Case Study

Obesity Management in Primary Care – Can It Work?

DeVille Almond

EXECUTIVE SUMMARY

A semi rural Primary Care Trust in Central England with a population of around 289,000 people was concerned at their high levels of overweight and obese patients with over 100,000 patients with a BMI over 25 kg/m2 plus co morbidities. Of those 35,000 have a BMI of 30 kg/m2 plus and 6,500 a BMI greater than 40 kg/m2. It was also known that there were at least 350 patients with a BMI greater than 50kg/m2. This obesity problem was seen as an underestimate of the real problem as many registered patients did not have their BMI recorded.

With no current service model in place and in an effort to help combat the ever increasing obesity epidemic, funding was sourced by the Public Health Department, to set up pilot obesity services in 6 GP practices within the most deprived areas of the PCT.

The first draft PCT Obesity Management Plan had been drawn up in August 2005. This plan was designed to follow lessons learned from the smoking cessation service within the PCT, which had been very successful, however due to time constraints on the Public Health Department, despite having funding for a pilot, nothing had been implemented. So in August 2008 a meeting was set up between DeVille-Almond and the Public Health lead to take the pilot forward.

Deville Almond met with the Public Health lead in mid-August 2008 to discuss the 'whole systems' approach in the management of obesity and it was decided that a pilot of 'weight management services' in 6 practices within the PCTs most deprived areas would be commenced.

Following a consultation evening with the practices and an agreement that they wished to take part, training was given to all those involved in delivering the weight management programme and each practice was tasked with getting 50 patients to take part in the pilot.

A range of strategies to recruit these patients were adopted, some appearing much more successful that others. Although only 5 of the 6 practices submitted final data the outcomes appeared extremely promising and many lessons were learned during the pilot.

ABOUT THE 'OBESITY SERVICE' PILOT PROJECT

To procure further funding for 'obesity services' in all practices in the future it was important that the pilot was audited by June 2009. This gave less than 10 months to get all the staff trained appropriately, audit the practices and get the services up and running in all 6 practices. Ideally it would have been best to monitor outcomes of patients over a 24 week intervention period, however this would not have been possible due to the given time scale, so a 12 week service with targets of 5% weight loss was to be established. It was hoped that all patients taking part should have been through the weight management programme by June of the following year when the outcomes were to be audited.

Once recruited, patients were encouraged to fill out a 'readiness to change assessment tool' (the Abbott readiness to change assessment tool was used). Once their level of readiness was established each patient made an appointment for a blood test (these included fasting blood glucose, fasting cholesterol and thyroid function test) followed by a half hour consultation, to include;

- Height
- Weight
- Blood pressure
- Waist measurements (in patients with a BMI below 35)
- Current levels of physical activity (each patient was given a Step-O-Meter pedometer and encouraged to increase their steps each week)
- Smoking status
- Current medication

Unfortunately no recording of 'readiness to change' assessments were made and therefore we were unable to establish if patients had done one of these before embarking on the service.

It was envisaged that patients would then be seen at least every 2 weeks for 12 weeks. This would include the initial assessment of half hour followed by further 10 minute appointments where patients would be weighed and motivational interviewing would take place, followed by a final 20 minute assessment at 12 weeks.

Some practices also had access to Pete Cohen's online weight loss program www.petecohen.tv and The Adams Pot www.adamsportionpot.com. One practice chose a group intervention rather than a 1 to 1 as they felt this was

Practices were paid based on staff time of 90 minutes per patient based on 50 patients being seen over the 12 week period (however this proved to be unrealistic in practice).

The audit of this pilot was paramount to future funding so all the GP surgeries, who all used EMIS software, had a template set up by the PCT data specialist so that data collection would be standardised. Despite all the practices in the pilot having training on the template and one individual going into each practice to set up the template, the data that came back from each practice was far from standardised.

METHODS OF DELIVERY

The five practices who completed the pilot took various routes of delivery.

Practice 1 launched their weight loss service following a letter drop to patients with a BMI over 30, inviting them to attend. This service was run as a 1 to 1 service

Practice 2 ran a Saturday morning weight management programme at the surgery with a PowerPoint presentation delivered by the two practice nurses. This was run as a group session and patients interested in joining had an individual assessment of their base line and were then recruited to a weekly Saturday morning group session over 12 weeks.

