

## Refereed paper

# Exploring weight loss services in primary care and staff views on using a web-based programme

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## ABSTRACT

**Background** Demand is increasing for primary care to deliver effective weight management services to patients, but research suggests that staff feel inadequately resourced for such a role. Supporting service delivery with a free and effective web-based weight management programme could maximise primary care resource and provide cost-effective support for patients. However, integration of e-health into primary care may face challenges.

**Objectives** To explore primary care staff experiences of delivering weight management services and their perceptions of a web-based weight management programme to aid service delivery.

**Methods** Focus groups were conducted with primary care physicians, nurses and healthcare assistants ( $n = 36$ ) involved in delivering weight loss services. Data were analysed using inductive thematic analysis.

**Results** Participants thought that primary care should be involved in delivering weight management, especially when weight was aggravating

health problems. However, they felt under-resourced to deliver these services and unsure as to the effectiveness of their input, as routine services were not evaluated. Beliefs that current services were ineffective resulted in staff reluctance to allocate more resources. Participants were hopeful that supplementing practice with a web-based weight management programme would enhance patient services and promote service evaluation.

**Conclusions** Although primary care staff felt they should deliver weight loss services, low levels of faith in the efficacy of current treatments resulted in provision of under-resourced and 'ad hoc' services. Integration of a web-based weight loss programme that promotes service evaluation and provides a cost-effective option for supporting patients may encourage practices to invest more in weight management services.

**Keywords:** health services research, internet, lifestyle change, obesity, primary care

## Introduction

Worldwide, over 2.8 million adults are thought to die each year through being overweight or obese.<sup>1</sup> In countries with strong primary care networks, governments are looking for primary care to use its key strengths; 'population coverage and contact, relational continuity and empathic relationships, and an ability to deal with complexity'<sup>2</sup> in delivering effective weight management services.

However, primary care staff may not have the confidence, skills or knowledge to provide weight loss guidance to patients.<sup>3</sup> Nurses deliver most weight loss services, but only 20% feel effective in this role,<sup>4</sup> while primary care physicians rarely discuss obesity with patients.<sup>5</sup> Generally, weight loss treatment is viewed as significantly less effective than treating the resulting chronic conditions.<sup>6</sup> With low confidence in treatments, staff show reluctance to treat obesity, citing barriers such as funding, training and time.<sup>7</sup>

A systematic review of primary care weight loss services identified only 10 studies of sufficient quality to allow evaluation.<sup>8</sup> This suggests that although perceptions of poor outcomes exist, monitoring and evaluation of weight loss outcomes in primary care are not standard practice. Weight loss programmes that have shown success within primary care<sup>9</sup> have not achieved widespread implementation, primarily due to resource requirements (e.g. intensive training of staff) and clinicians' beliefs.<sup>10</sup> In light of these findings, any weight loss programmes that are to be adopted by

primary care need to show positive results rapidly to counteract physician beliefs, while at the same time, requiring few resources from the practice.

Recent research suggests that web-based programmes can achieve clinically significant weight loss and blood pressure reductions in some primary care patients<sup>11–13</sup> and may offer primary care a way to deliver less resource-intensive weight loss services. However, successful integration of e-health initiatives into routine practice depends crucially on whether healthcare staff perceive the technology to be compatible with their priorities and working practices.<sup>14,15</sup>

Positive Online Weight Reduction (POWeR; Figure 1), is a web-based weight management programme. It is free to use and delivers tools and information to the patient online, minimising the need for practice staff training. Healthcare staff can view each patient's weight data remotely, allowing rapid evaluation of the patient's progress.

This study was designed to determine how primary care staff would perceive and engage with the web-based programme. The aims were to explore perceptions of weight loss services in general, and identify factors that could influence evaluation of routine and web-based weight loss services prior to a randomised controlled trial comparing these treatment arms.

