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COVER SHEET

Title:

Co-production in the epidemiological clinic: a decentred analysis of the tensions in community-based, client-facing risk work

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Abstract:

Public health policies to prevent disease within populations are giving rise to shifting patterns of healthcare delivery in the late modern era. There is an inherent tension in modern medicine between evidence-based standardisation, on the one hand, and patient-centred specificity on the other. This tension manifests in recent policy narratives regarding public health risk (which we have characterised in terms of the epidemiological clinic) and co-production. Drawing on co-produced data with health trainers (lay health workers tasked with supporting behavioural change in patients at high risk of cardiovascular disease) in a deprived post-industrial region of England, our decentred analysis focuses on three extended narratives from this data set. Our analysis builds on and develops emerging theories of risk work, informed by Habermas, and we explore the extent to which elite narratives of public health risk are resisted, absorbed or bracketed off by client-facing health workers – emphasising the heterogeneity of responses – and locate these responses within the context of the workers' employment conditions, their embodied experiences and their wider beliefs and traditions. We argue that co-production – albeit in a highly constrained form – is possible while delivering public health interventions. However in the context of a community where health is so adversely affected by wider social problems and task-shifting has drawn lower status healthcare workers into these client-facing roles, workers must find their own ways to negotiate and attempt to reconcile this context with the risk-framed practices they are required to carry out.

Keywords:

Risk work, co-production, task shifting, public health workforce, lifeworld, qualitative research, decentred theory.

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1. INTRODUCTION

Public health policies, informed by epidemiology, to prevent disease within populations are giving rise to shifting patterns of healthcare delivery in the late modern era. Castel (1991) has referred to an 'epidemiological clinic', where the primacy of the individual doctor-patient relationship has been replaced with a focus on the implementation of pre-emptive interventions based on evidence-based guidelines (Flynn 2002; Szmukler and Rose 2013; Hindhede and Aagaard-Hansen 2015; Crawshaw 2012). This, we argue, has important implications for ideals of co-production within health care policy.

Co-production – the involvement of patients, service users and members of the public – in the design and delivery of healthcare, has become an increasingly prominent concept, having moved from the realm of health activism to being a narrative widely accepted by policy-making elites. While existing research on health risks has tended to focus on patient experiences of engaging with health risks, or organisational approaches to risk management, there is an emerging body of literature that focuses on the everyday experiences and practices of healthcare workers engaged in this client-facing 'risk work' (Horlick-Jones 2005; Gale et al. 2016; Brown and Gale 2018b). The purpose of this article is: first, to develop a new theoretical framework for analysing the potential for co-production in the epidemiological clinic, including offering a critique of existing literature in terms of the insights it might offer; and second, to offer a decentred analysis of empirical data co-produced with English community health workers using this new framework, in order to explore the diverse forms of knowledge used by client-facing workers in interpreting and enacting elite policy directives and exploring to what extent they have absorbed, resisted or 'bracketed off' these directives (Brown and Gale 2018b; Chivers 2018).

Our main argument is in two parts: first, that co-production is, in fact, possible in the epidemiological clinic, although within specific limited boundaries. We argue that the organisation of public health care around elite narratives of epidemiological risk, alongside the use of low status workers whose identities are closely embedded within the target communities (Singh and Chokshi 2013), enhances trust within client-worker relationships. However, it also renders questions of the validity or reliability of risk knowledge and the effectiveness of interventions virtually invisible, particularly in relation to issues of the social determinants of health. Second, by extending Habermasian theory of the colonization of the lifeworld by modernist risk logics, we demonstrate that far from being

'duped' by the instrumental drives of the medical system, community-based health workers articulate multiple and heterogeneous ways that they are able to resist or adapt.

2. BACKGROUND

2.1 The epidemiological clinic

Castel has described a shift towards the 'objective' identification of a person's risk factors and then their standardized management, thereby dissolving the subject (practitioner and client) in the clinical encounter. This shift reflects tendencies towards the scientific-bureaucratisation of policy interventions amid new public management (Harrison 2009), though specifically one where interventions have become reconfigured around population-based risk, be this in hospital medicine (Flynn 2002), mental health care (Castel 1991; Szmukler and Rose 2013) or public health (Crawshaw 2012; Hindhede and Aagaard-Hansen 2015). This, Castel (1991: 289-295) argues, is a shift away from the 'clinic of the subject', where the practitioner would have carried out an individualized examination of a physically present patient, towards the epidemiological clinic.

Arguing for decentred, interpretative analyses of governance (which we return to below), Bevir (2013: 212) argues that these tendencies represent a 'bleak vision of a misguided modernist expertise colonizing more and more of life' Habermas's (1987:144) analysis of how the rationalisation of instrumental efficiency comes to obstruct and impoverish 'lifeworld' processes of cultural critique, social integration and identity formation, alongside possibilities for lifeworld resistance against such 'colonisation' extend such understandings. For example, it may simply not be possible for professionals to deliver a purely 'objective', 'scientific-bureaucratic' assessment or intervention, due to the fundamental incompatibility between a scientific knowledge of populations, abstracted from context, and embodied ways of knowing individual patients that is rooted firmly in socio-physical context (Scamell and Stewart 2014). Healthcare professionals describe the roles of intuition, tacit knowledge and professional judgement as vital components of their work – and may resist the 'actuarial' approach (Godin 2004) though both overt decision-making and covert manipulation (Ruston 2006). Brown (2011) argues, drawing on data on building trust in mental health settings, that both acquiescence and opposition to governance frameworks from workers suggest that lifeworld colonisation is tempered by reflexivity in practice.

These social science insights do not seem to be reflected in policies about risk in health and social care. Bevir argues that 'policy makers should treat people as agents who can act for reasons of their own, rather than as dupes acting in accord with a fixed economic or sociological rationality' (Bevir 2013: 212). However, recent healthcare policy in the UK, driven in part by economic imperatives, in

which there has been a proliferation of 'evidence-based guidelines', seems to have as its goal healthcare practices that are underpinned by epidemiological understandings of health risk. This policy approach gives little acknowledgement of the interpersonal aspects of knowledge production at this level (Brown and Calnan 2013) nor of the challenges for client-facing workers of implementing guidelines (Scamell and Stewart 2014). The contrasting frames of what everyday actors actually are – active subjects versus passive objects – that emerge between these two models of 'good' practice in health policy (co-production and the evidence-based epidemiological clinic) give rise to important tensions and questions; but before we explore these further, we sketch a conceptualisation of co-production, a theory which has active agents at its heart.

