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ANALYSIS OF MULTI-INSTRUMENTAL ASSESSMENT OF EATING DISORDERS: COMPARISON BETWEEN ANOREXIA AND BULIMIA

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SUMMARY

Introduction: *The origin and course of eating disorders constitute a multifactorial etiopathology. This is why it is important to consider the psychological, developmental, biological and socio - cultural evaluation of each patient.The Diagnostic and Statistical Manual DSM IV - TR (APA, 1994) distinguishes two main eating disorders: Anorexia Nervosa and Bulimia Nervosa. Together with them are described a broad and heterogeneous category (EDNOS) of "atypical eating disorders," that is a clinically significant eating disorder, but that does not meet all the diagnostic criteria for Anorexia Nervosa or Bulimia Nervosa. The aim of this pilot study was to analyze the differences detectable in anorexic and bulimic patients in relation to several factors of mental functioning, particularly with respect to the presence of distinctive characteristics and symptoms and the associated substrate personality.*

Method: *20 patients with eating disorders who have a residential rehabilitation program, all women, 10 diagnosed with AN aged between 18 years and 31 years, including (5 Restrictive and 5 with Purging) and10 diagnosed with BN aged between 19 years and 31 years (including 5 with Purging).*

Results: *The pictures of AN and BN can be placed within a continuum of symptoms that distinguishes them exclusively for the presence or absence of bulimic episodes; also the symptom of bulaemia can be considered a most important aspect in the distinction between anorexia and bulimia as all other aspects of mental functioning appear to be similar in almost direct measurement, and finally some food pathological events are associated with personality characteristics, Axis I symptoms and quality of life, linked to specific types of global functioning.*

Discussion: *Some symptoms may have different functions depending on the patient's personality style: a patient may develop a symptom of anorexia because it is competitive and a perfectionist, another as a form of self-punishment or as a strategy to regulate the feeling of being out of control, another again as a phenotypic expression of an underlying mood disorder, in the same way the purging may represent a reaction for a patient who is emotionally dysregulated or a measure of weight control which is more deliberate for a patient who is highly controlled perfectionist.*

Conclusion: *There is a need to look at eating disorders within a global view of mental functioning, these conditions may be considered "diagnostic trans', ie disturbances traveling along a continuum, and are therefore characterized by a" diagnostic migration. "*

Key words: *eating disorders – anorexia - bulimia*

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INTRODUCTION

This work start from the hypothesis that the diffusion of the anorexic-bulimical symptomatology need specific diagnostic work that overcomes the idea that these pathologies are clinical entities structured in a single dimension and consider them symptomantological phenomena that can subtend a big scale of psychopathological structures.

When we talk about Alimentary Behaviour Disorders we make a necessary reference to a real social epidemic (Gordon 1990) both in prevalence and in incidence; in Italy there are about three million young people that suffer from this problem and tens of millions in the world get sick every year. The age most affected is between 12 and 25 year, even if today the age has lowered to 8 to 10 years Dalla Ragione 2005); about 10% of young people between 12 and 25 years are affected by Alimentary Behaviour Disorders, which also affect males. This has been an increase from 1% of 12 years ago to 10%, with an age of appearance from 13 to 17 years (Dalla Ragione 2009), without considering the global increase of this problem in the rest of the population.

The epidemic diffusion of DCA from the Sixties confronts the psychologist and psychiatrist with a very complex phenomenon that with time has taken on more heterogeneous characteristics. The progressive transformation in clinical manifestation, that from the starting predominance of restrictive anorexia moved to forms which are mainly bulimic at the end of the Eighties, was accompanied by a different view of diagnostics princeples (including the suggestion of including the BED: Binge Eating (Joinerkeel et al. 2001) Disorder in the Diagnostic and Statistic Handbook of Mental Illness of 2013) and by an always growing number of research and etiopathogenetic hypothesis of the illness (Cuzzolaro 2005). The different description of alimentary disturbances in symptomatic terms, but also in different structural dimensions, clinically match with just as big a variability of the clinic course and tractability (Speranza 2008). This tractability inevitably raises very important diagnostic problems that question on the one hand the arbitrary distinction of the syndrome (Nervous Anorexia, Nervous Bulimia, Ednos) and their diagnosis which is in a sense exclusively phenomenological descriptive, and on the other hand the possibility of putting in an univocal way this pathology in structural

terms (Wonrderlich 2001). It seems appropriate to question how today the Alimentary Behaviour Disorders appear and how they can be understood in dimensional and categorical terms, without ignoring the frequent comorbidity with other mental illnesses that influence their clinical course and their prognosis. In this regard we have to remember the main role of the diagnostic process is to lead the clinician to define those characteristics of personality of the patient which are different and relevant in the planning treatment and rehabilitation.