Practice 3 hosted an evening launch, with Pete Cohen, Jane DeVille-Almond and a local gym owner all taking part. This event had been advertised via posters around the surgery. Patients at this surgery were also offered the opportunity of 1 to 1 physical activity training at a local gym (cut price) and also the opportunity to register on Pete Cohen's online weight loss program or follow his programme through his weight loss journal or DVD (for those who preferred not to log online).

Practice 4 launched their weight management programme by compiling a list of patients known to have a BMI over 30. These patients were invited to an evening meeting at the surgery.

Practice 5 launched their weight management service using a local press release, radio coverage and Pete Cohen and Jane DeVille-Almond presenting in a local pub. A local photographer and journalists attended. The cost of the venue was covered by an unrestricted grant from Abbott Laboratories.

CHALLENGES

There were many challenges for the GP practices these included:

- Time management
- Payments per patient
- Recruiting patients
- Keeping patients motivated
- Staff motivation
- GP engagement in the service
- Consistent data entry and data capture

What was also apparent from the data collection was that some of the important information had either not been measured accurately or not been recorded in the clinical system in a consistent manner.

This may have been due to the fact that the staff in charge of the obesity services had not recognised the importance of the consistency in terms of measurements and data input

In terms of data input not all data was collected and this should have been the same minimum data set across all the practices.

When the data was extract for analysis, information such as medication should also have been included

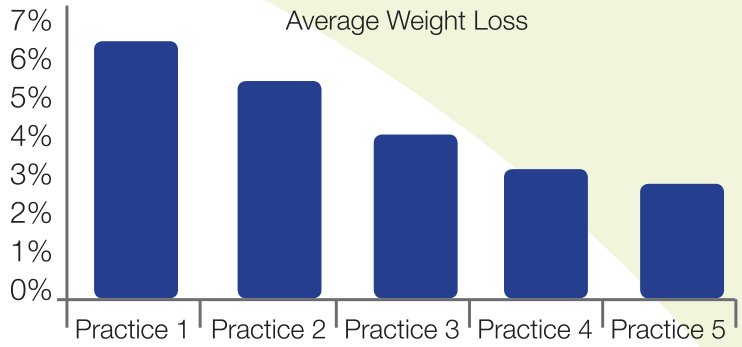
Finally there were very few recordings from some of the practices final blood results – crucial information if we are to make accurate comparison to where we started

OUTCOMES OF THE PILOT

Over a 12 week period.

Weight Loss:	**Average (fig.1)**	**Total (kg)**
Practice 1	6.2%	156.2
Practice 2	5.26%	572.97
Practice 3	4.0%	1011.9
Practice 4	3.22%	411.26
Practice 5	2.83%	231.25

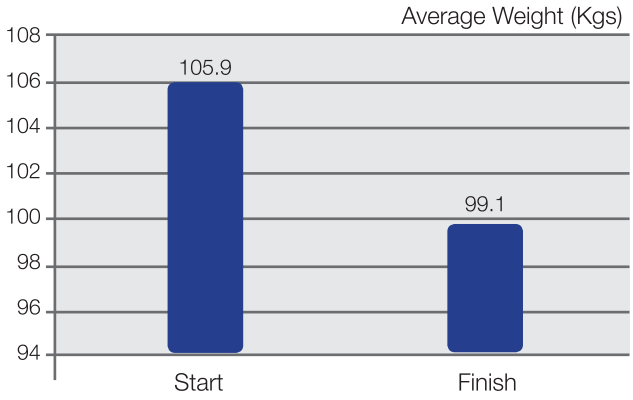
(Practice 6 did not return any final data.)



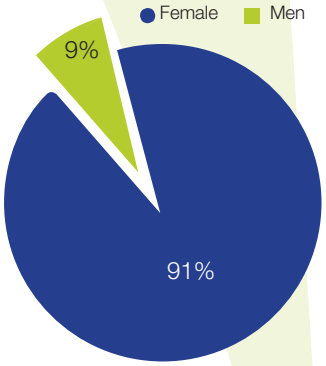
PRACTICE 1

15 people attended the service following the letters being sent and a further 7 were recruited during patient consultation. This 1 to 1 service also included the use of the Adams portion pots www.adamsportionpot.com and 5 of the patients were on pharmacotherapy which included both Reductil and Xenical. Only 9% of recruits were male.