2.2 Co-production

Elites in health and social care have increasingly adopted the idea of 'co-production', in part as a response to social movements demanding more voice for services users and patients (Mitlin 2008), but also arguably as a form of co-option to contain the power of these critiques (cf. Batliwala 2007). Co-production can operate at different levels – policy, organisations and local delivery - as well as within knowledge production. These elite narratives tend to argue either that involvement is an 'end in itself' or a 'means to an end': the former is a normative argument that involvement is a right of citizens, that it challenges medical and political paternalism and reinvigorates social and civic life; the latter is a more pragmatic argument that involvement can help deliver improved services and emphasizes patient and service user choice (Ives, Damery, and Redwood 2013).

However, the notion of a fully engaged and involved patient is not borne out by the empirical evidence, which instead reminds us of the enduring legacy of patriarchy, colonialism, heteronormativity and other dominant social structures which embed and reproduce inequality through the structure of our services and policies (Darroch and Giles 2015; Mishra and Graham 2012). Such legacies may be hard to escape even when care is explicitly feminist or emancipatory in orientation (Nissen 2013). In some cases, patients may actually prefer to devolve responsibility for their health choices amidst trust-based paternalistic relationships with their doctors (Gale et al. 2011). In others, technological innovations may also create powerful new problematics in co-production as practical questions emerge over how to involve publics. This may relate to the highly complex and contingent probabilistic models which are necessary to consider their effectiveness (Hashem, Calnan, and Brown 2017), or due to the practical and ethical questions raised regarding which conditions ought to be screened for and/or actively prevented (e.g. Taylor-Phillips et al. 2014). This highlights the challenges for healthcare workers in working with risks – the 'reality' of which are

always dependent on social, political, technological and ethical perspectives (Williams, Alderson, and Farsides 2002; Szmukler 2003; Douglas 1992).

An emphasis on co-production thus destabilises the taken-for-granted logics of the epidemiological clinic, with important implications for those working in public or patient-facing roles in this clinic. Amid growing evidence of resistance to risk thinking -- for instance, where risk (or more precisely the need for low risk) drives decision-making in midwifery practice (Scamell 2011) – this questioning of the basic *raison d'être* of their practice may lead to a challenging or reconfiguration of workers' occupational identities. Tensions between following risk logics and following principles of involvement in decision-making, such as 'non-directive advice' in the Danish prenatal testing system (Schwennesen and Koch 2012), require workers to weave together their own situated account of what counts as 'good' care in this context: i.e. attuning expectations and knowledge, allowing resistance, and providing situated influence in the relationship between the pregnant woman and the professional. Such working and coping with risk, and the tensions that emerge therein, are further elaborated and theorised in studies of risk work, which provide a theoretical foundation through which to explore the possibility of co-production within the epidemiological clinic.

3.   THEORETICAL FRAMEWORK

3.1 Risk Work

Where technical concepts of risk underpin policy formulation and public administration and management, this has tangible effects on everyday working practices within organisational life (Horlick-Jones 2005). Theoretical developments in the study of risk work offer a way to analyse client-facing workers' experiences of assessing and managing health risks in practice – both though insights into the three main components of the work (knowledge of risk, interventions to minimize risk, and caring in the context of risk), the tensions that are produced as these three components interact (Figure 1) and the ways in which individual practitioners manage those tensions in their everyday work (Gale et al. 2016).

Castel (1991) argues that epidemiological risk knowledge based on population-level data is relatively fixed, leaving apparently little space for interpersonal negotiation and co-production of understanding of what are acceptable and unacceptable risks or interventions. While professionals may tailor their messages to the patient in front of them, often the message remains unchanged irrespective of the views of the patients (Zayts and Sarangi 2013) suggesting a lack of meaningful co-production. However, in practice, knowledge about risk – from research evidence or experience– is translated back and forth within the clinical or service relationship, filtered through degrees of

openness, silence and trust between parties, which enable different degrees of agency in patients (Villaamil 2014; Brown and Calnan 2013).

Whether these tensions are openly acknowledged and resisted, remain more or less 'veiled' (Brown and Gale 2018b, 2018a) or are 'bracketed off' (Chivers 2018) is shaped by various structures of the worker's lifeworld, alongside a range of systemic pressures which may limit possibilities and vocabularies for questioning (Brown and Gale 2018b, 2018a). This line of analysis is usefully expanded through Habermas's (1987) concepts of lifeworld and system, whereby healthcare lifeworlds are sustained and refined through the idealised communicative practices of co-production, with these practices threatened by the instrumentality of the epidemiological clinic or 'system'. Yet it is in these tensions that the roots of communicative practices and possibilities for resisting the system exist and, in turn, lie in the wider cultural norms and moral dynamics of healthcare lifeworlds (Brown and Gale 2018b, 2018a; Habermas 1987)

Healthcare workers' practices are thus shaped by their own moral perspectives (Bean and Catania 2013; Sarkadia et al. 2004), and they may or may not have the power to legitimize patient choices around risk, depending on whether they trust that the patient is doing something for the right reasons (Arribas-Ayllon and Sarangi 2014). It is worth noting, however, that professionals do not always fully agree on the nature of the risks that they are screening for and can be critical of the ways in which risk surveillance can create new forms of anxiety or scepticism (Burton-Jeangros et al. 2013), which must be managed in practice to avoid unduly alarming patients (Olin Lauritzen and Sachs 2001). The silencing of some of these uncertainties around risk knowledge is possible through the routinization and rationalisation of care practices, such as screening, which are often delegated down the medical hierarchy (Thomas 2015).

If co-production is possible amid the risk governance logics of the epidemiological clinic – in discussions about what risks and what interventions to minimize those risks are acceptable – then clearly the clinical relationship must be at the heart of it. However, being accountable for risk while also providing patient-centred care is by no means straightforward (Iversen, Broström, and Ulander 2018) and the power and status differentials between worker and patient may play a role. For instance, different types of professionals, para-professionals or lay health workers may be more or less invested in trusting their patients as decision-makers (Hall, Tomkinson, and Klein 2012) and the social class and gender of practitioners and those they are working with may affect the relationship via the 'differing potential for [deeper] "we-relationships" to be formed and via the generalizing and stereotyped knowledge applied in their absence' (Veltkamp and Brown 2017). Additionally, there is the potential for lower status professionals to have any co-produced decisions overruled by higher

status professionals (Lankshear, Ettorre, and Mason 2005). These power relations between professionals, other healthcare workers, patients and carers – and the social and organisational context in which they occur – shape the extent to which co-production is possible (Kirkegaard and Andersen 2018) in conversations and decisions about managing health risks.

