

General practitioner opinion of weight management interventions in New Zealand

Rosemary Claridge;¹ Lesley Gray FFPH, MPH, MSc;² Maria Stubbe DipTESL, NZDipTCHG, PhD;² Lindsay Macdonald BN, MA;² Rachel Tester BSc, GradDipSc;² Anthony C Dowell MBChB FRCGP, FRNZCGP²

¹Medical Student, University of Otago, Dunedin, New Zealand

²Department of Primary Health Care and General Practice, University of Otago, Wellington

ABSTRACT

INTRODUCTION: Internationally, a number of studies have investigated general practitioner (GP) opinion of weight management interventions. To date there have been no similar studies carried out in New Zealand. This study aimed to explore GP opinion of weight management interventions in one region of New Zealand. Understanding GP opinion is important, as rates of obesity are increasing and GPs are front-line health care service providers. The data collected could be used to guide health service development in New Zealand, and to inform training and support of GPs in obesity management.

METHODS: A qualitative study using inductive thematic analysis of a series of 12 semi-structured interviews with GPs in the Wellington region of New Zealand.

FINDINGS: Five key themes were identified: 1) GP perceptions of what the GP can do; 2) the roots of the obesity problem; 3) why the GP doesn't succeed; 4) current primary care interventions; and 5) bariatric surgery.

CONCLUSION: The GPs interviewed felt responsible for treatment of obesity in their patients. They expressed a sense of disempowerment regarding their ability to carry this out, identifying multiple barriers. These included: a society where overweight is seen as normal; complex situations in which weight management is rooted in personal issues; stigma associated with overweight and its management; lack of efficacious interventions; and low resource availability. Bariatric surgery was viewed cautiously in general, though some examples of positive results were reported, as well as a desire for increased access to this treatment option.

KEYWORDS: Body weight change; general practice; obesity; primary health care; therapy

Introduction

Obesity rates in New Zealand are increasing, as they are in the rest of the world.¹ The 2008/2009 National Nutrition Survey found that 37.0% of New Zealanders were overweight and 27.8% obese.² With over half the population overweight, it is becoming the 'new norm' of New Zealand society.

General practitioners (GPs) are front-line health care service providers, whose role increasingly involves preventive health care, including weight management. GPs are arguably the health professionals best positioned to address obesity, making it vital to develop a clear understanding of their position on weight management.

There is little consensus about the efficacy of different weight loss interventions. Studies of weight management interventions have found the following:

1. Interventions focused on diet or physical activity alone show no evidence of effectiveness³
2. A high-protein diet was a culturally acceptable and somewhat effective intervention in a Māori population⁴
3. Face-to-face tended to be more effective than internet or telephone interventions³
4. Exercise is a valuable contributor to overall health, but alone is of minimal efficacy in weight loss strategies⁵

J PRIM HEALTH CARE
2014;6(3):212–220.

CORRESPONDENCE TO: Lesley Gray

Department of Primary Health Care and General Practice, Te Tari Hauora Mātāmua me te Mātauranga Rata Whānau, School of Medicine and Health Sciences, University of Otago, Wellington, PO Box 7343, Wellington, New Zealand
lesley.gray@otago.ac.nz

5. Behavioural therapy and cognitive behavioural therapy (CBT) are effective weight loss interventions, particularly when used in combination with diet and exercise^{6,7}
6. There is little evidence on the efficacy of weight loss medications (of the two currently available in New Zealand, Orlistat has some efficacy but very unpleasant side effects⁸ and little research was found on Duromine), and
7. Bariatric surgery was found to be the most effective weight loss intervention by a 2009 Cochrane Review,⁹ although few people are referred, with one study reporting a referral rate of just 15% of morbidly obese patients.¹⁰ Access to publicly funded bariatric surgery is very limited in New Zealand.

A number of studies internationally have investigated GP opinion of weight management interventions, but to date there have been no New Zealand studies. International research that has investigated GP perceptions of their role in treating the obese patient, the barriers to addressing obesity and the available interventions has identified some concerning trends. One of the most commonly stated barriers to treating obesity is GPs' belief that interventions will ultimately be unsuccessful.¹¹⁻¹⁴ GPs also tend to place the responsibility for weight loss on the patient, with a major barrier to weight loss considered to be the patient's lack of motivation or inability to carry out the necessary changes.^{12,15,16} Despite these negative perceptions, there is an overall consensus that GPs do have an important role in treating obesity.^{17,18}

Given the lack of New Zealand studies on GP opinion on weight management interventions and New Zealand's unique sociocultural structure and health care system, it is unclear whether international findings can be applied here. This study aimed to address this through a series of semi-structured interviews to elicit GP opinion of weight management interventions in one region of New Zealand. This study is an extension of a larger funded research study, currently ongoing (TabOO: Talking about Overweight and Obesity),¹⁹ conducted to provide necessary contextual information to inform the development of a New Zealand brief intervention tool.

