

# Early onset eating disorders in Australian children

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# Outline

- Background
  - What do we already know about eating disorders in young children?
- Objectives
- Method
  - Definition
- Results
- Conclusions
  - How we hope the data can be used

# Eating Disorders in Children

- Earliest case report
  - 7<sup>1/2</sup> yr old girl 1894 (Collins)
- Selective Eating
- Anorexia Nervosa
- Bulimia Nervosa
- Food Avoidant Emotional Disorder
- Pervasive Refusal
- Weight loss secondary to Major Depressive Disorder

# What do we know about EOED?

- Limited amount of information on the epidemiology, phenomenology and outcome of EOED
- Case studies
- Case register studies
- incidence rates (10 -14 years)
  - Females 4.2 to 25.7 per 100,000
  - Males 3.3 per 100,000

# Why look at early onset eating disorders?

- Suggestion that the incidence of anorexia nervosa is increasing and the age of onset is decreasing
- Debate about definition (?DSM IV)
  - ?Children less likely to fulfill criteria for AN hence fall into EDNOS
  - Psychological criteria not age appropriate
  - More males than in older age groups

# Why look at early onset eating disorders?

- Complications of severe malnutrition in prepubertal children
- Increasing and ongoing public interest

# APSU Study of EOED

## ➤ Objectives

- To estimate the incidence
- To describe range of clinical features, including cognition and behaviours
- To describe current management practices
- To compare features in this population with DSM IV criteria
- To contribute to international data

# Method

- Used usual APSU methodology
- Of note, child psychiatrists had been added to the mailing list prior to the commencement of the study
- Disease information sheet sent prior to start of new study
- Sent a brief questionnaire requesting de-identified information

# APSU Study of EOED Definition

- New diagnosis of EOED in children aged between 5 and 13 years with:
  - Determined food avoidance  
AND
  - Weight loss or failure to gain weight during a period of growth not explained by another organic process
- July 2002 to June 2003 inpatients only
- July 2003 to June 2005 in and outpatients

# Development of APSU definition

- Broad :to capture full range of symptoms and then collect sufficient clinical data to allow investigators to classify patients ourselves
- Review of the literature, focus on DSMIV definitions of AN/EDNOS and GOS criteria for Food Avoidant Emotional Disorder
- Discussion with clinicians involved in specialist level care of children and adolescents with eating disorders

# Development of APSU definition

- Food Avoidant Emotional Disorder
  - Refusal to eat associated with emotional distress (Primarily Anxiety)
  - No drive for thinness or abnormal body image
  - Eating returns to normal once stressful situation is addressed

# Development of APSU definition

## ➤ Anorexia Nervosa

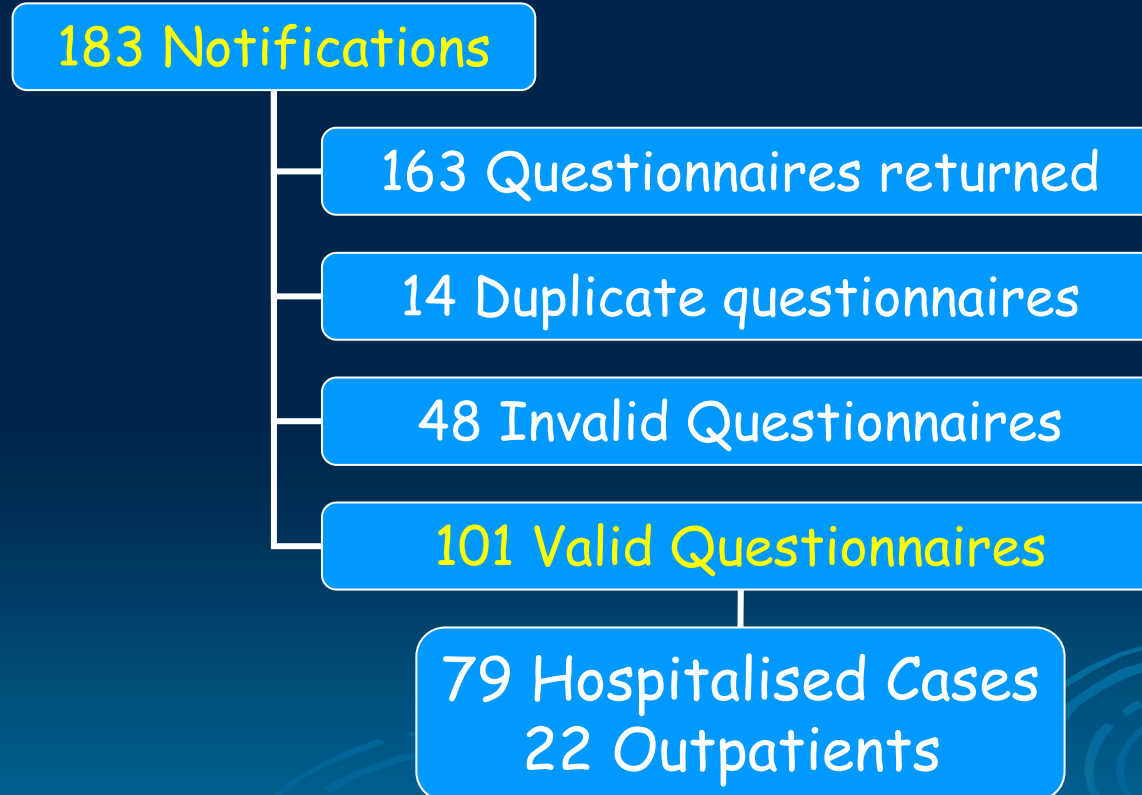
- Refusal to maintain or gain weight at a level above what is a minimally normal weight (>85% ideal body weight)
- Fear of gaining weight or becoming fat
- Abnormal body image
- Amenorrhoea

