



Achieving patient weighing in UK primary care. A conversation analytic study

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ABSTRACT

Addressing issues of weight with people with type 2 diabetes is increasingly becoming part of the workload of primary care. This includes taking weight measurements during consultations. Evidence suggests that weighing is experienced as difficult for health professionals and patients. This study explores how weighing is accomplished and identifies strategies and practices that can be used in primary care settings.

Data are drawn from two large UK based archives of over 600 audio and video recorded primary care consultations. Conversation analysis was used to systematically inspect the consultation data. We identified the linguistic practices employed by GPs and resulting interactions around the measurement of weight in primary care.

Seven consultations form this corpus. We identify the sequential interactional pattern through which GPs and patients engage to achieve weighing and identify delicacy features in GPs talk which are used to build alignment with patients to achieve weighing. The analysis also highlighted the ways in which GPs justify their need to weigh patients, including marking the measurement as clinically necessary and preferring a need for an objective measure of weight. The analyses highlight that patient responses to requests to weigh are varied and that weighing patients can necessitate considerable interactional effort.

Achieving weighing of patients in primary care consultations requires considerable interactional work between GPs and patients and it is important for the delicacy of these requests to be appreciated. There is a need for greater attention to how to achieve weighing, given the increasing attention weight has in relation to health.

1. Introduction

A core part of managing diabetes in UK National Health Service (NHS) primary care includes measuring and recording clinical indices such as blood glucose (HbA1c), blood pressure and weight. Being overweight or obese is the main modifiable risk factor for type 2 diabetes (T2DM). In England, obese adults are five times more likely to be diagnosed with diabetes than adults of a healthy weight and 90% of adults with T2DM are overweight or obese (Gatineau et al., 2014).

Research suggests that well-planned and adequately resourced brief interventions delivered in primary care can be effective in stimulating weight loss, particularly when discussions generate referrals to specialist

weight management services (Rose et al., 2013; Aveyard et al., 2016; Retat et al., 2019). The first step in delivering a brief intervention about weight is to weigh and measure the patient (Thompson et al., 2017) and guidance around managing obesity suggests that diabetes consultations are particularly opportune for weighing patients (National Institute for Health and Care Excellence, 2014b).

Despite this, the incentivisation of Body Mass index (BMI) recording for patients with diabetes (National Institute for Health and Care Excellence, 2014a), and the call for weighing to become part of routine consultations (Thompson et al., 2017), there is evidence that BMI assessment and weight recording are not routine in NHS primary care (Aveyard et al., 2016; McLaughlin et al., 2017; Nicholson et al., 2019;

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Critchlow et al., 2020; Mulrooney, 2022).

Health professionals reportedly find supporting weight management challenging (Dewhurst et al., 2017; Simon & Lahiri, 2018; Mulrooney, 2022). Barriers include not knowing the best way to raise issues of weight, fearing causing offense or emotional reactions from patients, concerns that raising weight issues will extend consultations (Michie, 2007), prevent patients returning (Abdin et al., 2021) or harm relationships (Blackburn, Stathi et al., 2015). Furthermore, primary healthcare professionals may be reluctant to raise issues of weight feeling that they have little to offer patients in terms of services to support weight management (Phillips et al., 2014; Abdin et al., 2021) including a perception that weight interventions are ineffective (McHale et al., 2020). Although the act of weighing patients in itself is a practical procedure, evidence suggests being weighed may be particularly emotive for people who are overweight or have obesity, who report delaying medical care for fear of being weighed (Billington et al., 2002; Puhl & Heuer, 2010). Health professionals have also reported reluctance to weigh patients, believing it to be potentially invasive (Lees & Allen-Mills, 2009).

Recent international guidance highlights the importance of the language used in weight management discussions between patients and healthcare professional and provides practical steps on how to discuss weight with patients with diabetes, including asking open ended questions, providing rationale for the discussion and the use of non-stigmatising language (National Obesity Forum, Thompson et al., 2017; Association of Diabetes Care and Education Specialists, 2022; Geerling et al., 2022). Language to achieve patient weighing has received less attention in the guidance, despite previous studies of weighing in consultations demonstrating that for both health professionals and patients accomplishing weighing involves significant interactional work (Pillet-Shore, 2006).

Furthermore, although this literature is useful for clinicians who wish to discuss weight with patients, it is often not grounded in the contextualized details of real-life interactions (Speer & McPhillips, 2018). The empirical study of interaction is crucial to providing communication skills guidance to healthcare professionals that is effective for real-life practice and takes full account of the consultation as a co-constructed accomplishment (Swinglehurst & Atkins, 2018).

Conversation analysis (CA) is a method that can be used to study naturally occurring interactions in a clinical setting to identify interactional strategies that facilitate discussions of weight (Drew et al., 2001) and a small number of studies have used CA in this way to examine how weight is discussed in real-life settings (Pillet-Shore, 2006, Wiggins, 2009, Webb, 2010, Albury et al., 2018, Speer & McPhillips, 2018, Thille, 2019, Tremblett, Poon et al., 2022, Tremblett, Webb et al., 2022)). For example, Speer and McPhillips have demonstrated that asking patients whether they are overweight generated comparatively aligning, contiguous, and non-minimal responses from patients (Speer & McPhillips, 2018). Albury et al., show how the initial spoken responses of patients who are offered weight-loss management services by their GP, demonstrate strikingly consistent patterns in relation to subsequent uptake of these services (Albury et al., 2018). An analysis looking at how overweight and obesity are discussed by general practitioners in New Zealand demonstrated that such discussions are challenging and interactionally delicate (Gray et al., 2018) and Tremblett et al., identified delicacy features of GP talk that are important in reducing resistance displays from patients when weight is discussed (Tremblett, Webb et al., 2022). However, weighing has seldom been looked at from an interactional perspective. Pillet-Shore (Pillet-Shore, 2006) examined interactions around weighing between patients and nurses in primary care settings in the US. This analysis suggests that even during a task that is accomplishable within a matter of seconds, nurses and patients do significant interactional work to achieve weighing. The analysis demonstrated that patients, on being weighed established their pre-existing knowledge of their weight and presented themselves as active monitors of their health, weight being treated as a moral and accountable issue by

patients rather than health professionals (Pillet-Shore, 2006).

