

When the evidence about weight loss raises more questions than answers

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Early Diets

Hippocrates 300BC

- ▶ 'Light' food
- ▶ Hard work
- ▶ Seawater enemas
- ▶ Naked walking
- ▶ Vomiting after lunch

William Banting 1863

- ▶ First "International Bestseller"
- ▶ "Letter on Corpulence"
- ▶ Low carbohydrate diet

Inclusions / Exclusions

- ▶ Include
 - ▶ Diets for general weight loss
- ▶ Exclude:
 - ▶ Therapeutic diets
 - ▶ VLCD
 - ▶ Bariatric surgery

Why do we treat obesity?

Clinical benefits of 5-10% weight loss

Question: Are the benefits the same regardless of starting weight?

Question: Benefits rely on keeping weight off?

Question: Is the patient happy with 5-10% weight loss?

Patient Expectations (University of Newcastle, Australia)

- ▶ Dream weight – the weight you would be if you could weigh whatever you wanted
- ▶ Happy weight – not as ideal as your dream weight but happy to achieve
- ▶ Acceptable weight – a weight you're not particularly happy with but one that you could accept because it is less than your current weight
- ▶ Disappointed weight – less than your current weight but not one that you could view as successful in any way. You would be disappointed if this was your final weight.

What is a fad diet? (University of Newcastle, Australia)

- Promises fast weight loss
- Is not based on high quality scientific evidence
- Pushes a "one size fits all"
- Is only a short term fix
- Encourages pills / supplements / fat burners / metabolism boosters
- Makes claims based on single studies or testimonials
- Is likely to eliminate food groups / specific nutrients

What is a diet?

- Promises weight loss
- Is not always based on high quality scientific evidence (Teicholz, BMJ 2015)
- Pushes a "one size fits all"
- Is only a short term fix
- Some encourage branded products
- Make claims based on poor quality studies?? (see HAES)
- Is likely to restrict certain foods

Question: From the perspective of your patients, what is the difference between a 'fad' diet and any popular diet?

Same scale, different degree?

What if we call it "healthy eating"?

it's not a diet

What you get with **group membership**

- ✓ Lots of recipe ideas, cooking suggestions, tips and top secret in-group
- ✓ 7 days access to member exclusive 1 hour Q&A cooking recipe
- ✓ A huge collection of great value recipe books to join the group
- ✓ Free access to hundreds of online recipes to inspire and motivate
- ✓ The support and expertise of your friendly Health Coach

Join a healthy food group

What you get with **online membership**

- ✓ Easy access to over 1000 mouth-watering recipes
- ✓ An interactive meal planner plus all 7-day menus
- ✓ Meal ideas, cooking suggestions, healthy meal ideas, recipes and more



It's not a tractor....
It's a powerful motor vehicle.....

Perception

- ▶ What you think it is **IS IRRELEVANT**
- ▶ Only the patient's perception matters
- ▶ For the overweight / obese patient, **ANY change to their normal way of eating IS A DIET**

Commercial weight loss groups

- | | |
|--------------------|---------------------------------------------------------|
| ▶ Pros | ▶ Cons |
| ▶ Widely available | ▶ Attend / drop out / reattend (perpetuate yo-yo cycle) |
| | ▶ Don't teach self-management |
| | ▶ Don't teach nutrition – "syms", "points" |

Fad diets come and go. Commercial groups are here to stay

“ The findings demonstrate that Slimming World is **effective** for **long-term** weight control. Those no longer attending maintained some weight loss, whilst those still engaged achieved greater weight loss outcomes ”

Reference: UKSBM 2016 Do people attending Slimming World keep their weight off in the long term?

What is Slimming World's definition of effectiveness?

Stats

- ▶ 6,299 individuals contacted
- ▶ Joined SW in preceding 2.5 – 3 years
- ▶ 356 responses analysed (5.7%)
- ▶ 180 still attending (<3%), avg weight loss 9kg, BMI reduction 34-31 (8.8%)
- ▶ 176 not attending (<3%), avg weight loss 4kg, BMI reduction 32-30 (6.2%)

Querys

- ▶ <6% response rate
- ▶ Potential bias towards better outcomes
- ▶ Average BMI's – remains obese (would patient consider this effective weight control?)
- ▶ 2.6% weight difference attenders / non-attenders
- ▶ ?? Clinical significance

“ This is the largest ever audit of a lifestyle based weight management programme demonstrating that Slimming World has a **clinically significant** impact on weight outcomes, which on this scale may have an important impact on public health ”

Reference: Slimming World Research Portfolio
Weight outcomes audit in 1.3M adults during their first 3 months attendance in a community weight management programme

Devil in the detail

- ▶ Audit 1.3 million adults attending Slimming World
- ▶ First 3 months attendance
- ▶ Mean starting BMI 32.6
- ▶ Mean weight change at 3/12: -3.9kg / -4.4%

Reminder:

1. "clinically significant impact" – assumption?
2. Fact: Any diet can lead to short term weight loss

Questions:

How many made it to 6 / 9 / 12 months and beyond?
Weight changes at these time points?

Reference: Slimming World Research Portfolio

Preliminary study to investigate what characteristics underlie successful weight loss

It was concluded that more successful dieters have...