WHAT GAP THIS FILLS

What we already know: Obesity management is an increasingly common part of the work of New Zealand GPs. In overseas studies that have investigated GP perceptions, one of the most commonly stated barriers to treating obesity is GPs' belief that interventions will ultimately be unsuccessful, and GPs also tend to place the responsibility for weight loss on the patient. Despite these negative perceptions, there is an overall consensus that GPs have an important role in treating obesity.

What this study adds: New Zealand GPs feel they have an important role in the care of obese patients, but feel a sense of disempowerment due to the complex nature of the issue, lack of resources, and inefficacy of available interventions. They have ambivalent attitudes toward bariatric surgery. These findings highlight the need to review New Zealand primary health service delivery and GP training in the area of obesity management.

Table 1. Demographic characteristics of participants (N=12)

Gender		Age (years)		Length of practice	
Male	7	31-39	4	1.5-5 years	2
Female	5	40-60	3	6-10 years	1
		>60	5	11-20 years	3
				21-30 years	2
				31-50 years	4

Table 2. Characteristics of practices of participants*

Urban/rural	Proportion of Māori/Pacific patients	Socioeconomic status (SES) [†]	Deprivation index of suburb [‡]				
Urban	10	<50%	8	High SES	3	3-4	4
Rural	2	>50%	4	Mid SES	3	5-7	5
				Low SES	5	8-10	3

* Although the participants were from only 11 practices, the totals in this table add up to 12 because the data is self-report and the report of each participant is included.

† Data is missing for one participant.

‡ According to the New Zealand Deprivation Index 2006 where 1 is the most deprived and 10 the least deprived.

Methods

This was a qualitative study designed to explore the viewpoints of GPs in the Wellington region on weight management in primary care. The study used purposive sampling to recruit a range of participants (see Tables 1 and 2), who were contacted using existing connections (four) and random calling (eight) of GP clinics across the

Wellington region. Twelve GPs from 11 practices were interviewed. GPs were not asked to state their ethnicity. Several respondents are GPs working within ethnically diverse and/or Māori or Pacific provider services.

Semi-structured interviews were conducted by a junior researcher (RC) under the guidance of two senior researchers (MS and LG), as an extension of

the TabOO study. The interviews were conducted in GPs' consulting rooms, with the exception of one that was conducted in the GP's home. The interviews were between 30 and 60 minutes in duration. The interview schedule (see Appendix 1 in the web version of this paper) was designed in consultation with an experienced local clinician and guided by review of the relevant literature.^{14-17,20,21} The interview covered five broad topics:

1. Perspectives on obesity
2. Weight management principles
3. Weight management interventions
4. Bariatric surgery, and
5. 'What do we need?'

The interviews were audiotaped and transcribed by the interviewer (RC), and were analysed using inductive thematic analysis and an iterative coding process.²² The interviewer conducted the first round of analysis, which generated 83 initial codes. These were refined into 44 codes, which were then grouped into themes and subthemes through a process of discussion and consensus with other members of the research team who reviewed the data.

The study was approved by the Otago University Human Ethics Committee (Health) (Ref. D12/403).

Findings

Thematic analyses of the 12 interviews led to the identification of five key themes:

1. What the GP can do
2. The roots of the obesity problem
3. Why the GP doesn't succeed
4. Primary care interventions, and
5. Bariatric surgery.

Theme 1: What the GP can do

The role of the GP was seen as threefold: identifying the issue, providing education, and using their unique societal position to influence the patient. Table 3 provides a selection of quotations from interviews on these topics.

Identifying weight as an issue to be addressed in the patients' medical care was seen as the first