Risk work is not a simple case of implementing risk-based guidelines; inherent tensions (see Figure 1) mean that 'professionals' experiences and practices may be characterised by vulnerability and a muddling through' and so tensions often remain latent in practice (Brown and Gale 2018b, 2018a). However, the way this plays out in practice varies by context and over time. For instance, in Iversen et al.'s (2018) study of healthcare professionals who need to assess the risks of people with sleep apnoea driving, the tensions between this and patient care are circumvented through an apparent 'misfit' between the policy drive for risk assessment and a framing of the everyday work undertaken as 'patient education'. In other examples, tensions are 'bracketed off': for instance, in Chivers (2018) study of social workers' role in the management of radicalization risk, she demonstrates how the (unfamiliar and individualized) risk discourses of radicalization are translated by social workers back into the (more familiar and family-orientated) language of safety and safeguarding; in practice, potential tensions between professional ethos and requirements to implement risk assessments are suspended in the midst of a busy working environment and several different forms of risk assessment. These examples demonstrate the contextual contingency of risk work and the management of its tensions. Therefore, in this article, we adopt a decentred approach which offers us a way to unpick how healthcare workers manage the potential incongruence of the epidemiological clinic and the ethos of coproduction – and, particularly, to illustrate through the analysis of extended narratives that this can vary even within one service.

3.2 Networks, professions and decentered theory

Accounts of British governance systems tend to emphasise the expanding role of networks (replacing bureaucratic or market systems) and hollowing out the central state functions. Decentred theory proposes a focus on networks via the individuals and relationships within them and is, therefore, a useful way to explore the nuances of how workers deal with the tensions in risk work. It 'encourages us to recognise that the actions of … individuals are not fixed by institutional norms or a logic of modernization, but arise from the beliefs individuals adopt against the background of traditions and in response to dilemmas' (Bevir and Rhodes 2007: 83). Rather than focusing on more abstract concepts said to be properties of functioning networks, such as trust and shared culture, it focuses on the practices of those within them, of building interpersonal trust amidst organisational

pressures (Brown and Calnan 2013) or undertaking 'street-level diplomacy' to build bridges between clashing organisational, professional or lay cultures (Gale et al. 2017).

When considering how practitioners deal with the tensions inherent to risk work outlined above, decentred theory points towards techniques that resist prediction (such as measures of risk) but 'replace such tools with learning by telling stories and listening to them' (Bevir and Rhodes 2007: 89). Such practices may become more common amid recent policies of task-shifting of public health interventions to less qualified professionals, or indeed to trained lay health workers, in contrast to the narratives of abstract expert knowledge described by Castel as characteristic of the epidemiological clinic.

Many of the changes that individuals can make to reduce their risk of long-term conditions are very similar whatever the condition – diet, exercise, smoking cessation – and so even in the case of complex multi-morbidity there is a case for prevention counselling, which takes significant time and tailoring of messages but may not require extensive technical knowledge – consequently, there is scope for alternative (non-professional) modes of care delivery (Bardach and Schoenberg 2012). These kinds of community health workers may also offer 'more' in terms of better in-context understanding of the social constraints on change through co-presence in the community, albeit with that role producing experiential tensions for the worker themselves – between role-modelling good risk minimization practice and being a voice for their community in wider policy making, while occupying a low status role within the formal health system (Nading 2013). This offers fertile ground for exploring working practices from a decentred perspective, which acknowledges the complexity of traditions that people draw on as they undertake their work and the stories they weave about that work and its challenges, rather than reducing work to a series of tasks to accomplish a (medical) goal.

3.3 A decentred analysis of the potential for co-production in the epidemiological clinic

In this paper, we explore how healthcare workers who are 'from the community' that they are serving, employed by not-for-profit 'community interest companies', draw on their traditions and stocks-of-knowledge to generate (visual and spoken) narratives about their work, and how that work fits into the health and social systems they are part of. We focus particularly on our analysis of the ways in which they manage the tensions between the narratives of implementing risk-based policies and co-production. Our decentered approach 'concentrates not only on the construction of practices as people act on beliefs but also on the narratives and traditions that provide the context and historical background to people's beliefs and actions' (Bevir 2013: 209). These bases of

meaning-making, that are drawn upon when acting, lead us back to our concept of lifeworld (Habermas 1987). While the communicative practices of co-production are vital to, and emerge out of, lifeworld processes, recent work on co-production emphasises its potential to become undermined and empty (Kirkegaard and Andersen 2018). Our risk work framework, rooted in the concept of lifeworld and its potential colonisation by the system (Habermas 1987), sensitises us to an array of interactional processes by which co-production is impeded (Kihlsrtöm and Israel 2002). Our approach locates the interactional scripts and narratives behind co-production within wider dynamics of cultural reproduction, social integration and identity, while grasping the potential impediments to co-production within wider organisational dynamics of power and efficiency epitomised by the epidemiological clinic.

4. METHODS

Study design: While conducting a programme of collaborative research with the National Health Service on the prevention of cardiovascular disease, we conducted a series of interviews with staff and patients (Gale et al. 2017). One particular group of lay healthcare workers, health trainers, were supporting us to recruit patients. They started to express interest in the method that we were using with patients – the ethnographically-inspired method of photovoice (Hergenrather et al. 2009) that places emphasis on understanding experience as located in place, because participants take photos of their lives and environment, which are used as a basis for discussion in the interview – and felt that it would be a good way to share with us more about their role. This aligned with our growing critical interest in the everyday work required to implement such community-based disease prevention programmes. Photo-voice is a method that enhances the possibility of the co-production of qualitative research data with research participants. It also aligns well with the decentred approach which focuses on 'the everyday practices of situated agents whose beliefs and actions are informed by traditions and expressed in stories' (Bevir and Rhodes 2007: 77). The photo-voice method enabled us to produce extended participant-led narratives which expose history, experience and tradition, as well as reflections on action-in-context. Ethical review was obtained from the University of Birmingham Life and Health Sciences Ethical Review Committee.

Setting and intervention: This health trainer service was based in the "Black Country", a deprived, post-industrial region in the Midlands of England, said to have gained its name in the nineteenth century from the black smoke from heavy industry and the black of the coal it produced. The service can be framed as a type of epidemiological clinic – the identification of people 'at risk' is through objective measures (the Framingham Risk Score which is a gender-specific algorithm used to estimate the 10-year cardiovascular risk of an individual) rather than subjective individualised care.

Case finding was used based on primary care records to identity people potential at high risk (Marshall et al. 2008; Hemming et al. 2016). They were then invited for further risk assessment either by a specialist cardiovascular nurse or by the health trainer. Those categorised as 'high risk' (having over 20% chance of being diagnosed with CVD within ten years) are referred to the GP (usually for pharmaceutical intervention), and those at 'medium risk' (10-20%) are referred to a health trainer for a 'lifestyle' intervention – to encourage healthy diet and exercise.   Health trainers usually work with patients over 6 (or more) appointments across several months to support them in their lifestyle changes. The service was contracted out by the National Health Service to a not-for-profit, community interest company and was free at the point of use.

