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Eating Disorders – Latest thinking and research findings

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Areas of research

- Genome/genetic studies
- Neuroimaging/brain studies
- Treatment effectiveness studies in this presentation focused on children and adolescents with eating disorders

Genetic studies

- The 100,000 Genomes Project is setting out to sequence the genetic data from 100,000 genomes of approximately 70,000 people across 11 Genomic Medical Centres (GMC) in England.
- Focus on rare genetic conditions and specific types of cancer
- South London and Maudsley Genomic Medical Centre among other rare genetic conditions is also focusing on:

Severe Familial Anorexia/Low-Weight

- Study will help to build up a database of genetic information that can be used for research and in time, will be fed back into the NHS to help improve clinical care.

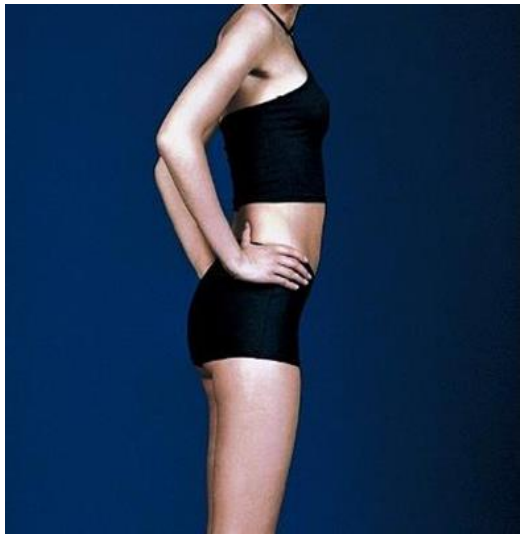
Charlotte's Helix genetic study

- Is an international collaboration seeking to bring the **AN25K genetics initiative to the U**K, in honour of the eating disorder advocacy work of Charlotte Bevan.

- The goal to add at least 1,000 DNA samples from individuals with a lifetime history of anorexia nervosa in the UK
- Hope is that by collecting genomes of 25 000 people with AN we will « crack the code » that makes some people predisposed to develop an eating disorder

Neural Processing of Visual Body Stimuli in Adolescents and Adults with AN

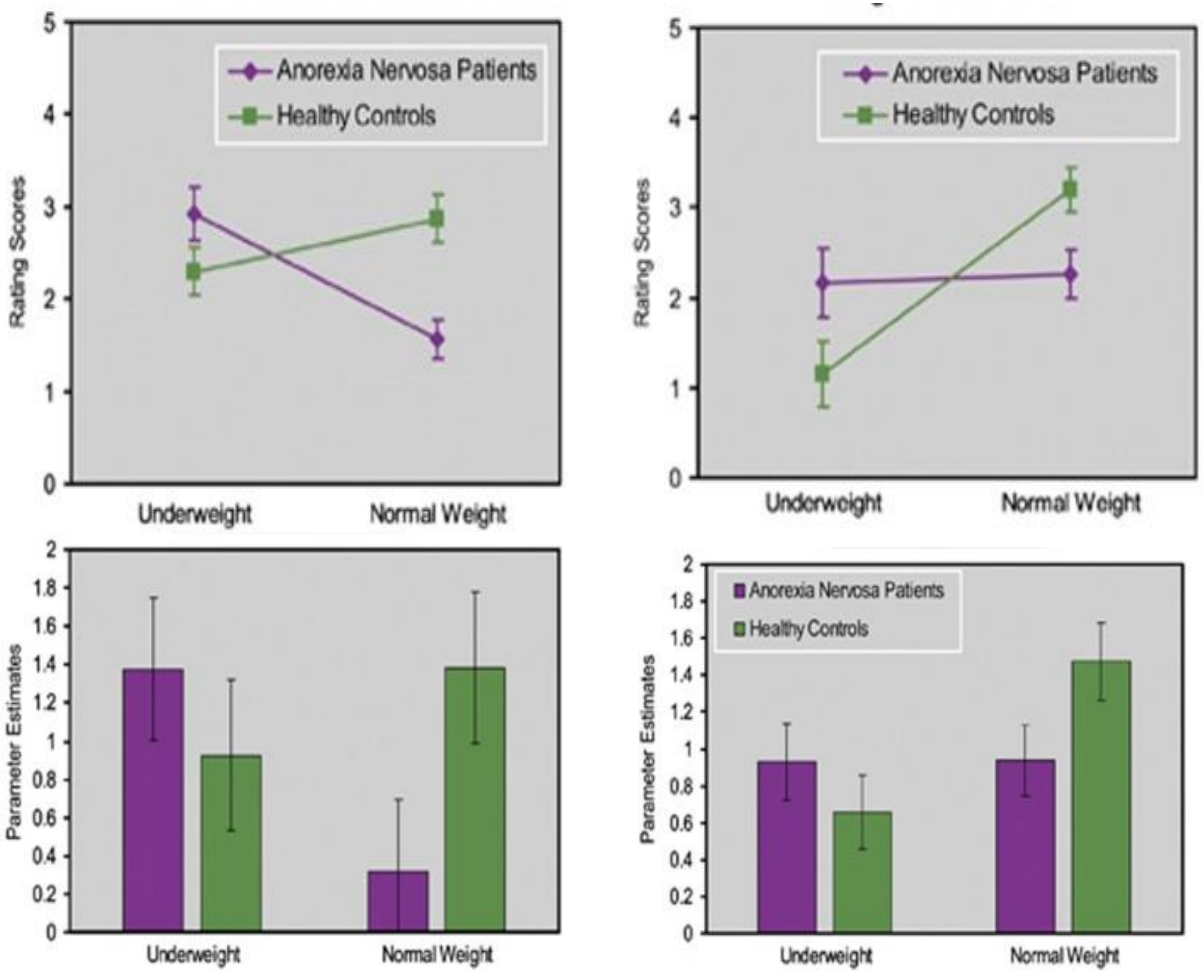
- Two studies comparing AN and HC: adolescents and adults
- Illness duration:1.2 and 7 years respectively
- Participants were shown female images of the same woman varying in BMI [underweight (BMI 12-16); normal weight (BMI 19-23)]
- Task – *'Imagine you had the same body shape as this woman. How would you feel?'*