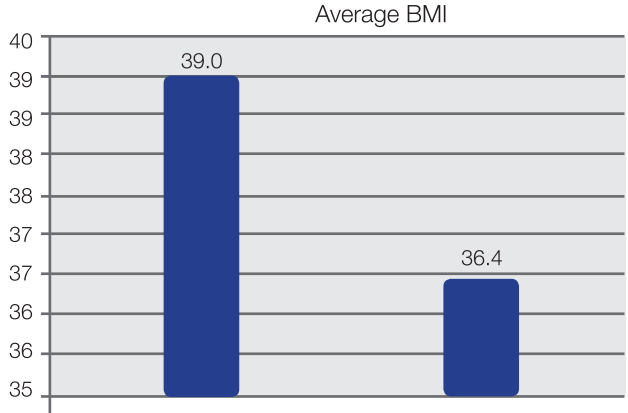
Average Weight Loss – Practice 1



Gender Analysis – Practice 1



Average BMI Reduction – Practice 1



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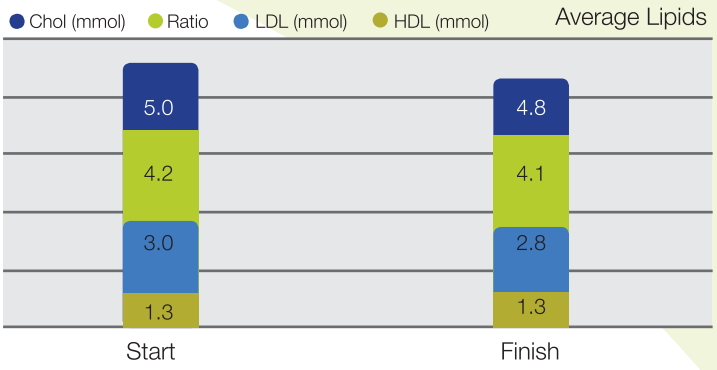
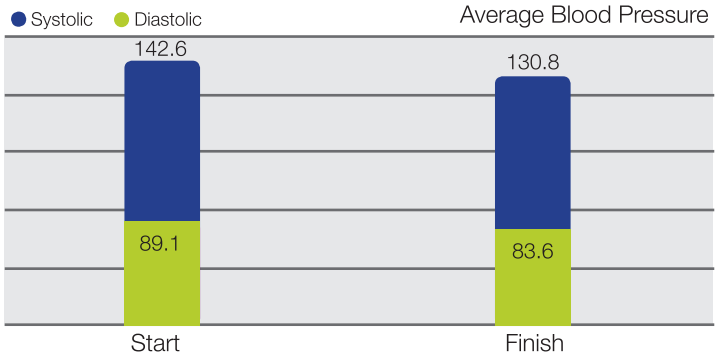
Average Lipids – Practice 1



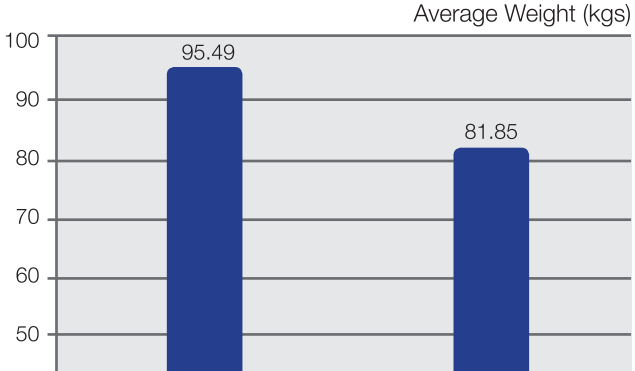
Average Blood Pressure Reduction – Practice 1



PRACTICE 2

19 people attended the first Saturday morning weight management programme at the surgery with a PowerPoint presentation by the two practice nurses involved. 14 people completed this 12 week pilot with all patients attending losing between 4% and 16% of their body weight. Initial data appears to show this service to be one of the most successful of the 6 practices. Over 70% of those attending the service rated weekly weigh-ins and Jane Deville-Almond's visits as being really helpful. Group support was also rated by 67% as being helpful. 3 patients were commenced on pharmacotherapy with 1 on Xenical and 2 on Reductil. All 3 successfully reached a 5% target after 3 months, all 3 had attempted to lose weight before with diet and exercise. Only 16% of recruits were male.

