

Qualitative Research

Discussing weight loss opportunistically and effectively in family practice: a qualitative study of clinical interactions using conversation analysis in UK family practice

Charlotte V A Albury^{a,*}, Sue Ziebland^a, Helena Webb^b, Elizabeth Stokoe^c and Paul Aveyard^a

^aNuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK, ^bDepartment of Computer Science, Human Centred Computing (HCC), University of Oxford, Oxford, UK and ^cDiscourse and Rhetoric Group, Loughborough University, Loughborough, UK

*Correspondence to Charlotte V A Albury, Nuffield Department of Primary Care Health Sciences, University of Oxford Radcliffe Observatory Quarter, Woodstock Road, Oxford OX2 6GG, UK; E-mail: charlotte.albury@phc.ox.ac.uk

Abstract

Background: GPs are encouraged to make brief interventions to support weight loss, but they report concern about these conversations, stating that they need more details on what to say. Knowing how engage in these conversations could encourage GPs to deliver brief interventions for weight loss more frequently.

Objective: To examine which specific words and phrases were successful in achieving conversational alignment and minimizing misunderstanding, contributing to effective interventions.

Methods: A conversation analysis of English family practice patients participating in a trial of opportunistic weight-management interventions, which incorporated the offer of referral to community weight-management services (CWMS). Qualitative conversation analysis was applied to 246 consultation recordings to identify communication patterns, which contributed to clear, efficient interventions.

Results: Analysis showed variation in how GPs delivered interventions. Some ways of talking created misunderstandings or misalignment, while others avoided these. There were five components of clear and efficient opportunistic weight-management referrals. These were (i) exemplifying CWMS with a recognizable brand name (ii) saying weight-management ‘programme’ or ‘service’, rather than ‘group’ or ‘club’ (iii) stating that the referral is ‘free’ early on (iv) saying the number CWMS visits available on referral (v) stating that the CWMS programme available was ‘local’.

Conclusions: When making a brief opportunistic intervention to support weight loss, clinicians can follow these five steps to create a smooth and efficient intervention. Knowing this may allay clinicians’ fears about these consultations being awkward and improve adherence to guidelines.

Lay Summary

Doctors are asked to talk to people with obesity, and to ask if they would like a referral to go to a community weight-management service (CWMS), where they can receive support to lose weight. Evidence shows they do not do this very often, and doctors say they find this difficult because they are not sure what to say. In our study we listened to 246 recordings where doctors asked if a person with obesity would like to go a CWMS. We used a method called ‘conversation

analysis' to study communication and find out how doctors could talk about going to weight-management services in ways which were clear, and avoided misunderstandings (which can take a long time to overcome). We found that people often did not understand what the referral was for, unless a recognizable brand name was given as an example. We also found that saying weight-management 'programme' or 'service' (instead of 'group' or 'club') avoided misunderstandings, and that saying that CWMS were 'free' and 'local' was important to help people with obesity make their decision. Because we have found out what doctors can say during these conversations, this could help them to offer referrals more often.

Key words: Family practice, health behaviour, health communication, obesity, primary health care, referral and consultation

Key Messages

- Doctors are encouraged to offer referral to community weight-management services.
- They rarely do so, stating they do not know what to say.
- By analysing recordings, we found out how to deliver clear, efficient referrals.
- Early inclusion of key information contributed to clarity and efficiency.
- Word choice could contribute to misunderstandings and interactional problems.
- Small communication changes could avoid problems and support decision making.

Introduction

International guidelines, including those in the USA, Canada and UK, encourage family practice clinicians to opportunistically intervene on obesity (1–6). Evidence shows interventions that comprise referrals to behaviourally informed community weight-management services (CWMS) could reduce population mean weight and are acceptable to patients and clinicians (7).

These services provide multi-component behavioural interventions. The NHS contracts with programmes that provide dietary advice, physical activity advice and behaviour change components (8). International guidelines recommend family practice clinicians to offer opportunistic referral to such services, to support patient weight loss. However, research has demonstrated that discussions about weight occur rarely in family practice when seeking advice for weight loss is not the primary purpose of a patient's visit (9). In a survey of 366 people with overweight and obesity, most stated wanting 'more help with weight management than they are getting from their primary care physicians' (10).

