A RANDOMISED CONTROL TRIAL ASSESSING THE IMPACT OF AN INVESTMENT BASED INTERVENTION ON WEIGHT-LOSS.

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UK Society for Behavioural Medicine 12th Annual Scientific Meeting 2016
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• This study was funded by RfPB NIHR.
• Grant number: PB-PG-0212-27034.
• This trial was conducted and data collected with complete independence of the researchers from the RfPB NIHR.
BACKGROUND

• Obesity is caused by people consuming more energy than they expend.

• Associated with reduced life expectancy and many serious conditions including heart disease, stroke, diabetes, cancer, gallstones, fatty liver disease and sleep apnoea.

• Currently almost two-thirds of UK adults are either overweight or obese with overall costs to society forecast to reach £50 billion per year by 2050 on current trends.
TREND IN OBESITY PREVALENCE AMONG ADULTS
HEALTH SURVEY FOR ENGLAND 1993 TO 2014 (THREE-YEAR AVERAGE)
Obesity surgery currently the most effective method for achieving weight loss

BUT not all patients lose the desired amount of weight and some show weight regain.
BARIATRIC SURGERY

Vertical Sleeve Gastrectomy

Gastric Bypass

Adjustable Gastric Band (Lap Band)

- Gastric sleeve (new stomach)
- Removed portion of stomach
- Stomach pouch
- Adjustable band
- Port placed under skin
BACKGROUND

• Previous research shows successful weight loss may be associated with the amount of investment the patient feels they have made in their operation.
  • More likely to lose weight after their operation if they feel it has:
    • taken more time/effort to organise
    • cost more money
    • been more disruptive to their lives
    • caused pain
• Greater the sense of investment = greater the motivation to make the operation a success.
**AIM**

- To evaluate the impact of an investment based intervention on patient weight loss, beliefs and behaviours after bariatric surgery by
  - Encouraging weight loss surgery patients to focus on the investment they have made
  - Making their investment more salient to them and a means to improve outcomes
  - Compare to usual care
METHOD

- Open randomised parallel group control trial
- Patients allocated either to the control or investment intervention group
- Third party blinded randomization
- All patients recorded weight and HBA1c at baseline and 12 months follow up.
- Patients were recruited from the bariatric surgery pre-assessment clinic at University College Hospital, London.
INTERVENTION

• Delivered at baseline (2 weeks pre surgery) then 3 and 6 months postoperatively.
• Rate questions on investment made in having bariatric surgery to raise the salience of their investment.
• Questions encouraged patients to consider the ways in which the surgery has impacted upon them in terms of financial, social, personal and physical costs.
• Focuses on factors such as:
  • Pain
  • Disruption to their family
  • Social and work lives
  • Financial burden
• Tailored to the recent experiences of the participants.
The sample included 74 patients who had bariatric surgery
  - gastric bypass (n=37), sleeve (n=35) or gastric band (n=1)
  - Patients were allocated to the control (n=35) or investment intervention group (n=39).
At baseline:
  - Mean age was 43.62 years (SD 11.78)
  - Mean objective weight was 134.84kg (SD 27.79)
  - Mean objective height was 1.66m (SD .11)
  - Mean BMI was 49.04 (SD 9.87)
  - Mean HBA1c was 6.31 (SD 1.26)
RESULTS - DEMOGRAPHICS

- Majority were:
  - Female
    - Male 15; Female 59
  - White
    - Black 5; White 58; Asian 3; Other 7
  - Cohabiting
    - Yes 56; No 15
  - Educated to at least secondary level
    - Secondary school 24, Professional Certificate 26, Degree 19, Higher Degree 3
  - Full time employment
    - Full time work 30, Part time work 17, Full time parent 6, Not working 20
RESULTS

• Mean change at one year post-operatively:
  • Weight was 37.62kg (SD 14.85) p=.001
RESULTS

- Mean change at one year post-operatively:
  - BMI 13.55 kg/m² (SD 4.87) p=.001

![Graph showing change in BMI over time](image)
RESULTS

• Mean change at one year post-operatively:
  • HBA1c 0.65% (SD .74) p=.001
RESULTS

• At one year follow up:
  • no significant difference between patients assigned to either the control or intervention group in weight loss and HBA1c change.
DISCUSSION

• Highlighting the patients’ personal investment pre and post bariatric surgery had no impact on weight loss by 1 year.

• Confirms recent research exploring variability in weight loss at one year post-operatively (Ogden et al, 2015).

• 1st year = surgery has a clear direct effect rather than being a tool to be worked with.
DISCUSSION

• Due to the limited duration of follow up post-operatively, it is argued that psychological interventions should be targeted to patients in the longer term when weight loss is less consistent.

• Research indicates that weight loss variability is most evident between 18 and 24 months post surgery (Courcoulas et al, 2013).
ADDITIONAL INFORMATION

• ClinicalTrials.gov identifier NCT02045628
