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Negotiating the practical ethics of 'self-tracking' in intimate relationships: looking for care in healthy living

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Abstract:

In this paper, we offer insights into practices of tracking as part of healthy living through talk about home blood pressure and weight from adults living in the UK. Drawing on theoretical resources from feminist ethics of care and Science and Technology Studies on care as socio-material practice, we build on interest in the relational dimensions of tracking and the potential for intimate surveillance and care using monitoring technologies. Our cases offer not only new perspectives in a field that has often focused on fitness tracking but also help go beyond a narrow focus on surveillance, showing how surveillance and care may be intertwined in the everyday negotiation of health-related tracking and other 'health practices' in family life. Using the diversity in our relatively large sample, and reflecting on the different types of interview completed, we highlight the varied ways in which adults engage with tracking blood pressure and weight (or body mass index) in the context of established relationships. The combination of attentiveness and appeals to responsibility for maintaining health as something owed to a partner can make tracking a very ethically sensitive area. In this paper we emphasise that reciprocity is one important way in which couples make tracking feel more like care. Tracking together or discussing it can take couples in this direction even if the actual practice remains somewhat difficult. On the other hand, responsiveness to someone else's feelings, including a desire to avoid the topic altogether, or avoid weight as a specific parameter, might all help move towards more caring tracking. We therefore develop a more sustained account of care in relation to tracking than in previous work, and a novel account of tracking as a (potential) care practice between adult partners.

Keywords

UK; ethics; care; health; partner; practice; tracking; surveillance.

Introduction

Consumer devices for ‘tracking’ aspects of health and fitness have attracted recent academic attention, in which sociological work (Lupton 2016, Weiner & Will 2018, Pols et al 2019) has been joined by media and critical data studies that centre digital technologies (e.g. Ajana 2017, Ruckenstein et al. 2018). Unlike some of this literature, we seek to avoid some of the assumed novelty of tracking, examining it instead in the context of wider ‘healthy living’ practices promoted in public policy. We know that healthy diets and physical activity are not adopted by individuals in isolation but are negotiated with other people (especially family members), work and domestic environments (Crawford et al. 2010, Lindsay 2010, Henwood et al 2011, Will and Weiner 2014). In this paper we underline the importance of relationships in shaping health-related tracking using concepts from the feminist ethics of care literature (Tronto 1993, Barnes et al. 2015) and studies of care as socio-material practice (Mol 2008, Mol et al. 2010). We argue that empirical studies of tracking offer a critical space to recognise the complexity involved in healthy living, focussing on everyday tracking of blood pressure and weight or body mass index (BMI) as practices taken up independently of the clinic. Like other tracking practices, monitoring blood pressure or weight may not always be experienced as positive, potentially creating anxiety or intensive forms of self-denial, as well as more minor disappointments and frustrations (Lupton 2019). Weight is particularly morally loaded, especially for women (Spoel et al 2012). Involvement in tracking should by no means be assumed to lead to ‘living well’. Yet we also see risks in an over-emphasis on tracking as primarily a form of surveillance of individuals and their lifestyles. In starting our research we suggested that tracking can embody efforts to care for ourselves and close relatives, and we designed a study examining everyday tracking through a relational lens. In this paper we discuss data relating to people living with partners to explore the possibilities of tracking ‘with care’.

Accounting for care with surveillance

A field studying ‘self-tracking’ can be identified through special issues, books and events, with contributors divided by discipline and focus. There has been a shift away from ethnographic studies focused on the Quantified Self movement (e.g. Nafus and Sherman 2014, Sharon and Zandbergen 2017) and their intensive tracking of many parameters simultaneously, to explorations of tracking as a more everyday practice that means different things to different people (e.g. Pantzar and Ruckenstein 2014, Neff and Nafus 2016, Pink et al. 2017, Lupton 2019). To date, such studies make relatively little use of the concept of care, developing a critique of tracking as part of responsabilising demands in public health, where tracking enables *surveillance* understood in relation to the work of Foucault as a form of discipline. This may be in part because many of these studies examine activity tracking with devices such as Fitbit, Garmin or Strava which push data automatically from devices into apps that allow them to be visible to others (Fotopolou and O’Riordan 2016, Lomborg and Frandsen 2017, Pink et al. 2017, Esmonde 2019) including governments or business (Lupton 2016). Such devices may then be understood as material elements and techniques for making human bodies into objects of knowledge (Foucault 1995). At the level of the user, the focus of these analyses is

often the capacity of the app to encourage regulation and knowledge of the embodied self (Ajana 2017, Sanders 2017, Esmonde and Jette 2018, Lupton 2019). In this literature on fitness, the involvement of known others – e.g. as observers of the practice through social media – has been conceptualised as ‘peer surveillance’ (Kent 2018) (a contrast with scattered references to trackers concealing information from family and friends (Lupton 2016, Lomborg and Fransen 2017, Weiner et al 2020).