A recent trial (Brief Interventions for Weight Loss [BWeL]) showed that offering family practice patients CWMS referrals was acceptable to patients and resulted in a mean weight change of 2.43 kg in those who went on to attend (7). However, while we know these interventions can be successful, evidence shows that family practice clinicians, known in the UK as GPs, are reluctant to initiate discussions about weight (11). They state that talking about weight is difficult, and guidelines are too vague to provide support (11). Clinicians also stated concerns about opening a 'Pandora's box' (12) that would take significant consultation time (13). However, should they intervene, GPs prefer offering programmes that encourage lifestyle change (14). Clinicians expressed a need for advice on specific words and phrases to use when delivering these interventions (11,13).

In this article, we address this evidence gap. We analyse GP–patient weight-management conversations during the BWeL trial, where consecutively attending patients with obesity were offered a free CWMS referral. We examine how GPs made an offer of a CWMS referral in the consultation. We explicate the core conversational practices that comprise such discussions, and consider which types of approach were successful in achieving maximum alignment between doctor and

patient, and minimizing misunderstanding. We identify how interactional troubles and lengthy discussions could be avoided. We used conversation analysis (CA) to conduct a detailed empirical analysis of these interventions. Conversation analysis allows researchers to identify and build an evidence-base of effective conversational strategies (15). Identifying what to say to encourage patient understanding and avoid interactional troubles could encourage clinicians to engage more frequently in brief interventions for weight loss (11).

Methods

Context—the BWeL trial

In this qualitative study, we use conversation analysis to examine audio-recorded consultations from the brief interventions for weight loss (BWeL) trial. The BWeL trial was a parallel two-arm, randomized controlled trial assessing the effects of GP-delivered brief weight-loss interventions in family practice. Trial researchers asked to weigh, measure, and estimate the body fat of every patient waiting to see one of 137 participating GPs. Researchers aimed to enrol patients with a body mass index ≥ 30 kg/m² (or ≥ 25 kg/m² if Asian), aged ≥ 18 years. Patients excluded from the study were as follows: pregnant people (or those who were planning pregnancy); people who had experienced or were scheduled for bariatric surgery; people who had completed a weight-management programme 3 months before recruitment; people seeing their GP to discuss weight; and people who did not speak English.

Between 4 June 2013 and 23 December 2014, 1882 eligible patients consented to take part in the study and were randomized to an intervention arm (940 patients) or control arm (942 patients). Full details on randomization processes are available in the BWeL trial protocol and results paper (7,16).

Recording collection

At the end of a typical consultation, GPs in the intervention arm made an opportunistic intervention, which comprised endorsing, offering, and facilitating a referral to a behaviourally informed CWMS (either *Slimming World* or *Rosemary Conley*). These two services

were chosen as they were commonly available in the NHS and had been shown to be effective (17). Half of patients were randomly selected for audio-recording. GPs audio-recorded using hand-held devices visible to GP and patient. Patients had the option to participate in the trial but decline audio-recording or to request deletion after the intervention had been delivered. Additionally, some GPs did not record; some recordings were unusable for technical reasons; some GPs delivered advice not support; and many recordings were not uploaded by the research team as they did not consider it a priority. This provided 246 recordings for analysis, in British English. Patient allocation and randomization for recording is illustrated in Figure 1. Recordings were from 77 doctors in 37 practices, and ranged in length from 8 to 458 seconds, with an average of 95 seconds. Data were stored on secure departmental servers at the Nuffield Department of Primary Care Health Sciences, and only the trial team had access to these. The BWEL trial was registered with the ISRCTN Registry, ISRCTN26563137 and approval was granted by NHS Research Ethics Service (reference no. 13/SC/0028).

Data analysis

CVAA, a conversation analyst specializing in advice giving in primary care, led the CA, transcribing available recordings using the standard Jefferson system for conversation analysis (18), which captures information about how turns at talk are delivered, including intonation, and onset of overlap. CVAA, HW and ES mapped the referral sequences systematically, identifying how GPs offered referrals and with what patient response. Webb is a conversation analyst experienced in analysing obesity consultations, and Stokoe is a professor of social interaction with expertise in institutional talk. In CA, the effectiveness or otherwise of each turn is revealed in the response in the next turn (called the 'next turn proof procedure' [NTPP]), rather than in the analysts' subjective interpretation. We used the

NTPP to identify what GPs did that patients (mis)understood and responded to well (or not so well). We conducted a detailed analysis of word choice, action format (e.g. how offers, explanations, etc., were designed), sequential positioning, prosody and action, to identify the core features of effective practice. We considered deviant cases and looked at responses in relation to the wider interactional sequence. Data were handled using NVivo11. Reporting follows the 'Standards for reporting qualitative research' (19).