Table 3. Subthemes identified within Theme 1, with selected participant quotes

What the GP can do
<p>Identify the issue</p> <p>Well, first of all identifying it, though in truth I'm only confirming what patients already know. (GP 10)</p> <p>I think it's very subjective. I mean classically we have used body mass index, which I think, you know, is a grossly inadequate measure because it doesn't... reflect you know kind of different body types and that sort of thing. (GP 11)</p>
<p>The unique position of the GP</p> <p>People seem to be quite accepting of me talking about weight, whereas in other social settings you could never discuss someone's weight. (GP 4)</p> <p>You just find that you 'hit' someone at precisely the right moment and something you say, or something you enable patients to think about can change... change their life quite dramatically. (GP 8)</p>
<p>Education</p> <p>Bringing up topic in context of other health condition</p> <p>...Being obese has a whole lot of medical implications. It's got tons of social implications but it's the medical ones that we tend to. We are on safe ground I suppose with medical implications. (GP 2)</p> <p>Focus on long-term, sustainable, manageable changes in lifestyle</p> <p>I suppose the one that keeps weight off over a period of time, and that usually means a management that somebody's taken on rather than something that they do that it works and they walk away from it, yeah, and I suppose it's changing someone's behaviour. That's the successful weight management, if you can get them not to buy the [soft fizzy drink] in the first place, it's gonna help. (GP 2)</p>
<p>Support and motivation</p> <p>And the big thing is motivating the patient, motivating the person in front of you to believe that they can do it. (GP 10)</p> <p>Success from any positive change</p> <p>Some people it's just keeping it stable. With others it's actually losing appropriately, losing something is always an achievement. I'm not quite as obsessive about BMIs of 20 to 25. It seems for many people these are unachievable gains. Whatever the patient can manage is probably a success. (GP 9)</p> <p>Surprise at success</p> <p>I think we all have individual patients who respond extraordinarily well, but they're the minority. (GP 3)</p>

part of the GP's role, despite a number of GPs stating that patients are already aware they are overweight. Body Mass Index (BMI) was used as a diagnostic marker, although it was considered flawed by some GPs. GPs emphasised the importance of their role in the care of obese patients. They saw themselves as holding a unique position in which it is socially acceptable for them to address weight, and believed in the ability of the GP to influence the patient.

Although GPs felt they were legitimately able to teach patients about the importance of weight management, they often reported bringing the topic up in the context of its contribution to other health conditions, in order to avoid offending patients. This role as an educator continued with regard to intervention. The GP focus was centred on long-term, sustainable, manageable changes in lifestyle.

GPs considered support and motivation an important part of their role to encourage their patients to carry out lifestyle changes. They felt that success was achieved when the patient made *any* positive change (as opposed to achieving a specific weight loss target for instance). Despite this modest definition, anecdotes of success were frequently related with an expression of surprise.

Theme 2: The roots of the obesity problem

Obesity was considered by GPs to be driven by both societal and individual factors.

Most GPs linked obesity to a societal cause. This included changes in social structure and perceptions that have allowed being overweight to become seen as normal, and cultural norms in some communities where increased size is associated with health and wellbeing. GPs identified an important relationship between obesity and poverty, noting that the interventions available were often inaccessible due to cost, thus indirectly linking obesity with low income.

The theme of obesity as a societal issue was further supported by the way that GPs reported the proportion of overweight patients within each practice. Those reporting less obesity sometimes gave the caveat that they served a high-income

Table 4. Subthemes identified within Theme 2, with selected participant quotes

The roots of the problem	
Societal	
	I'm so overawed by the overweight people that that becomes my norm... that's my bell-shaped curve. (GP 7)
	They had visitors from their family who told them to change their doctor because 'since you've been seeing that doctor you don't look well' and that their perception was that losing weight was equated with sickness. (GP 3)
Link with poverty	
	It's either publicly you don't fit the very restrictive criteria, or privately you don't have the money to go [for bariatric surgery]. (GP 3)
	Poorer areas don't have the same number of sports and recreation facilities as more affluent areas. And yet we know the obesity epidemic is worse in poorer areas. (GP 8)
	It's [behavioural therapy] not terribly accessible for people who haven't got money to spend. (GP 9)
Explanation of low rate of obesity in practice but not of high rate	
	At least 10% [obese], I don't know off the top of my head... it's a sort of white upper class practice and they're pretty conscious of exercise and body image. (GP 6)
	I don't know... 40% [overweight] something like that. (GP 8)
Need for higher level action	
	It's going to take some bigger thing than particular individuals doing particular individual things. (GP 2)
Individual	
	Well the first steps are to identify what they're eating and what their issues are with eating, whether they're eating for psychological reasons, or they're eating too, far too many calories because they don't understand the basics of nutrition, or because there is a social situation where they can't avoid eating lots... (GP 5)
	Is it because they perceive themselves to look more healthy or more beautiful or more acceptable that way? (GP 3)

area, while higher rates were reported without comment. This implied that having few overweight patients was something that required explanation or justification. The societal root of obesity was also emphasised by statements regarding the need for a comprehensive weight loss focus at a higher level than the individual.

GPs also perceived significant individual determinants of obesity, noting that the driving factors in the individual must be identified in order to address obesity issues. Suggested contributors included lack of time (to make healthier lifestyle choices), family crises, other sources of stress, lack of education, psychological issues, and personal belief that wellness is associated with large size. Table 4 provides a selection of quotations from interviews on these topics.