The current paper extends this work by seeking to examine how weighing is initiated and achieved in UK primary care settings. Given the importance of weight management for T2DM, including the importance for clinicians of having an objective measurement to have an effective discussion of weight with patients, the increasing emphasis of primary care as the location for weight management interventions and the incentivisation of weighing patients, there needs to be a better understanding of this. As such, in this study, we identify how patient weighing is achieved during primary care consultations and uncover the interactional properties of the talk that surrounds the act of weighing. CA is used to analyse naturally occurring examples of patient weighing with people with or at risk of T2DM. The findings of this study will add to the sparse literature on achieving weight measurement in practice with the aim of informing practice and supporting primary care professionals to carry out this potentially delicate and interactionally challenging task.

2. Material and method

2.1. Study design

Conversation analysis of video recorded GP consultations with patients with T2DM or pre-diabetes, where weight or weighing were raised. Data were obtained from two large data archives of over 600 audio and video recordings of routine GP consultations in the UK (see Appendix A).

2.2. Data identification

The data within both data archives are categorised. The HaRI data (Seguin et al., 2018) is categorised according to the primary reason the patient saw the GP on the ICPC-2 (International Classification of Primary Care) (World Organization of National Colleges Academies, 2005). The One in a Million data archive (Seguin et al., 2018) is coded for problems and issues discussed using a published coding tool (Procter et al., 2014) also based on the ICPC-2.

To identify potentially relevant cases from the HaRI archive we searched the accompanying SPSS metadata file for all cases where the primary reasons for seeing the GP was coded as 'Endocrine'. This search identified 64 cases for which we then requested the written transcripts. These transcripts were read by three researchers (JR, SP and AL) to identify key words that could be used to identify other consultations within the dataset such as consultations with patients at risk of developing diabetes (pre-diabetes), or consultations with patients with type 2 diabetes who were seeking medical advice about a non-diabetes related primary concern (so were not picked up in the Endocrine search). These keywords were applied to the metadata file to search the summary descriptions of each consultation that had been produced by the HaRI researchers. A further 46 consultations were identified and the transcripts for these consultations were also requested.

To identify relevant cases from the One in a Million archive we requested transcripts of all consultations that had been coded as either diabetes as main diagnosis ($n = 4$), diabetes raised as a problem within the consultation ($n = 30$), or any consultation (not specific to diabetes) where behavioural health prevention was mentioned ($n = 142$). Any duplications of consultations were removed.

2.3. Data screening

Two hundred and thirty-one transcripts were screened for inclusion (110 consultations from the HaRI data archive and 121 from the One in a Million archive).

The inclusion criteria were:

- Consultations with patients with diabetes, pre-diabetes or where diabetes was suspected by either the GP or patient

- Consultations where weight or weighing were raised and/or accomplished within the consultation.

Exclusion criteria were:

- Consultations with patients with gestational diabetes
- Consultations with patients with diabetes that did not contain any discussion of lifestyle advice, self-management support or behavioural modifications related to diabetes management or prevention.

The transcripts were imported into Nvivo software (QSR International, 1999) and were read in full by the researchers (JR, AL or SP). A data extraction form was created to support the screening which was used to record inclusion or exclusion decisions and the reasons, and to note down pertinent parts of the consultations. If the screening researcher was not sure about whether the transcript should be included this was discussed among the team until a decision was reached. By reading the transcript and watching the recordings we were able to determine the diabetes status of the patients (diagnosed with diabetes, pre-diabetes, or suspected diabetes). Any uncertainty around this clarification was discussed within the team. The team comprised: researchers with expertise in conversation analysis, qualitative research methods, medical sociology, medical interactions and diabetes research; a GP researcher and a lay person with experience of living with type 2 diabetes.

xxx Research Ethics Committee (19/NS/0039) approved this study which only includes data from participants who in the original studies gave informed written consent for their data to be accessed and reused.

2.4. Data analysis

Video and audio recordings of each consultation identified were accessed. The two data archives provided full verbatim transcripts of each consultation. Selected sections of these transcripts were further transcribed based on the Jeffersonian transcription system (Jefferson, 2004). This transcription system includes details such as overlaps in talk, pauses, emphasis, and changes in tempo of interactions which helps in analysis and understanding. Transcription key, Table 1.

We took a CA approach. CA is concerned with the social scientific understanding and analysis of interaction (Maynard & Schaeffer, 2012) and is a well-established method for analysing naturally occurring institutional encounters such as communication in health care (Leydon & Barnes, 2020). We used the next-turn proof procedure (Ten Have, 2007) that is, the next turn in an interaction is taken as evidence of the party's orientation to the prior turn, at talk. This was to ensure analysis was grounded in what interlocutors highlighted as important in the interaction, rather than being led by the researcher's a-priori

Table 1
Key to Conversation Analysis notation.

Notation	Description
:	Extended vocal sound. Multiple colons dictate further extension
(0.2)	Pause in tenths of a second
(.)	Micro pause
> <	Rapid speech
↑	Upward intonation
,	Continuing intonation
°°	Quieter speech
(())	Text between brackets, in grey, gives descriptions of action or clarification of phonetic meaning
Hh	Out breath
.hh	In breath
[]	overlap
-	Underlying used for emphasis
()	Hard to hear or not hearable
=	Latched talk
£	Smile voice

assumptions. The analysis was constructed to be mindful of deviant cases but the findings were consistent across all the cases identified.