Fladung et al. (2010; 2013)

Neural Processing of Body Stimuli in AN

Adults **Adolescents**



<u>Upper panel:</u>

Picture Rating scores

<u>Lower panel:</u>

Neural response in the ventral striatum

Conclusion:

•The longer people are ill (adults were 5 times longer than adolescents), the more rewarding and habitual the AN behaviours become, hence the need for early intervention

Dysfunctional brain signals, if untreated, will contribute to the maintenance of AN.

Evidence based treatments for child and adolescent eating disorders

Randomised control trials: Eisler et al. (1997), Robin et al. (1999), Lock et al (2005), Lock et al (2010), Agras et al (2014), Madden et al (2014), Le Grange et al (2015), Herpertz-Dahlmann et al (2014)

Family therapy for anorexia nervosa

- Family therapy superior to individual therapy for AN and restrictive eating disorders not other specified
- In all RCTs of Family Based Therapy (and other treatments) in America and Australia at least 15% (22%, 37%, 100%) of young people were hospitalized,
- Depending on the study median duration of hospitalisation (usually on the paediatric unit) was from 9 days to 32 days
- 50% of admissions were in first 4 weeks in treatment

Family based treatment or systemic family therapy

- In research studies more young people recovered with Family therapy focused on supporting family to facilitate young person's eating than when they were treated individually
- For young people with comorbid disorders, especially comorbid anxiety, OCD, depression, binge–purge and more severe symptoms of eating disorder **systemic family therapy** is more beneficial than FBT (Agras et al.,2014)

Outcome of Family Based Treatment

- 33%-50% of people recover at the end of Family Based treatment in American studies
- 50%-60% were fully recovered at the 12 months follow up but most of them will have additional treatment and at least 36% will have individual treatments after Family therapy

Is CBT-E potential alternative for family based treatments for adolescent AN?

- No RCT comparison completed
- Pilot on 49 adolescents who were safe to manage on outpatient basis (Dale Grave et al, 2012)
- 40 individual sessions over 40 weeks +a1hour assessment with parents + 8 x 15 minutes sessions with patient and parents together devoted to meal planning + some additional sessions with parents if needed
- 63% (N=29) completed full treatment and significantly improved in weight and eating disorder psychopathology, but only 9 patients reach recovery weight as defined in other RCTs
- Almost all the patients had minimal residual eating disorder psychopathology at the end of treatment and 60 months follow up

Should inpatient treatment be short or long? (Madden, 2014)

- All patients in Australian study had Family based treatment after inpatient admission
- In this study one group stayed in hospital only until they were medically stable (average 22 days), other group stayed in hospital until they did reach healthy weight (37days)
- Shorter admissions for medical stabilization compared to longer admissions that aim for patients to reach healthy weight were more cost effective and have better outcomes for patients' psychological well being
- For adolescents with AN of duration less than 3 years, treatment programmes that integrate outpatient family therapy with inpatient treatment for medical stabilization is likely to lead to more cost-effective care

Should inpatient treatment be short or long? (Madden, 2014)

- Prolonged admission reduces contact with the family, friends, peers and educational attainment, socialization and identity development (Meads et al 2001)
- Patients with more severe eating disorder symptoms and higher compulsive behaviour did better if they were hospitalised shorter just to be medically stable - longer admission most probably magnify the rigidity and inflexibility (LeGrange et al. 2012) and delay recovery

Inpatient treatment versus day patient treatment
(Herpertz-Dahlmann et al (2014)

- Inpatient treatment (IP) was not superior to day programme (DP) after short admission for medical stabilisation (three weeks admission) at the end of treatment
- The duration of IP treatment in this study (mean 14.6 weeks) was shorter than the average length of stay in the UK (18·4 weeks) and France (19 weeks)
- The duration of DP treatment in this study (mean 16·5 weeks) lasted longer than the 10–12 week interventions assessed in Canada and Australia
- In fact, psychological well being and psychosexual adjustment was better after a day programme than after inpatient treatment at the end of treatment
- At 2.5 years follow up DP was superior regarding weight restoration and maintenance and followed by significantly less rehospitalisation compared
- Day programme was a safe, less costly and more effective treatment than inpatient treatment

Treatment evidence for bulimia nervosa

- FBT-BN superior to CBT-A at the end of treatment and 6 months follow up regarding abstinence rates from bulimic symptoms (Le Grange et al. 2015)
- Not more than 39%-45% young people recover at the end of treatment or at the follow up in any of three research studies on adolescents with bulimia nervosa
- FBT-BN not treatment of choice for families where there is a lot of conflict
- FBT-BN and CBT are both viable treatment options for young people with BN

Conclusions

- Child and adolescent services (CAEDS) offer more varied, comprehensive treatment then tends to be evaluated in research studies
- Evidence from RCTs should inform the use of specific treatments but always in combination with clinical judgment and patent/family preferences
- The use of treatments should also be determined by ongoing routine assessment of outcomes and client/family agreed treatment specific goals