Over the last few years, the shift to accounts of everyday tracking has added nuance to accounts of the practice, especially when developing discussion of material dimensions and mediation. Kristiensen and Ruckenstein (2018) emphasise the ways in which tracking practices may ‘run counter to the larger political-economy landscape’ as new media technologies increase ‘consciousness of one’s agentic capabilities and heighten awareness of human intentionality’ (p3626). Lupton (2019) proposes using theoretical approaches from feminist new materialism but while this might promise a move beyond individual motivations in fact the paper’s focus on affective elements leads to an emphasis on things like the individual pleasure associated with ‘taking control’. Within materialist studies in Science and Technology Studies (STS) Pols et al (2019) move further towards an ethical account of tracking in practice, with their discussion of the ‘ethico-psychological subjects’ who may be created by different practices, but the focus remains on the tracker as ‘subject’ rather than the wider set of relations within which they may be found. In one of the few studies to use the concept of care we note that Gorm and Shklovski (2019) invoked ‘self-care’ to explain the ‘episodic use’ of Fitbit devices as their participants made devices fit around other priorities. Thus these studies have still not emphasised care. The only more sustained references to care for and from others can be found in a parallel literature on parental monitoring – by authors closer to media studies - highlighting its potentially invasive effects as a form of ‘intimate surveillance’ within a caring context (e.g. Leaver 2015). Thornham (2019) uses the phrase ‘tracking-as-care’ to suggest maternal tracking of infant feeding relocates care work away from midwives, while invoking the emotional importance of this work for new mothers.

In the clinical literature, monitoring has often been proposed for those living with chronic illness as a form of ‘self-care.’ This is challenged by literature emphasising the relational aspects of living with chronic illness (e.g. Kendall and Rogers 2007, Mazanderani et al 2019). In STS monitoring has been shown to redistribute work from professionals towards patients, their families and technologies or mundane materials (e.g. Pols 2006, Oudshoorn 2011, Pols 2012, Danholt and Langstrup 2012, Lynch and Cohn 2016). Here we draw attention to the negotiation of tracking practices between adults, when there are greater expectations of autonomy and privacy than between parents and children and a possibility of more equitable forms of concern. Noting these elements, in the next section we show how we use aspects of both the feminist ethics of care literature and feminist STS to consider what is at stake in these relationships, and the elements that help tracking to be experienced as care in a meaningful sense.

Tracking as a site of practical ethics

We are inspired by the work of Mol, Moser and Pols (2010) on care in practice and Pols' (2015) concern with empirical ethics as they emerge in relations between people and technologies, yet here we also write with an awareness of the longer history of feminist work on the ethics of care. Calls for 'healthy living' as maintenance work on the body are certainly a site for intensive political intervention, yet also raise questions of power within families. The disability studies literature provides an important critique of power asymmetries in care from the perspective of the adult care recipient (Shakespeare 2000). Yet feminist theorists have tried to rehabilitate care to allow more equal power relations (Tronto 1993, Barnes 2011), and this topic continues to be of interest for the feminist scholars in STS mentioned above. In what follows we elaborate on the similarities and differences between these two fields.

Feminist ethics of care and feminist STS on care in practice share a commitment to seeing humans as essentially 'relational' and to care as a situated achievement. Feminist care ethics understands care as occurring in a dynamic relationship of interdependence, as the embedded nature of caring involves a range of people with reciprocal ties (Barnes et al. 2015). Following early work by Tronto (1993), negotiations around care are understood as enacted in specific socio-cultural contexts through qualities often listed as attentiveness, responsibility, responsiveness and reciprocity, in which people 'are exploring the right thing to do for themselves and their relationships' (Williams, 2004, cited in Barnes et al., 2015). Within this literature, significant attention is paid to the explicit politics of care. In the case of health lifestyle messages appear as policy responses to demographic change and an increase in population ageing, combined with a shrinking welfare state and over-stretched health and care services. As Barnes (2011) has argued, through such developments, care may be pushed further into the home, risking insufficient attention being given to other relationships through which help and support are given and relegating emotionality and the messy moral dilemmas associated with interdependence to a private sphere. In STS, Mol's (2008) work on the 'logic of care' also starts from the marginalisation of care, exploring how contemporary health has become dominated by a 'logic of choice'. Here the logic of care (like ethics of care) can be understood as a resistant discourse, challenging the assumptions and values that dominate current policy, in her case clinical responses to diabetes. In her examination of other ways of relating with diabetic patients and their families, Mol offers her own defence of care, especially care in clinical work.

Mol and her STS collaborators pay particular attention to materiality (technologies and bodies) in achieving care, in contrast to the ethics of care with its focus on human involvement. The effects of different technologies are open, dependent on embodied practices and concrete situations. Technologies have 'an excess of, sometimes unexpected effects... generat[ing] forms of [bodily] pain and pleasure nobody predicted' (Mol, 2008, p55-6). The new STS of care thus speaks back to the ethics of care literature with its insistence that empirical research is needed to understand the practices, aims and reflections of different actors in their socio-material relations. This form of analysis emerged in particular through studies of telecare technologies (Pols 2006, Moser 2006, Oudshoorn 2011) arguing care was made along with facts, objects and other relations. In their collection, Mol, Moser and

Pols (2010) suggest 'tinkering' to describe the process of finding practices that can be appreciated as care.