Access, recruitment and sampling: The research team already had an established relationship with the service and the idea for the project had emerged from discussions with the participants themselves, so access was straightforward. We undertook a more formal recruitment process: NG and MS visited a team meeting describing the study, handing out information sheets and providing an opportunity for questions. We asked all health trainers employed by the service if they wanted to participate and all but one of them agreed. The one who declined did not give a reason. The manager of the health trainer services also participated, so in total eleven photo sets (containing between 5 and 26 photographs each, 156 photographs in total) and narratives were collected.

Data collection: After that initial recruitment meeting, participants were asked to take photos of anything that struck them as important for their own health and happiness or that of the communities that they worked with. A few weeks later, an interview was scheduled with MS. Written consent was taken prior to commencing the interview and each photo was discussed in turn, with the participant invited to explain why they had taken it and what it represented for them in terms of their lives, their communities or their work. The purpose of the photos was to elicit participant-centred and situated talk about their work; we had no intention to attempt to objectively 'read' the meaning of the photos. These interviews lasted between 42 and 92 minutes.

Data management and analysis: The data – audio recordings, verbatim transcripts and digital versions of the photos – were stored on an encrypted computer and accessed by the research team only. Participants kept the hard copies and negatives of the photos. In line with the decentred approach we took, the data were initially analysed descriptively – independently by NG and MS – then with a focus on the 'stories' told by these workers about their 'governing practices' and their 'traditions'– their interactions with clients, the content of their work and their negotiations of their place within the organisations that employ them. We interrogated the data in terms of how these stories related to the potential for co-production (at the level of service organisation and delivery)

with users of the health trainer service (general practice patients, or people at community or workplace settings where health trainers undertake outreach).   Finally, NG and PB analysed the stories in terms of what approach they took to managing the inherent tensions in risk work. In this article, we present just three of these stories in depth (using pseudonyms). We focus on the stories told, and so we do not present the images (although we may in other publications where different analysis methods are used). These three participants have been selected as they enable us to draw out a range of different (theoretical) responses, the tensions in their work, and to give an illustrative rendering of how these responses play out in practice.

5. FINDINGS

Tareeq

Tareeq is a 31 year old British Muslim man, born and raised about 10 miles away from the Black Country community that he now works in. Tareeq brought eleven photos to the interview to discuss. They were of home-cooked food and ingredients (*'South Asian diet'*); a local farmers' market and show; his work and work identity (though a self-portrait in his work clothes, an image of the surgery he had worked at for five years and an image of his desk with the clinical instruments he used, such as RDX machine that tests cholesterol levels); of local 'take away' restaurants (including the one he works for in the evenings, discussed below) and an image of a day out with his wife at a theme park resort.

Tareeq's beliefs about health risks are informed by the medical/epidemiological information that he has gained through the basic training he has received based on policy guidelines [*'I tell them to eat fruit and veg, five portions daily'*] but also by his experience of local traditions and how risk is understood in his community [*'it is only when something happens in the family, it's like if the husband has had a stroke or a heart attack then they will change'*]. The intervention itself focused on changing individual health behaviours, which Tareeq recognises the limitations of by highlighting his awareness of the possibility of more structural/regulatory intervention [*'99p chicken and chips … if you was to go down [town] high street on a lunch time when the kids are at school, you'll see them all lined up outside the chippies … I blame the government really … they continue licensing these places'*]. The relationship between health trainer and patient is a central aspect of the work [*'it's only after speaking to them you understand'*] and central to Tareeq's occupational identity, although he is frustrated that the complexities of his role are not adequately valued in his view.

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His agency is situated in terms of his membership and understanding of British culture and the sub-cultures within that of 'South Asian', 'Muslim' and 'Black Country'. He is part of a politically and socially connected family within his community [*'I think my passion really grew for working with the community through my dad because he is the trustee of the mosque in [town] for nearly thirty years now … the land was given over by the council … he's got lots of connections with the political parties, he's a Labour member now for so many years'*]. The traditions and values that he has grown up with have shaped his *'passion'* for working with the community, which he continues to value even in the face of struggling because the pay is not sufficient to support him and his wife and he needs to take two jobs (the second as a fast food delivery driver).

His beliefs about lifestyles and health are shaped by his own experience and background as well as his training, and he observes closely the changes in communities in relation to health and lifestyles and the influence of different generations [*'slowly, slowly their parents are picking things up which is changing their thinking'*] but throughout his story there are moments of moral judgement – about laziness, gluttony, poor parenting, or misplaced priorities – of his clients, and to some extent himself as he discusses his own weight gain since his marriage.

His actions – the practices with which he seeks to influence and enact change in his work – are all shaped by this context, his traditions and his beliefs – and carry the same contradictions and tensions. His account of how he explains risk to patients – by using medical information that is personal to them (such as their cholesterol levels or blood pressure), and linking it to epidemiological data on risk – reflects standard elite narratives of risk and prevention. However, it represents not so much an objective (subject-less) application of modernist risk knowledge (as in Castel's vision) but one where the agency of the patient is also engaged – where their social and familial experiences are recognised and listened to, and where a decision about future action on the patient's part is co-produced [*'get them to tell you what changes they need to make'*]. Nevertheless, as a form of co-production it is deeply constrained within the boundaries set by the clinic – biomedical, modernist, individualist views of health and risk.

This critique, however, in Tareeq's narrative never reaches the surface completely as active resistance: it is just discernible though a set of contradictions and fractions in his account, epitomised perhaps most acutely by his account of his two jobs [*'on one side I'm working telling people not to eat fast food and the other side I'm actually taking it to them to eat'*], and emerging in the safe space of the research interview [*'I've got certain things off my chest today'*] as an emotional toll that manifests through his fatigue and frustration [*I'm everything in my role, they're not paying us enough to deal with all these problems are they?'*]. With these tensions under veil in his normal

day-to-day working life, he is able to retain overall a positive sense of occupational identity – of benefitting patients, albeit in incremental ways, and serving the community.

James

James is a 45 year old White British man, born and raised in the community he now works in. He identifies not just with the wider Black Country region but with the specific town where he grew up and works. James brought twenty-three photographs to the interview that were of: his passion for keeping fit (images of him training at gyms, taking his children to a leisure centre, and the local boxing academy); images of his children playing on computer games and of 'empty' play areas in parks; 'take away' restaurants and leaflets; healthy approaches to home cooking (using low fat fryers and grills); and images of food and alcohol *'treats'*.

