Psychotherapeutic treatment of eating disorders improve dissociative experiences and impulse regulation but not alexithymia. A case series report

Il trattamento psicoterapeutico dei disturbi alimentari migliora le tendenze dissociative e impulsive, ma non l'alessitimia. Una serie di casi clinici

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SUMMARY. Aim. Eating disorders (EDs) are complex conditions associated with disability and a high rate of mortality. Typical characteristics of these diseases are dissociation, alexithymia and impulse dysregulation, all strategies dealing with negative emotions and regulate negative affect and anxiety. Our study aimed to assess the effectiveness of intensive psychological treatment for EDs, with particular reference to the above mentioned clinical characteristics. **Methods.** Eight outpatients with eating disorders in psychotherapeutic treatment were evaluated in two stages after one year (T1 and T2), using the Eating Disorder Inventory II, the Toronto Alexithymia Scale 20, and the Dissociative Experiences Scale. **Results.** Wilcoxon test showed significant reductions in DES score as well as in two subscales of the EDI-2, Impulse Regulation and Body Dissatisfaction (I-EDI2 and BD-EDI2), while alexithymia levels did not show any difference. **Conclusions.** We can confirm the effectiveness of psychotherapy in people with EDs as regards dissociative moments, impulsivity and body dissatisfaction. However, alexithymia remains unchanged, possibly because of its deep emotional nature.

KEY WORDS: eating disorder, psychotherapy, dissociation, impulse regulation, alexithymia.

RIASSUNTO. Scopo. I disturbi alimentari (DCA) sono condizioni complesse associate a importanti disabilità e a un alto tasso di mortalità. In queste condizioni psicopatologiche si possono riscontrare alessitimia, tendenze dissociative e impulsive, messe in atto quali strategie di gestione delle emozioni negative e di regolazione affettiva. Questo studio si propone di valutare l'efficacia di un trattamento psicologico intensivo per DCA, con particolare riferimento alle caratteristiche cliniche citate. **Metodi.** Otto pazienti con DCA seguite in trattamento psicoterapico in un programma ambulatoriale multidisciplinare sono state valutate in due tempi (T1 e T2), a distanza di un anno, mediante i questionari autosomministrati Eating Disorder Inventory II (EDI-2), Toronto Alexithymia Scale-20 (TAS-20) e Dissociative Esperience Scale (DES). **Risultati.** Il test di Wilcoxon ha mostrato una significativa riduzione nel punteggio DES e in due sotto-scale EDI-2 - Regolazione degli impulsi e Insoddisfazione Corporea (I-EDI2 e BD-EDI2). Nei punteggi della TAS-20, al contrario, non è stato riscontrato alcun cambiamento. **Conclusione.** I risultati confermano l'efficacia della psicoterapia rispetto ai momenti dissociativi, alla regolazione degli impulsi e all'insoddisfazione corporea. Tuttavia, forse a causa della sua profonda natura emotiva, l'alessitimia rimane stabile.

PAROLE CHIAVE: disturbi del comportamento alimentare, psicoterapia, dissociazione, regolazione degli impulsi, alessitimia.

INTRODUCTION

Eating disorders (EDs) are complex conditions, with a common theme on food/weight obsession, associated with disability and the highest rates of mortality rates among psychiatric disorders[1]. Lifetime prevalence estimates among women of anorexia nervosa (AN), bulimia nervosa (BN) and binge eating disorder (BED) are 0.9%, 1.5%, and 3.5%[2], respectively.

Given the increasing prevalence of these disorders, to date it is unclear why the disease develops in some people and not in others. Definition of the specific psychological variables intervening in the disease process would be essential.

Dissociation, alexithymia and impulse regulation are associated with EDs in order to deal with negative emotions and regulate negative affect and anxiety[3], making all of them appropriate treatment targets.

