OBESITY IN LEARNING DISABILITY & MENTAL HEALTH SETTINGS

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Obesity: identification, assessment and management

Clinical guideline [CG189] Published: 27 November 2014 Last updated: 08 September 2022

Guidance | Tools and resources | Information for the public | Evidence | History

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ORIGINAL RESEARCH

Metformin in the management of antipsychotic-induced weight gain in adults with psychosis: development of the first evidence-based guideline using GRADE methodology

Ita Fitzgerald ,[1,2] Jean O'Connell,[3,4] Dolores Keating,[5] Caroline Hynes,[6] Stephen McWilliams,[7,8] Erin K Crowley[9]

Evid Based Mental Health: first published as

Introduction

Obesity: diagnosis

Interventions: Diet Exercise & Behavioural

What will I cover in this talk?

Interventions: Medication & Surgery

Does anything work?

The CALMPOD experience

DOI: 10.1111/bld.12220

ORIGINAL ARTICLE

WILEY

The prevalence of overweight and obesity levels among forensic inpatients with learning disability

Rachel Russell | Verity Chester | James Watson | Canisius Nyakunuwa | Lucy Child | Mary McDermott | Sharon Drake | Regi T. Alexander

Results: Only 13% of inpatients were a normal weight at admission, whereas 87% were overweight or obese. During admission, 61% gained weight, and 2% maintained. However, 37% lost weight, although many of this group remained overweight/obese. Women gained more weight during their admission, but were also more successful in losing weight. There was no correlation between length of stay and weight.

Conclusions: The results highlight the need for effective, gender-sensitive weight management interventions within similar services nationally.

A cause for some hope in the midst of general pessimism….

Introduction

- In the general population, 32% are overweight and 30% obese
- Among those with learning disability, 27% are overweight and 37% obese
- Health consequences: Type 2 DM, hypertension, cardiac disease, other causes of increased mortality
- Obesogenic environments: some unlikely ones
- Cascade iatrogenesis *(reduced activity, sedentary life style, increased calorie intake, psychotropic medication, weight gain, obesity, Type 2 DM, hypertension, dyslipidaemias, cardiac events, other complications….)*

Obesity diagnosis

- Weight & BMI (weight in kg divided by the square of height in metres)

- BMI 18.5 to 24.9: Healthy
- BMI 25 to 29.9: Overweight
- BMI 30 to 34.9: Obesity- class 1
- BMI 35 to 39.9: Obesity- class 2
- BMI 40 or more: Obesity- class 3

- BAME backgrounds: About 2.5 lower (ie, BMI 23 to 27.4 overweight and above 27.5 obese)

Obesity diagnosis

- Central adiposity (waist to height ratio): Important to measure in those with BMI below 35.
- How to measure: a point midway between the lower edge of the ribs and upper end of the hip- tends to be just above the level of the umbilicus)
- Ideally, waist should be half your height or less

- Healthy central adiposity: 0.4 to 0.49
- Increased central obesity: 0.5 to 0.59
- High central obesity: 0.6 or more

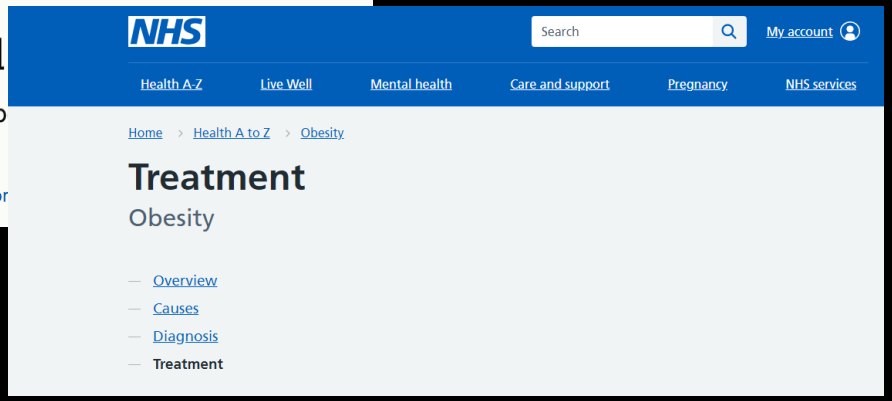
Obesity diagnosis

- **Waist circumference in men: 94-101 cms indicates *increased* risk and over 102 cms indicates *significant* risk**

- **Waist circumference in women: 80-87 cms indicates *increased* risk and over 88 cms indicates *significant* risk**

Interventions: generic points

- Discuss
- Agree
- Tailor
- One size does not fit all



Interventions: Diet

- The aim is to achieve a calorie deficit of 600 kCal/ day deficit
- NHS website: For most men, this will mean consuming no more than 1,900 calories a day, and for most women, no more than 1,400 calories a day.

