

**Introduction** Some temperament characteristics of personality seem to be modulated by oxytocin. Patients suffering from eating disorders (EDs) display aberrant personality traits.

**Objectives and aims** We investigated the relationships between plasma oxytocin levels and personality dimensions of patients with anorexia nervosa (AN) and bulimia nervosa (BN) and compared them to those of healthy controls.

**Methods** Plasma oxytocin levels were measured in 23 women with AN, 27 women with BN and 19 healthy controls and assessed their personality traits by means of the Cloninger's Temperament and Character Inventory-Revised (TCI-R).

**Results** AN patients showed plasma levels of the hormone significantly lower than BN and healthy controls. In healthy women, plasma oxytocin levels resulted significantly correlated negatively with novelty seeking scores and positively with both harm avoidance (HA) scores and the attachment subscale scores of the reward dependence: these correlations explained 82% of the variability in circulating oxytocin. In BN patients, plasma oxytocin resulted negatively correlated with HA, whereas no significant correlations emerged in AN patients.

**Conclusions** These findings confirm a dysregulation of oxytocin secretion in AN but not in BN and show, for the first time, that the association of circulating oxytocin to patients' temperament traits is totally lost in underweight patients with AN and partially lost or even inverted in women with BN. These findings suggest a role of oxytocin in certain deranged behaviours of ED patients, which are influenced by the subjects' personality traits.

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## EW200

### Attachment style and salivary cortisol awakening response in eating disorders

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**Introduction** Early life experiences can influence hypothalamus-pituitary-adrenal (HPA) axis regulation and adult attachment styles. Furthermore, several studies showed that in patients with eating disorders (EDs) there is a prevalence of insecure attachment. However, the relationship between adult attachment style, HPA axis functioning and onset of EDs is largely unknown.

**Objectives and aims** In order to evaluate possible associations between attachment styles and HPA axis functioning in EDs, we investigated Cortisol Awakening Response (CAR) in ED patients with different attachment styles.

**Methods** Twenty adult patients with EDs were classified in three groups, according to the Experience in Close Relationship questionnaire (6 with secure attachment, 6 with anxious attachment and 8 with avoidant attachment). Saliva samples were collected at awakening and 15, 30 and 60 minutes after.

**Results** There was a significant difference among the groups in both awakening and post-awakening cortisol concentrations. In particular, compared to secure and avoidant groups, the anxious group exhibited lower cortisol concentrations at awakening and post-awakening with a preservation of the timing of the CAR.

**Discussion** Present findings demonstrate that anxious attachment style is linked to flattened CAR in EDs. This pattern has been associated with other psychiatric disorders. Therefore, attachment style could influence the HPA functioning and it could play, although not specifically, a role in pathophysiology of EDs.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## EW201

### Obesity: The influence of expressed emotion, anxiety and life events

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**Background** Expressed Emotion (EE) can be described as a measure of the emotional temperature of the family climate and plays a role in disease course and outcome, especially in chronic illnesses. Overweight and obesity are severe problems with serious implications as far as health risks are concerned. The literature suggests having a high EE caregiver correlates with a worse treatment compliance in obese patients.

**Objectives** To measure level of EE, stressful events and anxiety in obese patients and their caregivers; to investigate the possible correlations between treatment compliance and EE.

**Methods** We recruited 190 obese patients and 125 caregivers. Socio-demographic features were recorded. Assessment included: Level of Expressed Emotion Scale (LEE), one version for patients and one for relatives in order to evaluate 4 dimensions: Intrusiveness, Emotional Response, Attitude toward Disease, Tolerance and Expectation; the Paykel's Interview for Recent Life Events; STAI Y1 concerning state anxiety and STAI Y2 concerning trait anxiety; BMI (Body Mass Index) was measured at T0 and after 3,6 and 9 months. **Results** We have found a correlation between gender and trait anxiety, and an inverse correlation between age and trait anxiety both in patients and caregivers. The decrease of BMI during follow-up is statistically significant and this reduction seems to be affected by tolerance and expectation perceived by patients and the emotional response on behalf of caregivers.

**Conclusions** Levels of EE should be considered when planning treatment interventions to enhance compliance in obese patients and to support change in their life-style.

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## EW202

### How do obese people eat?

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**Introduction** The recently published DSM-5 defines Eating Disorders (ED) as "a persistent alteration in the food supply or food-related behavior leading to an alteration in the consumption or absorption of food and cause a significant deterioration in health or psychosocial functioning" and, nevertheless, it does not include obesity as an ED due to the lack of enough evidence to include it.

However, everyday more evidence supports that disordered eating could be a significant factor, at least, in development and maintenance of obesity.