...a higher level of diet pre-occupation”

“the 12 week programme can help people to lose weight, but for the first time we've shown that extending this to a full year leads to greater weight loss over a longer period ”

Reference: Ahern et al 2017. (NHS referral to Weight Watchers)

Weight Watchers Study (Ahern 2017)

	T=0	T=3	T=12	T=24
Brief intervention	96.1	-2.04	-3.26	-2.3 **
12/52 WW	96.6	-4.84*	-4.75* / **	-3.0* / **
12/12 WW	95.7	-4.62*	-6.76* / **	-4.29*
		*stat sig cp BI	*stat sig cp BI (combined) ** stat sig	*stat sig CP BI (combined) ** no stat sig

“...the 12 week programme can help people to lose weight, but for the first time we’ve shown that extending this to a full year leads to greater weight loss over a longer period”

RE-WRITTEN AS:

“A 12 week NHS funded referral to a commercial weight loss group is no better than a brief intervention.

A 52 week NHS funded referral will yield on average an additional 1.99kg weight loss compared to brief intervention.

This is highly unlikely to have any clinical significance”

Commercial weight loss groups

- ▶ Achieve short term weight loss
- ▶ Weight regain commonplace
- ▶ RCT (Ahern) suggests brief intervention only marginally less effective than 12 or 52 NHS funded referrals

Q: So why do we refer / recommend?

NICE PH53
Lifestyle weight management programmes 2014

Recommendation 10
“Commissioners should – commission or recommend lifestyle weight management programmes”

NICE QS111
Obesity in Adults:
Prevention and lifestyle weight management programmes 2016

Quality statement 6:

Adults identified as overweight or obese are given information about local lifestyle weight management programmes

Evidence sources

- ▶ RCT's
- ▶ Cochrane Database Systematic Reviews
- ▶ PEN

Johnston et al (JAMA 2014)

- ▶ Search of 6 databases
- ▶ Analysis of 48 RCT's
- ▶ Compared weight loss at 6/12 for a range of diets

"Significant weight loss was observed with any low carbohydrate or low fat diet. Weight loss difference between individual named diets were small. This supports the practice of recommending any diet that a patient will adhere to in order to lose weight"

Interpret: weight will be lost on any diet at 6/12

Question: what about long-term weight loss outcomes?

Mann et al 2007 (USA)

- ▶ Review of long-term RCT's
- ▶ Primary outcome measure **sustained weight loss**

"Sustained weight loss was only found in a small minority of participants, whereas complete weight gain was found in the majority"

"These studies show that one to two thirds of dieters regain more weight than they lost on their diets.."

"...the studies do not provide consistent evidence that dieting results in significant health improvement."

"The benefits of dieting are simply too small and the potential harms of dieting are too large for it to be recommended as a safe and effective treatment for obesity"

Cochrane Database Systematic Review (Summerbell et al 2008)

"Calorie restriction can achieve short-term weight loss but the weight loss has not been shown to be sustainable in the long term" (review withdrawn)

- ▶ **Q: Is weight regained despite ongoing calorie restriction or was the calorie restriction not maintained?**

PEN

Practice-based Evidence in Nutrition

PEN Question 2015:

"Is an energy restriction more effective in achieving weight loss in overweight and obese adults than no treatment?"

PEN Answer:

YES!

"...a minimum 500kcal/day deficit.."

"Because many interventions were 6 months or less in duration, **further RCT's are required to determine long-term effectiveness of energy restricted diets**".

NICE CG 189

Obesity: identification, assessment and management (Nov 14)

1.7.2

Encourage people to improve their diet even if they do not lose weight because there can be other health benefits

1.7.5

Diets that have a 600 kcal/day deficit...in combination with expert support and **intensive follow-up** are recommended for sustainable weight loss.

Intensive follow-up for weight loss not possible in NHS – leaving only option of commercial weight management groups

Summary

- ▶ A diet is any way of eating that differs markedly from usual intake
- ▶ Any diet will likely lead to weight loss **short term**
- ▶ Evidence shows majority regain weight lost
- ▶ Diets are not the solution for majority

Actual weight not completely under personal control

Sumithran et al 2011

Eat

- Ghrelin

Stop eating

- Leptin
- Peptide YY
- Amylin
- Cholecystokinin

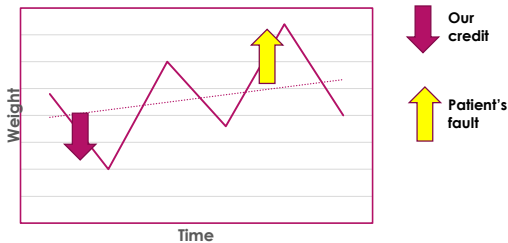
Fat storage / metabolism

- Insulin
- Adiponectin
- Hormone sensitive lipase
- Lipoprotein lipase
- Adipose triglyceride lipase
- Gastric Inhibitory peptide
- More ++

Implications for practice?

- Use of 600 kcal deficit diet and generic meal plans?
- Benefit of 3 month treatment plans?
- More time spent understanding why people eat as they do (problem identification)?
- Use of weight as determinant of review/discharge?
- Outcomes: priority to health improvement / food behaviours as primary outcome?
- More focus on self-management skills?

Credit and Blame



Alternative view

Diets bypass and ignore food / eating problems

We and/or commercial weight loss groups are partly responsible for weight regain *if we fail to identify and address why people eat the way they do.*

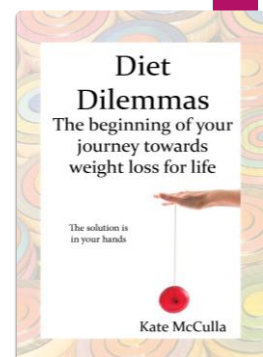
Why do people eat as they do?

- ▶ As a rebellion following "broken" diet?
- ▶ Boredom?
- ▶ Comfort eating?
- ▶ Not exercising, no point eating well?
- ▶ Food decisions based on weight?
- ▶ Told to avoid hunger?
- ▶ Because it's there...
- ▶ Eating same as partner...
- ▶ Influence of past or future food decisions
- ▶ And more.....



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