Dissociation – «a disruption in the integrated functions of consciousness, memory, identity, and perception of the environment»[4] – is frequent among patients with EDs[5,6], and often associated with childhood abuse or traumas[7-9]. Dissociation seems important in determining bingeing severity[10-12], and relevant amnesia and timelessness, as well as feelings of depersonalization and derealisation[13], are considered common properties of a binge episode[14]. Emotional disavowal, disturbed body image and deficits in the ongoing development of Self Concept may link EDs with dissociation[15,16] but also with self-injurious behaviours[17], similarly typical features of the disorder.

In addiction alexithymia, with its four clusters of cognitive and affective characteristics[18] and assessed by the Toronto Alexithymia Scale (TAS20)[19], has been reported in people with EDs with rates between 23 and 77%[20]. Patients with EDs indeed show significant difficulties in identifying their feelings and expressing them verbally, attempting to avoid feared sensations and emotional experiences in general, with reduced ability to symbolize[21], partly explaining poor response to treatment[22].

Finally, impulsivity, a behavioural aspect of emotion dysregulation[23], has been found to be associated with EDs characterized by bingeing and/or purging[24] regulating negative affect and anxiety.

Most people with eating disorders should be managed on an outpatient basis with psychological treatment mainly focussed on peculiar cognitive, emotional, and behavioural and personality attitudes such as alexithymia an affect dysregulation, impulse discontrol and dissociation proneness[25]. In the absence of robust evidence, cognitive behavior therapy has shown preliminary, promising results[26], but there is the need for further experimental research before recommending that for implementation. Our study aimed to assess the effectiveness of intensive psychological treatment for EDs, with particular reference to dissociation, alexithymia and impulse regulation.

METHODS

Setting

The research project was approved by the Ethics Committee of Milano Bicocca University, and carried out at the Specialist Practice for EDs, San Gerardo Hospital Care Trust, Monza, Italy.

Treatment model

After a psychiatric assessment followed by a multidisciplinary evaluation, including physical condition, three female psychotherapists, with ten years of experience in treating ED patients, delivered the treatment. This was based on cognitive restructuring techniques, emotional literacy and regulation, aiming at reducing ED symptoms: weight recovery and/or cessation of binge eating and food dysregulation, but also dissociation proneness, alexithymia, impulse regulation, pathological perfectionism, brooding, distorted body image, control and sense of personal worthlessness[27]. This was complemented with dynamic-oriented, supportive psychotherapy elements, building a bond of trust that makes possible to broaden the self-perception and the self-organization with the reduction of the pathological split between body and mind, and identifying emotions and thoughts, regenerating connections with the experience of an affective state collapsed in eating symptom[28]. The psychotherapeutic treatment, generally, can last more than a year with one session per week.

Participants and procedures

The sample consisted of eight consecutively admitted female subjects with EDs. Axis I and II diagnostic evaluation was made according to DSM IV-TR criteria[29] and personality was assessed with the Q-sort SWAP-200[30].

Baseline and one year follow-up assessments were completed on January and December 2011 with the following set of tools.

Eating Disorders Inventory 2

This 91-item self-report tool measures various symptoms of eating disorders[31,32]. It also provides standardized subscale scores on 11 clinically relevant dimensions, i.e., Drive for thinness (DT), Bulimia (BU), Body dissatisfaction (BD), Ineffectiveness (IN), Perfectionism (P), Interpersonal distrust (ID), Interoceptive awareness (IA), Maturity fears (MF), Asceticism (A), Impulse regulation (I), Social insecurity (SI). In the present study, for people with anorexia nervosa, we considered as a measure of efficacy also the BMI.

The Dissociative Experiences Scale

The Dissociative Experiences Scale (DES) is a widely used self-report instrument that measures dissociation[33]. It includes 28 questions on various dissociative experiences. For each item, respondents score between 0 and 100% and the general score is calculated by the average of all the answers. A DES cut-off score of 15 to 20 is characteristic of dissociative disorders[34]. In the present study we treated DES as a continuous variable.