Average Weight Loss – Practice 2



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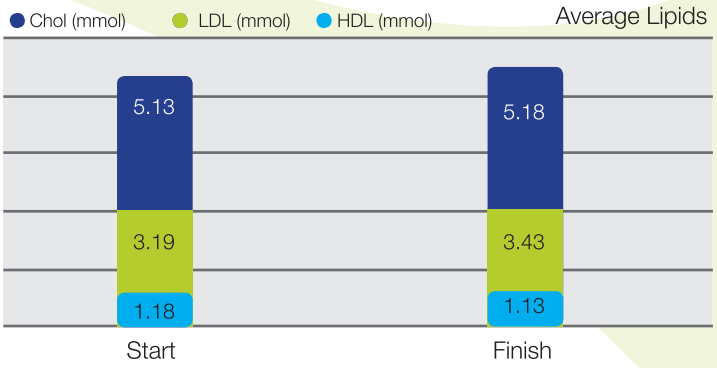
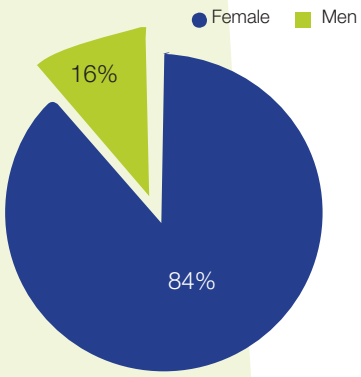
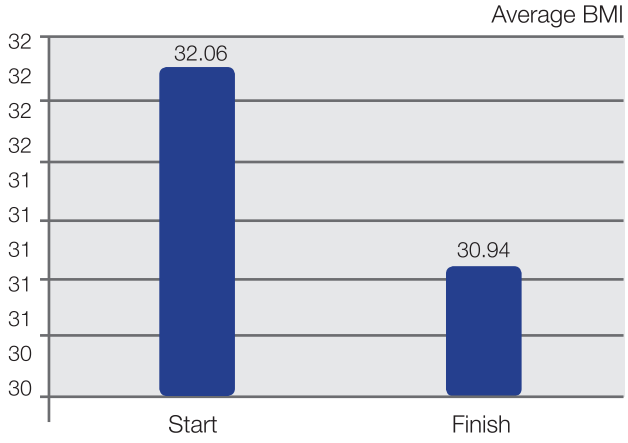
Average Lipids – Practice 2



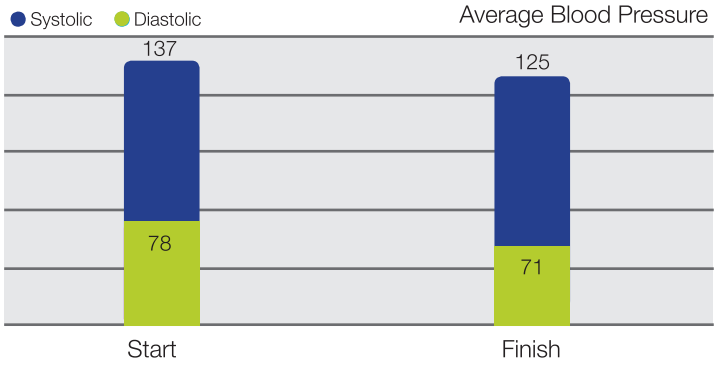
Gender Analysis – Practice 2



Average BMI Reduction – Practice 2



Average Blood Pressure Reduction – Practice 2



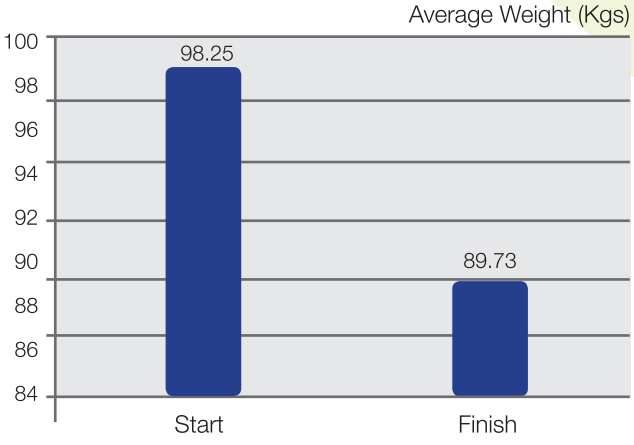
PRACTICE 3

35 women attended the evening launch and many were signed up on the night and given initial assessment dates. 27 patients subsequently signed up to attend this service.