James' local identity is important to him in this role [*'I'm a local lad, with a local accent, and they (clients) identify with that'*] and he sees this equality of power and position to be vital to his ability to work with people in his role [*'When somebody is quite educated, they feel defensive … It's no good me saying "My name's James and I'm from [organisation] and the way we're gonna work …' You cannot … Because if I tell or suggest and I'm belittling they're going and never coming back'*]. He takes enormous pride in his work and acknowledges that a lot of the people he grew up with have not been so lucky [*'me and you[MS], we work because of pride and respect, but a lot of these people … no fault of their own, have been made redundant'*] and considers he and his partner have a good income [*'My partner works … so our combined income we are sound … I'm in the best position I've ever been in my life, because I was a single parent for a long time where there's no money. Now I'm able to go on holiday a few times a year [and] I've got a nice home.'*].

Similarly to Tareeq, he is by no means naïve to the challenges of working in a deprived area [*'that's what we struggle with our job roles. We're trying to teach somebody something in an environment where there's that many barriers, which you will see in the pictures.'*]. One of the photos he shares is of the local high street where he points out the limited range of shops available and their negative impact on heath [*'Takeaways, Spice Cottage, Princess Fryer, Olive Pizza … the bookies so for gambling, a sunbed shop .. .skin cancer … Greggs, and it's an outlet shop so you can get two pasties for £1'*]. However, rather than struggling with these tensions between social constraints and individual lifestyle in his work, James reconciles them at an embodied level through his own story of transformation. [*'Originally, I worked in a factory (and was) engaged in unhealthy behaviours. I was a drinker, a smoker; did all the things that men do after work. I rolled out of the pub about 12 at night with a bag of chips … That job I was made redundant. I went to college … then a gym opened*

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up near to the home I lived. I started going in there to try and alter my lifestyle. As a result of that I actually got a job there. So, from eating pies, chips and all the trimmings, I switched to tuna, all grain foods and lots of veg … That's where my passion came from for the lifestyle'].

He feels that he uses his experience to inspire his clients to make changes. [*'Oh, you're one of these who don't put weight on. You've never smoked.' I say, 'No, actually, I've done it all,' and they go, 'No?!', (I say) 'I've been where you are.' People can really, you know, lower the barriers then and they can start to tell you'*]. He describes how he uses his own understanding of people's life experiences in the region to adapt his style of communication and support [*'I just put my pen down and just ask the how they've got to this stage … just general encouragement. Black Country people was brought up to be smacked and caned … in school, disciplined with rulers and sticks. I know, it's wrong … We was not encouraged, we was more so bullied … (so) it's just the positives of how you're gonna feel … and applauding their small achievements'*].

A particular theme in his narrative is around masculinity and health. He acknowledges the high unemployment rate and the impact of the decline of large scale industry on men's career opportunities in the region. He discusses the *'habits'* of drinking, high fat diets (such as fried food) and inactivity, shares that he sees people *'who I went to school with'* doing this, and stresses that his work with people is about *'breaking the cycle'*. He talks about his involvement over the years in gyms and talks about the importance of things like boxing academies for young men and of their benefits in terms of *'morals'* and '*goal setting*', as well as physical health. He notes that *'kids are going with their dads, which is great because their dads are getting back into shape'*. He actively draws parallels between his own approach to life and his work [*'I'm in good shape for my age … I ain't gonna be a Brad Pitt [famous actor], but I'm better … I'm comparing myself against myself, and that's what the journey is in regards to health trainers'*] and talks about the other health trainers as role models, including Francesca whose story we come to next [*'She's a great role model for people who are not able to do as much exercise. It still shows that you can still do your bit'*]. Despite James' clear acknowledgement of the tensions between the social determinants of health and the *'barriers'* this creates for individuals in their attempts to change their lifestyles, he seems to resolve this though the idea of 'role model' and his own embodiment of the ability to overcome these barriers.

Francesca

Francesca is a 55 year old White British woman who currently lives outside of the Black Country but has a long personal history of working in the region. . Francesca brought twenty-six photos to the interview. She described her *'theme'* as *'old buildings being demolished and new buildings replacing*

[them]'. They were of the old and new shopping centres in the centre of town, including closed down shops and the new revamped pavements, which were safer, and shops, which she felt were important to provide jobs for local people; her work place, at a newly built 'one stop shop' primary care centre, with GPs, public health services, such as 'stop smoking' and social services; the old '*run down*' building for the health trainer service; the development site for the new leisure centre, which has taken many years to replace; the art gallery in the centre of the town, which she felt was not as useful to the local people as the leisure centre will be; the new police station which she considers more inviting than the old *'run down, derelict, depressing-looking'* site.

This job is the first she has held since recovering from a car accident and she has some physical disabilities as a result [*'Initially it wasn't an absolute career choice with the health trainer role, it was to see if I could get back to work so it didn't matter really what job it was.'*]. It emerges in the interview that her choice of the health trainer role is not a complete break from her earlier career. She shares some of her background working in many leadership roles in the voluntary sector – and demonstrates her commitment to the community and social justice. For instance, after running her own business and experiencing discrimination on account of her gender, she set up an agency in the region that campaigned for women's financial independence and gave them business advice. She is clear that she wants to develop in the health trainer role – particularly the nutrition aspects - and is undertaking further training and qualifications, eventually planning to work back in the voluntary sector.

The story that Francesca tells us through the photos she has taken is a considered and critical one – in which we can see evidence of the ways that her thinking has developed through involvement in activism and campaigning. It operates as much more of an outsider account than that of James or Tareeq [*'The way I looked at things was the changing face of [town] … and how that impacts on people's lives … which ultimately impacts on their health and wellbeing and their goals and everything, their lifestyle, when I speak to them and do their assessments'*]. She is explicit about how damaging the effects of unemployment and long-term social deprivation can be on people's health [*'People just don't feel that they're worthwhile. They keep trying for jobs, but they haven't got the skill set to apply for the jobs that provide them a decent earning … They then have no purpose; they become depressed and smoking and drinking, so it has a knock-on downward spiral.'*] Nevertheless, she is hopeful that appropriate forms of regeneration and investment can be positive [*'it's making people feel that they don't live in such as depressed and deprived area … as though it is an area that people want to live in'*], especially when it provides jobs [*'jobs provide income, income provides*

growth … it leads people out of poverty and that has a major impact on their health and their social wellbeing … once you lift people out of that poverty, they look after themselves more'].

In her accounts of working with people, she adds another dimension to her description of her consultations – that neither James nor Tareeq focus on explicitly – that of the emotional impact of attempting lifestyle change [*'getting them to change from eating all the fat from pork chops and lamb chops and things like. Starting to break down those barriers and get very personal with people, you feel as though they're opening their life up to you and you're intruding in their personal space and it can be quite an emotional journey for a lot of people, especially the food diaries'*]. In this way she acknowledges that lifestyle change is difficult and embedded in social and emotional context, rather than being a simple rational choice. Despite her acknowledgement of the social context, there are no hints of moral judgement in Franscesca's narrative and, indeed, she reports that people find her to be *'non-judgemental'* and that she has a *'calming voice'*. She does share her own experiences of discrimination in her interview – particularly from when she was using a wheelchair – which may help explain her own willingness not to pass judgements on others.

