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.

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 disorders1. 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, 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 EDs3,6, and often associated with childhood abuse or traumas7,9. Dissociation seems important in determining bingeing severity10,12, and relevant amnesia and timelessness, as well as feelings of depersonalization and derealization13, are considered common properties of a binge episode14. Emotional disavowal, disturbed body image and deficits in the ongoing development of Self Concept may link EDs with dissociation5,16 but also with self-injurious behaviours17, similarly typical features of the disorder.

In addiction alexithymia, with its four clusters of cognitive and affective characteristics18 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 symbolize21, partly explaining poor response to treatment22.

Finally, impulsivity, a behavioural aspect of emotion dysregulation23, has been found to be associated with EDs characterized by bingeing and/or purging24 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 proneness25. In the absence of robust evidence, cognitive behavior therapy has shown preliminary, promising results26, 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 worthlessness27. 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 symptom28. 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 criteria29 and personality was assessed with the Q-sort SWAP-20030.

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 disorders31,32. 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), Interceptive 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 tool that measures dissociation33. 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 disorders34. 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 alexithymia35-37. It consists of three subscales, difficulty in identifying feelings and distinguishing them from bodily sensation (DDF); 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<0.05.
Psychoterapeutic treatment of eating disorders may improve dissociative experiences and impulse regulation but not alexithymia

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, 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, 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. 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, but also may mediate on emotional factors, such as intolerance towards negative emotions. 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, it has been already found it remains unchanged regardless of improvement in EDs symptoms, 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”, 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

<table>
<thead>
<tr>
<th>Cases</th>
<th>Gender</th>
<th>Age</th>
<th>Axis I</th>
<th>Axis II</th>
<th>BMI Baseline</th>
<th>BMI 1 year follow-up</th>
<th>ED Previous Treatments</th>
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<tbody>
<tr>
<td>A</td>
<td>F</td>
<td>22</td>
<td>ANR</td>
<td>—</td>
<td>15.5</td>
<td>17.30</td>
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</tr>
<tr>
<td>B</td>
<td>F</td>
<td>26</td>
<td>ANR</td>
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<td>14.53</td>
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<tr>
<td>C</td>
<td>F</td>
<td>35</td>
<td>ANR</td>
<td>Histrionic</td>
<td>15.23</td>
<td>16.01</td>
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<tr>
<td>D</td>
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<td>19</td>
<td>BN</td>
<td>Borderline</td>
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<td>22.05</td>
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<tr>
<td>E</td>
<td>F</td>
<td>32</td>
<td>BN</td>
<td>—</td>
<td>22.86</td>
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</tr>
<tr>
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<tr>
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<td>F</td>
<td>22</td>
<td>NAS</td>
<td>—</td>
<td>35.16</td>
<td>36.32</td>
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</tr>
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</table>

Legend: ANR= Anorexia Nervosa Restricting Type; BN= Bulimia Nervosa; EDNOS= Eating Disorder Not Otherwise Specified; DP= Personality Disorder; BMI= Body Mass Index (kg/m²); BMIs<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.
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». It might be actually appropriate rethinking alexithymia in terms of different tools and modalities or respect the theoretical underlying conceptions.

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REFERENCES

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47. Parling T, Mortazavi M, Ghaderi A. Alexithymia and emotional awareness in anorexia nervosa: time for a shift in the measurement of the concept? Eat Behav 2010; 11: 205-10.