Anorexia Nervosa in young people:

Interventions in Primary Care

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The Eating Disorders broadly include - anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED) and related syndromes such as the Avoidance and Restriction of Food Intake (ARFID). The Royal College of Psychiatrists' position statement suggests that 15% of young women and up to 5.5% of young men in high-income countries are affected with the peak age of onset from mid-teens young adulthood (age 15 to 25). The illness can affect a person on average for up to 6 years and is associated with the highest mortality rates among psychiatric presentations at this age.

It is well accepted that the earlier one intervenes, the better the outcomes. This would thus begin with early recognition in the community and targeted interventions within primary care. As a part of a county-wide provision for Eating Disorders in Child & Adolescent Mental Health Services (CAMHS), over the past 3 years, I have been part of training initiatives that have allowed engagement with General Practitioners and School Nurses. It is not surprising that this cohort of patients, especially those with low weight can cause much anxiety and uncertainty as to the best way to support them. Here I will focus more on the early help one may offer, the basic dos and don'ts when offering the support to a young person in primary care.

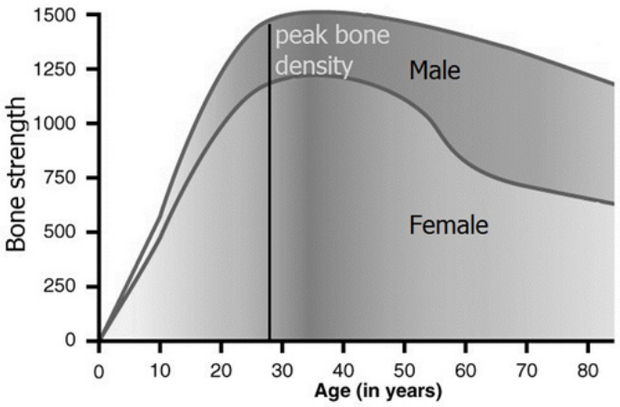
Early recognition:

Early detection is challenging as often the young person is likely to make attempts to keep their efforts hidden. However, subtle signs emerge and could be spotted. At the heart of these presentations is discomfort and dissatisfaction with one's body, shape and weight. There thus is psychological conflict and stress that may manifest from irritable mood, poor sleep, poor focus, and sadness among other symptoms. Physically, there is tiredness, dizziness, weight loss, constipation, reduction in cold tolerance and delay in menarche or secondary amenorrhea. Behaviourally, one notes changes in eating habits, eating alone rather than with the family, reduction in portion sizes, efforts to avoid certain food types with some going vegetarian or becoming vegans, increased exercising and use of the toilet soon after meals in those who purge.

One common theme we pick up during assessments in secondary care is that the early parental concerns were overlooked in primary care as 'passing phase'. A cursory physical examination that often does not involve looking for postural drop in blood pressure or calculating weight, height-related percentiles. The 'can walk, can talk' test means these otherwise bright academically well-performing cohorts of patients presenting with early signs often are sent away with summary advice of 'eat a bit more' and little else. One common issue we encounter is the prescription of Oral Contraceptive Pills (OCP) to girls who haven't menstruated or have irregular menses with moodiness attributed to pre-menstrual tension. One such case I recollect was of food avoidance due to irritable bowel syndrome, copious use of laxatives for constipation, on OCP to 'kickstart' menses while being 68% median BMI (loosely termed as % weight for height). This person thus was 32% below ideal body weight.

Homeostasis:

As one loses weight, the body strives to maintain equilibrium, the best way to do so is to shut down redundant systems. This means, slowing peristalsis (a common cause of constipation), amenorrhea to a point the pelvic scans will reveal a return to pre-pubescent size for the ovaries and uterus. Significant bradycardia, loss of muscle and hair among other changes. The organs that can silently be switched off, includes the brain that loses weight while overtly the heart and lungs keep a person going. The lack of menstruation means lack of female hormones including Oestrogen, this in turn means poor bone density, age 12-25 being the most crucial time for girls (in boys it would be lack of androgens) in attaining peak bone health as shown below.



Assessment in Primary Care:

The key here is to do a thorough assessment. This should include an inquisitive and curious approach to lifestyle and aspirations to indirectly appreciate any eating disorder cognitions. A physical exam should include – weight, height, pulse and BP (sitting and

standing), feeling for cold extremities, signs of dehydration and other subtle signs – dental hygiene, thinning of hair, self-harm scars (often common to this cohort of patients) among other things.