Taking each identified consultation in turn, transcripts were read alongside the original recording with a view to identifying instances of weight measurement. Instances of weight discussions within these consultations were then analysed in greater detail using CA to consider the words, phrases, action format (e.g., informing, questioning etc) and grammatical composition of those practices, and their relative position in the sequence (i.e., we considered what came before the clinician's mention of weighing, and how patients responded).

Data were presented at two CA data sessions with experts in the use of CA in medical interactions. Data were also presented at three data sessions held by this research team, enhancing validity. These sessions provided a forum to discuss the analyses and elicit new analytical insights.

3. Results

We identified forty-two consultations between GPs and patients at risk of, or with, T2DM, and 22 where the topic of weight was discussed. Of these, seven consultations contained instances of weight measurement. This analysis focuses on those seven consultations which are summarised in Table 2.

Seminal CA research into primary care consultations has identified that the tasks performed between doctors and patients during medical consultations are organised into distinct interactional stages (opening the consultation, presenting the complaint, examination, diagnosis, treatment and closing) (Heritage & Maynard, 2006). In all the presented extracts, measurement of weight was raised after the consultation had opened and the presenting complaint has been established, with the weight measurement forming part of the examination phase of the consultation. The following analyses begin at the point at which weighing is first raised in the consultation.

Although there is no specific guidance for GPs about how to procedurally perform weight measurements in practice, we observed a recurrent pattern that led to successful weighing: (1) The GP raises the topic of weight measurement, (2) the patient produces a response aligning with measurement of weight as a next action, (3) the GP marks the readiness for the action to be performed by providing instruction to the patient, and (4) the patient then co-operates with being weighed. Within these sequences we observe that both patients and GPs approach weighing with delicacy, evoking certain linguistic devices to present it as so. We observe that the level of delicacy with which request are made impact patient alignment with the request. And observe that in cases, where the patient does not indicate initial agreement to be weighed, interactional difficulties are observed, including prolonged appointment duration, additional work by the GP to build alignment, and patient resistance to the outcome of weighing, suggesting this is a critical part in the process of achieving weight measurement.

We make the following key claims:

- 1) GPs work to delicately raise patient weight measurement. Delicacy features in the GP talk tended to prompt patient alignment needed to perform the weighing. A lack of delicacy features prompted passive resistance by patients and interactional difficulties. Accounting for weighing was one strategy GPs used to secure patient alignment.
- 2) Patients attended to the delicacy of weighing interactions by engaging in face saving work to manage the potential face threatening readings from the scales.

We now provide examples of how GPs talk exhibited delicacy features which oriented to the sensitivity of making a request to weigh patients. As stated by Bergman "By describing something with caution and discretion this "something" is turned into a matter which is in need of being formulated cautiously and discreetly" (Bergmann, 1989). These features, presented in Table 3 were: diminishers (diminishers are a

Table 2
Consultation summary.

Consultation number	Extract number(s)	Age	Sex	Consultation Summary
1	1	26–35	Female	Patient has a painful knee following a fall down a flight of stairs. The patient presents an account of the actions she has engaged in to try and treat her knee and then the GP asks to conduct a physical examination of the knee. Immediately following the examination of the knee, the GP raises weighing the patient.
2	8	76–85	Female	The GP and patient greet each other and a lengthy discussion about several of the patient’s health issues (high blood pressure, incontinence, and knee pain) ensues. Interactions are turbulent in places. The GP asks to examine the patient’s bladder and they both go to the examination bed (off camera). Weighing is topicalized again, after having been discussed earlier in the consultation.
3	4 & 5	66–75	Female	The consultation begins with establishing the reason for the patient’s visit- to discuss hospital blood test results. The GP explains that her recent blood glucose test results show that she had pre-diabetes. The GP tells the patient that they need to discuss what they can do about the results. Discussion moves to weight and the GP raises weighing.
4	Not extracts presented here	26–35	Female	Patient is concerned about blood glucose readings. GP discussed these with her and offered referral to a diabetes prevention programme. Weight measurement is taken.
5	3 & 7	66–75	Female	The consultation opens with brief greetings and moves almost immediately to the GP soliciting the reason for the visit, which is the patient has been experiencing unstable blood glucose readings. This leads to a discussion around the patient’s typical eating habits and a medication review.
6	2 & 6	55–65	Male	The consultation begins with brief greetings and moves quickly to establish the reason for the visit- a diabetes review. The discussion moves to review the patient’s current medication and recent blood tests before weight is raised by the GP.

Table 2 (continued)

Consultation number	Extract number(s)	Age	Sex	Consultation Summary
7	Not presented here	46–55	Female	Patient presents for a follow up consultation after an increase in blood pressure medication at previous appointment. She introduces a new problem-shoulder pain. GP takes blood pressure reading and then tropicalised weight. Patient offers own weight reading and GP asks for confirmation via weighing.

Table 3
Delicacy features.