She explicitly acknowledges the tensions between individual lifestyle change and the broader social and emotional environment that that her clients live in. Throughout her narrative she is clear about her contribution – her skills at empathizing and supporting people to make sustainable changes in their lives for health – but her narrative remains at a critical distance. Ultimately, it seems that she cannot fully resolve these tensions within her current role and she seeks to move on in the future.

6. DISCUSSION

The starting point of this article is the inherent tension in modern medicine between population-wide standardisation and individual-centred specificity. We have explored how this tension manifests itself through recent policy narratives regarding public health risk – driven by a strong population-oriented risk logic oriented towards instrumental outcomes, framed here as the epidemiological clinic – and co-production – grounded in a concern with understanding between individuals and communication between them. While other literature has previously identified the tensions experienced by workers having to balance population-based health care initiatives and individual patient care and has raised critical questions of whether individual interventions can really work where there are strong social constraints on practice (Hindhede 2014; Kirk et al. 2014), our findings offer a new perspective on how practitioners make sense of their work in this context. The basic Habermasian (1987) argument is that the (instrumental) system 'colonises' the (communicative) lifeworld, but more detailed readings of Habermas (e.g. Chivers, 2018) point to a

more nuanced picture whereby actors are not passive and where system-logics actually galvanise the lifeworld in some senses (Brown 2011). Our article extends this critique and offers a new decentred understanding of the lifeworlds and embodied experiences of practitioners undertaking client-facing risk work.

The knowledge that is being produced and deployed by the health trainers is both probabilistic and experiential in nature – there is evidence of the elite narratives of public health risk and of co-production embedded in their ways of making sense of their work. While higher status professionals may also experience many similar tensions, the delegation of public health work 'down' to non-professionals insulates risk work from the knowledge structures of the epidemiological clinic and in all three narratives the health trainers rehearse the medical guidelines about risk, energy balance (less calories, more activity) and healthy lifestyles relatively unproblematically, leaving no space for co-production of knowledge on what constitutes 'risky' behaviour. However, the inherent gap between probabilistic risk knowledge and the experience of uncertainty about the future is filled by drawing on traditions, moral imperatives and personal stocks-of-knowledge to reproduce and refine lifeworlds: in all three narratives, the health trainers acknowledge that the work is not just about knowing about nutrition and exercise but that it is about working with and understanding the local community. However, these strategies fail to resolve the concerns that they all voice about issues of regional deprivation and the social determinants of health. They feel that within the scope of their role, these wider social concerns are not within their capability to solve.

In each narrative these tensions are dealt with differently. Of the three stories, it is Tareeq who seems to struggle most acutely, both at a personal and a professional level. The tensions emerge in fractured ways in his narrative. He states that his job is worthwhile and he is passionate about working with the community, but this position is always shadowed by his frustrations and his need to hold another job (ironically, delivering fast food to people). James on the other hand, while recognising the challenging social environment, uses his own transition from 'unhealthy' to 'healthy' to signify his triumph over risk and feels that health trainers should act as a role model for their clients. His passion for the work comes directly from his own success in achieving this 'lifestyle'. As a result, his narrative does not carry the emotional frustration of Tareeq's. James's resolution to the tension is to see risk reduction through the lens of an individual politics of the body and to 'bracket off' (Chivers 2018) the environmental and social challenges as outside his scope of control or practice. He behaves as a 'model citizen' (Nading 2013) by embodying the healthy lifestyle and building 'we-relationships' with his clients. By contrast to the previous two, Francesca takes the most critical approach, always acknowledging albeit indirectly that there is more work to be done in

the social and environmental sphere. Her narrative stops short of active resistance as she clearly feels that she brings some benefits to the people she works with, including emotional benefits beyond the biomedical discourses of risk. However, she sees that her own future will involve moving back into the voluntary sector after achieving further qualifications and experience.

The analysis we present demonstrates that even within one service, one town, and one group of healthcare workers, there are multiple ways to make work meaningful and attempt to find resolutions to the inherent tensions built into the role. The stories of Tareeq, James and Francesca provide empirical evidence to support Bevir's call to consider people as agents, rather than dupes of the new public management machine. Their accounts of their day-to-day experience show the hard work that is required to manage and balance their roles as administrators of modernist, risk-based policy, while also sustaining their commitment to working collaboratively and supportively with people within the community. As examples of (an internationally growing group of) non-professional, community health workers (Singh and Chokshi 2013), Tareeq, James and Francesca are able to reflect on and critique the system. However, there is little evidence, beyond their spoken critique of the system, of being able to resist materially – of being in Nading's (2013) terms a 'citizen witness', advocating about health needs to government on behalf of communities. Even in Francesca's account, she does not talk of active resistance within her (low-status) role, but simply indicates that she plans to move on to a new role in the future to address her goals of social justice. Their efforts to engage with patients as individuals and to co-produce change is conducted within the highly limited scope of practice that health trainers are afforded.

The effects of these constraints manifest in different ways for each health trainer and have a different impact on their own wellbeing. James seems the most content in his role but his narrative also demonstrates the highest level of 'colonization' of his lifeworld. This is apparent in his straightforward acceptance of the narratives of the importance of a 'healthy lifestyle', partly on the basis of his own embodied experience, while bracketing off the complexity and constraints of the social environment. Yet for each of the health trainers, their own backgrounds, traditions, cultures and stocks of knowledge shape their response to the challenges they face on a daily basis and the extent to which the modernist elite narratives of risk and individual behaviour change colonize their lives. In this way these workers' lifeworlds are reinvigorated in ways which resist any straightforward interpretation of their colonisation by the modernist drives of the epidemiological clinic. The shifting of public health interventions to less qualified (proto- and non-) professionals, driven by efficiency imperatives of the system, serves to (re)connect public health interventions with wider cultural narratives in ways which appear to facilitate (so much as limit) the lifeworld processes of cultural

reproduction, social integration which underpin co-production. Reflecting Habermas's less pessimistic reworking of the Frankfurt School critique of modernity, the power structures of mainstream medicine are pervasive and yet Castel's (1991) dystopian vision is not fully realised.