Toronto Alexithymia Scale

TAS-20 is the most widely used self-report measure of alexithymia[35-37]. It consists of three subscales, difficulty in identifying feelings and distinguishing them from bodily sensation (DIF); difficulty in describing feelings to others (DDF); and an externally oriented style of thinking (EOT). Respondents use for each item a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data analysis

We used Statistics 6 for Windows for data processing. First, normal distribution of the variables investigated – DES, TAS20, EDI 2 – was tested with Kolmogorov-Smirnov test. In order to evaluate the improvement in dissociative experiences, alexithymia and impulse regulation, we carried out relevant pre-post comparisons (mean and SD) using Wilcoxon test. Statistical significance level was set at $p<.05$.

RESULTS

Descriptive data of individuals in the clinical sample are shown in Table 1.

The sample comprised eight middle class female subjects, aged between 19 and 45 years, Italian native, with 13.12 (SD=2.47) years of education. According to DSM-IV-TR criteria, three subjects were suffering from restrictive anorexia nervosa (R-AN), two from bulimia nervosa (BN), and three from eating disorders not otherwise specified (EDNOS). Not surprisingly[38], more than half of the patients met criteria for an Axis II diagnosis and had had previous treatments.

Six out of eight subjects had a score >50 on the SWAP200 – High Functioning Scale[30], with a good overall functioning making them appropriate for psychological treatment. Furthermore, we built a checklist, including all core characteristics typical of EDs, regardless of single disorder's features (Table 2). All 8 patients met listed characteristics.

Kolmogorov-Smirnov test showed non-normal distribution for all the three variables – DES, TAS20, EDI 2 – thus, non-parametrical statistical tests have been used.

One year follow-up

We tested pre- post-treatment (T1/T2) differences in the experimental sample. Wilcoxon test showed significant reductions in DES score as well as in two subscales of the EDI-2, Impulse Regulation and Body Dissatisfaction (I-EDI2 e BD-EDI2). However, as measured by TAS-20, alexithymia did not show any change (Table 3). Furthermore the three subjects with Anorexia Nervosa showed a stable (one) and higher (two) BMI (Table 1).

DISCUSSION

We could study a wide range of women with EDs, sharing core EDs characteristics, regardless of single disorder's categorical features. Our study shows that psychotherapeutic treatment significantly reduce at one year follow-up dissociative experiences but also impulse regulation and body dissatisfaction, though alexithymia domains remained unchanged. People with EDs have a great deal of dissociative experiences[6,14,39]. Intensive psychotherapeutic treatment may reduce dissociative proneness, supporting the patient to elaborating her vulnerability due to previous traumatic experiences establishing a link with them. Furthermore, giving freedom to speaking and listening seems producing a drop in impulsiveness, which can be communicated rather than acted. We value important also the decrease in body dissatisfaction, because it may play a role in EDs development and maintenance[40], but also may mediate on emotional factors, such as intolerance towards negative emotions[41]. In addition, two out the three AN-R cases showed an improvement in BMI. As regards alexithymia our findings could not show any change associated with psychotherapeutic treatment. Though alexithymia may well be a core psychological feature of EDS[42], it has been already found it remains unchanged regardless of improvement in EDs symptoms[43], possibly because of its deep emotional nature.

We acknowledge several limitations of our study. First, given the exploratory nature of the study, the sample size was inevitably low, under powering our findings. In addition, scheduled one-year follow-up possibly struggles capturing long-term changes typical of psychotherapeutic treatment. Furthermore, though the sample is not homogeneous in terms of diagnostic features EDs, it may be seen with a "transdiagnostic model"[44,45], appropriate for a NHS, "real world" trial.

CONCLUSIONS

This work confirms the effectiveness of psychotherapy in people with EDs as regards dissociative moments, impulsivity and body dissatisfaction. On the contrary, alexithymia – a core psychological characteristic of the disorder – remains stable.