Feature	Description	Example
Diminishers	GP uses attitude diminishers (Quirk, 2010; Sulaiman & Taha, 2020) to minimise the saliency of weight and weighing within the interaction.	Could I just ↑check your weight <◦today◦> please?
Softeners	Softening moderates the GPs request for the patient to perform the actions required to achieve weighing and marks the action as easy to accomplish (Tremblett, Webb et al., 2022). A particular type of softening observed in relation to moving on action within the weighing sequence was the use of idioms to describe the action required to perform the weighing. This invoked the life voice and marked the action as easy to perform.	◦Can you just ↑pop yourself ↑up (?°)
Framing request as question	GPs raise weighing as a ‘yes/no interrogative’ (Heritage & Raymond, 2012) where patients are asked directly whether the GP can measure their weight. Framing this as a request marks the patient as having agency (Speer & McPhillips, 2018)	can I just get your <u>weight</u>
Hesitations and perturbations	Hesitation and perturbations in the GPs’ talk included pauses re-starting phrases and rush-throughs. With these disturbances in talk, speakers mark the delicacy of a subject in that specific situation. (Silverman & Peräkylä, 1990)	(0.8) can I just get your <u>weight</u> (.) is (.) your weight a second as well
Changes in tone	GPs changes to quieter and slower tone of voice to make request to weigh patients, signalling the delicacy of the request.	Could I just ↑check your weight <◦today◦> please?
Accounting for request	GP provides a justification for the request to weigh the patient including marking weighing as clinically relevant (Gray et al., 2018), constructing weighing as routine practice and requiring an objective measure of weight.	>I’m gonna weigh you < cause we’ll see if it (new medication) makes you lose any weight as well↑

subtype of downtoners which have a lowering effect, expressing a moderate, slight, or just perceptible degree of qualities that scale down the effect of the item they modify (Quirk, 2010), softeners (ways of moderating a message (Tremblett, Webb et al., 2022)), framing as a question, hesitations and perturbations (defined as the presence of any disturbed speech in a turn at talk (Silverman & Peräkylä, 1990)) and changes in tone, which were used alone or in combination. GPs provided justifications to patients for requesting to weigh them, features of these justifications were: marking the request as clinically relevant, marking the request as routine, and indicating a preference for an “objective” measure of a patient’s weight.

The following extracts illustrate the ways that GPs work to achieve patient weighing using the delicacy features described above. The extracts also highlight the interactional turbulence that can ensue when requests to weigh patients lack features of delicacy.

3.1. Delicacy in initiating weighing

Our first observation is that patient weighing can be initiated with varying levels of delicacy which impacts on patient alignment with the task. We observed that requests to weigh which were formulated as questions produced more aligning patient responses than those presented as assertions. We also observe features of talk that serve to delicately make requests including the use of idioms, features of speech including tone and pauses and hesitations.

In extract 1 (Fig. 1), which presents a section of a consultation between a female patient (aged between 26 and 35) presenting with a sore knee, and a female GP.

Immediately following an examination of the knee weight is topicalized for the first time with the GP’s request to weigh the patient “could I just ↑check your we:ight <◦today◦> plea:se?” (line 3). This request is hearable as a form of permission seeking to conduct the weight measurement. Requests solicit the need for a response from a recipient and in formatting their requests, a speaker displays how entitled they are to ask the recipient to do something (entitlement), and acknowledges the perceived difficulty of the task and potential barriers to completion for the recipient (contingency) (Harwood et al., 2018). Modal verb interrogative formats, such as ‘could’ in request formation, index high levels of entitlement and grantability (Jackson et al., 2022), meaning that in formulating the request in this way the GP is suggesting their entitlement to make it, and an expectation of it being fulfilled. The patient responds positively to this request, observed by a stressed “yes” and a subsequent affirmatory intensifier “sure” (line 5).

The delicacy of the talk is hearable in the way the GP lowers her

voice and elongates the words “weight” and “please” (line 4). As Bredmar’s work on sensitive topics in healthcare encounters highlights, changes in voice, such as lowering or switching to another voice quality may be a way of indicating the delicacy of a particular issue (Bredmar, 1996). Furthermore, linguistic minimisers convey to patients that medical actions will not be onerous (Jackson et al., 2022), in this extract this is displayed in line 3 with the word “just” (line 3).

Extract 2 (Fig. 2) presents another example of the initiation of weighing being presented as a request. This extract is taken from a consultation between a male patient, having a diabetes review, and a female GP.

Weighing is raised by the GP with a request formulated as “Do you mind jumping on my scales?” (line 12), with the patient’s weight having been topicalized in earlier turns (line 2). The “Do you mind” conveys less entitlement for the request to be made and conveys the GP’s anticipation that the patient might not grant the action. However, the request is preceded by the GP’s physical embodiment of the action of preparing for weighing as she moves her chair back and point towards the scales, this serves to presumptively assume the patient’s assent with the action, despite a response not yet being provided.

The GP works to mark the act of weighing as quick and requiring little effort with the idiom “jumping”, which also serves to add an informality to the requested action, further attending to the delicacy. The patient responds quickly, observed by overlap to the GP’s prior turn, with “Yeah” (line 13). “Yeah” has been shown to be a marker of passive resistance (Heritage & Sefi, 1992), the visual data however, indicates agreement with the request as the patient begins to rise from his chair in preparation of performing the weighing, movement which mirrors the GP’s actions.

In extract 3 (Fig. 3) we see weighing being oriented to in a different way. This extract is from a consultation between a female patient aged 66–75, who has made an appointment to discuss her blood glucose levels, and a female GP.

The patient’s weight is oriented to at 10 min into the consultation with the GP opening the sequence of weighing by stating “I’m gonna weigh y:ou<” (line 6). This is delivered as a pronouncement. Pronouncements are declarative statements, which place little expectation of a response on the patient (Jackson et al., 2022). Pronouncements in treatment recommendations serve to present the treatment as already determined (Stivers et al., 2018), and in this excerpt suggest the GP is not seeking alignment from the patients for weighing, rather he has predetermined that it will happen. This pronouncement also serves to encode his authority.