Future directions for research in this area could apply complementary theories, such as emotional labour (Hochschild 1983), to understand the experiences of negotiating the tensions between epidemiological risk and co-production, particularly with lay health workers (there is a body of work on emotional labour and health professionals already). Alternative methods could be used that focus less on narrative and more on practice, such as observation or ethnography, to understand more about how tensions are negotiated within the clinical environment. Another potential avenue could be exploring further the issue of professional divisions of labour and how lay health workers may seek greater (professional) recognition for the work that they do, or pursue further professional training. Finally, it would be useful to undertake comparative studies of the use of risk and risk information in different settings – outside of the unique setting of the Black Country, Studies across different types of health problems, where the evidence base is more or less established, and different cultural and socio-economic settings may enable further theoretical advancements.

7. CONCLUSION

Castel's (1991) dystopian vision includes no space for co-production or subjectivity in the epidemiological clinic. However, our research demonstrates that his bleak vision of a purely objective encounter – that obviates the need for professional clinical autonomy – is not realised. Both the power of the medical profession to pursue and shape their professional projects in a way that continues to maintain and enhance autonomy amidst change (Currie et al. 2012) and the drives for efficiency in a modern health system have led to task shifting in a modernist era - away from medical personnel to those who do not have professional qualifications, and away from those with permanent NHS employment (with its other benefits such as a public sector pension) to those in contract-based work within the not-for-profit sector (Rees and Mullins 2016). The epidemiological clinic exists, but the people who work within it, who are trying to operationalise and apply population-based concepts of epidemiological risk to real-life individuals, are often performing that role as insiders to the community, seeing beyond medical risks to the wide array of social risks that people are negotiating. However, just as there is no pure application of epidemiological knowledge, neither is there space for the kind of co-production that draws in the experiential knowledge fully from the community either. We have shown that the two positions are not fully reconcilable in the context of a community where health is so adversely affected by wider social problems, such as

unemployment – and that workers must negotiate and find ways to adapt to and cope with that in their everyday practice.

References

Arribas-Ayllon, Michael, and Srikant Sarangi. 2014. 'Counselling uncertainty: genetics professionals' accounts of (non) directiveness and trust/distrust', *Health, risk & society*, 16: 171-84.

Bardach, Shoshana H, and Nancy E Schoenberg. 2012. 'Primary care physicians' prevention counseling with patients with multiple morbidity', *Qualitative health research*, 22: 1599-611.

Batliwala, Srilatha. 2007. 'Taking the power out of empowerment – an experiential account', *Development in Practice*, 17: 557-65.

Bean, Sandra J, and Joseph A Catania. 2013. 'Vaccine perceptions among Oregon health care providers', *Qualitative health research*, 23: 1251-66.

Bevir, Mark. 2013. *A Theory of Governance* (University of California Press: Berkeley).

Bevir, Mark, and Rod AW Rhodes. 2007. 'Decentred theory, change and network governance.' in, *Theories of democratic network governance* (Springer).

Brown, Patrick. 2011. 'The concept of lifeworld as a tool in analysing health-care work: Exploring professionals' resistance to governance through subjectivity, norms and experiential knowledge', *Social Theory & Health*, 9: 147-65.

Brown, Patrick, and Michael Calnan. 2013. 'Trust as a means of bridging the management of risk and the meeting of need: a case study in mental health service provision', *Social Policy & Administration*, 47: 242-61.

Brown, Patrick, and Nicola Gale. 2018a. 'Developing a sociology of risk work in client-facing contexts: an editorial', *Health, risk & society*, 20(1-2): 1-12.

———. 2018b. 'Theorising risk work: Analysing professionals' lifeworlds and practices', *Professions and Professionalism*, 8: 1988.

Burton-Jeangros, Claudine, Samuele Cavalli, Solène Gouilhers, and Raphaël Hammer. 2013. 'Between tolerable uncertainty and unacceptable risks: how health professionals and pregnant women think about the probabilities generated by prenatal screening', *Health, risk & society*, 15: 144-61.

Castel, R. 1991. 'From dangerousness to risk.' in G. Burchell, C. Gordon and P. Miller (eds) (eds.), *The Foucault Effect: Studies in Governmentality* (Haverster Wheatsheaf: Hemel Hempstead).

Chivers, Claire. 2018. ''What is the headspace they are in when they are making those referrals?' Exploring the lifeworlds and experiences of health and social care practitioners undertaking risk work within the Prevent Strategy', *Health, risk & society*, 20: 81-103.

Crawshaw, Paul. 2012. 'Governing at a distance: Social marketing and the (bio) politics of responsibility', *Social Science & Medicine*, 75: 200-07.

Currie, Graeme, Andy Lockett, Rachael Finn, Graham Martin, and Justin Waring. 2012. 'Institutional work to maintain professional power: Recreating the model of medical professionalism', *Organization Studies*, 33: 937-62.

Darroch, Francine E, and Audrey R Giles. 2015. 'Health/Service Providers' Perspectives on Barriers to Healthy Weight Gain and Physical Activity in Pregnant, Urban First Nations Women', *Qualitative health research*: 1049732315576497.

Douglas, Mary. 1992. *Risk and Blame: Essays in Cultural Theory* (Routledge: London).

Flynn, Rob. 2002. 'Clinical governance and governmentality', *Health, risk & society*, 4: 155-73.

Gale, Nicola, George Dowswell, Sheila Greenfield, and Tom Marshall. 2017. 'Street-level diplomacy? Communicative and adaptive work at the front line of implementing public health policies in primary care', *Social Science & Medicine*, 177: 9-18.

Gale, Nicola K, Sheila Greenfield, Paramjit Gill, Kerry Gutridge, and Tom Marshall. 2011. 'Patient and general practitioner attitudes to taking medication to prevent cardiovascular disease after

receiving detailed information on risks and benefits of treatment: a qualitative study', *BMC Family Practice*, 12: 59.

Gale, Nicola K, Gareth Martin Thomas, Rachel Thwaites, Sheila Greenfield, and Patrick Brown. 2016. 'Towards a sociology of risk work: a systematic narrative review and synthesis', *Sociology Compass*.

Godin, Paul. 2004. ''You don't tick boxes on a form': A study of how community mental health nurses assess and manage risk', *Health, risk & society*, 6: 347-60.

Habermas, Jurgen. 1987. *The theory of communicative action: Lifeworld and system: A critique of functionalist reason* (Polity Press: Cambridge).

Hall, Wendy A, Jocelyn Tomkinson, and Michael C Klein. 2012. 'Canadian care providers' and pregnant women's approaches to managing birth minimizing risk while maximizing integrity', *Qualitative health research*, 22: 575-86.

Harrison, Stephen. 2009. 'Co-optation, commodification and the medical model: governing UK medicine since 1991', *Public administration*, 87: 184-97.

Hashem, Ferhana, Michael W. Calnan, and Patrick R. Brown. 2017. 'Decision making in NICE single technological appraisals: How does NICE incorporate patient perspectives?', *Health Expectations*: n/a-n/a.