Table 5a. Subtheme identified (patient factors) within Theme 3, with selected participant quotes

Why the GP doesn't succeed: Patient factors
<p>Patient acknowledgement, motivation and readiness</p> <p>It's pointless recommending things if people aren't ready to do it. (GP 5)</p> <p>I can talk from now until the cows come home about what they should do, but it's up to the person to understand that they need to do it and that they can change. (GP 10)</p>
<p>Stigma around obesity and weight management</p> <p>Our practice is predominantly Māori and there's this issue of whakamā, or shame around being seen to be unhealthy and overweight. (GP 8)</p> <p>I think wrongly they perceive it as a personal insult or by implication that you're saying that they're either greedy or lazy or both. (GP 11)</p> <p>I discovered that quite a few of my patients, both Māoris and Pākehās [European New Zealanders], were exercising but they were doing it in the dark because they didn't want their community to see them doing it. They felt ashamed to be seen exercising. (GP 3)</p>
<p>High variability among patients</p> <p>I find weight is often one of those things where there's so many different things involved, you've really got to try and work out what are the things that are going to be useful here because they're not going to be the same thing I use on someone else...(GP 2)</p>

Table 5b. Subtheme identified (resource factors) within Theme 3, with selected participant quotes

Why the GP doesn't succeed: Resource factors
<p>Within the practice</p> <p>The weight management tool to me is weighing them regularly. (GP 6)</p> <p>We're quite lucky to be supported by a multidisciplinary team here, with a focus on weight reduction. (GP 8)</p> <p>I've got nurses who are really good at giving dietary education. (GP 7)</p> <p>With a lot of the pamphlets though, I don't really necessarily agree with everything they say. (GP 4)</p> <p>Yes I'm sure there are guidelines but I don't think they're any different to what I'm doing. I don't think they can be. (GP 10)</p>
<p>External resources</p> <p>I've referred people to 'active families' and 'green prescription'. Within the community we've got resources, like the physios [physiotherapists] do exercise classes...the community centre and they run yoga classes, we've got walking groups in the community...there's actually quite a lot going on that the practice can kind of feed people in to. (GP 7)</p> <p>No. I can't think of any off the top of my head. If I scratch the surface I'd probably find some, but I don't. (GP 6)</p> <p>There are dietitians about... they're in very short supply... to be honest I have rarely had a patient who has completed the course. (GP 10)</p> <p>Desire for more external resources</p> <p>I would really like access to cheap or free dietary advice. (GP 5)</p> <p>I think there's a need for a... a sort of lifestyle modification service that's culturally appropriate and probably primarily provided by providers from within the community. (GP 3)</p>

Theme 3: Why the GP doesn't succeed

Most GPs considered the likelihood of success in weight loss intervention to be low and attributed this to both patient and resource factors.

Patient factors

GP opinion was that before progress can be made, the patient must recognise that their weight has a negative health impact, and be motivated and ready to make changes. GPs perceived an important barrier to the patient taking this step to be the ongoing stigma around both obesity and participating in weight management interventions. Widely variable individual determinants of obesity were also perceived as a barrier to success, by eliminating the possibility of a 'one-size-fits-all' approach to managing overweight/obesity. Table 5a provides a selection of quotations from interviews on these topics.

Resource factors

Within the practice, one of the most commonly mentioned resources was a set of scales. Practice nurses were highly valued in the care of overweight patients. However, just one practice had its own comprehensive weight management programme. Written resources were given out by some GPs, although concern was expressed about some incorrect messages in the available resources. The *Clinical Guidelines for Weight Management*²³ were little used. GPs raised the difficulty of addressing weight issues when there is a lack of appropriate resources, both within and external to the practice.

There was mixed opinion about the number of external resources available. The most consistently reported resource were dietitians; however, many GPs felt patients had inadequate access to dietetic services, and one who reported access had issues with patients failing to attend their appointments. There was a desire for increased services to refer patients to, with suggestions including more dietitians and a comprehensive weight loss-focused service. Table 5b provides a selection of quotations from interviews on these topics.

Theme 4: Primary care interventions

GPs expressed varied opinions on the currently available weight loss interventions. GPs generally held a negative opinion on calorie-restricted diets, with any weight loss considered a short-term improvement, although five GPs did perceive calorie restriction, or reduction of food intake, as an effective form of intervention. Exercise was unanimously considered as beneficial to overall health and wellbeing, but its efficacy as a weight loss intervention was debated. Behavioural therapy and cognitive behavioural therapy (CBT) were found to be lesser known interventions. Despite this, there was an overall positive assessment of their potential as a weight loss tool. GP opinion on pharmaceutical weight loss intervention was quite negative. All GPs either infrequently or never prescribed weight loss medication, believing it lacks efficacy, particularly in the long term. There was one GP who was an exception and a firm advocate of weight loss medication. There was little comment on commercial programmes for weight loss. Those GPs who did give an opinion put forward mixed views regarding both their efficacy and whether they would be willing to refer patients. Table 6 provides a selection of quotations from interviews on these topics.