A lack of delicacy features is noticeable in the formulation of this

1	GP:	Have you had any physiotherapy on the <u>kne:e</u> ?
2	PAT:	((shakes head))
3	GP:	No, ((looking at patient)) (.) could I just ↑check your
4		we:ight <◦today◦> plea:se?
5	PAT:	<u>Ye::s</u> sure ((looks across room in direction of scales))
6	GP:	Come and hop on the ↓scales ((GP swivels chair around and
7		moves in direction of scales, patient stands up))
8	PAT:	((both GP and patient off camera)) Here?
9	GP:	Yep. Lovely, >thank you< ((patient can be heard standing on
10		scales))
11		(1.3)
12	GP:	That’s ↑great, thank you very much. Off you ↑hop ↗again.
13		That’s great. Thank yo:u, ((both GP and patient begin to walk
14		back to seats)) <u>so</u> ninety <kilos>
15	PAT:	Yeahhhh

Fig. 1. Extract 1.

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1 GP: ((GP looking at computer))
2 GP: >where are we with< ↑weight and things like ↑that?
3 PAT: ↑um (0.4) I ↑'ave, (0.6) I:'ve ↑levelled at the moment
4 [↑no::w,
5 GP: ((GP turns to look at patient and nods))
6 [↑okay,
7 PAT: so:: I ↑lost wei::ght and then I've levelled (0.4) .hh
8 GP: [°okay,°
9 PAT: [<and u:m> (0.4)
10 GP: ((GP moves chair back and points fingers in direction of
11 scales))
12 GP: >do you mind< ↑jumping >on my sca[les<
13 PT: [↑yeah
14 GP: ((patient and GP stand))

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Fig. 2. Extract 2.

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1 GP: hhh um (1.1)
2 ((GP looks up from screen towards patient))
3 GP: can you <just ↑pop your jacket off for [me]=
4 ((patient begins to move in seat))
5 PAT: [Hm]
6 GP: ((Looking back at screen))>I'm gonna weigh y:ou< cause we'll
7 see:e if i:t makes you lose any wei:ght as well↑
8 PAT: (4.9) ((patient stands and removed coat while GP turns back
9 to computer and types))
10 PAT: <take the boots off as well> ((patient turns and looks at GP
11 who returns the gaze, both smile))
12 GP: (1.8) ((GP looks down at patients' feet))
13 GP: I:f they're heavy-i:sh.

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Fig. 3. Extract 3.

request, with minimal hesitation and perturbations. The GP is also observed delivering this pronouncement while looking at the computer screen, rather than at the patient. Although there is space for the patient to take a turn following the GP's request, she does not and a long pause, relative to the surrounding talk, ensues. Pauses and silence have shown to indicate minimal uptake and passive agreement in medical settings, and often prompt the reformulation on the part of the GP to secure alignment (Costello & Roberts, 2001). However, in this case, video data shows that although the patient provided no verbal indications of alignment with the GP's request to weigh her, she embodies preparation for weighing by rising from her chair and removing her coat indicating co-operation with the request.

Another example of weighing being initiated with minimal delicacy features is observed in extract 4 (Fig. 4), which is taken from a consultation between a female patient, aged between 66 and 75 who is attending to discuss recent blood test results, and a male GP.

Weight is raised by the patient 50 s into the consultation when she describes having put some weight on around her tummy (line 6), and

this is followed by the GP topicalizing weighing in line 11. He moots his intention to measure the patient's weight by marking weighing as salient to the prior discussion of weight using the *so*-construction opener (line 10). Bolden suggests that 'so' marks an upcoming topic or course of action as having been incipient or pending (Bolden, 2006), in this way the use of "so" conveys the sense that weighing has been on the GPs agenda for some time rather than has just occurred to him. His intention of weighing the patient is pronounced at line 10, "↑so what I will ↑do is actually to ↑take ↑your ↑weight and re↑cord,. As discussed earlier pronouncements are presumptive or the action occurring (Jackson et al., 2022). With the statement "what I will ↑do" makes the formulation of a future action specific to weighing the patient, relevant, and presumptively assumes alignment with the patient *before* securing it. The GP delivers this pronouncement with a lack of delicacy including minimal markers of hesitancy and raised tone. The patient responds by shaking her head in a way that conveys disagreement and foreshadows a vocal and more explicit resistance to this statement with a horrified intake of breath and the delivery of a counter instruction "HHHHHHH don't tell

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10 GP: ↑so what I will ↑do is actually to ((turns and points to
11 location of scale)) ↑take ↑your ↑weight and re↑cord
12 ((points to computer screen)) [as well
13 PAT: [HHHHHHH ((recoils and
14 looks to floor)) don't tell me: ((shaking head))I don't
15 [wanna know
16 GP: [>↑no ↑no ↑no
17 PAT: no:

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Fig. 4. Extract 4.

me: I don't wanna know" (lines 13–15). This is treated immediately by the GP as resistance, who produces a rush through of "[>↑no ↑no ↑no" (line 16) to forestall the emerging interactional trouble indicated by the patient's response. This repetition of "no" responds to the patient's directive to not be told of her weight and serves to rebuild alignment for the weighing. The interaction then takes on a different sequential trajectory (not presented here), away from achieving the weighing, aimed at managing the incipient interactional trouble. The patient's declination leads to a deferral of weighing, but only temporarily.

Fifty-eight seconds, after his first attempt to initiate weighing the patient, the GP makes a second attempt, shown in extract 5 (Fig. 5). This second attempt is notably different from the GP's first initiation of weighing, in the way he structures his talk to build collaboration with the patient. As Costello and Robets have shown with their work on medical recommendations (Costello & Roberts, 2001), when presented with patient resistance doctors may reformulate or downgrade their recommendations. Here we see an example of the GP reformulating his request to weigh the patient to secure agreement. Firstly, in contrast to the GP's pronouncement in his first attempt, he changes the subject pronoun of the statement from "I" to "we": "↑what we ↑shall ↑do" (line 1), thus moving to share agency of performing the action with the patient, thus encouraging her participation via framing the action as a joint endeavour. Furthermore, the GP selects the verb "do" rather than the previous "take" to describe the action, do allows the patient to be a participant in the action, achieving the weighing together as opposed to "take ↑your ↑weight" which is something to be done to the patient. The GP also downgrades the immediacy and certainty of the action by replacing the modal verb "will" with "shall". This extracts from this consultation (extracts 4 & 5) highlights the interactional trouble that ensued after patient weighing was raised without identified delicacy features. He also reformulates this pronouncement to make concession for the patient's knowledge management directive- "you said I ↑shouldn't ↑tell you" (line 3). The patient confirms this, and the GP provides assurance that he will not tell her in line 5.