Pols (2015) has been particularly associated with the concept of empirical ethics as the relational effort to strive for or bring about good care. Schwennesen's (2019) work highlights the continued 'fragile arrangements of care' in physical rehabilitation reconfigured around new technologies. At the same time, these points have been made in discussion with authors in feminist care ethics. Contributing to a recent collection by Barnes et al. (2015), STS scholars insisted:

'What constitutes good care... cannot be tackled theoretically and in isolation from the actual context of care... empirically grounded ethics of care practice may articulate what really happens as well as what is striven for and achieved in actual practice,' (Moser and Thygesen 2015 p112-3).

Exploring the practical ethics of tracking blood pressure and BMI, we use these insights to question the continued emphasis on 'surveillance' in the self-tracking literature, exploring when and how tracking might be appreciated as part of care between adults. Both surveillance and care may be effects of tracking practices, and co-exist, but the complexity of tracking, changes to the practice over time, and to the context, means they should not be simply assumed. Before discussing this further we provide some details of our study's methodology, our sample and the choices made in framing this paper to help orient the reader to its empirical foundation.

Studying diverse tracking in practice

Our research was a qualitative study, in Newcastle, Sheffield and Brighton, cities in the north, middle and south of England. We recruited through posters and emails in universities, gyms and community clubs, on the basis that participants had purchased a device independently of the clinic to monitor either blood pressure or weight (Body Mass Index / BMI). These included electronic scales for measuring and interpreting weight, apps to calculate body mass index, and standalone and networked blood pressure monitors, including ones which linked with an app to offer an electronic record. Ethical approval was given by the University of Sheffield Ethics Review Committee in October 2016. Members of the research team initially carried out 67 semi-structured interviews with 80 people, as 13 of our initial participants (just over a fifth) set up interviews with their partners. We did follow up interviews with 19 of the first cohort including many of these couples. Our sample was bigger than in most studies of tracking to date and helped capture some diversity in terms of sexuality, ethnicity, age, gender and socio-economic background. Though convinced by arguments used in STS to caution against using such social categories as explanatory factors, we see them as effects of other practices that demand nuanced attention. For example Moser (2006) insists on the potential of gender and class differences to be made and unmade in sociotechnical practices creating significant variety in ways of living with a disability. Bearing in mind this complexity, in the paper we offer tentative reflections on the interplay of gender and ethnicity for participants of Asian British background (the largest UK ethnic group after White British), and gender, sexuality and occupation in heterosexual and same-sex couples interviewed

within our sample. Though not proposing conclusive readings of self-tracking according to such categories, we suggest these add to discussions of gender in the tracking literature (Sanders 2017, Wissinger 2017, Esmonde 2019, Thornham 2019, Lupton 2019).

During the interviews – carried out by different members of the research team – questions about family relationships were asked alongside detailed enquiries into people’s everyday practices, routines and interactions with technologies. Importantly the term ‘care’ was not introduced in every case, but used in probes where it felt appropriate to explore emotional or relational effects. All interviews were transcribed, anonymized and analysed in NVivo. We did not ‘code for care’ because of the difficulty we felt in working with an *a priori* definition of this complex concept, but started our thematic analysis with nodes offering descriptions of tracking practices, which were often shared or involved other people, before examining nodes highlighting discussion of affect and relationships. Though friends and children were mentioned, in writing this paper we narrowed our focus and did specific searches to capture talk about husbands, wives and other partners. Here, we use carefully chosen examples to show different ways of navigating the practical ethics of tracking blood pressure and BMI/weight as part of efforts to live well, elaborating on the value of understanding tracking as a care practice, albeit one that remains deeply entangled with practices of surveillance.

We mentioned above that 13 couples chose to be interviewed together, and these interviews form a valuable part of the data presented here. As Pollak and Green (2015) observe, research encounters with couples may produce confirmatory, complementary or contradictory accounts, which may all be helpful for enriching understanding. Though some of our joint interviews produced shared or confirmatory accounts, others helped us understand tensions arising between partners as these were enacted in real time. Trying to maintain sensitivity to the context and type of account, here we draw on both joint and individual interviews to explore the socio-material relations of tracking. Our first section mainly focuses on cases where tracking was not experienced as care, and the topic of healthy living was rather sensitive as attention to weight or blood pressure might well be experienced as surveillance. In our second section we show how this sensitivity might be reduced if couples were tracking together (reciprocity), while in the third we discuss alternative settlements where they took specific steps to avoid making it a joint concern, and to ensure a degree of privacy around the health of each as an individual (one form of responsiveness). In the final section we look at joint interviews where appropriate concern for an intimate partner was negotiated in the research encounter. Exploring the data in this way, we identified moments when attentiveness was presented as surveillance, but also moments when this was countered by claims to joint responsibility for future health and recognition of the sensitivity of the topic.