# Questionnaire

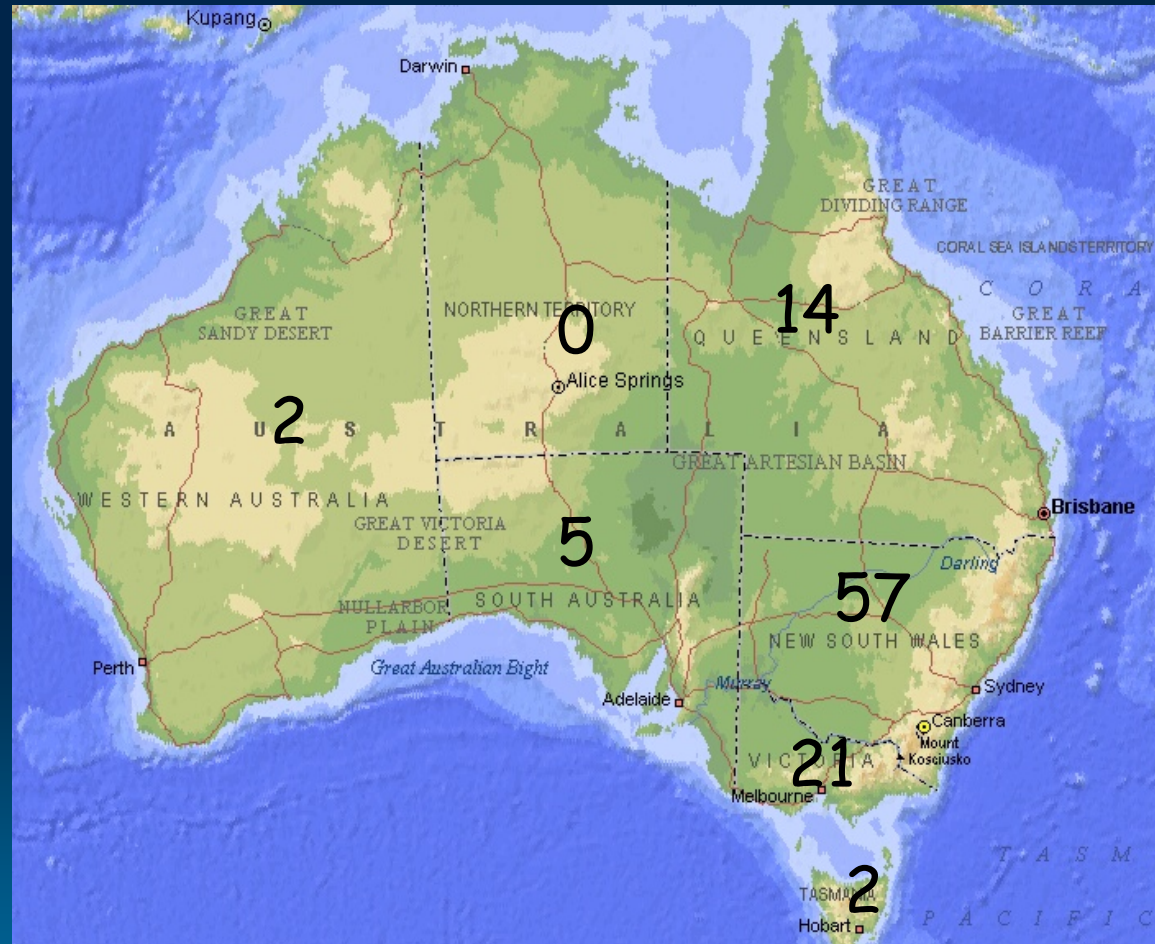
- Demographic details
- Clinical Features
  - Psychological Features
  - Physical Features
  - Physical complications
- Psychiatric Comorbidities
- Management