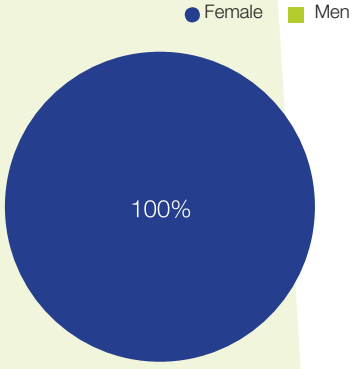
4 patients signed up to Pete Cohen's online service; 1 to his DVD version and 12 to the book version of his programme. 12 people dropped out of the weight loss service and did not attend for the final weigh in. 15 completed (it appeared that those using Pete Cohen's program were less likely to have dropped out). 6 people also attended the gym although I was unable to assess how those attending the one to one physical activity training did, as this information was

All those bar 1 who completed this program lost between 0.8% and 8.6%. Although 4 patients were known to be taking pharmacotherapy it had not been recorded who these patients were. There was also no record of their gender although Jane Deville-Almond had been at the initial recruitment evening and noted that only women attended.

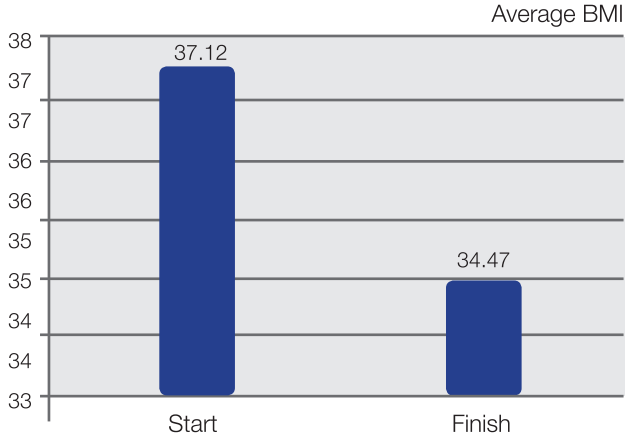
Average Weight Loss – Practice 3



