**Background**

Overeating and obesity show features of addictive behavior [1,2]. Recently, the Yale Food Addiction Scale (YFAS) was developed to measure such addiction-like eating behavior in adult humans [3,4]. It is based on the diagnostic criteria for substance dependence according to the fourth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Food addiction (FA) can be "diagnosed" when at least three addiction symptoms and a clinically significant impairment or distress are present. Recent studies showed relationships between the YFAS and disordered eating, general psychopathology, and impulsivity [5,6,7]. The current study aimed at investigating the features and correlates of food addiction in overweight and obese adolescents.

**Method**

Fifty adolescents (see Tab. 1 for descriptive statistics) were recruited at the beginning of treatment in a weight-loss clinic. All participants had an age and gender specific body-mass-index (BMI) above the 90th percentile. Participants completed the YFAS among other questionnaires. Individuals receiving a FA diagnosis according to the YFAS (FA group) were compared to the rest of the sample (no-FA group) with regard to sociodemographic, anthropometric, and psychometric measures.

**Results**

The percentages of endorsed FA symptoms in the entire sample are presented in Tab. 2. Nineteen individuals (38%) received a FA diagnosis. Age, BMI, and gender distribution did not differ between groups (Tab. 1). Diagnoses of binge eating disorder (BED) also did not differ between groups (Tab. 1), but the FA group reported more days with objective binge episodes within the past month prior to treatment as compared to the no-FA group (Fig. 1a). The FA group also reported more frequent food cravings, higher eating-, weight-, and shape concern, and higher depressiveness as compared to the no-FA group (Fig. 1a-c). Dietary restraint did not differ between groups (Fig. 1d).

Groups also did not differ in self-reported non-planning impulsivity, but the FA group had higher motor and attentional impulsivity scores as compared to the no-FA group (Fig. 1).

**Conclusion**

Prevalence of FA in overweight and obese adolescents seeking weight-loss treatment was high and comparable to prevalence rates found in similar samples with adults [8]. Notably, over fifty percent of the sample felt that they have to eat more and more to achieve the same psychological effects of food intake. Thus, this finding extends results from animal studies showing that tolerance may not only be a feature of substance dependence, but also of addictive-like eating [9].

Results replicate findings from studies in adults such that FA is not related to age, gender, BMI, or dietary restraint in obese individuals, but to higher eating pathology, depressiveness and impulsivity [5,6,7,10]. Furthermore, results highlight that particularly attentional impulsivity is related to FA and overeating [11]. They also support the notion that, although there is a positive relationship between FA and BED, there is no complete overlap [12]. This study further supports that addiction-like eating is a valid phenotype in a substantial subset of obese adolescents.

**References**