- NICE: Low calorie diet: 800 to 1600 kCal/ day
- NICE: Very low calorie diet: below 800 kCal/day. Only in certain circumstances, maximum of 12 weeks

- Importance of balanced diet and nutritional supplementation as needed.
- Weight loss and weight maintenance

Interventions: Exercise

Interventions: Exercise

- Moderately intense activity, 150 minutes/ week (30 mins per day for 5 days in the week).
- Something is better than nothing

- Moderate intensity: brisk walk, cycling, recreational swimming (‘can talk, but not sing’)
- Vigorous intensity: running, circuit training, competitive sports (‘difficult to talk without pauses’)

Behavioural interventions

- Self monitoring
- Stimulus control
- Goal setting
- Slowing rate of eating
- Social supports
- Problem solving
- Assertiveness training
- Cognitive restructuring
- Relapse prevention

- Mindfulness

Interventions: Medication

- Lifestyle interventions: Diet, exercise and behavioural approaches have to be offered and evaluated first
- If medication is offered, it will need to be in conjunction with the above.

Interventions: Do these lifestyle interventions work?

- In the 8 years since the NICE guidelines mentioned above, there has been further evidence on the efficacy of lifestyle interventions to address the risk of obesity in those with serious mental illnesses.

- Speyer et al 2019 reviewed 41 RCTs with over 4200 patients and came to the rather depressing conclusion that while there is a statistically significant benefit for individualized lifestyle interventions, it was clinically insignificant (ie, these interventions did not achieve the weight reduction of 5% that would be considered clinically significant).

- They however highlighted the heterogeneity of the included studies and the differential response based on various background factors. This means that the range of lifestyle interventions and non-pharmacological measures mentioned in the NICE guidelines and other sources would still be relevant.

Interventions: Medication

- Switching in antipsychotic induced weight gain
- *High risk: Clozapine, Olanzapine*
- *Moderate risk: Quetiapine, Risperidone, Paliperidone*
- *Low risk: Aripiprazole, Amisulpiride, Lurasidone, Sulpiride, Haloperidol, Trifluperazine*
- No robust evidence that switching works
- No robust evidence that dose lowering helps

(References: Maudsley Prescribing Guidelines 13th edn, page 97, choiceandmedication website, Holt 2019)

Medication: Orlistat

- Indication: BMI of 28 or more with associated risk factors or a BMI of 30 or more.
- How does it work?
- Dose and side effects
- Issues in mental health settings/ AIWG

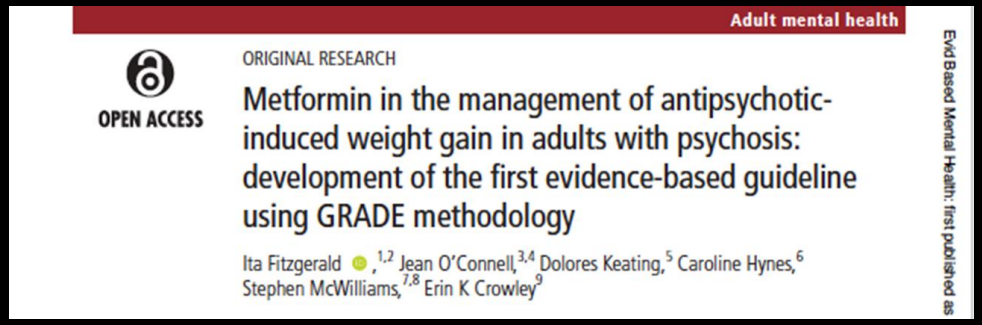
- Continue beyond 3 months only if there is a 5% weight loss.
- Continue beyond 12 months (usually for weight maintenance) after discussing potential benefits and limitations.
- The co-prescribing of Orlistat with other drugs aimed at weight reduction is not recommended.

