

# Emotion regulation in emotional and addictive eating behaviour

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## Background

Eating is of homeostatic and hedonistic nature to ensure survival. However, when eating behaviour mainly serves emotion regulation instead of energy homeostasis, addictive-like mechanisms may underlie this shift. Analogues to addiction for psychoactive substances, craving seems at the core of addictive eating behaviour. Since emotion regulation is generally disrupted in addiction and is likely linked to craving, we here investigate the relationship of craving, emotion regulation and emotional eating in individuals with food addiction.

## Methods

Participants were recruited from the general Swiss population (via newsletters and social media) and in cooperation with institutions specialised in eating disorders and obesity to participate in an online survey.

The survey was anonymous and comprised the Yale Food Addiction Scale 2.0 (FA), the Food Craving Questionnaire (FCQ), the Salzburg Emotional Eating Scale (SEES) and the Generalized Expectancies for Negative Mood Regulation Scale (NMR).

## Results

### Participants

The survey was completed by 328 participants (274 females, age  $M = 34.2 \pm 13.6$ , BMI  $M = 24.7 \pm 5.9$ ).

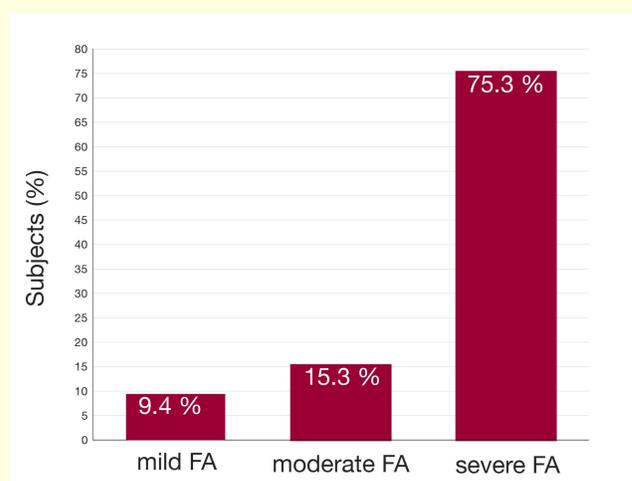
### Food Addiction

In total 85 (25.9%) met the diagnostic criteria for food addiction according to the YFAS.

Surprisingly, thereof 75.3% met  $\geq 6$  of 10 symptoms, meaning that they have a severe form of FA (see Fig. 1).

## Results

### Food Addiction



**Figure 1:** Percentage of subjects meeting criteria of food addiction (FA) severity. Food addiction was assessed by the Yale Food Addiction Scale 2.0. Mild FA:  $\geq 2$  and  $< 4$  symptoms, moderate FA:  $\geq 4$  and  $< 6$  symptoms, severe FA:  $\geq 6$  symptoms.

Those individuals with food addiction were characterized by greater food craving ( $M_{NoFA} = 91.6 \pm 30.9$ ,  $M_{FA} = 155.3 \pm 31.8$ ;  $z = -10.9$ ,  $r_s = 0.80$ ,  $p = .000$ ), by poorer emotion regulation ( $M_{NoFA} = 105.7 \pm 14.2$ ,  $M_{FA} = 86.1 \pm 17$ ;  $z = -7.8$ ,  $r_s = -0.52$ ,  $p = .000$ ) and by more frequent emotional eating ( $M_{NoFA} = 2.9 \pm 0.38$ ,  $M_{FA} = 3.4 \pm 0.47$ ;  $z = -8.6$ ,  $r_s = 0.54$ ,  $p = .000$ ) when confronting negative emotions than controls. Conversely, controls showed higher emotional eating only when experiencing positive emotions.

Moreover, emotion regulation skills were negatively linked to food craving ( $r_s = -0.52$ ,  $p = .000$ ) and emotional eating ( $r_s = 0.3$ ,  $p = .000$ ), while food craving correlated positively with emotional eating ( $r_s = 0.58$ ,  $p = .000$ ).

## Conclusion

This study shows that addictive eating behavior exists in Switzerland. However, further investigation in a representative population is required. Here we show that deficits in emotion regulation in food addiction are related to food craving and emotional eating, whereby addictive behaviours are linked to negative affect rather than hedonistic pleasure. These findings suggest that emotion regulation and eating in distress might serve as a regulatory strategy. Further research is required to consider the need for specific therapeutic strategies to strengthen emotion regulation to potentially decrease craving when treating addictive eating behaviour.