METHODOLOGY

The aim of this pilot study was to analyze the differences detectable in anorexic and bulimic patients compared to several factors of mental functioning, particularly with respect to the presence of distinctive characteristics and symptoms associated with the substrate personality. The hypothesis is the need for a thorough and accurate diagnosis of various psychological aspects that are associated with eating disorders in order to calibrate and monitor the therapeutic process and evaluate outcomes.

In this study, we examined four key aspects of eating disorders: the specific symptoms related to food (EDI-II), the relative size of other comorbid Axis I disorders such as anxiety, depression, somatization (SCL-90), the presence of particular personality traits associated with eating disorders (Millon III) and finally the quality of life of the patient (WOQHOL). The sample does not exhibit the characteristics of a true experimental research design, either in number or recruitment of patients, but rather refers to patients followed by me personally in clinical work and rehabilitation and, therefore, is a fundamental and exploratory study which is totally ground-breaking.

Nevertheless, the results described below have shown interesting insights regarding the different constellations of anorexia and bulimia, although further investigations are needed and a significant increase in sample size is necessary to conclude a generalization of the data obtained so far.

DESCRIPTION OF THE SAMPLE

The sample analyzed in this work is composed of 20 patients with eating disorders as a result of a thorough diagnosis made by the interdisciplinary team “Todi Palazzo Francisci” according to the criteria of the DSM IV. All patients have undergone residential rehabilitation treatment at the same unit, all are women, 10 diagnosed with AN aged between 18 years and 31 years, including (5 Restrictive and 5 Purging) and 10 diagnosed with BN aged between 19 years and 31 years (including 5 with Purging). Subjects were administered a battery of psychological tests at the time of entry into the residence of Todi Palazzo Francisci in the years 2010 - 2011 as part of the assessment process.

TOOLS

The battery of psychodiagnostic tests administered to patients referred to different aspects of mental functioning. Below is a brief description of the tests used and the variables they investigated.

The EDI-2 (Eating Disorder Inventory)

(Rizzardi et al. 2001)

The test does not offer a specific diagnosis of nervous anorexia or bulimia nervosa, but is used in order to delineate and accurately measure certain psychological traits or groups of symptoms relevant to the understanding and treatment of eating disorders. It consists of 91 items that provides standardized scores of eight subscales clinically relevant to eating disorders, any response can vary from 1 to 6: "Always," "usually," "often," "sometimes," "rarely," "never"; also between the 91 items, 27 are supported by three additional constructs: asceticism, impulsivity, social insecurity. The EDI-2 may also be administered to a normal population to investigate body image and diet.

The primary scales assess:

- Impulse to thinness: too scared to gain weight and fear of the diet;
- Bulimia: compulsive disorders;
- For body dissatisfaction: dissatisfaction with body shape;
- Inadequacy: feelings of inadequacy and insecurity over their own lives;
- Internal Awareness: inability to recognize and identify their emotions, visceral sensations related to hunger and satiety;
- Fear of maturity: a desire to take refuge in the safety of being a child;
- Interpersonal Distrust: not trusting in others and the difficulties in establishing relationships;
- Perfectionism: maintaining an adequate performance status.

The subscales are additional: Asceticism: a tendency to seek value through the pursuit of spiritual ideals such as self-discipline, self-denial, sacrifice of oneself; impulsivity: impulsive substance abuse, imprudence, hostility, Social Insecurity: measures the belief that social relationships are difficult and insecure, disappointing.

The SCL 90 (Symptom Checklist-90)

(Sarno et al. 2009)

Is a self - report, self-administered scale, consists of 90 items, measuring a global score with 9 subscores because it analyzes 9 clusters of psychopathology, in general, it measures the presence of psychopathology related to different diagnostic categories and can identify clusters of symptoms associated with specific psychopathological conditions. The questions also relate to the last week with a score comprising 0 to 4, one

must answer all questions to calculate the overall index. It can be administered from the age of 13 years onwards. The test examines the following dimensions:

- Somatization: the feeling of having something;
- obsessive – compulsive symptoms: thoughts about and attitudes;
- Interpersonal Sensitivity: discomfort with others;
- Depression: summarizes a wide range of accompanying symptoms of a depressive syndrome, including suicidal ideation;
- Anxiety: together these symptoms and behaviours relate to manifestations of high anxiety;
- Anger - hostility, aggressive behaviours to self and others;
- Phobic Anxiety: persistent and irrational fear in which the response is not proportionate it may refer to body parts and / or food phobia;
- Paranoid Ideation: recurring negative thoughts;
- Psychoticism: to be understood as a continuous dimension of human experience characterized by withdrawal, isolation and schizoid life style.
- Sleep disorders: insomnia, disturbed sleep, early morning wakening.