Results

Analysis of 246 consultation recordings where GPs opportunistically offered patients a free CWMS referral showed that the following GP-initiated actions comprised these sequences:

1. Establish the patient has obesity
2. Assert evidence behind CWMS
3. State that a referral is available
4. Provide information about the referral
5. Ask if a patient would like to attend

We found that step 4, providing information, was especially relevant for securing frictionless uptake from patients. This was because this point in the interaction provided key details about the referral. We identified variation in how information was provided. Some ways resulted in misunderstandings or misalignment between doctor and patient. While others promoted alignment and understanding. We focus here on step 4 identifying conversational features that can encourage patient understanding and avoid interactional troubles.

We identified five components of the brief intervention discussion that, if absent from the 'provide information' stage could result in misunderstandings or misalignment. If these occurred, doctors needed to do significant work to clarify and rectify these troubles, extending the intervention length. If present however, these components could avoid conversational troubles, promoting clear and efficient conversations.

These aspects were:

1. Exemplifying CWMS with a recognizable brand name
2. Saying weight-management 'programme' or 'service'
3. Stating that the referral is 'free' early in the intervention
4. Saying the number CWMS visits available
5. Stating that the CWMS was local

We illustrate these components of clear and efficient referrals with consultation extracts. Transcripts have been simplified from Jeffersonian format (Transcription Key, Table 1).

Exemplifying CWMS with a recognizable brand name

GPs often spoke about 'weight-management services', but evidence from patients' responses showed that they often displayed that they did not understand this phrase.

For example, in Extract 1 (Table 2), the GP asserts that the best way to lose weight is through a 'commercial weight-management service' (lines 1–4). However, he does not say what these are; his statement presupposes that the patient will know. The GP then goes on to ask if the patient would like a referral (line 7). When he does not receive a response, the GP asks the question a second time (line 9), indicating orientation to trouble in the patient's delayed response about *attendance*, not problems in understanding about the service itself. However,

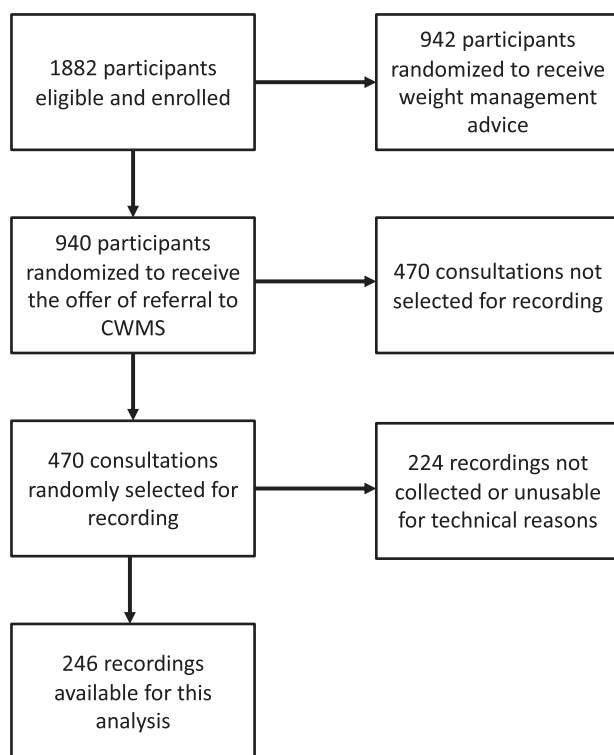


Figure 1. Patient allocation and randomization for recording.

Table 1. Simplified Jeffersonian transcription conventions

=	Equal signs indicate latching talk
[Square brackets indicate the start of overlapping talk
→	Draws the reader's attention to a particular line of the transcript
(0.3)	Numbers in parentheses indicate pauses in talk, measured in tenths of a second
(.)	A full stop in parentheses indicates a hearable pause of <0.3 seconds
Wo::rld	Colons indicate elongation of the immediately prior sound. The number of colons show the length of elongation
LOOK	Capitals indicate talk is markedly louder than the surrounding talk
.hh	A dot followed by a row of 'h's indicates an inbreath. The number of 'h's indicates the length of the inbreath
hh	'H's without a dot Indicates aspiration, such as outbreaths
-	A hyphen shows that a word or part of a word has been cut off
Y(h)e(h)s	'H's in brackets within a word indicates laughter during speech
°management°	Degrees signs either side of a word or TCU shows that the enclosed talk was markedly quiet or soft
↓ or ↑	Up and down arrows mark notable and/or sharp rises or falls in pitch
Yep. Fine.	Boldfaced consonants indicate that consonants were delivered with unusually hardened sounds
£Tha:t's r:ght.£	Pound-signs either side of a word or TCU shows that the enclosed talk was delivered with 'smiley voice' and indicates the speaker was smiling
It's Weight Watchers.	A full stop marks falling intonation, giving some sense of completion
lifestyle change,	A comma marks gently rising tone, giving a sense of speaker continuation
How do you feel about that?	A question mark indicates a rising tone
(have)	Words in brackets mark a lack of certainty as to the exact word that was said

