Considering eating disorders in the treatment of obesity in adolescents

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## **Eating disorders**

- Complex mental illnesses with wide-ranging medical, nutritional & psychological consequences
- Commonly co-exist with other psychiatric disorders e.g., anxiety disorders, substance misuse, mood disorders (Smith et al 2018, Curr Opin Psychol)
- Elevated rates of suicidal behaviour compared to general population (Smith et al 2018, Curr Opin Psychol; Arcelus et al 2011, Arch Gen Psychiatry)
- Significantly impaired health-related quality of life compared to general population (Agh et al 2016, Eat Weight Disord) and individuals with other mental illnesses (Jenkins et al 2011, Clin Psychol Review)

#### Severity

# Eating disorder risk factors

A range of biopsychosocial risk factors including those listed below

- Disordered eating attitudes and behaviours
- Body dissatisfaction
- Overvaluation of weight and shape
- Dieting behaviours
- Depression
- Anxiety
- · Low self-esteem

# Subclinical eating disorder

Engaging in extreme behaviours but does not reach the frequency threshold for clinical diagnosis

- Disordered eating symptomology
- Infrequent binge eating episodes
- Irregular extreme compensatory behaviours

# Clinical eating disorder

See Diagnostic and Statistical Manual of Mental Disorders version 5 (DSM-5) [15]

- Anorexia nervosa
- Bulimia nervosa
- Binge eating disorder
- Avoidant/Restrictive food intake disorder (ARFID)
- Other specified feeding and eating disorder (OSFED)

# Atypical anorexia nervosa

All criteria for anorexia nervosa are met, except that despite significant weight loss, the individual's weight is within or above the normal range

Fig. 1 Examples of the continuum from eating disorder risk to clinical diagnosis

### Se nty

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## Subclinical eating disorder

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- Increasing over time, particularly among individuals with overweight and obesity (Darby et al 2009, Int J Eat Disord; Da Luz et al 2017, Int J Obes)
- Increase in restriction and binge eating in general population during COVID-19 compared to prior to the pandemic (Phillipou et al 2020, Int J Eat Disord)
  - Avoidant/Restrictive food intake disorder (ARFID)
  - Other specified feeding and eating disorder (OSFED)

## Eating disorders in Australian adolescents

- 5072 children & adolescents aged 11-19 years
- Point prevalence of an eating disorder was 22.2%
  - 12.8% in boys
  - 32.9% in girls
- 'Other specified' disorders more common than full criterial disorders
- Experienced across age, weight, socioeconomic and migrant status
- Eating disorders more likely to be experienced in adolescents who had a BMI percentile within overweight or obese range

## Things to look out for:

- 1. Unsupervised dieting
- 2. Body dissatisfaction
- 3. Other mental health concerns





## Dieting as a risk factor for eating disorders

- 1947 adolescents (47% male), aged 14-15
- 'Dieting' measured using adolescent dieting scale (calorie counting, reducing food quantities at meals, and skipping meals)
- Female subjects who dieted at a severe level 18x more likely to develop a partial syndrome of an eating disorder
- Female subjects who dieted at a moderate level 5x more likely to develop a partial syndrome of an eating disorder
- Psychiatric co-morbidity predicted onset of eating disorder independently of dieting status (subjects in highest co-morbidity category had almost 7x increased risk of developing a partial syndrome of an eating disorder)

## Risk factors for eating disorders

- 8-year cohort study of 496 adolescent girls
  - Body dissatisfaction strongest predictor of eating disorders
  - Amplified by depression
  - Pathway also influenced by dieting
- 3-year cohort of 1272 high risk young women with body dissatisfaction
  - Negative affect and functional impairment predicted all eating disorders
  - Thin-ideal internalisation, body dissatisfaction, dieting and overeating predicted subthreshold & threshold bulimia nervosa and binge eating disorder

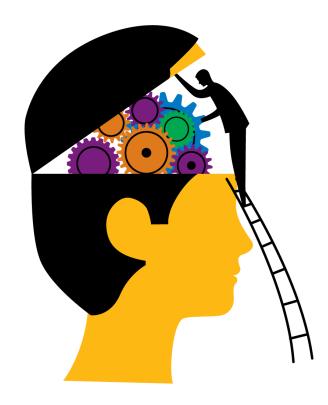
Will treatment for obesity make things worse?





## Paediatric weight management and psychosocial health

- Dietary interventions core component of weight management
- Series of systematic literature reviews
  - Eating disorder risk, 30 studies
  - Depression, 36 studies
  - Anxiety, 10 studies
  - Body image, 40 studies
  - Self-esteem, 49 studies



Jebeile et al. 2019, Obes Rev Jebeile et al. 2019, JAMA Pediatr Gow et al. 2020, Pediatr Obes King et al. 2020, Mental Health Phys Act House et al. 2021, Nutr Rev

## Change in eating disorder risk

Outcome	Change post-intervention	Change at latest follow-up
Global eating disorder risk (disordered eating or attitudes)	No change	Reduced
Bulimic symptoms	Reduced	No change
Binge eating	Reduced	Reduced (1 study)
Emotional eating	Reduced	Reduced
Drive for thinness	Reduced	Reduced
Eating concern	No change	Reduced
Dietary restraint/ dieting	Mixed	Mixed

## Other eating disorder risk factors

Outcome	Change post-intervention	Change at latest follow-up
Depression	Improved	Improved
Anxiety	Improved	Improved
Body image	Improved	Improved
Self-esteem	Improved	Improved

## Professionally supervised programs are safer

- Structured and moderate dietary intervention
- Support for behaviour change dietitian, exercise physiologist, GP, paediatrician,
   counsellor/psychologist
- Frequent and extended contact
- A small number of youth presented with an undiagnosed eating disorder or depression or developed these during or following treatment

What do I do if I suspect my patient has or is at risk of an eating disorder?