Theme 5: Bariatric surgery

GPs held conflicting ideas about surgery—positive views about its potential, yet expressing awareness (and being wary) of the risks. Concern was expressed that surgery does not address the root causes of obesity. Surgery was often portrayed as negative—a drastic intervention with a high level of risk and morbidity, that required careful education. Despite this, a number of GPs also viewed surgery as a very important tool, and enthused about how life-changing it can be for those patients who receive it. Given this enthusiasm about the potentially positive effects of surgery, it is unsurprising that there was a desire for increased access and clarity in the criteria for publicly funded surgery.

On the other hand, some GPs questioned the appropriateness of surgery and considered that it does not address the heart of obesity issues. There was concern that surgery is given to the

Table 6. Subthemes identified within Theme 4, with selected participant quotes

Primary care interventions	
Calorie restricted diet	<p>If you're talking about the efficacy of long-term weight loss, I don't think it's efficacious. (GP 4)</p> <p>Well, that's eating less food isn't it really? In the end, that's all there is. (GP 9)</p>
Exercise	<p>I say to patients 'exercise has got many, many health benefits'. I think compared to the appropriate dietary changes, it's pretty lousy as a weight loss intervention. (GP 11)</p> <p>I think a lot of the time I emphasise it more than what people are eating. (GP 4)</p>
Behavioural therapy	<p>I don't know anybody who has used CBT [cognitive behavioural therapy] for weight loss. I suppose in theory it could be useful. (GP 5)</p>
Medication	<p>I do use it a bit, but very uncommonly now. I find them all pretty useless... we've all been through them all over the years. (GP 6)</p> <p>I'm actually a bit of an advocate for that to be honest. I was gutted they took Reductil off the market. It was more of a political issue than anything else I think. (GP 12)</p>
Commercial weight loss programmes	<p>I don't see any problems about people using that as long as they know what they're doing. (GP 2)</p> <p>I've not seen people really sustain weight loss when they've been on programmes. (GP 3)</p>

wrong patients, with those accessing it not necessarily those who most need it. However, some GPs did feel that adequate psychological assessment and preparation was in place. Table 7 provides a selection of quotations from interviews on these topics.

Discussion

The aim of this research was to establish local GP opinion on obesity and weight management. The five main themes that were identified in this study parallel those in international research.

On the role of the GP in the care of obese patients, our findings were consistent with other studies, specifically:

1. GPs have an important role in the care of obese patients, as educators and to influence and encourage patients.^{14,17,24}
2. GPs lack belief in the efficacy of interventions¹¹ and their decisions on whether

to attempt weight loss intervention is partially determined by the 'perceived effectiveness' of interventions.²⁵

These findings raise concerns that GPs may not be addressing weight issues in patients, despite a belief that it is their role to do so.

One strategy mentioned in interviews was the use of other medical conditions as a clinical 'excuse' for bringing up weight management. This use of a 'teachable moment' for addressing obesity is a commonly used strategy,²⁶ and is also recognised as an effective strategy for addressing other health behaviours.²⁷ In consultations regarding alcohol and drug use for instance, GPs often use tactics to help patients to 'save face' in order to maintain long-term relationships.²⁸ We hypothesise that GP use of other health issues as a way in to discussion of the importance of weight management is a similar mechanism, used to maintain the accepted rules of social interaction.

GPs had clear ideas on where the roots of the obesity epidemic lie, being very aware of the

challenge they face when obesity is normalised and embedded in society. This contributes to their sense of disempowerment in addressing obesity. This sense of disempowerment can be challenged in relation to commonly held assumptions. For example, it is often assumed Pacific peoples value and seek large bodies.²⁹ However, the results of Teevale's research show Pacific adults and adolescents did not desire obesity-sized bodies,²⁹ therefore challenging the hypothesis that cultural values are linked with weight-related behaviours.³⁰ Opportunities exist to improve understanding and communications around values and belief relating to body image.

The frequent lack of success with weight management has been attributed in international studies to lack of efficacy of available interventions,¹² lack of resources,^{13,14} and most frequently to lack of patient motivation or ability to change.^{14,15,31} Perhaps the most concerning among these is the passing of responsibility to the patient. The GPs in this study often commented that patients simply lacked the motivation, or the willpower to do something effective about their weight.