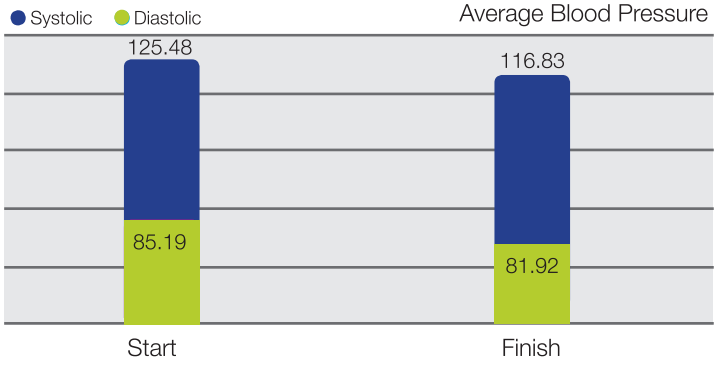
Gender Analysis – Practice 3



Average BMI Reduction – Practice 3



Average Blood Pressure Reduction – Practice 3



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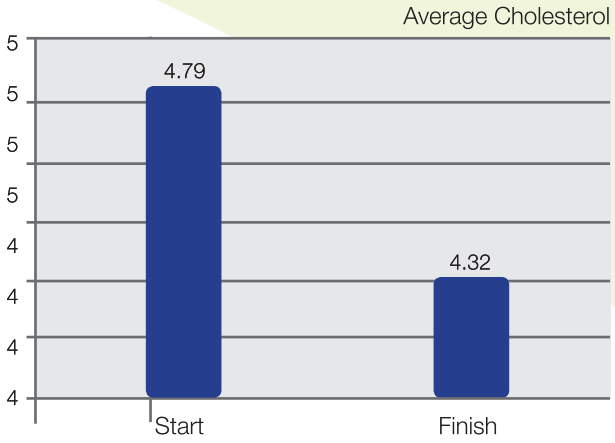
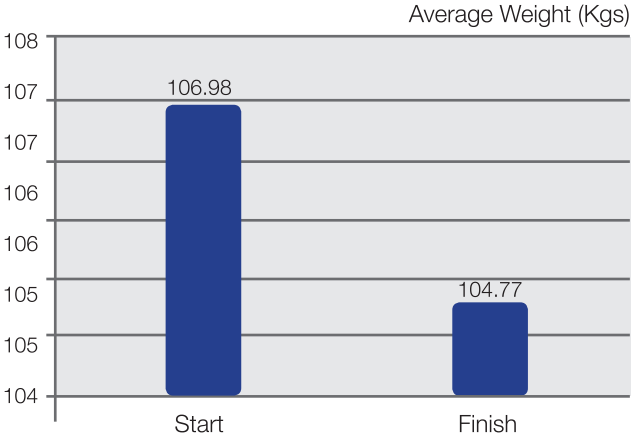
Average Cholesterol – Practice 3



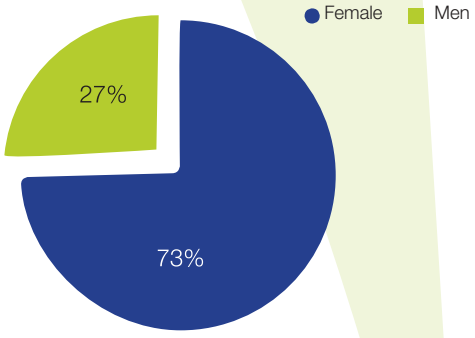
PRACTICE 4

More than 40 patients were recruited following the mail shot. This practice had the highest group of patients recruited and also the highest number of male participants at 27%. Again the way the data was collected made it very difficult to extract certain pieces of information such as patients taking pharmacotherapy. It also appeared that only 13 patients had their final bloods taken which may indicate that only 13 patients completed, or that there had been inaccurate recording of patients' history