Findings

i) The risks of positioning tracking as care

This section explores data from interviews with two individuals where participants described their own experience of tracking, including the involvement of partners. These show how partners can appeal to the question of 'responsibility' which is not only existing between partners but also emphasised in the wider public health discourse, and act in ways that makes potential 'attentiveness' feel considerably more problematic. The first narrative makes uncomfortable reading, as Polly, a white British administrator described her ex-husband *requiring* some form of tracking of her weight as part of a campaign to get her to retain or regain a slim body shape. In this section of the interview she started by relating this to shared aesthetic norms.

Polly: Because I think it probably was... I always think I look better thinner anyway. My husband at that time made it very clear that he didn't like to see me... he didn't like overweight women. So it was to make me feel better. I mean, after I had my third daughter... I put on quite a lot of weight with her.... And he didn't want to sleep with me for six months because he said, you know, you've still not lost that weight and [our daughter] is five months old. ... I mean, when we were younger - it sounds mad too and I wouldn't put up with this now - but when I was about 19, 20, we were going to Portugal, and we'd go and play badminton and... I had to get on the weight scales, and he'd look to see what I was because he wanted me to lose weight.

Though this section starts with Polly's preferences, she also described her ex-husband's more forceful involvement, going back from the talk about the weight she gained during repeated pregnancies, to reflect on his behaviour when they were much younger. She argued that this level of surveillance would now be an unacceptable threat to her autonomy, and it reads as an example of gendered control. Yet other parts of this interview and its follow up complicate this account. For example, Polly later described her own frustrations with another partner who did not take care of himself, celebrating her ongoing more reciprocal relationship with someone who shared her commitment to living healthily. Talk about her health in the present was closely linked to her emotional connection with her new partner. *'We're very, very similar in our outlook towards health. Yeah, you know, we've spoken about our feelings and we care about each other.'*

Though she did not talk about tracking together, she explicitly emphasised other shared commitments and activities including cooking and eating to explain why they were well 'suited', and why she argued with her less health conscious partner.

So when we eat out ... we just do not want to go and sit and eat junk food. So we're very similar in that respect, we like good quality, healthy food. He's going to the gym, he'll be doing his half four til half eight stint. So we've got a lot in common.... The other one that I was with before [between current partner and ex-husband] wouldn't exercise, smoked, that's why we used to argue...

For Polly, sharing concern about health and aspects of healthy living was part of a good relationship, as long as it did not spill into attempts to control her weight directly and her comparisons between three different partners help her elaborate on this delicate balance. Others – including men – also talked about the difficulty in distinguishing attentiveness from interference.

Jivan, a South Asian British man in his 50s with diabetes, lived with his wife and young children, and monitored blood pressure and weight. In a single interview with us he described his partner – a clinician – encouraging monitoring after he purchased a blood pressure device.

...that would probably be influenced by my partner who is a medic, and worried about my health and my weight, and my diabetes. So she would probably... We keep it on the side and she would see it every other week and say, 'Let's do your blood pressure quickly.'

Here the collective implied by 'Let's' or 'Let us' and the modifier 'quickly' both seemed to signal an effort to reduce the intrusion, while the placement of the monitor ('we keep it on the side') appears as a warrant for talk about blood pressure between Jivan and his partner. In fact the practice was linked to her 'worry', which led the device to be located in a shared space in the house. Later our researcher asked Jivan if his partner encouraged his attempts to lose weight and Jivan replied in terms that suggested some ambivalence about his wife's involvement.

She does... very much so. To the point of, I call her the food fascist.

Jivan also described his partner's efforts to keep her own weight down and linked this, as well as her close observation of his eating, to her experience of her mother's diabetes. The interviewer probed this and offered the word 'care' which modified his phrase 'food fascist'.

I: Her mother had diabetes?

Jivan: Mmn. So she is very conscious of that, and... so, yeah, if I make a sandwich she'd look at my sandwich and look at me.

I: Because you mentioned that she's the one who originally was encouraging you..?

Jivan: Yeah.

I: It sounds like she cares a lot about your health.

Jivan: Yes.

In these two interviews, participants tried to explain their partner's involvement without damaging their own claims to autonomy. This is a common effect of individual interviews that invite an account that centres the speaker and their rational or consistent behaviour. However, one also had a sense of the tension between caring concern and unwanted interference. For Polly, that line was between healthy living practices of eating and exercise, which can be done together, and tracking, as best done apart. For Jivan, tracking of his blood pressure was narrated as an unproblematic joint activity, but he expressed unease about close observation of his eating, while (perhaps reluctantly) accepting that this might be done out of care.