Related to this is GPs' general lack of faith in the efficacy of primary care interventions. GPs stated that they rarely referred to the available guidelines and few made mention of the literature when discussing intervention efficacy. While individual GPs expressed belief in the efficacy of each, no intervention was unanimously considered beneficial. This is in line with trials of the efficacy of weight loss interventions that demonstrated that currently available interventions can sometimes provide a low level of weight loss.³⁻⁸ It is concerning that behavioural interventions were not well known, but promising that GPs were open to their use as they have been found to be efficacious.^{6,7} One proven intervention GPs mentioned they referred their patients into is the 'Green Prescription'.³²

Evidence shows that bariatric surgery is the most efficacious weight loss intervention with regard to consistency of results and amount of weight lost.⁹ GPs' perspective on bariatric surgery was paradoxical: they were negative about the radical nature of the intervention and lack of evidence about the long-term effects and outcomes, but

Table 7. Subthemes identified within Theme 5, with selected participant quotes

Bariatric surgery	
Negative opinions	<p>It does something quite radical... it locks them into a situation they can't get out of in a way, and I think that's...that's why it really has to be used fairly carefully. (GP 2)</p> <p>They've got to understand it's not an easy option. It's a last resort probably. (GP 9)</p>
Positive assessments	<p>I think for the extremely morbidly obese on a one-on-one individual basis it can be fantastic. (GP 1)</p> <p>The only thing that really is effective for obesity is surgery. That's the bottom line. (GP 6)</p> <p>I think that for certain patients it is a great option... they've had amazing results. They've had their diabetes cured and stuff. (GP 8)</p>
Access to surgery	<p>We've got a tick-box list of things that's supposed to make them a good candidate... I'm not really sure why those are the things that make you a good candidate. (GP 4)</p> <p>So it's either publicly [in the public health system] you don't fit the very restrictive criteria or privately [for private hospitals] you don't have the money to go. (GP 3)</p>
Appropriateness of surgery	<p>A lot of people who are morbidly obese have significant underlying other psychological issues that are not addressed. (GP 1)</p> <p>I think the wrong people had the surgery, and now I think so too. You can have the surgery done privately [in private hospitals] when you don't really meet the criteria. (GP 10)</p>

generally positive about stories of patients who had undergone bariatric surgery. Negative outcomes mentioned were mostly linked with psychological difficulties. The positive life-changing potential of surgery explains the desire for increased access to surgery, through increased clarity of patient criteria, and an increase in publicly funded options. These findings are consistent with studies that show surgery as an effective treatment,¹⁰ and also those showing that most GPs believe that access should be restricted to those for whom other interventions had not worked.¹⁷ The GPs felt that many of those referred are not adequately provided for, and that surgery is not accessed by the appropriate patients. This reinforces the need for clearer clinical criteria for intervention and emphasises the importance of equitable access, regardless of financial status.

Strengths and limitations

The project was carried out within one region of New Zealand, with the aim of finding the spectrum of opinion and setting the ground work for future study. Potential limitations of the study are its small size and a single researcher undertaking the interviewing, transcription and bulk of the analysis. Despite the small sample size, by the final interview no new themes were encountered, suggesting that a level of saturation had been reached. The use of a single researcher has the strength that knowledge of the full context informed all stages of the study. To limit the potential bias of a single researcher, a second researcher was involved in the grouping of codes into themes, and the final allocation to themes and subthemes was achieved via consensus amongst all team members. The congruence of our findings with those in international research, and the saturation reached in the coding, suggests that this data has not been unduly biased by the use of a single researcher.

Summary comments

This research found that New Zealand GPs were very clear that they have an important role in the care of obese patients. However, they expressed a sense of disempowerment due to the complex social and personal roots of the issue, lack of re-

sources, and inefficacy of available interventions. Bariatric surgery was perceived to be a highly effective intervention, but too risky to be used widely. Despite this, there was a desire for increased access to surgery. The findings have clear implications for health service development in New Zealand in this important area of practice, and highlight a need for additional training and support for GPs in obesity management.