3.2. Accounting for weighing

Our second observation is that GPs engage in interactional work to justify the need to weigh patients in order to build alignment.

Extract 6 (Fig. 6) is a continuation of the consultation depicted earlier in extract 2. Here we observe the GP explicitly accounting for their request to weigh the patient as a way of securing alignment "just 'cause I like weighing people on the same s-scales" (line 15). The patient had previously offered minimal agreement to the request to weight, responding "yeah" at line 13. In this proceeding interaction the GP interactionally works in pursuit of acceptance from the patient. This extended turn from the GP may be regarded as an indication of patient resistance in the prior turn (Hultberg & Rudebeck, 2017). This post-expansion substantively elaborates the sequence, occupying the time (13 s) while the patient is removing clothes and readying themselves for getting on the scales. The justification that the GP presents relates to their preference to have an objective measure of the patient's weight and the "just" (line 15) is hearable as an explanation by the GP as to why she has requested the weighing despite the patient having already provided an account of his weight (earlier on the consultation,

not presented here) and is suggestive of the delicacy of the request.

The patient acknowledges the GP's explanation and seeks to build alignment with the GP by agreeing that he too likes the GP's scales "oh I ↑like your scales" (line 16). The GP provides further justification for her request, and a further attempt at securing active agreement for the request to weigh the patient in lines 22–24, "so I'll know ... whether you've gone ↑up or not", suggesting the action is requested in order to complete the "record" and is justifiable by its clinical necessity.

Returning to extract 5 (Fig. 5) we observe another example of a GP accounting for the request to weigh the patient by marking the weighing as clinically relevant. The utterance "then I will ↑give you a form we call it haemoglobin ↑AY one see" (lines 7 & 8) instructs the patient that the weighing is essential in order for the consultation to move forward, it is only after this happens that the GP will be able to give her the form and the consultation can be concluded. The patient indicates her acceptance with "yes" (line 9), however, her continued reluctance to the weighing is hearable in the pause that follows the agreement and the second assessment of "o↑kay" (line 9) which indicates weak or downgraded agreement (Ogden, 2006). Following this weak form of agreement, the GP makes one more attempt at securing explicit alignment from the patient (line 10). Again, the GP works to mark the necessity of weighing as clinically relevant [↑so just to make ↑us, (0.6) ↑HAVE the (.) complete record. In this utterance many delicacy features are noted, including pauses, hesitations and elongation of words. It is only after the patient provides a response with a minimally aligning "↑yeah" (line 12), and it is secured by the GP "↑yeah?" (line 13), that the GP moves to close the weighing sequence by providing instruction "come he:re" (line 18) and the patient performs the action (line 20).

3.3. Face saving work

Our final observation is that in addition to patients marking weighing as delicate in the ways we've discussed above (hesitations, minimal agreement markers and active resistance), patients orient to this in the face-saving work they engage in when confronted with being weighed. According to Goffman, face refers to the "positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact" and it is an "image of self delineated in terms of approved social attributes" (Goffman, 1967). He suggests that actions that attend to the face are ubiquitous in social interaction and that participants strive to defend their own face and protect the face of others. In weighing interactions, Pillet-Shore suggests that patients can treat results of weighing as face-affirming or face-threatening depending upon whether they are congruous or incongruous with their own expectations (Pillet-Shore, 2006). This face saving work was evident in the weighing interactions in this corpus.

In extract 8 (Fig. 8), we see evidence of face-saving work after the weight measurement has been taken. Although the act of weighing has been achieved, having not secured explicit agreement from the patient for this, there follows a turbulent sequence in which the co-participants are (hearably) interactionally negotiating the objectivity of the scales and the measurement that will be recorded. This interactional turbulence highlights the delicate and discomforting nature of patient weighing. The patient calls into question the ability of scales to produce an objective measure of her weight, in response to (presumably) being

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1  GP:          ↑so:: ↑what we ↑shall ↑do ((turns to look at computer))is
2              ↑to:: (0.6) do: your ↑weight and re↑cord it ((points to
3              computer)) you sai:d I ↑shouldn't ↑tell you
4  PAT:         no:
5  GP:          I won't ↑tell ↑you
6  PAT:         ε↑noε ((shakes head))
    
