0.01) and EWB was higher in those not being treated for a physical illness (8.34 vs. 7.17 – t = 2.52, p < 0.05).

A logistic regression analysis was applied to investigate independent associations and to weight for the differences between patients and controls. The predicted variable was a flourishing state, while the predictive variables were sex and all those with a significant difference between the two samples. A stepwise-backward selection procedure was applied and the final model retained only ‘psychiatric diagnoses’ and ‘living alone’. Taking controls as the reference, schizophrenia lowered the chances of a flourishing state to 0.49 (95% C.I. 0.32–0.75), unipolar

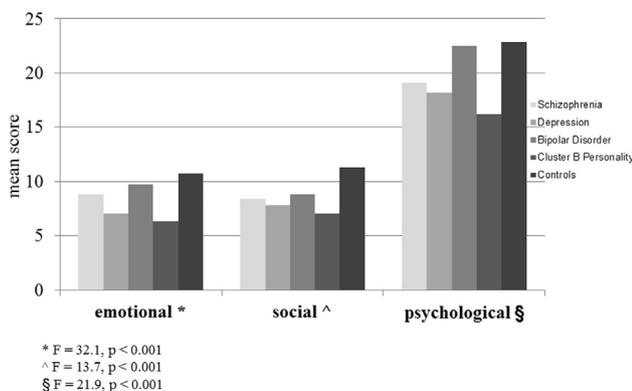


Fig. 1. Factors of Well-Being (MHC-SF) in Patients attending two Community Mental Health Centers according to Diagnosis.

Table 3
Factors of well-being (MHC-SF) in different diagnostic groups and controls. A one-way analysis of variance^a with post-hoc contrasts.

MHC-SF component	Schizophr.	Bipolar disorder	Unipolar depression	Cluster B personality
	Δ ^b	Δ	Δ	Δ
Emotional well-being				
Bipolar disorder	–0.94			
Unipolar depression	1.75*	2.69**		
Cluster B	2.50	3.44**	0.76	
Controls	–1.91**	–0.97	–3.66**	–4.41**
Psychological well-being				
Bipolar disorder	–3.37**			
Unipolar depression	0.87	4.26**		
Cluster B	2.86**	6.23**	1.97	
Controls	–3.77**	–0.40	–4.65**	–6.63**
Social well being				
Bipolar disorder	–0.43			
Unipolar depression	0.57	1.00		
Cluster B	1.37	1.80	0.80	
Controls	–2.98**	–2.54*	–3.55**	–4.35**

^a Covariates entered: age, sex, education, living status, salary/benefits, physical illness, treatment for physical illness. Two tailed.

^b Difference between means (column - row).

* =p < 0.05.

** =p < 0.01.

depression to 0.26 (0.15–0.46), cluster B personality disorder to 0.28 (0.17–0.49), and living alone to 0.63 (0.45–0.88).

Fig. 1 plots the three MHC-SF factors according to diagnoses in patients and controls. Three analysis of variance were run, entering as covariates age, sex, education, living status, salary/benefits, physical illness, and treatment for physical illness. The post-hoc analysis, comparing diagnostic groups with each other and with controls, is reported in Table 3.

Almost all diagnostic groups had significantly lower scores for EWB, SWB, and PWB in the comparison with controls, apart from bipolar patients who had EWB and PWB scores similar to controls. Significant differences between diagnostic groups were detected: EWB was lower in unipolar depression vs. schizophrenia (7.0 vs. 8.8, p < 0.01), lower in cluster B personality disorders vs. schizophrenia (6.3 vs. 8.8, p < 0.001) and bipolar illness (6.3 vs. 9.7, p < 0.001), and lower in unipolar depression vs. bipolar illness (7.0 vs. 9.7, p < 0.001). PWB was lower in cluster B personality disorder vs. schizophrenia (16.2 vs. 19.1, p < 0.01) and bipolar illness (16.2 vs. 22.5, p < 0.001), lower in schizophrenia vs. bipolar (19.1 vs. 22.5, p < 0.01), and lower in unipolar depression vs. bipolar illness (18.2 vs. 22.5, p < 0.01). SWB was lower in cluster B personality vs. schizophrenia (7.0 vs. 8.4, p < 0.05).

To investigate differences in a flourishing state according to the type of antipsychotic treatment in schizophrenia patients, different drug regimens were compared (Table 4). Patients on LAI were more flourishing compared to those on oral medications (43.3% vs. 25.5% - Chi² 4.51, p < 0.05), had better scores in EWB (9.80 vs. 8.20 – t = 2.24, p < 0.05) and PWB (21.07 vs. 17.70 – t = 2.56, p < 0.05). The distinction of monotherapy vs. polypharmacy, atypical vs. typical, and lower dose vs. higher dose of antipsychotics was not associated with a flourishing state or EWB, SWB, and PWB scores.

4. Discussion

One of the main findings of our study is that a flourishing mental health in psychiatric patients is significantly lower than controls. Our data also support the two-continua model of mental health, as control subjects without psychiatric illness were not flourishing in one third of the cases, while patients with a severe psychiatric disorder were flourishing in a third of cases.

When the individual components of well-being were considered, EWB, SWB, and PWB were all significantly lower than controls. Two

Table 4
MHC-SF and antipsychotic treatment in schizophrenia patients (154).