These interviews reveal some of the risks of getting involved in a partner's tracking practices, even when there is an acceptance of shared value in health or bodily aesthetics. These data make us cautious about accepting that involvement in tracking will necessarily be experienced as care. We need to understand other elements of the relationship that are being negotiated around tracking. In the next two sections, we explore these elements through the concepts of 'reciprocity' and 'responsiveness' respectively, taking concepts from the feminist care ethics work.

ii) Reciprocity and the possibility of tracking as a shared practice

As explained in the methodology section, just under one fifth of our participants chose to speak to us with a partner because they felt tracking involved them both. Jane and Oliver were white British, retired and in their 70s. Jane had accepted blood pressure medication after several fairly high readings and had Type II diabetes. Oliver had apparently been less concerned about his health until a stroke left him with restricted movement about 12 years earlier. Working to maintain their impaired health, they had a weekly routine of helping each other track their blood pressure along with other activities.

Jane: When we have a check-up, we just take our readings in and they input them into their computer.... He usually does it first and then he comes and reminds me it's time to do our blood pressure.

Oliver: Well, normally you go shopping, don't you, about 10 o'clock on a Saturday?

Jane: Yeah.

Oliver: So I'll normally go and get it about 9-ish, do it then. Because [Jane] has to put the cuff on for me, I can't do it because...

Jane: And he has to have his done on his right arm... because of the stroke.

This couple develop a shared narrative of monitoring 'our blood pressure' in a regular practice in which Jane helped Oliver with the cuff and Oliver wrote down readings for both of them on a single spreadsheet.

Angelina and Juan were international students in their mid-20s, with established routines for cooking and exercising together.

Angelina: And when we came here and I saw there was a pool then I swam five times a week. But then [Juan] didn't like to swim as much as I do [...but] I don't like to run.

I: You don't like to run, okay.

Angelina: Well, I'm starting to get the feeling for it. At the beginning, it was terrible. So I think it's more about how to combine both.

Angelina described changing her exercise routines because she wanted to be with her partner. By the time of a follow up interview, they were swimming and doing three sessions together in the gym every week. However, they tracked slightly different things. Juan was working towards a specific BMI target trying to escape the category

of 'overweight', while Angelina focused more on body fat. The extent to which they shared worries about weight and exercise was slightly unusual but other couples also talked about dieting or weighing 'together' regularly, and we note that scales, in particular, frequently live in shared spaces like bathrooms and even living rooms. When couples present tracking in such strong terms as both joint project and practice, motivated by mutual concern, we question whether interpretations that rely narrowly on the concepts of 'peer' or 'intimate' surveillance are adequate.

iii) When caring is not sharing

Other accounts suggest more ambivalence about, and even deliberate resistance to, sharing the practices of tracking, or (relatedly) not discussing health much at all. Mandeep, another South Asian British man in his 40s, described how both he and his wife quite deliberately avoid making health a topic of conversation, even though both try to reduce their weight. He checked his weight regularly over the last 4 years, using scales at the local sports centre as well as their own set that the couple had 'hiding under the cupboard in our bedroom'. He said that his wife was careful not to mention the issue, using a term which is often applied to women appearing to interfere to underline that this would be unwelcome: '*To give her credit, she's not nagged me ever about losing weight in any way or form*'.

Mandeep observed that he has noticed his wife's weight fluctuate and believes she sometimes modifies her diet, but they did not discuss this. His own narrative reflected the pressure to perform responsibility in relation to healthy living messages.

So when I do go through my periods of goodness, I don't announce them in any way, nor do I say have I lost weight or anything... it should be something I should be able to do without any recognition, it's doing it for me really and because I'm not being nagged about it or anything like that.

It is striking here that Mandeep did seem to narrate health strongly as a personal responsibility, and the second use of the use of the term 'nagging' perhaps suggested his wife's involvement might be unwelcome. Here it was not tracking that was shared, but an agreement not to discuss health, legitimated by Mandeep in the interview as the responsible autonomous position for him.

This was also described in much more material terms in a joint interview. Ian and Linda, a retired engineer and teacher, both expressed concern about Ian's health given a diagnosis of cardiac arrhythmia. Ian, who is White British, tried to minimise this by putting the blood pressure monitor out of sight in a drawer to reduce the risk that he would 'spend all his time fussing'.

Ian: I neither want to worry about [my health] much myself, nor do I want anybody else worrying about it. I don't want all the family coming, pressing my fat and getting terribly worried about it. I want them to have fun.

His partner Linda, who had both Celtic and Chinese family, used the interview to reflect that his embodied tracking of his heart rate (with two fingers on his wrist) did affect her, because she cared about his wellbeing, addressing her partner and then the interviewer in turn.

Linda: '[To Ian] And you do that a lot actually. [To interviewer] Quite often we're sitting talking or, you know, whatever, and I notice that he is [taking his pulse], maybe... because it used to freak me out at first... When the arrhythmia was diagnosed I got very upset about it really because I realised it is potentially a serious thing and he's always been, you know, so healthy that it upset me to know that he was dealing with that...'