The index of the global gravity can have a value greater than 63 or less than 63.

WHOQOL-BREVE (World Health Organization Quality Of Life)

(De Girolamo et al. 2001)

This is a questionnaire that assesses the construct of quality of life. The proposal stems from the WHO (World Health Organization) when it emphasized the need to assess the health of the patient, in particular clarifies the definition of Health: Health as the perception of the subject of living a life in relationships adjusted according to his needs and not in the absence of disease. Most tools provide an assessment of the impact the disease has on the individual and do not assess the quality of life in terms of the subjective perception by the patient.

The questionnaire is based on a model which considers health as a positive evolutionary capacity that must include so many expectations. This tool allows you to quickly calculate the average of the scores of the affected areas, but not an assessment of individual areas; it also helps identify areas of the patient's life most affected by the disease, and also provides us with a guide to treatment. The high scores express a Qol (Quality of Life) high. The areas affected are:

- Area Physics (pain and physical discomfort, energy and fatigue, sleep and rest);
- Psychological Area (positive emotions, reasoning ability, learning, memory and concentration, self esteem, body image and appearance, negative emotions);
- Social Relations: (interpersonal relationships, social support, sexual activity);
- Environment: (security and physical safety, housing, economic resources, health and social care, opportunities to acquire new knowledge and skills, participation and opportunities for recreation and leisure, physical environment, transport).

Millon (Millon Clinical Multiaxial Inventory - III)

(Zennaro et al. 2008)

The Millon Clinical Multiaxial Inventory - III represents a new and valuable tool for psychological assessment of the adult, to be used, alternatively or in addition, to the questionnaires on psychopathological personality already in use. In the U.S., it is widely used to evaluate clinical and personality disorders in psychiatric patients. Since its first edition (1977, USA), this test was revised twice, and has become one of the most frequently used diagnostic tools in the assessment of personality disorders and major clinical syndromes. The main reasons for the popularity of this instrument are related to its reliability and quality and to the very practical fact that it is simple and brief: it consists of 175 items with dichotomous responses (true / false); it measures 14 personality patterns and 10 clinical syndromes, it is used with adults 18 years of age and older, is designed to measure personality traits and the presence of psychopathology; presents a measurement directly related to the DSM-IV and can be used to make clinical decisions or for 'identification of individuals who show a particular disorder or a particular psychological trait'. The test consists of 24 scales, divided into 4 groups (plus the 'indices of change'').

The first group includes the steps:

- Schizoid: inability to feel desire, pain, pleasure;
- Avoidant: always alert to avoid the anxious anticipation of the painful experiences of life;
- Depression: sadness, pessimism, lack of joy;
- Employee: lack of initiative and autonomy;
- Histrionic: insatiable and indiscriminate search of stimulation and affection;
- Narcissistic: selfish attitude where the primary source of pleasure is given from themselves or from concentrating on themselves in a passive way;
- Antisocial: ambiguous or illegal behaviour aimed at exploiting the environment to your advantage;
- Sadistic - Aggressive: hostile and deeply combative behaviour;
- Obsessive - compulsive hostility felt towards others and fear of being socially disapproved of, the possibility of loss of control by the subject;
- Negativistic - Passive - Aggressive: inability to reconcile data from the struggle between the desire to obtain benefits from relationships with others and the desire to follow their own desires;
- Masochistic - self-defeating: the ability to actively and repeatedly relieve past misfortunes;
- Scale Schizotypica: autistic behaviour and cognitive confusion;