### **Screening & monitoring**

- Screening for eating disorders and depression prior to engaging in weight management treatment
- Studies validating eating disorder screening questionnaire in adolescents with obesity are limited

(House et al 2021, Obes Rev [under review])

#### **Screening & monitoring**

#### Fast Track to Health protocol

#### 1. Eating Disorder Examination Questionnaire (EDEQ)

 Any purging behaviour + global score greater than or equal to 2.7 or report 2+ episodes of binge eating and/or loss of control in previous 28 days → assessment by psychologist or paediatrician

#### 2. Centre for Epidemiological Studies Depression Scale-Revised (CESDR-10)

- Assessment by psychologist or paediatrician based on criteria as per Haroz et al 2014, J Affect Disord
- Score >=8 AND a score of 3 for Q 3, 5 OR 10, AND score 3 on TWO additional questions

3. Monitoring of behaviours such as excess weight loss, binge eating with or without loss of control, compensatory behaviours, obsessive thoughts & behaviours

### **Treatment options**

#### 1. Mental health care plan

Up to 20 sessions of subsidized treatment with mental health professional

#### 2. Eating disorder care plan

- Eating disorder-specific Medicare item numbers
- Eligible patients can access up to 40 sessions Medicare subsidized evidence based eating disorder psychological treatment + 20 sessions Medicare subsidized dietetic treatment per 12 month period
- Plan can be developed by GP, psychiatrist or paediatrician
- GP reviews required every 10 sessions psychological treatment
- Review with psychiatrist or paediatrician required after 20 sessions psychological treatment

#### **Treatment options**



**SHOW SERVICES** 

Training & Service Development Research & Clinical Innovation Get Suppo

#### **Treatment Services Database**

InsideOut's Treatment Services Database can assist you in finding a private practitioner, community clinic or program, day program, in hospital treatment, support group or clinical supervisor near you.

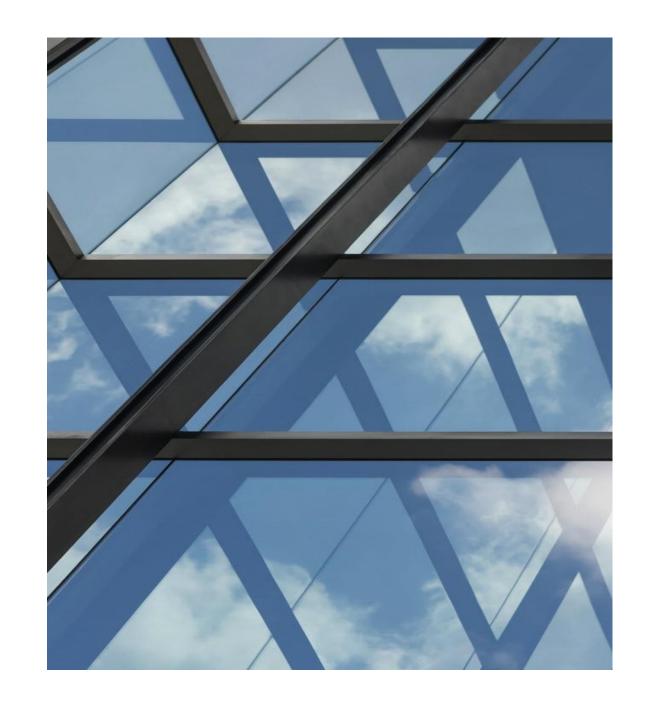
Public Services	Private Services
Where are you from?	

#### 3. Locating service providers

- Inside Out Institute Treatment Services Database
- Secondary specialist eating disorder services (Toukley, Newcastle)
- Private practitioners with expertise in eating disorders
- LHD eating disorder co-ordinator
- Credentialling program soon to be launched to help clinicians and consumers identify appropriatetrained clinicians

#### Take away messages

- 1. Important to screen for eating disorders & depression prior to weight management treatment for adolescents
- 2. Clinical care should focus on providing high-quality, professionally supervised weight management programs
- 3. Access to evidence-based obesity treatment essential to prevent unsupervised dieting, which may increase eating disorder risk
- 4. Close monitoring throughout and following weight management treatment required



## Further training & resources

#### Inside Out Institute for Eating Disorders



News & Events Training & Service Development Research & Clinical Innovation

## **eLearning**

InsideOut is a leader in developing and disseminating innovative training for health professionals in the identification, assessment and treatment of people with eating disorders.

#### National Eating Disorder Collaboration

### **Eating Disorder Core Skills: eLearning for GPs**

Eating Disorder Core Skills: eLearning for GPs is comprehensive foundational eating disorder training developed specifically for GPs. The training provides GPs with the key information needed to provide best practice care for patients with eating disorders.

The training will equip GPs with the knowledge and skills needed to understand, identify and assess eating disorders, provide medical treatment, lead the multidisciplinary team, manage MBS items and provide ongoing recovery support.

This four-hour, self-paced and interactive online training includes practical reallife scenarios and activities, videos from leaders in the field and people with a lived experience of an eating disorder, up to date resources and a formal assessment.