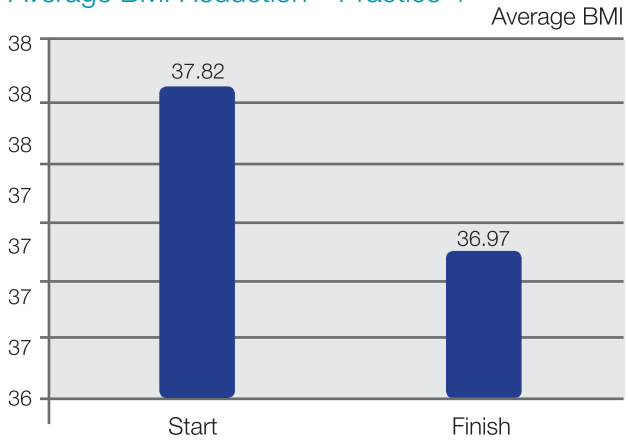
Average Weight Loss – Practice 4



Gender Analysis – Practice 4



Average BMI Reduction – Practice 4



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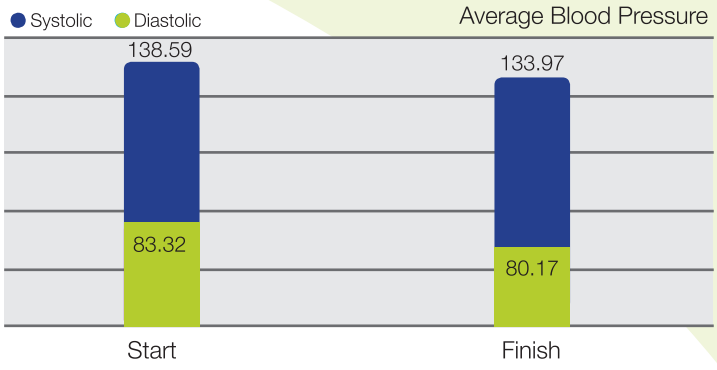
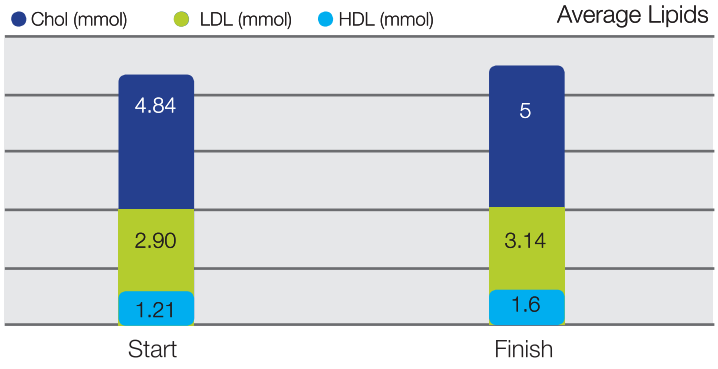
Average Blood Pressure Reduction – Practice 4



Average Lipids – Practice 4



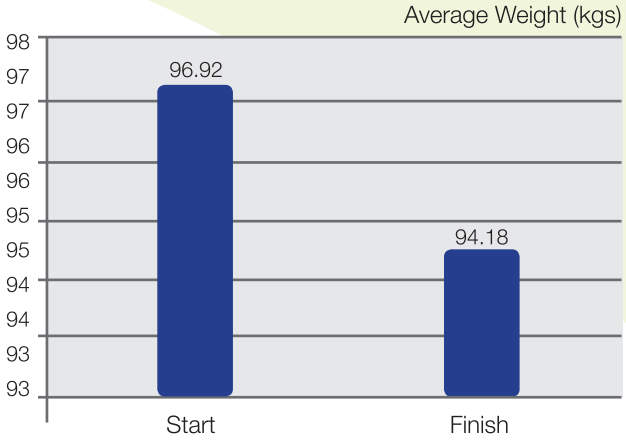
PRACTICE 5

14 people signed up for the service on the first night and a further 16 people signed up on the subsequent event. Despite there being severe weather warnings on both launch evenings the turn out was very good, with over 25 people turning out for each event. The cost of the venue was covered by an unrestricted grant from Abbott Laboratories.

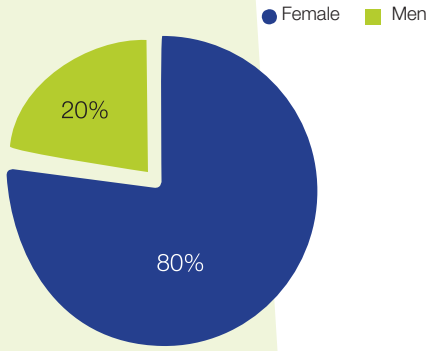
30 people had been recruited through the launch evenings and a further 10 through the practice. Patients were also offered the online or book version of Pete Cohen's weight loss programme (although sadly, patients who took up this service were not recorded, neither were patients who were on pharmacotherapy). Although this practice had appeared to be very motivated and have the potential to have really successful outcomes it seemed that the staff involved soon lost interest in running the service. The main lead in the service left during the pilot and there was no obvious replacement for this individual. Only one patient, it seems from the data, had the final lipid profile taken making the data less reliable that the other practices.

From my observations it seemed that the surgery was divided with regards to whether a weight loss service should be provided. It seems clear therefore that to be successful in running such services all staff need to be on board.