```

Fig. 5. Extract 5.

12 GP: >do you mind< ↑jumping >on my scales<
 13 PT: [↑yeah
 14 GP: ((patient and GP stand))
 15 GP: just' cause I like [weighing people on the same s-
 16 PAT: [oh I ↑like your scales because ↑you:r scales
 17 are [bet-
 18 GP: [↑yeah mine< ↑mine weigh a little bit under what the
 19 [nurses do yeah I think you['re right
 20 PAT: [↑ye:s [I know ha ↑ha
 21 GP: but I know what mine ((looks and points at computer screen))
 22 was last ti:me so [I'll know=
 23 PT: [↑yeah
 24 GP: =whether you've gone ↑up or not (0.4) so [↑august=
 25 PAT: [°yeah°

Fig. 6. Extract 6.

13 GP: I:f they're heavy-i:sh.
 14 PAT: We:ll everything [helps] (Laughs)
 15 GP: [hhh]
 16 PAT: (1.2) I mean, m:ine (.) l:ast (.) °<was it yesterday>° I was
 17 twelve (.)ten,
 18 GP: ↑right ((looking at screen and nods head))
 19 PAT: ↑no <eleven ten> tell a lie hhh (.) (Go)d no °can't [be
 20 twelve°]
 21 GP: [↑Last time I: weighed yo:u (.) you was <seventy
 22 three> ki:los ((GP stands up))
 23 PAT: (0.5) (patient (bending down to remove shoes, GP rises from
 24 seat))

Fig. 7. Extract 7.

1 PAT: °It's >sweaty< that's [why°
 2 GP: [°No it's difficult°
 3 PAT: ↑Mmm
 4 GP: It is difficult (.) I appreciate that (0.8) can I just get
 5 your weight (.) is (.) your weight a second as well ((noise
 6 as scales are being moved))
 7 PAT: (2.1) Sorry I can't °move° for a minute:
 8 GP: oh o:kay:
 9
 10 PAT: because you're spin:ning
 11 (6.2)
 12 PAT: hhh
 13 (8.7)
 14 GP: °alright°
 15 ((noise as patient steps onto scales))
 16 (1.7)
 17 PAT: °your scales is heavier-en me°
 18 GP: ↑Mmm
 19 PAT: Your scales are ↑heavier than #mine# ((makes distressed
 20 noise))
 21 GP: Are [they:
 22 PAT: [I'm not going to look at i:t

Fig. 8. Extract 8.

faced with a reading that challenges her expectation of her weight. At line 19 the patient claims "°your scales is heavier-en me°". With this statement the patient cries foul play, challenging and delegitimizing the reading from the scale. She attributes ownership of the scales she is standing on to the GP "your scales" contrasting these with her own scales, thus invoking two independent versions of her weight. By raising her weight reading from home, the patient portrays herself as possessing pre-existing, independent knowledge and as interested in tracking her health status, thus an "active patient" (Pomerantz & Rintel, 2004). This also serves to delegitimize the GPs scales as an objective measure of her weight.

The GP responds with a request for clarification "↑Mmm" (line 18),

and the patient repeats "Your scales are ↑heavier than #mine#" (line 19) this time marking the "mine" with a distressed creaky voice, indicating a displeasure. In attributing the alleged weight discrepancy to the readings from the scale she provides an innocuous, face-saving account that works to preserve her self-image by preventing the potentially face-threatening discovery that she weighs more than she expected. In line 21 the GP indicates a reservation about the patient's claim asking "Are [they]" which serves to refute the presupposition without overtly disagreeing.

The patient asserts her agency over the weighing by stating that she won't look at the scales "I'm not going to look at i:t" (line 22). This contradicts her earlier statement "Your scales are ↑heavier than

#mine#" (line 19)- which suggests she has looked at the reading. Declaring she won't look at the scales indicates that she may have been faced with a reading that challenges her expectation of her weight.

This face saving work is also seen prior to weighing in several of the cases. For example, in extract 7 (Fig. 7), which is a continuation of extract 3 (Fig. 3), we see the female patient engaging in work to preemptively manage the face-threatening potential of the reading from the scales, by setting expectations about the upcoming weight reading. Line 16 begins with "I mean" marking the turn relevant to the previous turn about removing her boots in preparation for the weighing and continues: "Last (.) was it yesterday? I was twelve (.) ten.". By explicitly announcing her weight, and evidencing this (reading from her own scales), she sets expectations for the results of the weighing, and at the same time is able to highlight her role as an engaged patient by demonstrating her pre-existing, independent knowledge and self-monitoring awareness.

4. Discussion

This study sought to identify how patient weighing is achieved during primary care consultations and to uncover the interactional properties of the talk that surrounds the act of weighing.

Our findings demonstrate how weighing is raised in routine consultations with patients with, or at risk of type 2 diabetes. We show that weighing is a delicately negotiated and constructed action to complete, and that both GPs and patients find this a difficult task. We show that alignment with requests vary and are influenced by the way the requests are made. We identified specific interactional practices which served to accomplish weighing with less resistance including GP's framing the initiation of weighing as a request rather than pronouncing it, providing an account for the weighing and using delicacy features to reduce the discomfort of being weighed.

GPs evoked delicacy features within their talk including hesitations, changes in tone and the use of idioms to orient to the potentially emotional and personal nature of weighing for patients. Similar findings are noted in a recent study of weight discussions within primary care interactions, with delicacy features including forecasting upcoming discussion of weight along with delicacy markers in talk (e.g. strategic use of hesitation) an important component of averting patient resistance to discussing their weight (Tremblett et al., 2022). Delicacy features in clinician speech have also been noted in various other studies of topics noted as delicate, including talk of sexuality during gynaecological consultations (Weijts et al., 1993) and AIDS counselling (Silverman & Peräkylä, 1990).

In this corpus GPs either initiated weighing by requesting or pronouncing, with the former producing more aligning interactions. Speer and Mc Phillips studied discussions of weight and similarly concluded that announcing that patients were overweight was the least aligning practice which denied patient's agency, whereas asking patients whether they are overweight generates comparatively aligning, but occasionally resistant, responses (Speer & McPhillips, 2018). Furthermore, in attending to delicacy in their requests GPs were observed accounting for the need to weigh their patients. In this way GPs retreated to a medical stance, transforming weight into a medical measurement and highlighting the clinical relevance in order to pursue acceptance and provide a rationale for the action. This aligns with prior studies of weighing which highlighted that socially constituting patients and their weights as "routine" and "medical" may work to neutralize, detoxify or at least diffuse an interactional situation patients can, and recurrently do, treat as personal (Pillet-Shore, 2006). Previous CA studies have also found accounting to be as a strategy employed by physicians to secure patient agreement with treatment recommendations (Stivers, 2005) and highlighting the clinical relevance as a way of accounting has been observed and recommended previously as an effective strategy for discussing weight with patients (Gray et al., 2018; Speer & McPhillips, 2018, Geerling et al., 2022). Other studies of weight discussions in

