Validity of the Eating section of the modified Addiction Severity Index


Abstract

Aims: To assess the validity of the Eating section of the modified Addiction Severity Index (mASI).

Methods: Within the Aquitaine Addiction Cohort (an ongoing cohort of addiction treatment seeking patients) we selected participants who reported at least one day of food problem past 30 days at intake; and randomly selected participants who did not report food problem but sought treatment in the same time period. They were assessed with the mASI, a craving scale, DSM-5 criteria for eating disorders and putative Food Addiction (FA) criteria modeled on DSM-5 substance use disorder criteria, and Body Mass Index (BMI) was calculated.

Results: 470 subjects were included, 48.7% males, 37.6 y.o., seeking treatment for alcohol (28.7%), cannabis (20.6%), tobacco (15.3%), opiates (9.5%), cocaine (5.3%), eating disorder (20.2%), gambling (7.0%). Although a minority sought treatment for eating disorder, 49.5% reported at least one day of eating problem past 30 days. They were more likely women (Chi² = 65.0, p<.0001), and more likely to exhibit an abnormal BMI (Chi² = 30.0, p<.0001). Subjects who received an Eating severity score of the mASI higher than 4 (need for additional treatment) reported significantly more days (t=18.7, p<.0001) and more years of food problem (t= 14.5, p<.0001), were more bothered by food problem (t=31.1, p<.0001), and were more likely to report craving for food (Chi² = 4.8, p<.0001). They met significantly more often DSM-5 eating disorder diagnoses (Chi² = 130.4, p<.0001) and FA criteria (Chi² = 130.4, p<.0001).

Conclusions: The mASI appeared to be a useful and valid tool to evaluate eating behavior in substance-related or addictive disordered patients.

Background

- Eating Disorder (ED)
  - Anorexia, Bulimia, Binge Eating Disorder
  - Serious disturbance in eating behavior
  - Comorbidity with substance use disorders, depression and anxiety disorders (Becker 2015)
  - Similarities between ED and addictive disorders (Schreiber 2013, Curtis 2014)

- Addiction Severity Index
  - Most used worldwide tool for assessing substance use (McLellan, 2006)
  - Modified ASI (mASI)
    - 3 new domains: Tobacco, Gambling, Food
    - Validation of Tobacco and Gambling sections (Denis, 2015)

Objective

- To assess the validity of the Eating section of the mASI
  - In individuals who sought treatment for at least one addiction (substance and non-substance)
  - Aquitaine Addiction Cohort, France
Methods - Sample

Aquitaine Addiction Cohort
n = 2,169

Sample selection
Random Selection
n = 470

Individuals who report at least 1 day/past 30 days of problem with food n = 235
Individuals who did not report problem with food n = 235

Results – Sample characteristics

- n = 470
- Males: 48.7%
- Mean age: 37.6 y.o. (SD=11.9) – range: 18-75
- Seeking treatment for:
  - Substance
    - Alcohol: 29.7%
    - Cannabis: 20.6%
    - Tobacco: 15.3%
    - Opioids: 9.9%
    - General Anxiolytic: 5.3%
    - Benzodiazepines: 4.7%
- BMI
  - Underweight: 6.7%
  - Normal weight: 35.1%
  - Overweight: 55.2%
- Non-substance
  - Eating disorder problem: 20.2%
  - Gambling: 7.0%
  - Other non-substance: 2.6%

Results – Eating variables

- Current food problem at least one day past 30 days (n=235, 50%)
- Past 30 days: 21.2 days (SD=11.3)
- Lifetime: 12.5 years (SD=11.2)
- Need treatment for food disorder
  - Eating mASI severity score >4: 40.0% (n=187)
  - Only half of them sought treatment for eating problem: 20.2% (n=95)
  - Meet DSM-5 criteria for Eating Disorders (anorexia, bulimia, BED)
    - 17.9% (n=84)
  - Meet criteria for Food Addiction
    - 31.6% (n=71)
    - Mild: 5.8%; Moderate: 13.8%; Severe: 12.0%
  - Comorbidity is highly prevalent
    - Alcohol use disorder: 24.2%
    - Drug use disorder: 45.9%
    - Tobacco use disorder: 54.0%

Results – Associations with food problem

- Participants who reported mASI current food problem were more likely
  - Female (χ²=65.0, p<0.0001)
  - Sought treatment for eating disorder (χ²= 104.5, p<0.0001)
  - Exhibited an abnormal BMI
    - Average BMI vs. 26.1 (p=0.2, p<0.0001)
    - More likely to be underweight or overweight (χ²= 18.0, p<0.0001)
  - Met eating disorder diagnosis (χ²= 97.5, p<0.0001)
  - Met food addiction diagnosis
    - 87% versus 19% (χ²= 91.8, p<0.0001)

Results – Associations with need for food/eating disorder treatment (1)

- mASI Food/Eating Severity Score >4 associated with
  - More days of food/eating problems past 30 days (21.4 vs. 2.9, p<18.7, p=0.0001)
  - More previous treatment for food/eating problem (0.2 vs. 0.2, p<0.0001)
  - More bothered by food/eating problem
    - More days past 30 days (21.4 vs. 1.5, p=0.0001)
    - Higher intensity (0-4 scale) (2.9 vs. 1.5, p<0.0001)
  - More likely to report needs for treatment (0-4 scale) (2.8 vs 0.1, p<24.3, p=0.0001)
  - Higher frequency of craving past 30 days
    - For sweet (9.0 days vs. 1.3 days, p=4.8, p<0.0001)
    - For fat (3.8 days vs. 1.0, p<2.4, p=0.0001)
Results – Associations with need for food/eating disorder treatment (2)

- mASI Food Eating Severity Score >4 were more likely
  - To meet ED diagnosis ($p=0.04, p<0.001$)
  - To meet Food Addiction diagnosis ($p=0.01, p<0.001$)
  - Correlation between nb. of criteria and severity ($r=0.58, p<0.001$)
  - To report craving for food ($p=0.03, p<0.001$)
  - To exhibit abnormal BMI ($p=0.03, p<0.001$)

Conclusions

- mASI appeared to be a useful tool to assess eating behavior
  - In substance related disorder
  - In non-substance addictive behavior
- mASI allowed to identify half of the cases with eating behavior problem who did not recognize eating/food problem
- mASI eating/food severity score is linked to
  - Eating disorder diagnosis
  - Food Addiction diagnosis
  - Craving for food
  - BMI

Perspectives

- Validation of the mASI Eating behavior section in
  - Underweight samples
  - Anorexia
  - Samples with less substance use disorder comorbidity
- Need to use other eating disorder assessment tools as validity battery
  - Yale-Food Addiction Scale (Gearhardt 2009, Moede 2014)
  - Eating Disorder Examination Questionnaire (EDE-Q) (Fairburn 2008)

References


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