in his response (lines 10–11), the patient requests clarification on what a commercial weight-management service 'actually is' displaying that he has a problem understanding the way the GP had described this service. Patient responses across the data highlighted that the term 'weight-management service' could be problematic.

Exemplifying services with well-known brand names could avoid these troubles in understanding. In Extract 2 (Table 2), for example, the patient shows they do not understand, saying 'a whatta?' (line 4). The GP orients to this as a problem in hearing (not understanding), as they repeat 'commercial weight-management system,' rather than changing their terminology. The patient responds minimally to this, and it is only after the doctor exemplifies using a recognizable brand 'like Slimming World' (lines 7–8) that the patient displays that they have understood (line 9), with a change-of-state (20).

Saying weight-management 'programme' or 'service'

GPs used a range of terms to describe the CWMS. They most frequently referred to a weight-management *programme*, *group* and *service*. Analysis showed that words 'group' and 'club' could cause interactional difficulties, as patients oriented to them as informal and social, rather than as a structured service. For example, in Extracts 3 and 4 (Table 2), the GPs mention weight-management 'groups'.

In Extract 3, after the GP states that free group membership is available, the patient orients to the term 'group' as informal rather than structured support, stating he has his own 'little group' with some friends (line 5). In Extract 4, the patient also orients to problems with the term 'group' stating that he would not mix well as he is not a 'sociable person' (line 8). Here the GP subsequently undertakes additional interactional work to emphasize that it is not about mixing but receiving information.

While our data showed a pattern where 'club' and 'group' could be highlighted as problematic, there were few instances of interactional troubles when GPs spoke about 'programmes' or 'services'.

Stating that the referral is 'free' early in the intervention

In these data, referrals were offered for free. We found that the word 'free' was important. For example, in Extract 5 (Table 2), the GP does not initially state that the referral is 'free'. The patient displays

initial reluctance to agree to attend the referral. She does not answer the GP's question, and instead asks one of her own 'the first thing is how much does it cost' (lines 7–8). This indicates that she has many questions before responding to the GP's question about referral and that her primary one refers to cost. The GPs then states that the referral is free, and the patient agrees, without asking the further questions to which she had alluded, indicating they are no longer relevant, and were potentially cost-contingent.

As well as highlighting the importance of the word 'free', we also found that *where* it was mentioned in the unfolding sequence, and in what kind of action it was embedded, was important for patient understanding and subsequent referral uptake. In some cases, GPs delayed stating that the referral was free and intervention length greatly increased. Figure 2 illustrates this, showing an extended discussion where the GP initially provides information about the referral from lines 1–5, omitting stating that the referral is free. The patient responds with a minimal 'Yeah.' at line 6, and the GP talks more about weight loss, but again omits saying that the referral is free. Following the referral question 'would you be interested' (line 14), the patient responds negatively, stating that she does not 'have time'. The GP continues to talk about the benefits of attending, but the patient still does not respond positively. However, from lines 24–25, the GP delivers the information omitted earlier—the referral is free. The patient responds with a news-receipt 'Oh right', targeting the delayed delivery of 'free' as news-for-her (21). Following this, when the GP asks the referral question a second time, at line 39, the patient responds positively, with her assessment 'Sounds good'. The patient targets this cost-related information as key in her decision making.

These results illustrate a consistent pattern that showed that saying 'free' early in the discussion, before the patient had initially responded, facilitated patient displays of understanding about the offer, contributing to both conversational alignment and a briefer discussion.

