Eating disorder assessment and management in paediatric inpatients at a rural hospital

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Introduction

Eating disorders are defined as excessive and persistent dietary restriction with eating-related behaviours that lead to changes in the person’s consumption of food to a degree that is harmful to their health and well-being. 2.8% of teenagers are affected by eating disorders, though this number is likely underestimated due to previously strict diagnostic criteria in the DSM-IV. The most prevalent eating disorders in Australia are binge eating disorder (4%) and other specified feeding or eating disorders (OSFED, 5%); Anaorexia nervosa and bulimia nervosa each represent between 1% of the general population.

The term ‘eating disorder’ is now universally accepted consensus on the pathogenesis of eating disorders, however there are likely genetic, environmental and social factors. Short term complications of medically unstable patients with eating disorders are vast, affecting cardiovascular, endocrine, haematologic, gastrointestinal, thermoregulatory and renal systems. 1 This is an uncommon admission in a general paediatric population, however, in this study, patients required extended hospitalisation and all require specialised preparation. A consistent multidisciplinary team with defined roles is critical. There is a three-stage approach to management of eating disorders. Firstly, acute medical management, focusing on initial stabilisation, and working towards a healthy weight in the short term. This stage is the main emphasis of this audit. The second phase involves psychiatric rehabilitation either in inpatient facilities or as an outpatient. Finally, ongoing multidisciplinary input in the community is then required to maintain healthy body image and weight. Eating disorders are very important diagnoses in paediatric populations and can have long-lasting effects in many aspects of life. It is therefore crucial that initial assessment and management be optimised.

Method

This was a retrospective audit assessing patients aged under 18 admitted to Armidale Rural Referral Hospital for whom the primary reason for admission was an eating disorder from January 2013 to December 2017. Data was taken from IPMI (medical record diagnosis coding). There were 18 paediatric admissions coded with an eating disorder, of which 8 were excluded after reviewing medical record as eating disorder was not the primary reason for admission. The excluded cases were admitted due to intentional self-poisoning, syncope, and psychiatric illness. There were 6 patients who were admitted, with progress noted from discharge summaries and the online pathology program (Auslab).

The gold standards of care are the Centre of Eating and Dieting Disorders’ Toolkit. As such, the objectives of this audit were compared to this toolkit.1

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Results

During the study period, all patients included were female, the median age was 16.5 (11.1-17.9) and median body-mass index (BMI) 16.9 (15.1-20.9). Due to limitations to the coding system used, specifically only admissions with a discharge diagnosis of eating disorders, all patients displayed restricted intake. Co-morbid psychiatric diagnoses were common. Listed in Figure 1 are the indications for hospital admission as per CEDD guidelines. On review of cases admitted in Armidale, 60% were medically unstable (Fig. 2), 30% had failed intensive community-based treatment and 10% for rapid weight loss. It was beyond the scope of this audit to evaluate patients discharged from the emergency department following assessment.

Method

To assess the management, discharge planning and outcomes of paediatric patients admitted to the Dot’s White (Children’s) Ward, ARRH.

Objectives

• To determine if medically appropriate patients are being admitted
• To examine the initial assessment of severity of medical illness in the first 24 hours of admission
• To examine if management guidelines are adhered to
• To determine if appropriate multidisciplinary staff are being consulted during admission
• To examine the discharge planning process

Figure 1: Indications for admission for disordered eating

Figure 2: Reason for admission

Figure 3: Documented compliance of assessment

Dietetics were involved in all admissions during the audit period. Psychology involvement was predominantly through private Psychologist (90%). The Child and Adolescent Mental Health Service (CAMHS) was involved in one admission. Psychiatry was able to be consulted in one case. On this occasion the Psychiatrist reviewed the patient. Pain therapy was consulted in 70% of admissions, while MDT ward meetings were documented in all admissions.

Body mass index increased to a healthy weight in all but one admission, though a goal weight was only documented in 2 in admissions. The majority (80%) managed as outpatients following discharge. 20% were transferred to inpatient facilities. There was one re-admission within two weeks, due to a failed home eating plan. Follow-up with a General Practitioner was mentioned in discharge plan in 50% of admissions.

Conclusions

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- Appropriate patients were admitted as per CEDD guidelines
- However, this audit did not cover assessment and management of patients assessed and discharged from the Emergency Department.
- The recommended assessment was not completed in all cases.
- Poor documentation of ECG findings, blood sugar levels and urinary ketosis.
- Postural blood pressure and heart rate, key indicators of cardiovascular instability in patients with eating disorders, were rarely recorded or carried out.
- Only two out of six patients who were admitted secondary to medical instability were commenced on nasogastric feeds as per CEDD recommendations.
- Multi-disciplinary team meetings were productive and well documented.
- Greater input from physiotherapy and occupational therapy may be required in assessing physical capacity and needs for patients.
- Mental health services in the rural public system need to be more involved in care.
- Psychiatric consultation was recommended as per CEDD guidelines, but there is limited resource provision in rural NSW to provide this service.
- Patients treated in this hospital displayed good outcomes.
- Only one re-admission within two weeks, due to a failed home eating plan.
- 90% discharged with a healthy weight (BMI >5th centile).

Recommendations

- Ensure assessment proforma in CEDD guidelines completed.
- Nasogastric feeding should be commenced on admission for medically unstable patients
- Options to explore mental health inpatient input need to be explored.
- Tele psychiatry would be cost-effective and efficient method to facilitate consultation with a Psychiatrist.
- The Psychiatrist plays an important role in determining ongoing management and rehabilitation for patients admitted with an eating disorder.
- CAMHS may have capacity to be more involved
- An Emergency Department based prospective audit would better evaluate initial assessment of patients with eating disorders.

References