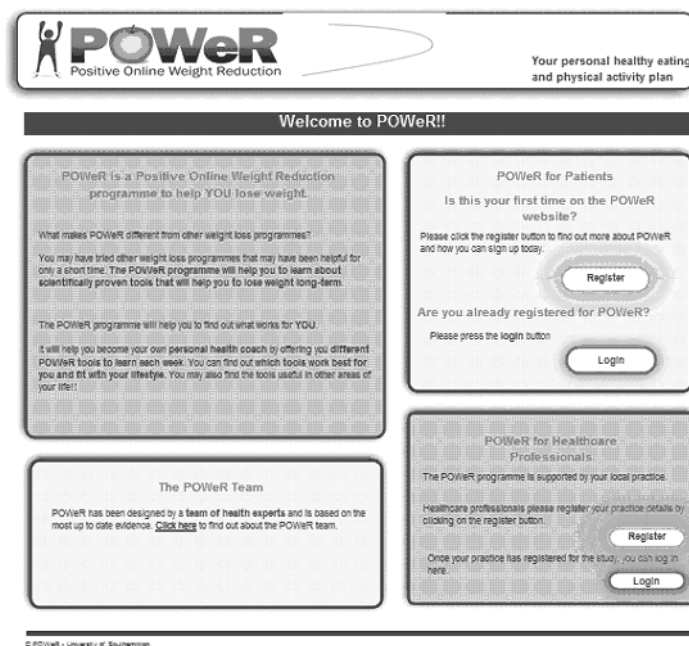


Figure 1 Positive Online Weight Reduction (POWeR)

## Methods

### Participants and recruitment

Primary care staff [ $n = 36$ ; 19 female practice nurses (PNs), 12 male physicians, two female physicians, one female administrator and two female healthcare assistants (HCAs)] were recruited from five practices (three urban, two rural) across three primary care trusts in England. Inclusion criteria were staff with experience of weight loss service delivery. Groups consisted of between four and 11 participants predominantly physicians and PNs, with one group consisting of PNs only. All practices received payment for staff participation.

### The web-based programme

POWeR was designed following a systematic evaluation of the effectiveness of characteristics found in online health behaviour change programmes.<sup>16</sup> This review showed that programmes drawing on health psychology theory (such as the theory of planned behaviour)<sup>17</sup> and more behaviour change techniques (e.g. modelling, relapse prevention/coping planning, facilitating social comparison, goal setting, action planning and provision of feedback on performance), were more effective in changing health behaviours.

Therefore, POWeR was designed with these effective characteristics to provide online tools that patients are encouraged to use at frequent sessions over a period of six months. The POWeR philosophy and development process are described in more detail elsewhere.<sup>18</sup> POWeR also has a stand-alone programme for healthcare professionals, providing training on how to support patients on POWeR and an overview of patients' progress so that supportive feedback may be given in short face-to-face, email or telephone consultations. As such, POWeR has the facility to be used by patients on its own or with the support of healthcare professionals. Data entered by patients (such as weight or changes in activity levels) are stored on a secure server and are accessible online through password-protected https websites to both the patients and the healthcare professionals. Healthcare professionals and patients can also communicate with each other through the POWeR programme.

### Data collection

Five semi-structured focus groups lasting between 39 and 72 minutes were conducted by two facilitators between April and August 2011 at the practices. A topic guide (Table 1) provided a flexible framework

for discussion. Participants were emailed a link to view the web programme prior to each focus group, with the web programme on display during the session to aid discussion. All focus groups were recorded and transcribed verbatim for analysis.