Saying the number CWMS visits available

We also found that it was important for GPs to state the length of the referral. Patients often showed they thought only a portion of the referral was free, rather than twelve-weeks. For example, patients in Extracts 6 and 7 (Table 2) oriented to the need for more information, asking if it was 'one day free' or 'just the joining fee'. When GPs stated

Table 2. Transcribed extracts from audio-recorded GP-delivered referrals to community weight-management services

Interactional feature	Extract	Line	Speaker*	Conversation
Exemplifying CWMS with a recognizable brand name	Extract 1	1	Doc:	Right, (.) mister Holmes (.) yo::u u::rm th-
		2		we kno- we now know that the best way for you
		3		to lose weight is to go to a commercial weight
		4		management se:rvice. And I can refer you for
		5		free.
		6		(.)
		7	Doc:	If you'd like.
		8		(0.3)
		9	Doc:	U:m would you (.) hh like me to do that?
		10	Pat: →	Can you tell me a little bit about what
		11		it actually is?
	Extract 2	1	Doc:	Did you know that the best way to lose weight
		2		could be through a commercial (.) ↑weight
		3		↑management ↑system?
		4	Pat: →	A whatta?
		5	Doc:	Commercial weight management ↓system.
		6	Pat:	Okay.=
		7	Doc:	=Yea::h like (.) u:m (.) things like
		8		Slimming Wor[ld.
		9	Pat:	[Oh yeah, (.) Yeah yeah yeah.
Saying weight-management 'programme' or 'service'	Extract 3	1	Doc:	Now (.) today as p- as part of this tria:l
		2		(.) they're offering a free membership to
		3	→	(0.3) u:m one of those groups, If that's something
		4		that you'd like to- (.) to take up.
		5	Pat: →	.hhh well (.) I have got my own little group
		6		(.) the Craft Club (.) which I told you about,=
		7	Doc:	=↑Yeah?= =Which are these kind of geriatric middle-aged
		8	Pat:	mature gentlemen.
		9		(.)
		10		
		11	Pat:	There's only five of us in it. Craft standing for
		12		(.)hh Can't Remember an Effing Thing. Um and
		13		they're all going to give me a tenner each if I
		14		go the whole month without drinking any
		15		alcohol.
	Extract 4	1	Doc:	So what I'm able to offer you in this is
		2	→	going to:: a sort of weight reduction ↓group,
		3		Um (0.5) but at the expense of uh- a commercial
		4	→	group but one that we can (.) fund (.) through the
		5		en aitch ess ("NHS")). So (.) is that something that
		6		you'd might consider doing,=
		7	Pat:	=N:o, (0.6) I'm not a very, (0.6) sociable person
		8		to be honest. So I wouldn't mix very well at
		9		a:ll, (laughter)
		10	Doc:	£Right£. It's not so much the mixing (.) as
		11		just the learning how to cope with u:m the sorts
		12		of things that you ought to do and shouldn't do,
		13		

Table 2. Continued

Interactional feature	Extract	Line	Speaker*	Conversation
Stating that the referral is ‘free’ early in the intervention	Extract 5	1	Doc:	.hh and the ↑best way for you to lose weight
		2		is actually through a: (.) a commercial (0.6)
		3		weight loss service,
		4		(0.4)
		5	Doc:	Would you u:m- and I’d like to refer you
		6		for that today, Would that interest you?
		7	Pat: →	.hhh (0.6) the: first thing is how much
		8	Doc:	does it cost.
		9		It’s free (.) with this referral.
		10	Pat:	Oh ri:ght, £Yeah£, (.) I’ll try anything.
		11		(.) I would try anything.
Saying the number CWMS visits available	Extract 6	1	Doc:	U:m (.) normally costs money, But I can
		2		refer you for free today if you like.
		3	Pat: →	Is this just for one day free and then you
		4		have to pay for it.
		5	Doc:	No, (.) <Its free the whole time>.
		6	Pat:	Yeah,
		7	Doc:	Yeah.
		8	Pat:	Okay then,
	Extract 7	1	Pat: →	Okay, When you say for free::?
		2	Doc:	Yeah.
		3	Pat: →	Is that just the joining fee:? Cos they (.) some of
		4		these things [it-
		5	Doc:	[No, It’s one full programme,
		6	Pat: →	Oh (.) the fu:ll programme.
Stating that the CWMS was local	Extract 8	1	Doc:	Would you like to go to to join them to do that.
		2		(0.7)
		3	Doc:	And ther- there’s follow-up questionnaires.
		4		[Cos it’s (part of the study)
		5	Pat:	[Yeah.
		6		(.)
		7	Pat: →	Will I- will they be faily lo:cal though,
		8	Doc:	Oh yes, (.) It’s all (.) it’s in Citychester
		9	Pat:	↑Oh yeah, (.) That’s fi:ne then.
		10	Doc:	Yeah. Oka:y. Brill.
*Doctor -Doc Patient - Pat				

'twelve-weeks' (Extract 6) or 'the full programme' (Extract 7), patients did not request further details, frequently received this information positively, and the referral could progress smoothly to the next stage.

