gender differences in weight loss; evidence from a nhs weight management service

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The Obesity Epidemic: Does gender play a role?

There is an enormous amount of literature, magazines, commercial and media attention surrounding weight loss. Obesity has now become a global health concern and in the United Kingdom it is a national public health priority. There are many services which attempt to help people manage their weight and according to our service data, the majority of clients who use these services are women. Although the concepts of weight loss appears simple, with many adopting the energy balance model, very little attention has been paid to the role of gender when engaging with a behavioural change weight management programme. Furthermore, to our knowledge this is the first paper which also addresses weight management post-intervention up to 12-months.

It has been argued that men lose more body fat than women when engaging with weight loss programmes. This may be due to sex differences in body fat distribution[1]. In support, a study was conducted in which male and female weight loss attempts and

coping strategies were compared[2]. The researchers found no sex differences in strategies adopted when losing weight, with both men and women adopting the same strategy of consuming less fat in order to lose weight. However, sex differences were found in weight loss attempts, with women reporting trying to lose weight more often than men, even for women with a normal BMI. The authors argue that this difference may be due to social norms relating to ideal 'thinness' (page 1358). This may be the reason for why the majority of our clients were women. Furthermore, women have been reported to be more likely to identify themselves as being overweight and experiencing negative body satisfaction compared to men[3] which further supports the reason for why the majority of clients who attend weight loss programmes are women. However, there is some research which suggests the direct opposite[4]. These findings may be a reason for why women engage with weight loss programmes more often than men and report higher weight loss attempts compared to men. It has been suggested that further evidence is needed to support the area of sex differences and weight loss in order to 'develop effective psychological interventions' (p. 594). The above point is a rationale for reporting these findings.

Introduction to Why Weight? Plus

Why Weight? Plus (WW+) was a weight management service within Shropshire County (England) provided by the National Health Service to obese adults with a BMI of over 30 and adults with a BMI of over 27 with, co-morbidities. The

intervention was a behaviour change programme supported with motivational interviewing utilising Cognitive Behavioural Therapy (CBT) tools and techniques to help clients address the emotional aspects of their relationship with food and to ultimately achieve behaviour change.

The data included in this paper are taken from clients who engaged with our service from 2010 to 2013. Clients engaged with a one-to-one tailored weight loss programme. The sessions explored a range of topics that included; nutrition, portion control, and increasing levels of physical activity. However, the main focus was on helping clients manage their emotional attachment to food and to empower them to take personal responsibility for and to self-manage their weight post-programme. The one-to-ones were client-centred and focussed on improving their overall sense of well-being, self-belief and confidence. Clients were offered follow up appointments at six and 12-months, post-intervention.

Due to our experience in delivering weight management interventions we have found that men and women adopt different strategies when attempting to lose weight and we felt it would be beneficial to the field of obesity and behaviour change programmes to measure whether significant gender differences exist in weight loss. Data were collected from our client pool.

This research aimed to explore whether there are gender differences in weight loss during a 12-week weight loss intervention. This study also explored gender

differences in weight loss over a 12-month period with weight measures taken at 12-weeks, 6-months and 12-months. There were high dropout rates at both the 6 and 12-month point, with a dramatic drop-out at 12-months due to appointment not being followed up by clients. Although the service sent prompt for clients to book a follow up appointment, not all clients responded. The primary intervention was 12-weeks long with us relying on 6 and 12-month weights from client responses.

Sample

All of our clients were enrolled onto and completed our 12-week weight loss programme. The analysis was split into three sections. The first aimed to measure gender differences in weight loss from assessment (first appointment) to 12-weeks. For this analysis data were taken from 1129 service users (318 males and 811 females) with a mean age of 53. The average start weight for males was 113.4kg and for females it was 94.9kg (see figure 1).

Secondly, we were interested in our client's weight management post-programme. For this analysis, data were taken from 458 service users (140 males and 318 females) with a mean age of 55. The average start weight for males was 110.9kg and for females it was 95kg.

Thirdly, we assessed the impact of gender on weight loss from assessment right through to 12-months. For this analysis data were taken from 181 service users (61

males and 120 females) with a mean age of 58. The average start weight for males was 110kg and for females it was 93kg.