Table 1 - Descriptive characteristics of cases

Cases	Gender	Age	Axis I	Axis II	BMI Baseline	BMI 1 year follow-up	ED Previous Treatments
A	F	22	ANR	—	15.5	17.30	No
B	F	26	ANR	Obsessive	14.53	14.53	Yes
C	F	35	ANR	Histrionic	15.23	16.01	Yes
D	F	19	BN	Borderline	23.88	22.05	Yes
E	F	32	BN	—	22.86	21.57	Yes
F	F	22	NAS	Avoidant	25.39	21.87	No
G	F	45	NAS	Obsessive/ Schizoid	ND	ND	Yes
H	F	22	NAS	—	35.16	36.32	No

Legenda: ANR= Anorexia Nervosa Restricting Type; BN= Bulimia Nervosa; EDNOS= Eating Disorder Not Otherwise Specified; DP= Personality Disorder; BMI= Body Mass Index (kg/m2). BMI ≤17.5: significantly underweight; 17.6-18.9: underweight; 19.0-19.9: low weight; 20.0-24.9: normal weight; 25.0-29.9: overweight; ≥ 30: obesity. T1= Initial observation; T2= Final observation; ND= not determined because the patient refuse to weight.

Table 2. Core characteristics typical of EDs found in the whole clinical sample
Eating symptoms and food concerns about food, diet, eating
Body image disorder
Anxiety, depression, unhappiness
Emotional and impulse dysregulation or restricted emotional range
Unstable self-image
Fear of loneliness, of abandonment or rejection
Tendency to control or fluctuation between too much control or too little
Obsessiveness, concern for order and planning
Perfectionism
Feelings of emptiness
Shame
Feelings of inadequacy and inferiority, excessive self-criticism
Poor social skills and avoidance
Dependence
Dissociation proneness

Table 3. Pre- post-treatment differences at one year follow-up

	Baseline (T1)	One year follow-up (T2)	p T1 vs T2
	Mean (SD)	Mean (SD)	
EDI2	124.38 (60.25)	79.29 (64.43)	,18
DT-EDI	14.00 (7.13)	8.14 (7.84)	,09
BU-EDI	9.13 (9.51)	4.29 (7.67)	,11
BD-EDI	*18.13 (8.03)*	*11.71 (9.01)*	*,02*
IN-EDI	16.13 (9.34)	10.57 (10.34)	,18
P-EDI	4.13 (2.59)	4.00 (3.37)	,50
ID-EDI	7.25 (4.65)	7.29 (5.71)	,61
IA-EDI	11.13 (10.47)	5.43 (5.94)	,21
MF-EDI	10.00 (8.07)	9.29 (9.79)	,60
A-EDI	9.88 (5.41)	5.14 (2.97)	,08
I-EDI	*13.00 (7.89)*	*4.86 (4.38)*	*,05*
SI-EDI	11.63 (6.50)	8.57 (5.97)	,28
DES	*22.38 (15.07)*	*6.53 (5.29)*	*,02*
TAS20	60.08 (13.90)	53.00 (16.32)	,17
DIS	21.75 (10.02)	19.86 (5.61)	,87
DCS	15.38 (5.60)	14.86 (5.27)	,92
PO	19.50 (6.28)	18.29 (8.14)	,55

Further research, involving larger and homogenous samples, is needed in order to investigate the generalizability of these findings and to determine the role of dissociation, impulse regulation and alexithymia in EDs. The choice of measuring instruments represents a relevant difficulty in methodological studies on alexithymia. As argued «the evaluation of the psychological trait that we want measure is inevitably dependent on the ability of the subject to report what he feels. Paradoxically, this ability is that should be insufficient in alexithymia»[46]. It might be actually appropriate rethinking alexithymia in terms of different tools and modalities or respect the theoretical underlying conceptions[47].

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