Stating that the CWMS was local

Evidence showed that the location of the referral was important for patients. GPs often did not state the referral location during the information-giving stage, and moved on to ask if a patient would like to attend. This presented interactional problems as patients often delayed answering the GP's question about attendance, and instead asked questions about location. For example, in Extract 8

(Table 2), the GP has moved onto the next stage of the interaction, asking if the patient would like to attend. The patient does not respond to this question, indicating some interactional trouble (22). The GP orients to this trouble as a lack of understanding about the trial, providing more information about 'questionnaires'. The patient responds to this quickly with a 'yeah' (line 5), indicating that this was not a problem. Instead they highlight *location* as a problem (line 7), asking if it will be 'local'. The GP provides this information (line 8), and the patient responds positively, agreeing to attend.

If GPs stated that referrals were 'local' early in the discussion, patients did not ask for further clarification on location, and referrals usually progressed smoothly.

1 Doc:	Which you attend one- you attend one of their
2	classes once a week for twelve weeks? You get
3	weighed each time, so we can see how things
4	are changing? And on top of that there's lots
5	of education and (.) help.=
6 Pat:	=Yeah.
7	(.)
8 Doc:	And its not only about sort of (.) you
9	know (.) sort of it doesn't mean you can't-
10	(.) you're not allowed to eat, It's trying to get
11	you to eat the <u>right things</u> .
12 Pat:	Yeah.
13 Doc:	Okay.
14	(.)
15	So >there's lots of evidence< that it <u>works</u> .
16	(0.6)
17	Would you be interested?
18	(0.8)
19 Pat:→	Don't really have time to be fair.
20 Doc:	Okay, And is that because of everything that's
21	going on and things? = Yeah?
(OMMITTED 53 SECOND discussion of patient's private life)	
22 Doc:	Because this is a research trial::I (.) the
23	advantages of that for you is that we can fit
24	very much around you? So you just go back and
25	knock on Sheila's door, And she will (.) can talk
26	to you about all the different programmes that
27	are available, And fit it around your work
28	therefore.
29	(0.3)
30	Also >because of that< you would (.) we'd also do it
31	for <u>free</u> for [you,=
32 Pat:	[Oh right,
33 Doc:	=Rather than you having to pay. And they're quite
34	expensive.=
35 Pat:	=Yea[h.
36 Doc:	[These sorts of programmes. And so again you do that
37	for free.
38	(0.4)
39	The other advantage of it that (.) I would then follow you
40	up in a month to see how you're doing?
41 Pat:	Okay.
42 Doc:	And then we'll also, then also the researchers
43	would follow you after that. So, there's lots of
44	things to try and help you to make a change happen.
45 Pat:	Yeah.
46 Doc:	Do you want to give it a go?
47 Pat:	Sounds good.

Figure 2. An extended discussion where the GP initially omits stating that the referral is free.

Discussion

Summary

GPs use of specific words and phrases and their location in the overall unfolding interaction can engage patients in brief opportunistic interventions for weight loss, smoothly progressing the conversation. Our analysis showed that some words or phrases hindered the clarity of referrals, and could lead to misunderstanding. We highlighted solutions that could facilitate smooth and efficient discussions. We first showed that patients often displayed trouble with what a CWMS referral 'actually is'. We demonstrated that this could be avoided by exemplifying with recognizable brands, prefaced with 'like', to show these were examples of the type of group to which a patient could be referred. We also demonstrated that the words used when describing weight-management programmes were important. Descriptions that sounded 'professional' such as weight-management 'programme' or 'service' best facilitated a smooth move to next actions, while 'group' or 'club' could cause interactional difficulties. We identified that providing details and specificities about the cost, duration, and location of the referral early on seemed to expedite these interventions.