### Data analysis

Inductive thematic analysis was used to identify recurring themes within the data<sup>19</sup> following Braun and Clarke's six-phase guide:<sup>20</sup> (1) familiarisation with the data; (2) generate initial codes; (3) searching for themes; (4) reviewing themes; (5) defining, refining and naming themes within the narrative of the report; (6) produce the report. Following familiarisation with the transcripts, initial *in vivo* codes (codes based on the participants' own words) were developed. Then open coding and constant comparison<sup>21</sup> resulted in merging and splitting of themes. Through discussion between investigators, a final coding frame was agreed with themes closely grounded in the data.<sup>22</sup>

Coding was informed by constant comparison techniques from grounded theory.<sup>21</sup> Grounded theory provides a systematic way to comprehensively describe a qualitative data set.<sup>22</sup> Full grounded theory analysis was not employed as the aim was not to develop a theory, but to inductively and systematically explore and describe the context in which POWeR will be used and identify potential barriers to use in primary care. Braun and Clarke refer to this analytical approach as grounded theory 'lite'.<sup>20</sup>

Ethical approval for the study was granted by the Isle of Wight, Portsmouth and South East Hampshire NHS National Research Ethics Committee (10/H0501/46).

## Results

Identified themes related to: 'Should primary care deliver weight loss?', 'What is current treatment?', and 'Can a web-based programme help?'

**Table 1** Focus group topic guide showing the areas discussed during each focus group session

Usual weight loss practices and what works
Perceived enhancers/barriers to service delivery
Views about the web programme and using this with patients

## Should primary care deliver weight loss?

Staff viewed obesity services as part of their role, but secondary to treating disease, with intervention when weight-related illness occurred. Although utility of involvement at this stage was questioned:

It becomes a problem for us, doesn't it? [...] with either arthritis or diabetes or heart problems or back pain [...] it becomes our role doesn't it? (#20, PN)

... by that time it is almost too late, isn't it. [...] they have gone through the period of time when they could have actually done something about it. (#15, physician)

Staff reported insufficient resources for delivering weight management services and were frustrated by this but also reluctant to allocate more resources to a service they felt was ineffective:

For measuring overweight people [...] sometimes we have [the] patient do two sets of scales, one on each, one foot on each, because our scales don't go up [...] high enough. (#25, PN)

... it's a good twenty minute slot, if you really want to get to grips with everything. [...] we try and fit that into ten minutes, ten, fifteen minutes, and it is impossible. (#1, PN)

... if there is evidence that certain strategies will cause long term weight loss we should be doing them, otherwise we shouldn't be spending resources doing something that is not effective ... (#34, physician)

## What is the current weight loss treatment?

Referral options such as exercise programmes or dietetic services were available but most patients were treated in the practice. Staff felt unable to provide weight loss services to all obese patients registered at the practice due to the numbers, patient choice or fear of causing offence:

People are comfortable with you know, how they are. And not to deal with it like that, you know who am I to actually say that is actually the wrong way to do it. (#34, physician)

Staff described treatment as giving advice, leaflets, drugs, targets or combinations of these. Barriers to weight loss were perceived as primarily patient related (e.g. patients' 'excuses', patients' time). PNs delivered most weight management programmes with support from HCAs. Although staff thought specific skills were required, few had any formal training:

... I don't think I have had any formal weight loss training, I just go on what I do myself, and just things that you have read and [...] common sense. (#25, PN)

I suppose we do wing it... (#23, PN)

## Can a web-based programme help?

Overall, staff thought the web programme was encouraging, cheerful, professional and credible due to the absence of advertising and the evidence-based approach. Content was viewed as appropriate, useful for patients and for staff during patient consultations:

... it is really helpful [...] It is like a crib sheet for us really. (#23, PN)

There was some concern that older adults and the socio-economically disadvantaged would not have internet access. Public internet facilities, e.g. library computers were suggested as a possible solution. Although the programme was viewed as easy to use, it was not thought to be suitable for all patients:

... I thought even our less, sort of computer literate patients would find that [website] quite easy to use. (#22, PN)

I don't think we have any ideals that it will be a one size fits all computer programme that causes ... weight advice is no longer something we do... (#4, physician)

Staff were apprehensive about working with patients via email and worried that lack of face-to-face contact could create problems in assessing or communicating with the patient, or that they would be 'flooded' with patient emails demanding immediate attention. However, remote telephone consultations were routinely used and some staff felt that remote consultation in general would be useful:

... you say telephone, you could do it by email even? [...] I think email would be great. Yes, voice to voice, phone or email. Do it all remotely. (#15, physician)

Being able to view each patient's weight loss progress online was seen as a benefit, particularly in enabling staff to provide more support while empowering the patient, enhancing collaboration and promoting continuity of care among practice staff:

... you can look in real time and go on the web and look at what they are up to? That sounds great ... (#15, physician)

... if you can access the patient details on there, you can see how they are progressing, then I guess everyone is singing from the same hymn sheet aren't they? (#22, PN)

Staff felt that using the web programme to standardise service delivery and enhance continuity of care would enable evaluation of services that are currently not audited:

... at the moment we are very much ad hoc [...] It will give us a focus, we will all be doing it the same way for a little while and we can actually see if it is working, and that is going to be good ... (#36, PN)

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## Discussion

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### Key findings

Three main themes were identified. In the first theme: 'Should primary care deliver weight loss?', primary care staff believed they have a role to play in weight management when weight was influencing health. At the same time, there was concern that this was too late and not an effective use of the limited primary care resources. There was a reluctance to invest more resource in services without evidence of their effectiveness. In the second theme, 'What is current treatment?' services were described as 'ad hoc' with few staff having had any relevant training. Referral options were rarely used and most patients were treated in practice, despite having limited resource and no evidence of the efficacy of the management methods employed. In the third theme, 'Can a web-based programme help?' staff identified challenges to implementation, such as concern about working with patients remotely and the potential additional workload this could create. Overall, staff felt that the web programme held promise for enhancing continuity of care and delivering evidence-based services to patients. The finding that staff perceived the use of internet services as an opportunity to audit previously un-evaluated services was unexpected.

### Strengths and limitations of this study

The strengths of this study were that it directly explored the perspectives of primary care staff involved in delivering current weight management services. A limitation is the possible influence of the research team on the data collection and analysis, which could have resulted in more positive views being expressed and reported. For example, in a previous postal survey not all physicians believed primary care should be involved in delivering weight loss services.<sup>23</sup> To minimise this effect, both positive and negative views were sought on the focus group topics, and care was taken to present a range of views expressed by healthcare professionals. A further limitation is that staff had not yet used this web programme with patients and the effectiveness of the programme had not yet been tested in primary care. Following resolution of some of the barriers identified in this research, several randomised controlled trials are now underway to evaluate the cost-effectiveness of the web programme within primary care and in more socially deprived communities, with interviews to explore patient and staff experiences.

### Comparison with the literature

During focus group research with primary care staff in the USA, staff felt that online weight loss programmes should incorporate 'no cost to the patient; a structured curriculum addressing motivation, psychological issues, and problem solving; and tools for tracking diet, exercise, and weight loss'.<sup>24</sup> POWeR contains all these elements, which may explain the relatively positive views expressed by participants in this study. US primary care staff also expressed similar concerns, e.g. the time required to support patients, fitting this into the clinical workflow and the efficacy of such services. The challenge of delivering weight loss services in the primary care setting when resources are limited is well known.<sup>25,26</sup> A web-based programme has the potential to deliver an effective behaviour change service to many patients with few human resources.<sup>11-13,16</sup> However, understanding the priorities and perspectives of primary care staff not only promotes successful integration of web-based services into routine practice, but appears key to enhancing the patient experience. Coordinating web-based weight loss with routine care and primary care staff support are factors reported by patients as important for a positive experience<sup>27</sup> and for promoting patient-centred care.

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## Conclusions

Primary care staff feel that they have a role to play in delivering weight loss services to patients but show reluctance to invest fully in services in which they have little confidence. Web-based weight management programmes that need minimal practice support and show rapid and cost-effective results for patients could provide primary care with the encouragement needed to wholeheartedly take up this challenge.

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## CONFLICTS OF INTEREST

None.

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