Ian and Linda did not share a practice here - Ian explicitly put away the monitor - but they described efforts to manage feelings they share, though Linda still carried the burden of worry about Ian's health. Both this, and Mandeep's account, suggest that not sharing tracking can be a form of responsiveness, either trying to avoid interfering in a sensitive area, or protecting each other from worry. This might be spoken or unspoken but the second interview encouraged a more direct statement. Both stories suggest potential to reduce the risks of surveillance through tracking, and increase the space for care. In the final findings section we examine narratives produced in two joint interviews in more detail to show how partners navigate their different stakes to draw out care more explicitly.

iv) The interview as a site for negotiating tracking as care

In this last findings section, we explore cases where both partners were tracking and accepted the invitation to discuss the practice in a joint interview. Yet in both cases – unlike our second section – one partner was more engaged than the other. Though we cannot know how common such discordance might be, we use these data to consider the negotiation of care around tracking 'in real time'. Our first narrative started with a white gay man's worry about his weight and decision to join a gym. During induction Samuel had a high blood pressure reading, prompting a visit to his family doctor, who suggested losing weight and reducing dietary salt. At this point he started monitoring his own blood pressure.

Samuel: It was a bit compulsive to start with, 'cause it put the wind up me, this whole kind of idea of my blood pressure being elevated and all the health risks of that.... I was about to turn 60, so one has a sense of, sooner or later something's going to get you. My father died fairly young, younger than I am now, of bowel cancer... so getting an elevated blood pressure reading... got my attention.

Worry about weight was here converted into worry about blood pressure and more general concern about future health. Samuel's husband Ronny was drawn into Samuel's efforts to lower his blood pressure in his role as the cook for the household. He reduced the salt in preparing their meals and the couple began to

'fast' two days each week. While Ronny carried some of the responsibility of ensuring both ate healthily, as an ex-nurse Samuel adopted the work of tracking for the couple.

Ronny: When he gets it [the monitor] out, he does me, I'll have a go...

Samuel: I don't, like, make you.

Ronny: No, you don't make me, I do ask.

Samuel: He only gets one go, but it's always really... I always get slightly competitive like it's always a bit lower than mine, however low mine is, his is always a bit lower.

I: Is that true?

Ronny: I don't even know.

Samuel: It is.

Ronny: Oh, he's never admitted that, that's interesting.

Samuel: It's annoying, I wouldn't want to do it twice.

Though this exchange feels like banter, some tension was apparent as Samuel admitted to feeling 'competitive' and 'annoy[ed]' when he saw that Ronny had a lower blood pressure. The style was jocular again as they described their tracking practice. Ronny reported 'I just go into patient mode and I sit on the sofa... and I let Nursey do the business.' Samuel retorted 'there'll be a bit of moaning' (about the cuff) and complained that Ronny fails to take responsibility for his own health. We suggest the humour in the interview reflects their closeness *and* potential for tension if one partner feels they are taking on too much responsibility.

Similar frictions were evident in interviews with another couple where one is a nurse. Lorna, who works in mental health, described efforts to lose weight since turning forty. Her husband Patrick is six years older and works in IT, and they have two teenage children. In the first interview, Patrick insisted that he 'had no idea' what his blood pressure should be, though his was usually pretty low. In contrast, Lorna could report in detail on her blood pressure and resting pulse, and improvements after taking up running. She made a clear distinction between sharing weight and blood pressure (BP) results with reference to gender politics.

I never talk weight with him! Weight is such a (forgive the pun) loaded issue with women. I don't want to talk about, 'Oh, I'm ten stone, I'm eleven stone, I'm nine stone.' Because of all the patriarchal shit about women's bodies. But I'll talk to him about the numbers of BP because I think yeah, that's healthy and it's clinical.

Maintaining some privacy around her weight, Lorna was happy to make blood pressure monitoring a shared project, which she elaborated with reference to her commitment to caring for their two teenage children: "I just think anything I can do to maintain my positive health will keep me alive longer so I can be a good mother to my kids...". She felt Patrick should do more to look after his health to be around for the family. To an extent he seemed to go along with this, describing tracking as 'something we do together' though Lorna disliked the suggestion.

Patrick: It's just a social thing. I know it sounds weird... it's something we do together.

Lorna: I think using the word social is a bit inappropriate Patrick. We're not socialising over a BP monitor! I'm hectoring you to say let me check your blood pressure in case you're going to cark [die] on me. And you go, 'Yeah, alright then.' It's not social. We don't have a chat while we're doing it, apart from, 'Roll your sleeve up love?'...

I: It sounds like it's very much something that you... okay, it's not social but certainly something that you do as part of your relationship of care right?

Lorna: Well exactly. That's a lovely way of putting it. That's very diplomatic, because I do worry about him dying. I worry about him dying but I think he's in denial about a lot of his health... I think he's going to have a heart attack and leave me, and leave me with two kids.