- Borderline Scale: affective dysregulation emerging instability and lability of mood, cognitive ambivalence - affective;
- Paranoid Scale: watchful mistrust towards others and defensiveness that anticipates criticisms and disappointments;
- Anxiety Scale: vague or specific phobias, anxiety, tendency to complain of various physical ailments;
- Somatization Scale: ability to express psychological difficulties through somatic channels;
- Scale Bipolar - Mania: Excessive generalized enthusiasm and planning to achieve unrealistic goals;
- Dysthymia Scale: lack of initiative, apathetic behaviour low self-esteem;
- Alcohol Dependence Scale: possibility of having had a past history of alcoholism;
- Drug Dependence Scale: recent or recurrent history of drug abuse;
- Post-Traumatic Stress Disorder: the presence in the medical history of a traumatic event that involved a serious threat to their lives;
- Scale of Mental Disorder: incongruous behaviour, disorganized, regressive at times confused and disoriented;
- Greater Depression Scale: not working in an adaptive way, great concern for the future, suicidal ideation and resigned attitude;
- Scale Delusional Disorder: disturbed thinking, strong hidden suspicion, surveillance and being alert for any treachery;
- Desirability Scale: a tendency to place oneself in the best possible way;
- Scale of worthlessness: a tendency to criticize or depreciate with personal and emotional difficulties.

RESULTS

Analysis of variance (ANOVA)

The comparison between the two groups studied, AN and BN, there were no significant differences except in the subscale Bulimia - for EDI II (with a score of F = 18.155 and P, 000), or the tendency to think and to have attacks of uncontrollable overeating (binge eating) (Table 1).

This index is a hallmark of nervous bulimia, which is different from the anorexic condition which restricts food intake and does not include episodes of binge eating. A similar result, in part, if we consider the small sample size, indicates how the paintings of AN and BN are placeable within a continuum of symptoms that distinguishes them only by the presence or absence of bulimic episodes as we confirm the studies by Laessle, Tuschl, Vaud and Pirke 1989.

Linear regression (LR)

The results obtained in the comparison between the averages of two samples (ANOVA) was further confirmed by the analysis performed by the method of linear regression, used to track any predictor in eating disorders. The test has demonstrated that the only significant predictor for DCA is the index of EDI-Bulimia II (r=0.709 and P=0.000) while no significant difference was demonstrated in the symptoms of axis I and II and the indexes of quality of life (Table 2).

From these preliminary data it seems essential, therefore, to consider the bulimic symptoms as a major feature in the distinction between Anorexia and Bulimia, which for all other aspects of mental functioning appear to resemble each other in almost all direct measurement.

If we consider the experience of depression and body dissatisfaction, as well as the obsessive tendencies and perfectionism that distinguishes all patients with eating disorders, what seems important is not so much the significance of the data shown in this small sample, but rather the absence of other significant results. It is 'obvious that this result should be replicated in a study of a larger sample to verify its reliability.

Correlation between variables in DCA, SCL-90, WHOQOL, MCMI, EDI

Further analysis was conducted using the Pearson correlation coefficient to determine how the variables studied are significantly related to each other. For reasons of space they will not be given here but only a few tables summarizing patterns of what emerged in the results (Table 3).

Table 1. Anovia of Variance

		Sum of Squares	Df	Mean Squares	F	Sig.
EDI.BU	Between	510,050	1	510,050	18,155	0.000
	Within Groups	505,700	18	28,094		
	Totale	1015,750	19			

Table 2. Regression

Model	R	R-square	Adjusted R-Square	Std Deviation Std Error Mean
1	0.709[a]	0.502	0.474	0.37188

a.Predictor: (Costant), EDI.BU

Table 3. The Table shows the correlations of variables with the EDI subscales SCL, WHOQOL and MCMI