primary care have reported GPs perceived weight talk as only legitimate when it is linked to a patient's comorbidities (Dewhurst et al., 2017) or a preference for discussing weight issues within the context of patients' existing health issues (McHale et al., 2020).

GPs reported a need for an objective measure of a patient's weight as a reason for the weighing, and we observed the objectivity of weight measurement being negotiated throughout consultations by GPs and patients. At the prospect of being presented with "objective" measures of their weight, patients were observed engaging in sequences of talk to present themselves as 'good' and active patients. Studies of health professional and patient interaction in diabetes consultations (Silverman, 1987) suggest that when the condition being discussed is one that emphasises the active commitment of the patient to managing the condition, consultations can become "a kind of trial" for the patient in which they are to be held accountable for their actions leading to tensions in the interaction. In the presented interactions, patients worked to claim or demonstrate to GPs that they know about their own weight and are engaged in behaviours to monitor their weight status, thus presenting themselves as monitors of their health over time (Pomerantz & Rintel, 2004). CA studies of physician-patient interaction document the considerable work patients do to be taken as credible witnesses of their own bodies (Teas Gill & Roberts, 2012, pp. 575–592), and confronting their weight on a scale in the consultation setting, patients engaged in work to assert their independent expertise. However, faced with results that challenge their prior knowledge leads to patients engaging in face-saving work to account for the discord between their expectations of weight and the readings they are presented with.

Specific information on how to achieve weighing is mostly absent from current guidelines (National Institute for Health and Care Excellence, 2006), which only provide general advice. Despite emerging evidence on how discussions of weight take place (Albury et al., 2019; Tremblett, Poon et al., 2022; Tremblett, Webb et al., 2022), little is known about how weighing in particular is achieved in primary care settings. The findings from this study suggest that it may be challenging for GPs to judge how a patient will respond to a request to be weighed, and that there is a need when making these requests, to be aware that this is a delicate and personal request of patients.

A strength was our analysis of naturalistic data of GP consultations, meaning analysis was not limited by recall or social desirability biases. Data were collected across a number of surgeries and from diverse patient groups. The data was collected from two large archives of recorded consultations comprising audio and video allowing multi-modal analysis of interactions. Access to the visual data allowed examination of the non-vocal exchanges and non-vocal accompanying activities which were crucial to achieving weighing. Detailed conversation analysis allowed us to demonstrate the complexity of interactions around weighing in primary care, highlighting interactional difficulties and suggesting ways that GPs may raise the topic of weighing that may be acceptable to patients and conducive to the consultation.

A key limitation is the small number of consultations in which weighing was identified. This may be due to the fact that the data archives only included GP consultations, yet in the UK and other developed countries it is often nurses, including diabetes nurse specialists who provide direct care including monitoring to patients with T2DM (O'Flynn, 2022). While CA lends itself to examining data sets of this size (n = 7) in detail, future studies may consider exploring these findings in larger datasets. Given our focus on how weighing is achieved, we did not micro-analyse the full consultations of cases and therefore may not have captured some of the dynamic ways in which the topic is negotiated and managed at various other points in the consultation, for example in interpreting the results of the weighing, future work might look to extend this. Another limitation was that the included sample were not representative of the wider UK population at risk of, or with T2DM in terms of ethnicity, being a predominantly white British sample. We also had no data to determine whether GPs and patients had prior relationships which may impact on the way weight is raised and discussed

(Abdin et al., 2021). Furthermore, recording devices were visible to both patient and GP, and this may have influenced discussions. Given the delicacy of weight discussions, participation in the original research studies may have been subject to volunteer bias.

5. Conclusion

This study presents data on naturally occurring instances of measuring weight in primary care. Through detailed analysis, strategies for achieving weighing have been identified and analysed in relation to how they are responded to by patients. GP awareness that for patients, weight measurement is grounded in personal experience and therefore need to be handled with delicacy may serve to forestall turbulent interactions around achieving weighing.

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Data sharing statement

This study used third party data made available under a data sharing agreement that the author does not have permission to share.

Ethical statement

North of Scotland Research Ethics Committee (19/NS/0039) approved this study which only includes data from participants who in the original studies gave informed written consent for their data to be accessed and reused.

CRedit authorship contribution statement

Jamie Ross: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Project administration, Writing – original draft, Writing – review & editing. **Shoba Poduval:** Conceptualization, Formal analysis, Funding acquisition, Methodology, Writing – review & editing. **Charlotte Albury:** Conceptualization, Funding acquisition, Investigation, Methodology, Writing – review & editing. **Annie Lau:** Funding acquisition, Investigation, Writing – review & editing. **Niccy Whitaker:** Conceptualization, Funding acquisition, Writing – review & editing. **Fiona Stevenson:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Co-author CA was a guest speaker on clinical communication skills at a conference run by Government Events, for which she received personal payment. CA co-developed guidelines for general practitioners on discussing weight. The guidelines were published by Obesity UK and their development was supported by Novo Nordisk. This activity did not lead to personal payment.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ssmqr.2023.100384>.

[org/10.1016/j.ssmqr.2023.100384](https://doi.org/10.1016/j.ssmqr.2023.100384).

Abbreviations

GPs	General Practitioners
CA	Conversation Analysis
NHS	National Health Service
T2DM	Type 2 Diabetes Mellitus
HaRI	Harnessing Resources from the Internet research study

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