Our researcher's suggestion that this is part of 'care' helped Lorna express not only her frustration with Patrick but also her 'worry' for him and for their family's future. His quiet resistance to the project of healthy living (described by Lorna as 'denial') included not remembering the results of monitoring or initiating it, though between the first and second interview he did increase his swimming and walking a little. Despite this reluctance, blood pressure tracking seemed part of family life, and was done in the shared spaces of the kitchen and sitting room.

In talk with these more discordant couples, tracking had to be negotiated, its status as troubling topic helping explain both the participation in our project and the joint interview. Close observation of another person might be experienced as surveillance or control, but efforts to negotiate a joint account underlined the desire for some mutuality in tracking: Lorna and Samuel monitored blood pressure out of worry for their own and their partners' health, while Ronny and Patrick did it to assuage their partner's concerns. Yet there was no clear divide between 'carer' and 'cared for' and neither Ronny or Patrick explicitly asked for privacy or asserted their autonomy. Instead, Samuel and Lorna's claims that their partners should be more proactive were linked to shared responsibility for the future. The subtle tones of these exchanges help reveal the affective charge of the issue, and the complex practical ethics of negotiating healthy living within a partnership.

Discussion

In this paper, we offer insights into practices of tracking as part of healthy living through talk about blood pressure and weight tracking by adults living in the UK. Drawing on feminist ethics of care and studies of care-in-practice from STS, we analyse these practices in relational terms, with sensitivity to the research situations in which these accounts were produced. Our cases offer not only new perspectives in a field that has often focused on fitness tracking but also help go beyond a narrow focus on surveillance, showing how surveillance and care may be intertwined in the everyday negotiation of health-related tracking and other 'health practices' in family life. It is clearly true that the combination of attentiveness and appeals to responsibility for maintaining health as something owed to a partner can make tracking an ethically sensitive area. In this paper we emphasise that reciprocity is one important way in which couples make tracking feel more like care. This might involve actually tracking together or discussing it. At the same time responsiveness

to someone else's feelings, including a desire to avoid the topic altogether, or avoid weight as one specific parameter, might all help move towards more caring tracking.

Compared with other studies of tracking, our research has a number of strengths and limitations. Our participants varied in terms of age, gender, sexuality, ethnicity and socio-economic background, appearing more diverse than participants in other research, which has often used rather small and homogeneous samples. That said, our sample was not focused on specific groups at the intersection of these categories and we do not offer detailed accounts of tracking for any particular subset. Instead we paid attention to diversity in family configurations and experiences, offering opportunities to participate in joint and repeat interviews that could reveal friction and possible changes in lifestyle. Though participants talked about children, siblings, parents and friends, here we focused on the involvement of intimate partners as an important focus for our analysis. This offers an opportunity to build on recent work considering tracking as care that has largely looked at people engaging with self-tracking as individuals (Esmonde 2019, Gorm and Shklovski 2019), cases of maternal tracking (Thornham 2019) or indeed clinical rehabilitation focussed on the individual (Schwennesen 2019). We also reported on people's relationships with technologies and with the material space of the home. Though we have written in more detail about this elsewhere (Weiner and Will 2018), we note the emplacement of technologies in shared spaces like kitchen tables or sofas (or their displacement to more individual spaces) was revealing of the way in which tracking could be incorporated into, or directed away from, shared domestic routines. Physically assisting a partner was also sometimes important, for example the practices described by Jane and Oliver or Samuel and Ronny.

Though the language of 'care' might be used to disguise incursions on people's autonomy and privacy if they are conceptualised primarily as individuals, work from more relational perspectives tries to recognise the importance of mutual support and counter continued political emphasis on self-care and responsibility to a collective. The Foucauldian suspicion of attempts to make people govern their own health has been important in critical work on public health, but in the STS discussion of care-in-practice, family relationships appear less as a threat to autonomy than a source of inspiration for encounters – including encounters with technology - that include qualities of attentiveness, responsibility, responsiveness and reciprocity (Barnes et al. 2015). In this paper we have looked in detail at negotiations around health tracking between partners, to identify occasions where tracking can be experienced as care more than surveillance alone.

Close family members may certainly observe the practice of monitoring or the data it produces, explaining some of the appeal of the terms peer or intimate surveillance. However, we do not think this captures the complexity of health tracking in family life. Such observation might alternatively be described as 'attentiveness' to the condition and concerns of another person that, when shared, may lead to explicitly joint practices and reciprocal engagement. This was evident in Polly's account of her current relationship, as well as in narratives from Oliver and Jane and Angelina and Juan presented here. In Polly's story about her first relationship, it was clear that uneven attentiveness is not care: when people feel observed but not supported, tracking can become a site of control. Feminist scholarship fiercely resists pressure on women in particular to conform to external and gendered aesthetic standards. Yet

the question of responsibility is important. Broader public health imperatives such as those critiqued in the Foucauldian literature centre the responsibility of the individual to keep themselves healthy. This may also be invoked by individuals in discussion with intimate partners, and in our data were used by women and men across different ethnic groups. Yet such requests for responsibility might also be given a more positive spin as part of a shared commitment to the future, and this might be missed in analyses that use the term surveillance for observation by family members as well as by governments or business.