Medication: Liraglutide (Saxenda)

- Indication: BMI of 27.5 or more with associated risk factors or a BMI of 30 or more.
- How does it work?
- Dose and side effects
- Issues in mental health settings/ AIWG

- Treatment should be discontinued after 12 weeks on the 3.0 mg daily dose (recommended maintenance dose) if patients have not lost at least 5% of their initial body weight.
- Liraglutide (Saxenda) is a different licensed product to Liraglutide (Victoza), the latter licensed for type 2 diabetes.

Medication: Metformin



Adult mental health

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Evid Based Mental Health: first published as

- Off label use
- GRADE methodology guideline for AIWG, published in 2022
- Assessment of evidence certainity + Strength of recommendations in clinical care
- 11 recommendations

Metformin (appropriateness)

- Early intervention strategy vs treat established obesity. Advocates the former.
- Early intervention when there is 7% or more weight gain from baseline in the first month of antipsychotic treatment
- Non-pharmacological (life style) interventions are offered before Metformin in early intervention
- If lifestyle interventions are unacceptable or inappropriate for patient, offer Metformin as first line*
- If life style interventions are ineffective, offer Metformin as evidence suggests early intervention increases efficacy*
- Metformin can be used to attenuate weight gain caused by any antipsychotic

Metformin (initiation and dosing)

- Do baseline renal functions. Metformin is contraindicated if e-GFR is less than 30.
- Start at 500 mg bd with meals and increments of 500 mg every 1-2 weeks
- Max dose: 2000 mg/day
- Goal: 5% weight loss within 6 months. Goals to be individualised.
- Renal functions monitored 3-6 monthly, intermittent Vit B12 level monitoring
- GI side effects managed by dose changes
- De-prescribing: discussion of pros and cons at 6 month mark

Medication: other & bariatric surgery

- Reboxetine
- Topiramate
- Naltrexone-Bupropion
- Phenteremine-Topiramate
- Semaglutide

- There is one systematic review (Kouidrat et al 2017) on the use of bariatric surgery in people with severe mental illness and it concludes that while there are few studies in this area, psychosis should not be a contraindication where an individual has severe obesity and where otherwise surgery would be recommended.

Observational Study > J Clin Endocrinol Metab. 2019 Mar 1;104(3):793-800.
doi: 10.1210/jc.2018-00578.

Application of Mindfulness in a Tier 3 Obesity Service Improves Eating Behavior and Facilitates Successful Weight Loss

Petra Hanson [1], Emma Shuttlewood [1], Louise Halder [1], Neha Shah [1], F T Lam [1], Vinod Menon [1], Thomas M Barber [1]

Affiliations + expand

PMID: 30566609 DOI: 10.1210/jc.2018-00578

A Pilot Project to Introduce the Compassionate Approach to Living Mindfully for Prevention of Disease (Calmpod) in Weight Management in a Forensic Intellectual Disability Unit

Published online by Cambridge University Press: **20 June 2022**

Ayomipo Amiola, Phil Temple, Helen Dickerson, Peter Langdon, Petra Hanson, Thoral Thomas,

Conclusion

Emerging themes from the pilot were (a) Patients and staff recognise that the programme was 'necessary' and 'useful', but the challenge is how to 'start attending regularly'. Once in, participants 'tended to stay on'. (b) A visible publicity campaign is needed to spread awareness of the programme and its 'newness'. This would help with staff 'buy in' from all wards and departments. (c) The key message should be 'living healthily' and 'feeling better', not just weight loss. (d) Staff and/or patients' family members participating in the programme would be more motivating. (e) The content of the programme needs further modifying with an emphasis on shared activities, calories counting and less emphasis on definitions. (f)Calorie counts and exercise trackers need 'more fun and interactive elements.

Based on these recommendations a revised CALMPOD- ID programme, co-produced with service users, is now being introduced in the service.

CALMPOD: Norfolk LD

- Baseline recordings as suggested by NICE guideline CG189
- Life-style interventions (diet and exercise) care plans in line with the above sources.
- Pharmacological measures: early intervention strategy
- Introduction of 3 CALMPOD sessions
- Patient involvement: motivational interviewing, encouraging tracking by showing data on the nhs app, maintenance of food diaries, exercise tracker, etc
- Outcome monitoring at 3 months, 6 months, 12 months

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