References

1. World Health Organization Media Centre. Obesity and Overweight Fact Sheet. Updated May 2012. [cited 2013 Jan 28]. Available from: <http://www.who.int/mediacentre/factsheets/fs311/en/index.html>.
2. University of Otago, Ministry of Health. A focus on nutrition: key findings of the 2008/09 New Zealand Adult Nutrition Survey. Ministry of Health: Wellington; 2011.
3. Dombrowski SU, Knittle K, Avenell A, Araujo-Soares V, Snihotta FF. Long term maintenance of weight loss with non-surgical interventions in obese adults: systematic review and meta-analyses of randomised controlled trials. *BMJ*. 2014;348:doi10.1136/bmj.g2646.
4. Brooking LA, Williams SM, Mann JI. Effects of macronutrient composition of the diet on body fat in indigenous people at high risk of type 2 diabetes. *Diabetes Res Clin Pract*. 2012;96(1):40–6.
5. Shaw KA, Gennat HC, O'Rourke P, Del Mar C. Exercise for overweight or obesity. *Cochrane Database Syst Rev*. 2006;4:CD003817.
6. Shaw KA, O'Rourke P, Del Mar C, Kenardy J. Psychological interventions for overweight or obesity. *Cochrane Database Syst Rev*. 2009;2:CD003818.
7. Dombrowski SU, Avenell A, Snihott FF. Behavioural interventions for obese adults with additional risk factors for morbidity: systematic review of effects on behaviour, weight and disease risk factors (Abstract). *Obes Facts*. 2010;3(6):377–396.
8. Finer N, James WP, Kopelman PG, Lean ME, Williams G. One-year treatment of obesity: a randomized, double-blind, placebo-controlled, multicentre study of orlistat, a gastrointestinal lipase inhibitor. *Int J Obes Relat Metab Disord*. 2000;24(3):306–13.
9. Colquitt JL, Picot J, Loveman E, Clegg AJ. Surgery for obesity. *Cochrane Database Syst Rev*. 2009;2:CD003641. (Abstract).
10. Avidor Y, Still CD, Brunner M, Buchwald JN, Buchwald H. Primary care and subspecialty management of morbid obesity: referral patterns for bariatric surgery. *Surg Obes Relat Dis*. 2007;3(3):392–407.
11. Alexander SC, Ostbye T, Pollak KI, Gradison M, Bastian LA, Brouwer RJN. Physicians' beliefs about discussing obesity: results from focus groups. *Am J Health Promot*. 2007;21(6):498–500.
12. Epstein L, Ogden J. A qualitative study of GPs' views of treating obesity. *Br J Gen Pract*. 2005;55(519):750–4.
13. Huang J, Yu H, Marin E, Brock S, Carden D, Davis T. Physicians' weight loss counseling in two public hospital primary care clinics. *Acad Med*. 2004;79(2):156–61.
14. Leverence RR, Williams RL, Sussman A, Crabtree BF; RIOS Net Clinicians. Obesity counseling and guidelines in primary care: a qualitative study. *Am J Prev Med*. 2007;32(4):334–9.
15. Ferrante JM, Piasecki AK, Ohman-Strickland PA, Crabtree BF. Family physicians' practices and attitudes regarding care of extremely obese patients. *Obesity*. 2009;17(9):1710–6.

16. Jallinoja P, Absetz P, Kuronen R, Nissinen A, Talja M, Uutela A, et al. The dilemma of patient responsibility for lifestyle change: perceptions among primary care physicians and nurses. *Scand J Prim Health Care*. 2007;25(4):244–9.
17. Thuan JF, Avignon A. Obesity management: attitudes and practices of French general practitioners in a region of France. *Int J Obes*. 2005;29(9):1100–6.
18. Laws R; Counterweight Project Team. Current approaches to obesity management in UK primary care: the Counterweight Programme. *J Hum Nutr Diet*. 2004;17(3):183–90.
19. Gray L, Stubbe M, Macdonald L, Tester R, Dowell T. *TabOO: Talking About Overweight and Obesity*. Best Investments for Health World Conference on Health Promotion; 2013. International Union of Health Promotion & Education, Pattaya, Thailand.
20. Nicholas L, Pond D, Roberts DC. The effectiveness of nutrition counselling by Australian general practitioners. *Eur J Clin Nutr*. 2005;59(Suppl 1):S140-5;discussion S146.
21. Heintze C, Sonntag U, Brinck A, Huppertz M, Niewohner J, Wiesner J, et al. A qualitative study on patients' and physicians' visions for the future management of overweight or obesity. *Fam Pract*. 2012;29(1):103–9.
22. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101.
23. Ministry of Health. *Clinical guidelines for weight management in New Zealand adults*. Wellington: Ministry of Health; 2009. Webpage updated April 17, 2013. [cited 2014 July 7]. Available from: <http://www.health.govt.nz/publication/clinical-guidelines-weight-management-new-zealand-adults>.
24. Foster GD, Wadden TA, Makris AP, Davidson D, Sanderson RS, Allison DB, et al. Primary care physicians' attitudes about obesity and its treatment. *Obes Res*. 2003;11(10):1168–77.
25. Sussman AL, Williams RL, Leverence R, Gloyd PW Jr., Crabtree BF. The art and complexity of primary care clinicians' preventive counseling decisions: obesity as a case study. *Ann Fam Med*. 2006;4(4):327–33.
26. Scott JG, Cohen D, DiCicco-Bloom B, Orzano AJ, Gregory P, Flocke SA, et al. Speaking of weight: how patients and primary care clinicians initiate weight loss counseling. *Prev Med* 2004;38(6):819–27.
27. Cohen DJ, Clark EC, Lawson PJ, Casucci BA, Flocke SA. Identifying teachable moments for health behavior counseling in primary care. *Patient Educ Couns*. 2011;85(2):e8-15.
28. Moriarty HJ, Stubbe MH, Chen L, Tester RM, Macdonald LM, Dowell AC, et al. Challenges to alcohol and other drug discussions in the general practice consultation. *Fam Pract*. 2012;29(2):213–22.
29. Teevale T. Body image and its relation to obesity for Pacific minority ethnic groups in New Zealand: a critical analysis. *Pacific Health Dialog*. 2011;17(1):33–53.
30. Ball K, Crawford D. The role of socio-cultural factors in the obesity epidemic. In: *Obesity epidemiology: from aetiology to public health*. 2nd ed. Crawford D, Jeffery RW, Ball K, Brug J, editors. Oxford, UK: Oxford University Press; 2010. p. 105–118.
31. Gohdes D, Amundson H, Oser CS, Helgersson SD, Harwell TS. How are we diagnosing cardiometabolic risk in primary care settings? *Prim Care Diabetes*. 2009;3(1):29–35.
32. Elley CR, Kerse N, Arroll B, Robinson E. Effectiveness of counselling patients on physical activity in general practice: cluster randomised controlled trial. *BMJ*. 2003;326(7393):793.

