

Introduction

Emotional dysregulation and difficulties to recognize and express emotions are key issues in the psychopathology of Mood Disorders, Anxiety Disorders, Attention Deficit Hyperactivity Disorder, Borderline Personality Disorder, Post-traumatic Stress Disorder, Substance Use Disorders, and Eating Disorders (ED). In eating disordered patients, emotional dysregulation can be a precipitating and/or maintenance factor for symptoms; therefore it needs to be managed in therapy. Among these patients negative emotions are the most prevalent, and these are frequently associated with the use of non-adaptive strategies to avoid in an immediate way the distress, that usually has "no name". Food is a way to calm this distress, ignore it, dissociate it, or exchange it with another one, nevertheless, on a failed attempt. The following study tries to explore the relationship between emotions, feelings, and emotional states with eating behaviors and other behaviors in patients with ED.

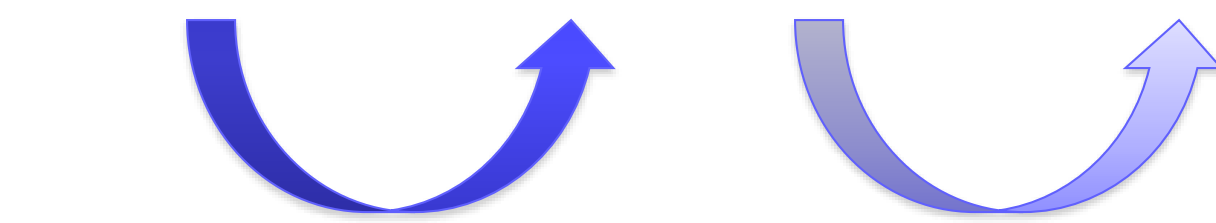
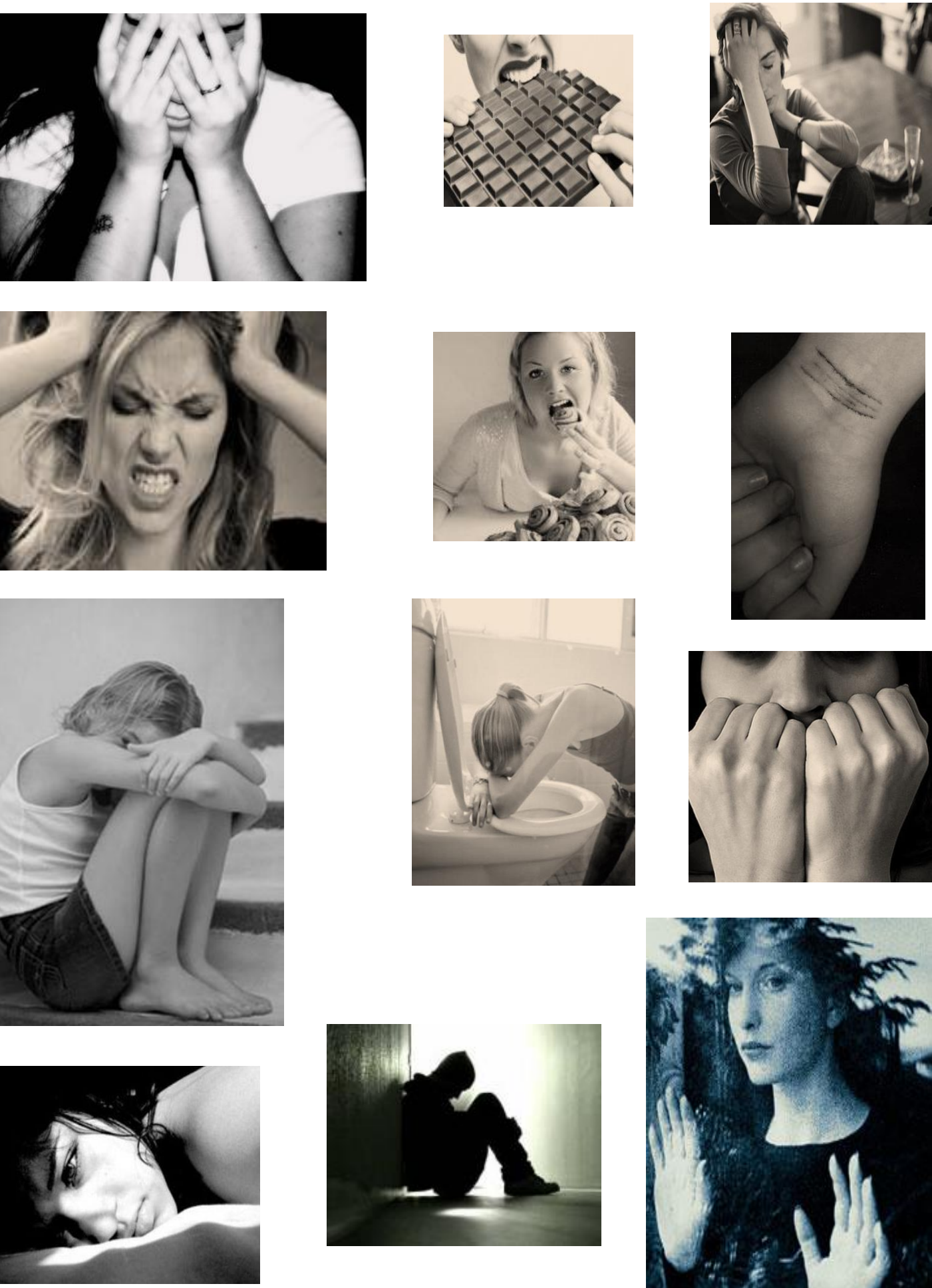
Methods