Antipsychotic treatment	Flourishing % (n ^a)	χ^2	EWB ^a mean (s.d.)	t	SWB ^b mean (s.d.)	t	PWB ^c mean (s.d.)	t
Oral antipsychotics	25.5 (24)	4.51*	8.20 (4.29)	2.24*	7.82 (5.93)	1.0	17.7 (8.14)	2.56*
Long acting antipsychotics	43.3 (26)		9.80 (4.34)		8.82 (6.20)		21.07 (7.64)	
Monotherapy	34.9 (37)	0.60	9.00 (4.43)	0.74	8.18 (6.19)	0.09	19.66 (8.14)	1.48
Polipharmacy ^d	27.1 (13)		8.44 (4.26)		8.27 (5.75)		17.58 (7.88)	
Atypical antipsychotic	34.4 (42)	0.64	8.80 (4.39)	0.12	8.27 (6.14)	0.25	18.79 (8.34)	0.68
Typical antipsychotic	25.0 (8)		8.91 (4.35)		7.97 (5.71)		19.88 (7.14)	
Lower dose ^e	28.0 (21)	0.74	9.11 (3.97)	0.78	7.79 (5.84)	0.84	19.28 (7.24)	0.40
Higher dose	36.7 (29)		8.56 (4.73)		8.61 (6.23)		18.76 (8.87)	

^a Emotional Well-Being.

^b Social Well-Being.

^c Psychological Well-Being.

^d Including other antipsychotics (12.3%), mood stabilizers (7.1%), and antidepressants (15.6%).

^e After computing risperidone equivalence patients were split across the median (6 mg/day).

* = $p < 0.05$.

diagnoses, namely unipolar depression and cluster B personality disorders were less flourishing and had lower scores than schizophrenia and bipolar patients. Regarding depression, the findings are in line with reports that found a functional impairment in depressed patients even after remission [15–17], and the selective intake of depressive patients by psychiatric services that care for the most severe cases. In cluster B personality patients, feelings of emptiness and problems with social relationships are a hallmark of borderline personality disorder and part of the diagnostic criteria, so the poorer performance of this diagnostic group on indices of well-being is expected. The fact that patients with schizophrenia experienced better well-being compared to other diagnoses may sound counterintuitive, but there is evidence that life satisfaction in schizophrenia is not necessarily associated with symptom remission and superior functioning [18,19].

In our study the definition of well-being relied on the MHC-SF which is the instrument of choice in many studies selected by a recent meta-analysis [3]. The construction of a tripartite model of mental well-being has been validated with factor analytic modeling in different cultures like Iran, USA, and Italy [10,20]. The MHC-SF includes both a rating of hedonic and eudaimonic well-being, with the latter specified as social and psychological. Hasler [21] has argued that the measurement of well-being should consider both hedonic and eudaimonic dimensions, for these are influenced by different cultures in different countries.

A comparison with other studies on large samples is not easy, due to differences in measures of well-being. For example, in a large British community survey on 7,293 subjects, a scale of well-being was put together with 9 items taken from different questionnaires [2]. In another large sample [22] the positively worded items of the CES-D scale for depression were used to measure well-being.

In the original paper that validated the Mental Health Questionnaire in a large community sample, Keyes et al. [9] found a flourishing state in 6.3% of 428 subjects with major depression. In a large Canadian community survey [23], a flourishing state was found in 72.5% of the subjects, but in those with mental illnesses (depression, bipolar disorder, anxiety, and substance use) a flourishing state was reported by only 4.5% of the subjects. In our sample of unipolar depressive patients the rate was 23.3%. The difference is mostly due to the fact that large community surveys include subjects with *actual* depressive symptoms or illness, while our patients were monitored and treated for a *previous* depressive episode. These patients are beyond the acute phases of their illness and most are on maintenance treatment, supported by specialist services with regular visit and residential programs.

Most studies [9,23,24] have found that a flourishing state is associated with male sex, higher age and education, being married, good physical health, and spirituality. Weich et al. [2] made a distinction between hedonic and eudaimonic well-being and found that hedonic decreased with age, while eudaimonic increased. In our study the only significant association was with sex, where males were more flourishing. The lack of associations with other variables is probably

due to the lower rate of protective factors in our group, which was less educated, had less economic support and more physical illness. This, together with coping with a severe chronic illness, certainly makes our patients a different group from general population samples.

The finding of a better well-being in schizophrenia patients taking long-acting antipsychotics supports other findings, such as the study by Fleishhacker et al. [6] that found a significant improvement of well-being in patients on depot medication, measured using SF-36 mental component summary score, vitality, social functioning, and role-emotional.

Among the limitations of our study are the following. Measures for the severity of specific disorders were not available, like the PANSS for schizophrenia or the Young Mania Rating Scale for bipolar illness. Nonetheless, patients were sufficiently stable to be cared for by outpatient psychiatric services and they had a CGI score lower than 4. Furthermore, in the case of patients with schizophrenia, well-being is possibly better evaluated in the context of a comprehensive approach as defined by recovery [25], so that social, work and role functioning is the optimal aim of treatment. Another limitation is the reliability of MHC-SF completed by our subgroup of patients with schizophrenia. Takeuchi et al. [26] demonstrated less reliability of ratings in patients with schizophrenia with severe disorganization and/or cognitive impairment. Finally, although our sample was large, bipolar patients were less represented compared to other diagnoses.

5. Conclusions

Future research should consider the effect of interventions of cognitive remediation and psychosocial rehabilitation on global and single measures of well-being, since clinical samples have shown to be most amenable to interventions. Meanwhile, we are planning a comparison of subjects with a flourishing state and those without, to investigate which factors have helped them to better cope with a severe mental illness.

Declarations of interest

None.

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Ethics

The study has been conducted in accordance with the Declaration of Helsinki and according to requirements of local and international standards.

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