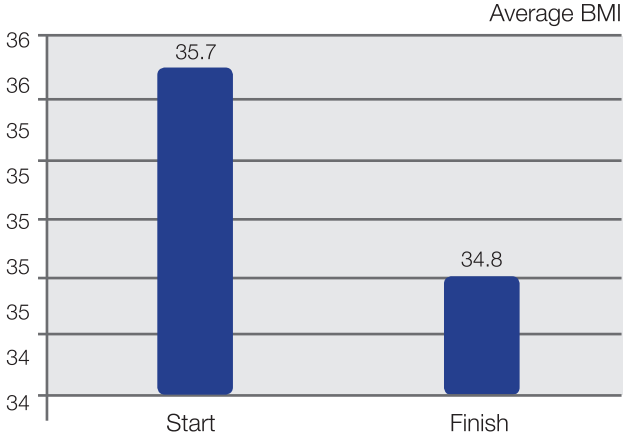
Average Weight Loss – Practice 5



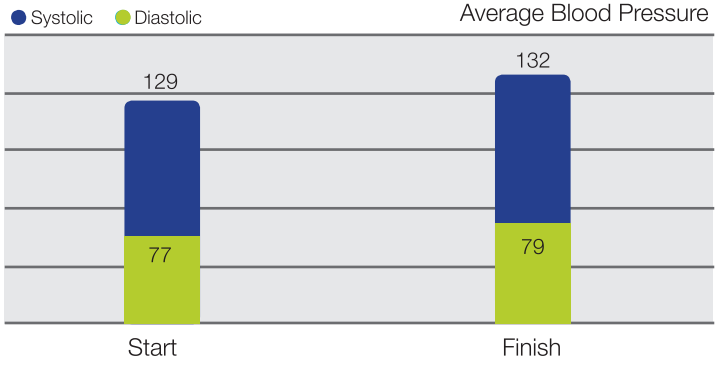
Gender Analysis – Practice 5



Average BMI Reduction – Practice 5



Average Blood Pressure Reduction – Practice 5



Only 15 of original 45 patients had repeat blood pressure readings.

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CONCLUSION

Following a 9-month period significant improvements were made to the previous obesity service although there were many lessons to be learned.

THIS CASE STUDY SHOWS THAT:

- It is possible to achieve the recommended target of 5% or above weight loss in a 12-week intervention period if patients are correctly targeted.
- Patients on obesity medication appeared to do better when they attended a regular clinic regardless of whether it was one to one or a group session
- Group session within primary care could be very successful, especially where there is a closed group session (once patients have joined then no one else can join that group)
- The practice piloting group sessions not only had some of the best results (on average 5.26%) but also proved to be more cost effective, as more patients were seen with less staff intervention. Patients also became very supportive of each other providing external ongoing support after the 12 weeks had finished.
- Men were much less likely to be targeted than women and this needs to be addressed in future services
- The creation of a standardized template is crucial to monitoring the cost effectiveness and successful outcomes of obesity services in primary care
- There is no 'one way' to recruit patients and a range of strategies should be used
- Selecting motivated staff can be as important as selecting motivated patients to improve successful outcomes

There were success stories amongst the cohorts in this pilot project especially, it seems, where patients self referred and in particular where a group intervention programme was run.

This pilot showed that it is possible to have primary care intervention through a GP practice that can have some very positive health outcomes including reduced blood pressure and positive changes in cholesterol levels. Those practices that had the most motivated and collaborative staff appeared to have better outcomes.

Although the graphs do not show this to be the case, due to poor data collection, patients who had previously been on pharmacotherapy but had not been monitored did much better when they attended a set program. This was information collected at a final interview between the staff at the individual practices and Jane DeVille-Almond.

No practice managed to recruit the requested 50 patients so perhaps this number is unrealistic for each recruiting session or the recruitment methods need to be reviewed.

The recording of patients' data in all cases was very poor and this was possibly due to the software used to collect the data. It is clear that a much better and more robust programme needs to be developed in the future.

All practices appeared to have difficulty in recruiting male patients, despite on average there being more men than women who suffered with overweight and obesity.

There appeared to be a high drop out rate in some practices and this seemed to be linked to the motivation of the staff and the practice as well as possible flaws in the recruiting methods. Services may prove to be more efficient if specialist staff were recruited.

RECOMMENDATIONS

It is clear that a more robust monitoring of practices needs to be in place during the initial setting up of new obesity services which include:

1. Development of a data extraction tool that collects data in a consitent manner and allows progress to be monitored on a monthly basis

2. Development of a robust clinical audit programme for the management of obesity and related co-morbidities training guides on the tool for General practice

3. Training of the practice staff on measurement of results

4. Baseline assessment of practice processes in the management of overweight and obese patients

5. Creation of an action plan for each practice which in turn would be agreed with the clinical lead

6. Creation of a standarised template for data collection and training of the staff on use of the templates and data entry.

7. Monthly surveillance and follow up of each practice for a minimum time period of the weight loss programme

8. Re-audit of the data after 6 and 12 months to evaluate the outcomes