ACKNOWLEDGEMENTS

The authors would like to thank the 12 GPs who participated in interviews, and Jo Hilder for her contribution to editing of the final draft.

FUNDING

The authors acknowledge the support of the Wellington Faculty of The Royal New Zealand College of General Practitioners in funding this project.

COMPETING INTERESTS

None declared.

APPENDIX

Weight management in primary care: interview schedule

Interview no.:

Duration: minutes (aim 30 mins)

Perspective on obesity

1. In your opinion what classifies a person as overweight? Obese?
2. What proportion of your practice population would be classified as overweight? Obese? Morbidly obese?
3. Do you believe GPs have a role in the care of overweight/obese patients? What do you believe the role of the GP is?
4. Do you find it easy or difficult to address weight issues in patients? Why? (self-efficacy, knowledge, cultural context, community, stages of change, family, environment, lack of motivation)

Weight management principles

1. In which patients do you routinely address weight issues? (overweight, obese, smokers, diabetics, cardiovascular disease, osteoarthritis, hypertension, people who ask)
2. How do you address weight issues in your patients? (What strategies/interventions do you use? —diet planning, exercise/physical activity regimens, behavioural therapy, cognitive behavioural therapy, referral to commercial weight loss programmes, dietitian, counselling, practice nurse). What strategies or interventions do you believe are effective?
3. What do you consider to be successful weight management? When working with an overweight patient, what factors determine the measurement of success/the goals you set?
4. What tools, resources and help do you have within your clinic/primary care team for treatment of weight issues?
5. What services do you know of in the Wellington region for weight management? Do you use any of these for your patients? Why/why not? (accessibility—cost, location, ethnicity, gender, efficacy, acceptability)
6. There are many guidelines produced. I was wondering if you have heard of the *Clinical guidelines for weight management in New Zealand adults* (2009) published by the Ministry of Health? Have you read them?

Weight management interventions

1. What is your opinion (accessibility, efficacy, acceptability) of:
 - a. calorie-restricted diets
 - b. prescribed exercise regimens
 - c. behavioural therapy and cognitive behavioural therapy
 - d. weight-loss pharmaceuticals

Bariatric surgery

1. What do you think of bariatric surgery as an option for the treatment of obesity? What are the advantages and disadvantages you think patients should be aware of?
2. For which patients is bariatric surgery a good option?
3. Do your patients request surgery?
4. Is bariatric surgery available and accessible to your patients?
5. For patients in whom it is a good option, what are barriers to surgery? (location, cost—public/private, health factors)
6. Experiences with surgery patients?

What do we need?

1. Is there anything else that would help address weight issues in your patients?
The development of a weight management tool for use within the consultation is something that is being considered.
2. What features would be desirable in a weight management tool for use within the consultation?
3. What external services would you like to be able to refer to?

Lastly—have you had any memorable experiences in the treatment of obese patients, e.g. success or failure of different methods, unique obstacles or barriers in a consultation?

Demographics

1. Male or female
2. Age
3. How long have they practiced as a GP
4. Practice location (urban, rural, socioeconomic scale)
5. Proportion of patients who are Māori, Pacific, any other highly represented ethnicity