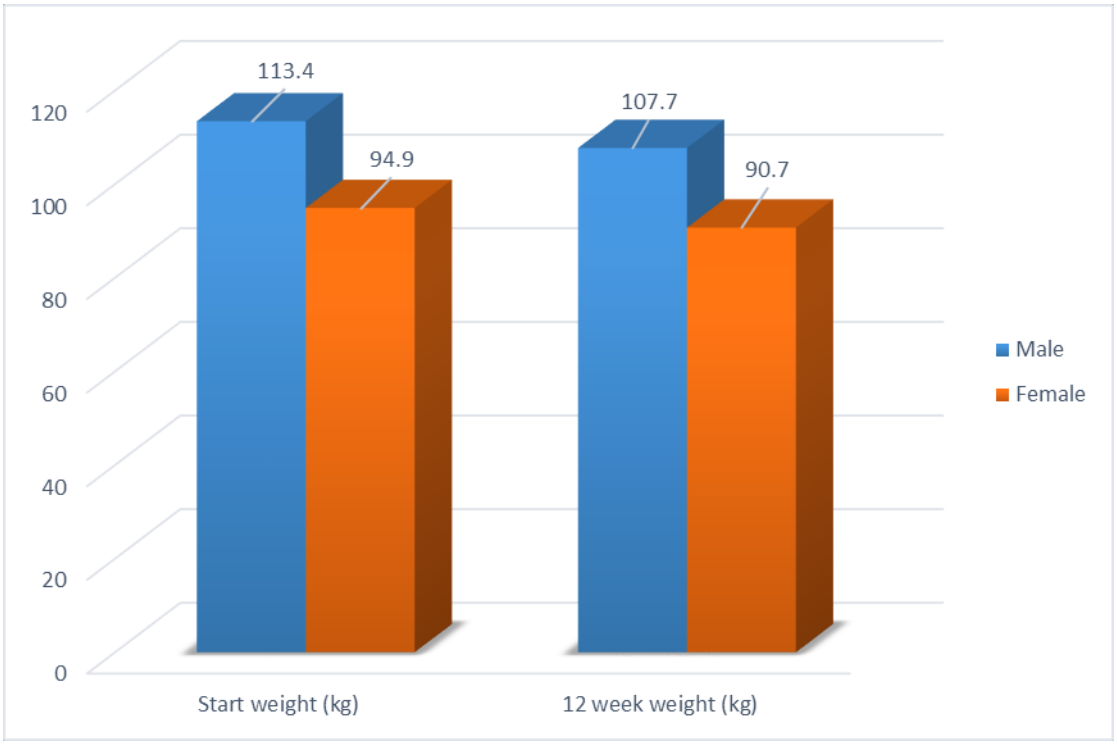

Figure 1: Bar chart representing start weight and 12-week weights, by gender

Clients were referred by health professionals, predominantly General Practitioners and practice nurses. Seventy percent of our clients fell in the age of over 40 with significantly increased risk of CHD/CVD and stroke. Additionally, 35% of clients reported a co-morbidity which rises to 69% for clients aged over 40. Fourty percent of referrals were from the most deprived areas. Ninety five percent of the sample consisted of White British origin, with 2% Asian, 2% Black Caribbean and 1% other.

Results and Discussion

This research investigated gender differences during a weight management intervention. It was found that men lost on average 1.5kg more than woman during the 12-week intervention. Furthermore, men lost on average 3kg more than women from assessment to 6 months and lost 5kg more than women from assessment to 12-months. However both males and females continued to lost and manage their weight post-intervention right through to 12-months.

Our findings are somewhat consistent with previous research which suggests that men do lose more weight than women when engaging with weight loss interventions. However, this is not to say that women don't continue to lose weight, as our findings also suggest that women too continue to lose or maintain their weight over the 12-month period, but not as much as men.

One of the reasons why a gender difference was found may be due to the fact that men had a higher starting weight than women. This may explain the larger weight loss at differing time scales. The more overweight you are, the more weight you have to lose, essentially leading to greater weight loss. Furthermore the data set was largely female which may be may be due to gender and help seeking as it is a well-researched fact

that men seek medical help less often than women[5]. As a result, men may not be seeking weight loss advice from health professions as readily as women. More needs to be done to encourage both males and females to seek weight loss and healthy lifestyle advice from health professionals. In addition, health professionals need to take gender account when promoting healthy lifestyle change and tackling health inequalities, especially as males are less likely to seek medical help compared to women.

There are strong implications of this research. It holds great importance to public health and the development of health improvement interventions. It may enable practitioners and weight management services to tailor their programmes depending on the gender of their clients and their BMI. This may include tailoring material offered and the structure of interventions to people of differing BMI's and gender. As this area is under researched, more research is needed in order to gauge the different approaches males and females adopt when trying to lose weight. One of the limitations of this research is that the strategies males and females adopted when enrolled onto the programme were not recorded. This would have provided a valuable insight into the reasons why these findings have been sought. A potential follow up study could involve gathering data and gaining an understanding about the strategies males and females adopt when attempting to lose weight. These could include cognitions, coping mechanisms, dealing with stress, relapse, sabotage and triggers. This study adds to the little research which has been conducted within this area but

holds importance to obesity and public health research. However future research needs to be conducted to investigate why males lose more weight than females.

Declarations:
Why weight plus was commissioned by Shropshire Community Health NHS Trust until March 2014. This paper and the use of data were approved by Senior Health Improvement managers and data were provided by the courtesy of the trust. Ethical approval to use service data was sought from senior Health Improvement managers whilst we worked for the trust, which was until the end of March 2014. This paper was first submitted to the Journal of Public Health February 26th 2014.

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