GPs have stated a need for more specific detail on how to intervene on patient weight and what to say when they do (11,13). We

have shown how specific words and phrases, and their sequential placement, contribute to patient displays of understanding, smoothly progressing the consultation. This information is mostly absent from current guidelines (2,3), which only provide general advice. This detailed analysis highlighted one area that is present in current guidelines—talking about the location of referral. National Institute for Health and Care Excellence (NICE) guidelines on offering referral do exhort GPs to 'discuss sources of long term support, such as from a...local support group or weight-management programme' (Recommendation 6 (3)). They do not, however, explicitly encourage GPs to say the term 'local' or 'free', nor do they state where in a conversation this is best placed. Our analyses presented here showed that troubles could occur if the term 'local' was absent. Saying 'local' during information-giving, facilitated a smooth move to next actions. Our results here align with NICE guidelines, providing specific detail on how they can be best implemented.

Existing literature on talking about weight-management in family practice largely relies on *post hoc* reports from GPs and patients emphasizing their perceptions and experiences (12,23). These results complement these *post hoc* accounts, illuminating how weight-management interactions are carried out in practice.

Conversation analysis of weight-management discussions has mostly focussed on weight-loss advice (24). This is the first conversation analysis study to our knowledge to examine how GPs deliver very brief interventions for weight loss, incorporating the offer of CWMS referral.

Subsequent research from our team will build on these results, exploring relationships between in-consultation communication practices used by clinicians, and patient attendance at the weight-management service.

Strengths and limitations

A strength of this study was the conversation analysis of recorded data, meaning analysis was not limited by recall or social desirability biases. A further strength is the use of the next turn proof procedure, meaning analysis were grounded in aspects of the conversation highlighted by patients during the interaction, rather than by *a priori* assumptions. Data were collected across a number of surgeries and from diverse patient groups. A limitation was that we could not analyse multi-modal communication, as data were audio only. A potential limitation is that we do not know if the patient and GP had a prior relationship. Another limitation is that patients needed to orient to a particular word or phrase as problematic or useful for us to identify it. Other words and phrases may also hinder or facilitate the smooth running of the consultation, but we could not identify these from our data.

Conclusion

Family practice clinicians express concern about how best to intervene on patient weight and what to say to avoid initiating a lengthy discussion. Our analysis shows that including specific words during brief opportunistic weight-loss interventions facilitated a smooth referral. Saying 'free', 'local', talking about weight-management 'services' or 'programmes', and exemplifying services with recognizable brands avoided misunderstandings, and time spent rectifying these. By including these specific aspects during brief interventions, clinics can avoid inadvertently lengthening referrals and deliver brief interventions clearly and efficiently.

Acknowledgements

We are grateful to the NHS doctors and patients that took part in this study and the other investigators who made it possible.

Declaration

Funding: CVAA was funded by the National Institute for Health Research School for Primary Care Research. The consultation data were from the BWeL trial, which was funded by National Prevention Research Initiative. The funding partners are Alzheimer's Research UK, Alzheimer's Society, Biotechnology and Biological Sciences Research Council, British Heart Foundation, Cancer Research UK, Chief Scientist Office, Scottish Government Health Directorate, Department of Health, Diabetes UK, Economic and Social Research Council, Engineering and Physical Sciences Research Council, Health and Social Care Research Division, Public Health Agency, Northern Ireland, Medical Research Council, Stroke Association, Wellcome Trust, Welsh Government and World Cancer Research Fund (grant no. MR/J000515/1). HW is a Senior Researcher at the University of Oxford, funded by EPSRC. SZ is a National Institute for Health Research (NIHR) senior investigator. PA is an NIHR senior investigator, funded by the NIHR Oxford Biomedical Research Centre (BRC) Obesity, Diet and Lifestyle Theme and National Institute for Health Research (NIHR) Applied Research Collaboration (ARC) Oxford and Thames Valley. The views expressed in this publication are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

Ethical approval: NHS Research Ethics Service (reference no. 13/SC/0028).

Conflict of interest: Slimming World and Rosemary Conley donated free weight-management courses for NHS patients enrolled in this trial. PA and CA did half a day's consultancy for Weight Watchers. PA was an investigator on a trial part-funded by Cambridge Weight Plan. PA spoke at a symposium at the Royal College of General Practitioners Conference that was funded by Novo Nordisk. None of these activities led to payments to the investigators.