Hemming, Karla, Ronan Ryan, Paramjit Gill, Paul Westerby, Kate Jolly, and Tom Marshall. 2016. 'Targeted case finding in the prevention of cardiovascular disease: a stepped wedge cluster randomised controlled trial', *Br J Gen Pract*: bjgpoct-2016-66-651-marshall-fl-p.

Hergenrather, K. C., S. D. Rhodes, C. A. Cowan, G. Bardhoshi, and S. Pula. 2009. 'Photovoice as a community-based participatory research: a qualitative review', *Am J Health Behav*, 33.

Hindhede, Anette Lykke. 2014. 'Prediabetic categorisation: the making of a new person', *Health, risk & society*, 16.

Hindhede, Anette Lykke, and Jens Aagaard-Hansen. 2015. 'Risk, the prediabetes diagnosis and preventive strategies: Critical insights from a qualitative study', *Critical Public Health*, 25: 569-81.

Hochschild, Arlie. 1983. *The Managed Heart: Commercialization of Human Feeling* (University of California Press: Berkeley).

Horlick-Jones, Tom. 2005. 'On 'risk work': professional discourse, accountability, and everyday action', *Health, risk & society*, 7: 293-307.

Iversen, Clara, Anders Broström, and Martin Ulander. 2018. 'Traffic risk work with sleepy patients: from rationality to practice', *Health, risk & society*, 20: 23-42.

Ives, Jonathan, Sarah Damery, and Sabi Redwood. 2013. 'PPI, paradoxes and Plato: who's sailing the ship?', *Journal of Medical Ethics*, 39: 181-85.

Kihlsrtöm, Anita, and Joakim Israel. 2002. 'Communicative or strategic action–an examination of fundamental issues in the theory of communicative action', *International Journal of Social Welfare*, 11: 210-18.

Kirk, Sara FL, Sheri L Price, Tarra L Penney, Laurene Rehman, Renee F Lyons, Helena Piccinini-Vallis, T Michael Vallis, Janet Curran, and Megan Aston. 2014. 'Blame, shame, and lack of support a multilevel study on obesity management', *Qualitative health research*: 1049732314529667.

Kirkegaard, Sine, and Ditte Andersen. 2018. 'Co-production in community mental health services: blurred boundaries or a game of pretend?', *Sociology of health & illness*.

Lankshear, Gloria, Elizabeth Ettorre, and David Mason. 2005. 'Decision-making, uncertainty and risk: Exploring the complexity of work processes in NHS delivery suites', *Health, risk & society*, 7: 361-77.

Marshall, Tom, Paul Westerby, Jenny Chen, Mary Fairfield, Jenny Harding, Ruth Westerby, Rajai Ahmad, and John Middleton. 2008. 'The Sandwell Project: A controlled evaluation of a programmes of targeted screening for prevention of cardiovascular disease in primary care', *BMC Public Health*, 8: 73.

Mishra, Amrita, and Janice E Graham. 2012. 'Risk, choice and the 'girl vaccine': Unpacking human papillomavirus (HPV) immunisation', *Health, risk & society*, 14: 57-69.

Mitlin, Diana. 2008. 'With and beyond the state — co-production as a route to political influence, power and transformation for grassroots organizations', *Environment and Urbanization*, 20: 339-60.

Nading, Alex M. 2013. 'Love Isn't There in Your Stomach', *Medical anthropology quarterly*, 27: 84-102.

Nissen, Nina. 2013. 'Women's Bodies and Women's Lives in Western Herbal Medicine in the UK', *Medical anthropology*, 32: 75-91.

Olin Lauritzen, Sonja, and Lisbeth Sachs. 2001. 'Normality, risk and the future: implicit communication of threat in health surveillance', *Sociology of health & illness*, 23: 497-516.

Rees, James, and David Mullins (ed.)^(eds.). 2016. *The third sector delivering public services: Development, innovations and challenges* (Policy Press: Bristol).

Ruston, Annmarie. 2006. 'Interpreting and managing risk in a machine bureaucracy: Professional decision-making in NHS Direct', *Health, risk & society*, 8: 257-71.

Sarkadia, Anna, Catarina Widmark, Sven Törnberg, and Carol Tishelman. 2004. 'The 'hows','whos', and 'whens' of screening: gynaecologists' perspectives on cervical cancer screening in urban Sweden', *Social Science & Medicine*, 58: 1097-108.

Scamell, Mandie. 2011. 'The swan effect in midwifery talk and practice: a tension between normality and the language of risk', *Sociology of health & illness*, 33: 987-1001.

Scamell, Mandie, and Mary Stewart. 2014. 'Time, risk and midwife practice: the vaginal examination', *Health, risk & society*, 16: 84-100.

Schwennesen, Nete, and Lene Koch. 2012. 'Representing and intervening:'doing'good care in first trimester prenatal knowledge production and decision-making', *Sociology of health & illness*, 34: 283-98.

Singh, Prabhjot, and Dave A Chokshi. 2013. 'Community health workers—a local solution to a global problem', *New England Journal of Medicine*, 369: 894-96.

Szmukler, George. 2003. 'Risk assessment: 'numbers' and 'values'', *Psychiatric Bulletin*, 27: 205-07.

Szmukler, George, and Nikolas Rose. 2013. 'Risk assessment in mental health care: Values and costs', *Behavioral sciences & the law*, 31: 125-40.

Taylor-Phillips, Sian, Felicity Boardman, Farah Seedat, Alison Hipwell, Nicola K Gale, Angus Clarke, Anne Slowther, Morag Sime, Sian Thomas, Hugh Davis, and Aileen Clarke. 2014. "The ethical, social and legal issues with expanding the newborn bloodspot test." In. University of Warwick: Warwick Medical School.

Thomas, Gareth Martin. 2015. 'An Elephant in the Consultation Room?: Configuring Down Syndrome in British Antenatal Care', *Medical anthropology quarterly*.

Veltkamp, Gerlieke, and Patrick Brown. 2017. 'The everyday risk work of Dutch child-healthcare professionals: Inferring 'safe' and 'good' parenting through trust, as mediated by a lens of gender and class', *Sociology of health & illness*: n/a-n/a.

Villaamil, Fernando. 2014. 'Shared Embarrassment:(Not) Talking about Sex in HIV-Related Doctor–Patient Encounters', *Medical anthropology*, 33: 335-50.

Williams, Clare, Priscilla Alderson, and Bobbie Farsides. 2002. ''Drawing the line'in prenatal screening and testing: Health practitioners' discussions', *Health, risk & society*, 4: 61-75.

Zayts, Olga, and Srikant Sarangi. 2013. 'Modes of risk explanation in telephone consultations between nurses and parents for a genetic condition', *Health, risk & society*, 15: 194-215.