# Results

Response Rate July 2002 to June 2005



# Geographic Distribution n=101



# Results

- 79 hospitalised, 22 outpatients
- No significant differences in:
  - Demographics
  - Expressions of abnormal cognitions or behaviours
  - Admitted children were more likely to have medical complications (bradycardia, hypotension, hypothermia)
- Due to change in reporting criteria, hospitalised group (n=79) is more complete data
- Therefore focus for remainder of the presentation

# Results

- Incidence of EOED (hospitalised)
  - National 1.1 /100,000
  - NSW 2.1 /100,000
- Comparison difficult
- BPSU incidence 3.8/100000
  - (approximately 50% hospitalised, personal communication)

# Results

- 22% boys
- Median age 12.2 years (5.5 -13.9 years)
- Weight
  - 85% had lost weight in 6 months prior to admission
  - 7% had failed to gain weight as expected
  - 51% were < 85% of ideal body weight

# Age Distribution

Age Distribution



# Eating Disorder Symptoms

- Preoccupation with food 93%
- Denial of severity of weight loss 86%
- **Fear of weight gain 76%**
- Preoccupation with weight 75%
- **Misperception of body shape 68%**
- Excessive exercise 57%
- Self-induced vomiting 12%

# Classification according to DSMIV criteria

- Psychological criteria
  - Fear of weight gain / fatness 60 (76%)
  - Misperception of body shape 54 (68%)
  
- Weight < 85% of ideal 40 (51%)
  
- Amenorrhoea
  - 18/19 post menarchal girls had secondary amenorrhoea

# Classification according to DSMIV criteria

- 29 children (37%) met all four DSMIV criteria
- OR
- 63% best classified as EDNOS
- Consistent with other series 40-60%
- 50% met weight criteria despite 60% having at least one of the medical complications (bradycardia, hypothermia, hypotension)

# Physical Complications

n=79

- Bradycardia (<50 bpm) 37 (47%)
- Hypothermia (<35.5 C) 31 (39%)
- Hypotension (Sys<80 mm Hg) 20 (25%)

# Psychiatric Comorbidities

n=79

- Concurrent psychiatric illness 49 (62%)
- Major Depression 20 (25%)
- Anxiety Disorders 28 (35%)
- OCD 10 (13%)
- Psychotropic Medication 27 (34%)

# Treatment

n=79

## ➤ Inpatient

- Paediatric teaching hospital 55 (70%)
- Child & Adol. psychiatry unit 4 (5%)

## ➤ Mean duration of admission 24 days

- Range 1-75 days

## ➤ NG Feeding 53%

# Conclusion

## ➤ Incidence;

- Eating disorders are occurring in younger children but we suspect significant under reporting in our study
- Comparisons difficult due to restriction to hospitalised patients , more severe end of spectrum
- Incidence in males 22%
  - Consistent with other data
  - compared with 3-10% of AN in older age groups

# Conclusion

- Describe range of clinical features, including cognition and behaviours ;
  - High rates of abnormal food & weight related cognitions
  - Children are losing significant amounts of weight, particularly during time of normal rapid growth and development
  - High rates of significant medical complications
  - High rates of comorbid psychiatric illness

# Conclusion

- Compare features in this population with DSM IV criteria;
  - 37% had AN, 63% had EDNOS
    - Limitations :
    - Defining 85% of ideal body weight
    - No absolute cutoff weight for when medical complications occur
    - Amenorrhoea
    - EDNOS gives no information on range, severity of symptoms, management or prognosis

# Conclusion

- **Contribute to international data ;**
  - Compare results with other studies from Canada and UK which were based on APSU study
  - Focus on analysis of symptom complexes and hence development of appropriate classification

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