**Objectives** Describe the eating behavior of a 180 obese sample.

**Methods** One hundred and eighty patients with obesity that went to the endocrinology service in order to lose weight are referred to the Psychiatry department to be assessed. To explore the eating behavior it was administered the Bulimic Investigatory Test of Edinburgh, BITE.

**Results** A total of 68.7% of patients showed a disordered eating pattern, 71.6% tend to eat a lot when feeling anxious, 63.8% eat rapidly large amounts of food, 72.8% worry about not to have control over how much eat, 40.5% consider that their pattern of eating severely disrupt their life, 40.7% eat sensibly in front of others and make up in private, 59.1% cannot stop eating when they want to and 58.3% admit binges of large amounts of food.

**Conclusions** Most of our patients showed a pattern of disordered eating, and then our findings support the idea of disordered eating as a significant factor in the development and maintenance of obesity. Therefore, obesity requires a multidisciplinary approach that goes beyond the traditional nutritional guidance.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## EW203

### Randomized controlled trial testing behavioral weight loss versus multi-modal stepped-care treatment for binge eating disorder

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**Introduction** Binge eating disorder (BED) is prevalent, associated with obesity and elevated psychiatric co-morbidity, and represents a treatment challenge.

**Objective and aims** A controlled comparison of multi-modal, stepped-care versus behavioral-weight-loss (BWL) for BED.

**Methods** One hundred and ninety-one patients (71% female, 79% white) with BED and co-morbid obesity (mean BMI 39) were randomly assigned to 6 months of BWL ( $n = 39$ ) or stepped-care ( $n = 152$ ). Within stepped-care, patients started BWL for one month; treatment-responders continued BWL while non-responders switched to cognitive-behavioral-therapy (CBT) and all stepped-care patients were additionally randomized to anti-obesity medication or placebo (double-blind) for five months. Independent assessments were performed by research-clinicians at baseline, throughout treatment, and post-treatment (90% assessed) with reliably-administered structured interviews.

**Results** Intent-to-treat analyses of remission rates (0 binges/month) revealed BWL and stepped-care did not differ significantly overall (74% vs 64%); within stepped-care, remission rates differed (range 40% - 79%) with medication significantly superior to placebo ( $P < 0.005$ ) and among initial non-responders switched to CBT ( $P < 0.002$ ). Mixed-models analyses of binge eating frequency revealed significant time effects but BWL and stepped-care did not differ overall; within stepped-care, medication was significantly superior to placebo overall and among initial non-responders switched to CBT. Mixed models revealed significant weight-loss but BWL and stepped-care did not differ overall; within stepped-care, medication was significantly superior to placebo overall and among both initial responders continued on BWL and non-responders switched to CBT.

**Conclusions** Overall, BWL and stepped-care treatments produced improvements in binge-eating and weight loss in obese BED patients. Anti-obesity medication enhanced outcomes within a stepped-care model.

**Disclosure of interest** The author has not supplied his/her declaration of competing interest.

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## EW204

### Binge-eating disorder and major depressive disorder co-morbidity: Sequence and clinical significance

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**Introduction** Binge-eating disorder (BED) is associated with obesity and with elevated rates of co-occurring major depressive disorder (MDD) but the significance of the diagnostic comorbidity is ambiguous—as is the significance of the onset sequence for MDD and BED.

**Objective and aims** We compared eating-disorder psychopathology and psychiatric comorbidity in three subgroups of BED patients: those in whom onset of BED preceded onset of MDD, those with onset of MDD prior to onset of BED, and those without MDD or any psychiatric comorbidity.

**Methods** A consecutive series of 731 treatment-seeking patients meeting DSM-IV-TR research criteria for BED were assessed reliably by doctoral-clinicians with semi-structured interviews to evaluate lifetime psychiatric disorders (SCID-I/P) and ED psychopathology (EDE Interview).

**Results** Based on SCID-I/P, 191 (26%) patients had onset of BED preceding onset of MDD, 114 (16%) had onset of MDD preceding onset of BED, and 426 (58%) had BED without co-occurring disorders. Three groups did not differ with respect to age, ethnicity, or education, but a greater proportion of the group without MDD was male. Three groups did not differ in body-mass-index or binge-eating frequency, but groups differed significantly with respect to eating-disorder psychopathology, with both MDD groups having significantly higher levels than the group without co-occurring disorders. The group having earlier onset of MDD had elevated rates of anxiety disorders compared to the group having earlier onset of BED.

**Conclusions** MDD in combination with BED—with either order of onset—has a meaningful adverse effect on ED psychopathology and overall psychiatric co-morbidity.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## EW206

### Changes in the electrical properties of the tissues in patients with anorexia nervosa measured by bioelectrical impedance analysis

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**Introduction** Monitoring patient with anorexia nervosa (AN) include clinical, biological and psychological factors. In recent years many researchers criticize the BMI as useful measure for controlling evolution of AN.