Participants: We studied patients aged 14 to 45 years, attending the Outpatient Program for Eating Disorders Treatment, “EQUILIBRIO”, a comprehensive management protocol that includes: individual and group Cognitive Behavioral Therapy, Group Dialectical Behavioral Therapy, nutritional rehabilitation and family psychoeducation.

Procedure: During the group therapy sessions, we asked the participants to record their eating behavior and relate it to different emotions, moods and feelings; both negative and positive, as well as to an activity (Table 1). Subsequently, patients were invited to share their responses with the group. With both, the records and narratives of the sessions, we organized a data Matrix in which all the response fragments were organized in two categories: Strategies for Regulation and Response Patterns. The data collection was considered complete when responses were redundant. To improve the validity of the data, triangulation of information was made with the support of two additional observers during the sessions, and the material of medical records or individual psychotherapy sessions. Finally, we analyzed the data by discussing the clinical and therapeutic implications.

Table 1.
Auto-log Model of Emotions

Emotion, mood or feeling	Food or type of food	Activity
Moody		
Irritable		
Angry / Furious		
Jealous		
Feeling lonely		
Sad		
Discouraged		
Bored		
Disappointed		
Confused		
Frustrated		
Ashamed		
Anxious		
Nervous		
Scared		
Excited		
Happy		
Relaxed		
Relieved		
Hopeful		
Confident		



Results

In all patients, regardless of the eating disorder type, we observed a tendency to use preferentially suppression strategies rather than re-appraisal when having negative emotions. Such suppression strategies included: avoidance of associated situations, isolation or dissociation, rumination, or substance abuse and self-injurious behaviors.

Table 2.
Emotional Regulation Strategies in Patients with Anorexia Nervosa

TYPE OF EMOTION	RESPONSE PATTERN	ALIMENTARY BEHAVIOR / ACTIVITIES
ANXIES Moody Irritable Angry/Mad Furious Jealous Exalted	Avoidance Isolation/ Dissociation	"I don't eat anything...I don't speak, I confine myself, cry and I reach my mother" "I don't eat anything, I exercise" "I eat in a controlled way, only something healthy" "I scratch on paper" "We confine myself and sleep"
	Rumination	"I don't eat anything...I cry and try to control everything I did wrong" "I don't eat anything...I think I don't deserve anything" "I self-reject"
	Self-injury / Substance abuse	"I don't eat anything but I vomit and cut my self to feel relieved" "I don't eat anything...I cry, smoke marijuana and sleep"
SADNESS Feeling lonely Sad Discouraged Bored Confused Disappointed Ashamed Frustrated	Avoidance Isolation/ Dissociation	"If I feel confused or sad I don't eat anything... I go shopping" "If I feel lonely, I don't eat anything, I reach some friends" "I only eat healthy food" "I chat with some friends" "If I'm sad or bored I paint, cook, and watch TV" "I go for a walk to think in other things" "I sleep"
	Rumination	"I don't eat anything...I won't rest until I make everything perfect" "I don't eat anything...I blame myself for what is happening"
	Self-injury / Substance Abuse	"If I feel sad I don't eat anything... I need to go out partying and get drunk" "I don't eat anything...I cut myself"
ANXIETY Anxious, Nervous, Scared	Avoidance Isolation/ Dissociation	"I don't eat anything, I go out for jogging" "I eat my nails without stopping" "I don't eat anything...I play tennis"
	Rumination	"I don't eat anything...I can't stop thinking or moving from one place to another"
	Self injury / Substance Abuse	"I don't eat anything...I smoke without stopping"
JOY Happy Relaxed Relieved Hopeful Excited	Reward	"I don't eat anything and make calmed activities" "I make more sports" "I smoke and spend time with my friends" "I go shopping" "I eat healthy food"