Judging appropriate involvement is challenging in the context of a shared domestic life. Some participants talked about their partner's involvement as intrusive, others as insufficient or lacking. What feels like attentiveness to one person may feel like surveillance or control to another. Care appeared most clearly when attentiveness was combined with reciprocity and responsiveness, though these might result in reduced, rather than increased, tracking. Linda and Ian tried to minimise the worry that each felt about Ian's heart condition. Mandeep and his partner made separate efforts to reduce their weight but did not talk often about health or allow the technology much place in their home. Lorna explicitly resisted talking about or tracking her weight because of the potential for patriarchal control but found tracking blood pressure was a way to motivate herself to maintain lifestyle changes and discuss her partner's health. For her, for Jivan's wife and for Samuel, having a clinical background could help explain this emphasis, interfering with other settlements around gender or ethnicity (Moser 2006). Indeed our data from interviews with Jivan and Mandeep both disrupt previous work (Lawton et al 2007) which argued that South Asian people were less likely to describe health in terms of individual responsibility than White British participants. Both used these terms, but also shared with our White British participants a sense of health as involving the other person.

A number of our interviews described or illustrated attempts to 'draw lines' around appropriate involvement from a partner. Questions of health may be emotionally charged, raising fears about bodily vulnerability and threats to a shared future. As Gorm and Shklovski (2019) describe, time off tracking or not discussing it can be a way of countering these fears (also Lomberg and Frandsen 2016, Kent 2018, Weiner and Will 2018). As in other work (e.g. Esmonde 2019), we have suggested these refusals may be read as quiet forms of resistance to lifestyle agendas expressed by partners, tracking technologies themselves and wider public health messaging. This might be particularly important when partner's involvements reflected more traditional gendered control. Yet Ronny and Patrick both described minimal engagement with tracking proposed by their partners, for example by reducing occasions for taking a reading, and enacted this distancing in interviews, for example by failing to remember a result. Jivan's language when discussing his wife's interest in his health and blood pressure also suggested ambivalence and though Mandeep suggested that his wife might get a little more involved, his repeated use of the term 'nagging' suggested the risks she might run if she did so. Achieving what Thornham describes as 'tracking-as-care' is a delicate business, dependant not only on verbal and physical tact, but also expectations of gendered roles within a partnership.

In examining the negotiations that occur between partners around the tracking or monitoring of blood pressure or weight, we have sought to avoid simply replacing

talk of 'surveillance' with 'care'. Instead, we argue that the negotiation of tracking may often, though not always be, understood as attempts to achieve care even when that includes the risk of surveillance. Ethical sensitivities arise in part because of the moral inflection given to healthy living in general, and weight in particular (Crawford et al. 2010, Henwood et al 2011). Yet the concept of positive health as something broader than illness or its absence, also creates space for a degree of reciprocity. In healthy living, as opposed to care for a partner with a chronic illness, either may be both the subject and object of care or occupy these different positions in turn. Where tracking can be reciprocal, the practice may be more easily accommodated in family life, but this does not always fit with people's actual fitness or health states, or differing involvement thanks to professional training or experiences of illness in relatives. Another settlement may be reached by tacitly agreeing not to discuss tracking, or indeed health more broadly. However, more commonly, tracking, and other practices associated with healthy living, seem to require ongoing negotiation or 'tinkering' (Mol et al. 2010), so that attentiveness is mixed with reciprocity or at least gestures of responsiveness in order for tracking to be experienced as care.

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Figure 1: Table of participants quoted in this paper

Participants	Ethnicity *	Age **	Employment (past or current)	Living arrangements
Jane	<i>White British</i>	70	Retired clerical	Live together
Oliver	<i>White British</i>	73	Retired engineer	
Angelina	<i>Latin American</i>	24	Postgraduate student	Live together
Juan	<i>Latin American</i>	26	Postgraduate student	
Ian	<i>White British</i>	69	Retired engineer	Live together
Linda	<i>Mixed Ethnicity</i>	67	Retired teacher	
Polly	<i>White British</i>	58	Administrator	Lives with daughter and her partner and child
Jivan	<i>British Asian</i>	50	HE lecturer	Lives with partner and two young children
Mandeep	<i>British Asian</i>	44	Computer programmer	Lives with partner and two young children
Samuel	<i>Mixed Ethnicity</i>	59	Dance tutor	Live together
Ronny	<i>White British</i>	62	HE counsellor (former nurse)	
Lorna	<i>White British</i>	52	Mental health nurse	Live together, with their two teenage children
Patrick	<i>White British</i>	58	IT support officer	

* Ethnicity selected by participants.

In the text we have added in the term 'South Asian' as we know Asian carries slightly different meanings for US readers.

** Age at time of interview