It is vital to avoid the use of the Body Mass Index as a measure of health under the age of 18. This is best exemplified in the table below using hypothetical data. Note, that this child at 18.4kg has a low BMI of 14.67 and at 28.21kg the BMI is 22.49, if one uses the typical notion that healthy BMI is in the range of 20-25, the inference would be that the weight of 18.4kg is significantly low. Yet, when one calculates the weight and height centiles the story changes. Further, if one looks at %Weight for Height (W4H), it is apparent that 18kg is near normal for this child whereas 28kg would be morbidly obese. The other reason why the use of BMI is inappropriate is the fact that even if all the parameters were normal if a person had lost 4kg in 4 weeks, the acuity of weight loss increases medical risks as well.

Weight (kg)	Height (m)	BMI	Weight centile	Height centile	BMI centile	%W4H	100% ideal weight
18.4	1.12	14.67	11.38	13.50	24.79	94.63	19.45
28.21	1.12	22.49	97.52	13.50	99.95	145.07	19.45

Aside from the above, completing an eating disorder battery of blood checks is vital. This includes – FBC, ESR, CRP, LFT, TFT, U/E, Magnesium, Calcium, Vitamin D, B12, Folate and Inorganic Phosphates (not to be confused with Alkaline Phosphatase). Anyone with a year or more of amenorrhea should have a bone density scan, irregular pulse and low BP should lead to an ECG as prolonged QT syndrome is associated with this case group.

Early Intervention in primary care:

- Take weight loss or being underweight seriously, avoid suggesting it as a passing phase, or minimising the seriousness and implications of low weight.
- Use the opportunity to psycho-educate on body physiology. Carbohydrates and Fats are important for normal body functioning. Highlight the fact that statistically, most women need to be 95% to 105% weight for height for them to menstruate regularly, giving OC pills is not the answer. Often this gets prescribed for acne, instead, ensuring healthy weight ensures regular menses and adequate female hormones and this often improves skin.
- Children's metabolic rate is nearly twice as high as adults, calorific requirements are 500 calories over and above that of an adult to sustain growth spurts. Refer to a dietician to ensure their current intake matches their needs. The equation is simple, if the energy in is less than energy expended, there will be weight loss and energy surplus is required to weight restore.
- Milk, milk, and more milk – the initial dietary advice should be to emphasize dairy (richest source of phosphates) in those who are underweight, this is because when one increases energy intake, already depleted inorganic phosphates can get consumed in metabolising the increased food consumed. Low Phosphates can lead to a re-feeding syndrome which is characterised by potentially fatal cardiovascular and neurological complications. Given this, eat as you do now plus add 1 litre worth of milk or dairy spread across the day works well in the first 2 weeks to reduce risks.
- Offer broad-spectrum multivitamin supplements to those underweight, and more specific corrections of minerals where these are deficient (e.g. folates, calcium, or iron).
- If magnesium is low, this will require referral to paediatrics, keep a low threshold for considering a referral to paediatric Accident & Emergency and do so if there is bradycardia, hypothermia, severe dehydration, irregular pulse, postural hypotension of more than 10mm. use the MARSIPAN risk tool (see references/further reading) if need be.
- Follow-up weekly, keep up with the momentum and reiterate the psychoeducation advice frequently while maintaining the concern over low weight and its potential effects. Avoid praise for any gain in the weight as this is often heard as 'becoming fat' by the person struggling with their body image.
- Avoid suggesting target weights, in the above table, the suggested 100% ideal weight of 19.45kg is appropriate for their current age, height and gender and with growth spurts, this may need to be much higher.
- Last but not the least, refer to specialist services if improvements are not noted and weight remains low despite your best efforts.

References/Further reading and resources:

1. Position statement on early intervention for eating disorders, May 2019. Royal College of Psychiatrists - https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/position-statements/ps03_19.pdf?sfvrsn=b1283556_2

2. The Management of Really Sick Patients with Anorexia Nervosa (MaRSiPAN) website has a host of tools, including an App to download that support weight/height centile calculations as well as a risk assessment template.

Dr. Adhiraj Joglekar has been a lead consultant child and adolescent psychiatrist for a county-wide eating disorder service in Berkshire for the past 3 years. He has authored a short book on psychoeducation for eating disorders, this is available as a Kindle read via - https://www.amazon.co.uk/dp/B078S5NX7P