When experiencing both, negative and positive emotions, the patients diagnosed with Anorexia Nervosa tend to perceive them as a risk and use avoidance and isolation or dissociation to reduce the possibility to expose themselves to the emotion. Nevertheless, at the same time they reduce the chances of exposing to both food and positive situations. Additionally, they try to modify the situation by using some safety signs: for example limit themselves to only consume diet products or foods considered "safe" or "healthy." Thus, using control in a maladaptive way. In other patients the negative emotion is maladaptive handled through obsessive rumination and self-reproach, neither getting an adequate coping of the situation.

Table 3.
Emotional Regulation Strategies in Patients with Bulimia Nervosa or Binge Eating Disorder

TYPE OF EMOTION	RESPONSE PATTERN	EATING BEHAVIOR/ACTIVITIES
ANGER Moody Irritable Angry/Mad Furious Jealous Exalted	Avoidance Isolation/ Distancing Dissociation	"I don't speak and confine myself... Then I binge eat, vomit, and smoke a lot" "I eat junk food or sweets... I try to distract myself playing in the computer o watching TV" "I binge eat and vomit"
	Rumination	"I eat tons of sweets or chocolate... I can't stop thinking about the bad thing that happened" "I binge eat and think of self injuring"
	Self Injury / Substance Abuse	"After eating I pull my hair and bite my lips" "I don't speak and cry, then I go partying and get drunk... and high"
SADNESS Feeling lonely Sad Discouraged Bored Confused Disappointed Ashamed Frustrated	Avoidance Isolation/ Distancing Dissociation	"I binge eat with sweets and chocolates and vomit" "If I feel confused or sad I eat a lot or go for shopping"
	Self Injury / Substance Abuse	"If I feel sad I have to go out partying and get drunk"
	Rumination	
ANXIETY Anxious, Nervous, Scared	Avoidance Isolation/ Distancing Dissociation	"I distract myself watching TV or electronic games while I eat chips or sweets" "I binge eat, vomit, eat gum, and smoke"
	Self injury / Substance Abuse	"I binge eat and then vomit and cut myself"
	Rumination	
JOY Happy Relaxed Relieved Hopeful Excited	Reward	"I eat a double with lots of French fries" "I reward myself going out to eat in a gourmet restaurant" "I eat oranges and eggs, as in the club with my grandpa" "I eat chocolates or something tasty" "I go out partying and get drunk"

Meanwhile, patients with Bulimia Nervosa or Binge Eating Disorder when experiencing negative emotions, tend to make binges, overeat, self induce vomit, abuse substances, or self-injure themselves. Food has a meaning of comfort, calm, or is used as a method to change attention from emotional pain towards something that can be objectified and perceived as controllable. Also, the tendency to use food as a reward when experiencing positive emotions is notorious. Patients with Anorexia Nervosa reward themselves eating something “healthy”, as patients that binge eat usually overeat high calorie tasty food. However, the meritorious experience quickly transforms itself into guilt and self-reproach, leading sometimes to self-induced vomiting.

Conclusions

•Patients with Anorexia Nervosa often manage anger, feelings of loneliness, sadness, frustration or anxiety with restrictive symptoms, while those with bulimic symptoms binge and/or purge and vomit.

•In both types of eating disorders self-injurious behaviors and/or Substance Abuse may be present, although this behavior was more frequent among bulimic subtypes.

•During the sessions, it was notorious the difficulty that patients have to name and discriminate emotions or associate them with maladaptive behaviors.

•Food for these patients becomes an escape from internal discomfort, and it is reached in a consciously or dissociative manner.

•Food is used as a way to explain and rationalize or justify later the discomfort: "I feel bad because I'm fat"

•Negative emotions are often perceived as intolerable and endless, so these persons feel the need to rapidly escape away from them. Therefore, food, self-induced vomiting, substance abuse or self-injury behaviors seem to operate as emotional distracting or suppressing methods.

•Emotional dysregulation in individuals with eating disorders can work as a perpetuator of the eating symptomatology; consequently it needs to be addressed therapeutically.

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