References

1. Pryke R. Top Ten Tips Raising the Topic of Weight. Royal College of General Practitioners, 2013. <https://www.rcgp.org.uk/clinical-and-research/resources/a-to-z-clinical-resources/obesity.aspx>. Accessed 20 May 2020.
2. Royal College of Physicians. Action on Obesity: Comprehensive Care for All. Report of a Working Party. 2013. <https://www.rcplondon.ac.uk/projects/outputs/action-obesity-comprehensive-care-all>. Accessed 20 May 2020.
3. National Institute for Health and Care Excellence. Obesity Prevention Clinical Guideline. CG43. 2015. <https://www.nice.org.uk/guidance/cg43>. Accessed 20 May 2020.
4. National Institute for Health and Care Excellence. Obesity: Guidance on the Prevention, Identification, Assessment and Management of Overweight and Obesity in Adults and Children. 2014. <https://www.nice.org.uk/guidance/cg189>. Accessed 20 May 2020.
5. Brauer P, Gorber SC, Shaw E *et al.*; Canadian Task Force on Preventive Health Care. Recommendations for prevention of weight gain and use of behavioural and pharmacologic interventions to manage overweight and obesity in adults in primary care. *CMAJ* 2015; 187(3): 184–95.
6. Moyer VA; U.S. Preventive Services Task Force. Screening for and management of obesity in adults: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med* 2012; 157(5): 373–8.
7. Aveyard P, Lewis A, Tearne S *et al.* Screening and brief intervention for obesity in primary care: a parallel, two-arm, randomised trial. *Lancet* 2016; 388(10059): 2492–500.
8. Coulton V, Ellis L, Blackshaw J *et al.* *A Guide to Delivering and Commissioning Tier 2 Adult Weight Management Services*. London, UK: Public Health England, 2017.
9. Booth HP, Prevost AT, Gulliford MC. Access to weight reduction interventions for overweight and obese patients in UK primary care: population-based cohort study. *BMJ Open* 2015; 5(1): e006642.
10. Potter MB, Vu JD, Croughan-Minihane M. Weight management: what patients want from their primary care physicians. *J Fam Pract* 2001; 50(6): 513–8.
11. Alexander SC, Ostbye T, Pollak KI *et al.* Physicians' beliefs about discussing obesity: results from focus groups. *Am J Health Promot* 2007; 21(6): 498–500.
12. Michie S. Talking to primary care patients about weight: a study of GPs and practice nurses in the UK. *Psychol Health Med* 2007; 12(5): 521–5.
13. Blackburn M, Stathi A, Keogh E *et al.* Raising the topic of weight in general practice: perspectives of GPs and primary care nurses. *BMJ Open* 2015; 5(8): e008546. doi:10.1136/bmjopen-2015-008546.
14. Greener J, Douglas F, van Teijlingen E. More of the same? Conflicting perspectives of obesity causation and intervention amongst overweight people, health professionals and policy makers. *Soc Sci Med* 2010; 70(7): 1042–9.
15. Antaki C. *Applied Conversational Analysis: Intervention and Change in Institutional Talk*. Basingstoke, UK: Palgrave Macmillan, 2011.
16. Lewis A, Jolly K, Adab P *et al.* A brief intervention for weight management in primary care: study protocol for a randomized controlled trial. *Trials* 2013; 14: 393.
17. Jolly K, Lewis A, Beach J *et al.* Comparison of range of commercial or primary care led weight reduction programmes with minimal intervention control for weight loss in obesity: lighten Up randomised controlled trial. *BMJ* 2011; 343: d6500.
18. Jefferson G. Glossary of transcript symbols with an Introduction. In: Lerner G (ed). *Conversation Analysis: Studies from the First Generation*. Philadelphia, PA: John Benjamins, 2004, p. 13–23.
19. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med* 2014; 89(9): 1245–51.
20. Heritage J. A change-of-state token and aspects of its sequential placement. In: Atkinson JM, Heritage J (eds). *Structures of Social Action: Studies in Conversation Analysis. Studies in Emotion and Social Interaction*. Cambridge, UK: Cambridge University Press, 1984.
21. Maynard DW. *Bad News, Good News: Conversational Order in Everyday Talk and Clinical Settings*. Chicago, IL: University of Chicago Press, 2003.
22. Stivers T. Parent resistance to physicians' treatment recommendations: one resource for initiating a negotiation of the treatment decision. *Health Commun* 2005; 18(1): 41–74.
23. Ananthakumar T, Jones NR, Hinton L, Aveyard P. Clinical encounters about obesity: systematic review of patients' perspectives. *Clin Obes* 2020; 10(1): e12347.
24. Gray L, Stubbe M, Macdonald L *et al.* A taboo topic? How general practitioners talk about overweight and obesity in New Zealand. *J Prim Health Care* 2018; 10(2): 150–8.