EDI Impulse to thinness	SCL obsessive Compulsive Disorder	R=0.457*
	MCMI obsessive Compulsive Disorder	R=0.505*
	MCMI Masochistic self-defeating	R=0.511*
	MCMI Desirability	R=0.602**
EDI Bulimia	SCL Global SymptomIndex	R=0.701**
	WHOQOL environment	R=-0.502*
	MCMI depressive	R=0.767**
	MCMI Negativistic Passive Aggressive	R=0.599**
	MCMI Borderline	R=0.728**
EDI Insoddisfazione Corporea	SCL obsessive Compulsive Disorder	R=0.527*
	SCL depressive	R=0.681**
	WHOQOL psychological	R=-0.447*
	WHOQOL Social	R=-0.562*
	MCMI masochistic self-defeating	R=0.673**
	MCMI worthlessness	R=0.770**
EDI Social Insecurity	SCL Interpersonal Sensibility	R=0.567**
	SCL Phobic Anxiety	R=0.570*
	WHOQOL Psicological	R=-0.546*
	WHOQOL Social	R=-0.663**
	MCMI avoidant	R=0.519*
	MCMI Desiderability	R=0.580*
EDI Inadeguatezza	SCL Ossessivo Compulsivo	R=0.506*
	SCL Depressive	R=0.605**
	WHOQOL Social	R=-0.496*
	MCMI Avoidant	R=0.724**
	MCMI Negative PassiveAggressive.	R=0.675**
	MCMI Worthlessness	R=0.648**
EDI Consapevolezza Enterocettiva	SCL Somatization	R=0.632**
	WHOQOL Psicological	R=-0.500*
	WHOQOL Environment	R=-0.498*
EDI Paura della Maturità	SCL Ansia	R=0.775**
	WHOQOL Psicologica	R=-0.492*
	WHOQOL Sociale	R=-0.594**
EDI Sfiducia Interpersonale	SCL Ossessivo Compulsivo	R=0.486*
	SCL Sensibilità Interpersonale	R=0.567**
	SCL Ansia Fobica	R=0.570**
	MCMI Evitante	R=0.531*
EDI Perfezionismo	SCL Ossessivo Compulsivo	R=0.513*
	WHOQOL Psicologica	R=-0.468*
	MCMI Ansia	R=0.630**
	MCMI Desiderabilità	R=0.528*
		(segue)
EDI Ascetismo	SCL Ossessivo Compulsivo	R=0.457*
	WHOQOL Psicologica	R=-0.497*
	MCMI Desiderabilità	R=0.723**
EDI Impulsività	SCL Depressione	R=0.746**
	SCL Ostilità	R=0.498*
	SCL Global SymptomIndex	R=0.775**
	WHOQOL Sociale	R=-0.594**
	MCMI Masochistico Autofrustrante	R=0.557*
	MCMI Borderline	R=0.723**
	MCMI Alcol	R=0.586**

The asterisks show the degree of significance: *= $p<0.05$; **= $p<0.01$

The results of the correlations between variables show that some food pathological events are associated with personality characteristics, Axis I symptoms and quality of life linked to specific types of global functioning (Westen & Harnden – Fisher 2001).

As shown in our sample ascetic and perfectionistic traits seem typical of anorexia associated with personality traits obsessive - compulsive spectrum disorders to anxiety and social desirability.

The bulimic episodes, as well as impulsivity and feelings of inadequacy, correlate positively with depressive symptoms and borderline personality traits, masochistic tendencies, alcohol dependence symptoms and indices of global higher.

These results are shown in continuity with the results of numerous studies on patients with eating disorders that have examined aspects of the personality and life events found in eating disorders. The impetus for thinness and dissatisfaction with their bodies, distinguishing criteria for a diagnosis of eating disorders according to DSM-IV, is correlated with the traits obsessive - compulsive disorder and those with depression, indicating a low specificity compared to the anorexic and bulimic presentations. Similarly, social problems and interpersonal sensitivity are not distinctive of one or other of the major categories of Eating Disorders which we have studied.

DISCUSSION

While it is therefore important to keep in mind in diagnosing the specific issues related to the construction of identity, issues of removal by caregivers and the characteristics of object relations, it is necessary to evaluate patients very differently depending of different personality organization and different styles of personality. The same symptoms may in fact have different functions depending on the patient's personality style: a patient may develop a symptom of anorexia because it is competitive and a perfectionist, another as a form of self-punishment or as a strategy to regulate the feeling of being out of control, another again as a phenotypic expression of an underlying mood disorder, in the same way the purging may represent an impulsive reaction for a patient who is emotionally dysregulated or a measure of weight control which is very deliberate for a patient who is very controlled or perfectionist (Westen, Harnden – Fisher 2001).

The data derived from the preliminary object of this thesis indicates the need plays in this part need to look at eating disorders within the global view of mental functioning. The ability to speak of a single diagnostic category is suggested by the DSM IV, but some studies on the disease indicate a migration between the different diagnosis of these disorders, in fact, many authors such as C. G. Fairburn (2008), agree in defining these diseases as trans-diagnostic', ie disturbances traveling along a continuum, and are therefore characterized by a "diagnostic Migration ', consisting of two phases:

Phase I The phase of control of nutrition with a marked weight loss;

Phase II, loss of control over eating behaviour with weight gain, thus moving from the category of underweight to than of overweight, so that a patient can "experiment" three different psychiatric disorders in thirty years.

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