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Food play: a novel research methodology for visceral geographers and health researchers.

Abstract

This paper reinforces the value of visceral geographic approaches to health research as a method ‘beyond talking’. The paper establishes and sets out an integrative embodied multi-sensory research methodology - food play. Researchers across the social sciences and sciences are exploring the limits of logo and researcher centric research methods and exploring peoples sensory experience of themselves and the wider world using participatory, patient-centred, multi-sensory, visceral and biosocial geographic approaches. With reference to the growing interest in visceral approaches to research in geography, and sensory research in neurology, anthropology and embodied cognition in psychology, we argue that the *presence and pungency* of food uniquely animates research, and for our research, provided highly individualised insight into the lived experience of living long term with eating difficulties, allowing visceral difference to emerge and be expressed. We illustrate our approach with reference to a six-year research project, *Resources for Living*, co-produced with survivors of head and neck cancer and underpinned by a series of food play workshops to address post-treatment and chronic difficulties with food and eating.

Introduction

Personally, I think it's because we've been sitting in kitchens and... it's a friendly group, it's not too formal and we're messing about with food and like last week we were messing about with drinks and stuff like that and I think that made a big difference. Ron

In the final ‘round up’ focus group discussion for *Resources for Living*, our six-year research project with survivors of head and neck cancer, we asked participants to reflect on the value of the ‘food play’ approach that had been central to data generation. Ron and the other participants agreed that messing about with food whilst “sitting in kitchens” was valuable to the research, valued by participants and had unearthed a wide range of issues previously undisclosed or under-recognised – both to the clinicians they had been involved with and to themselves. “Messing about” and the feeling of informality also raised questions about how collaborative food play may unsettle relations of power at the interface between researchers and researched (Locock et al, 2017).

How food play increased sensitivity, informality and engagement in research, and how it allowed visceral difference to emerge and be expressed in the Altered Eating example is a key focus of this paper. At the same time, the work also parallels the turn to visceral geographic approaches and recent discussion of how to do it (Sexton et al, 2017). Hayes-Conroy (2017:51) reflection on the pragmatic aim of her coining of visceral geography in 2010 was to provide a means to understand “political agency

from the body out". In the years between, the notion of visceral geography has challenged researchers to address affect and embodiment, to open up a new way of seeing the interrelation with environments/space. Yet as Sexton et al suggest (2017: 201) "this type of research remains limited and often does not include in-depth reflections on its practicalities". Leading a series of examinations of visceral geography and method in the Journal *Geoforum*, the authors point to the visceral turn across a range of disciplines noting the continued dominance of visual and discursive methods, or particular dominance of some senses over others, to the exclusion of questions of bodily difference, feelings and the senses.

We did not set out to employ a visceral geographic approach in our research design nor can we claim to have 'known the field' before we set out on our research. Rather, we discovered, through doing and sensing, the vital, visceral experience of food play as central to the research we undertook. What emerged, to quote Hayes-Conroy and Hayes-Conroy (2010) was that food felt different in different bodies. We did not set out with an a priori epistemology or methodology. In the following review we will draw on scientific literature, biosocial models from the geographic literature (Mansfield, 2008; Prior 2018), and more-than-representational and visceral geographic approaches (Hayes-Conroy, 2010). It is important to emphasise that these methodologies and epistemologies are not readily reconciled. However, by allowing the participants to evolve the methodology a unique form of methodology-as-performativity evolved. As Law (2004: 143) notes, methodology in social sciences does not so much reveal as create knowledge, "it is performative, it helps to produce realities." This was indeed the case. The simple act of setting head and neck cancer food research in a kitchen, with food, and, literally, playing with and around it, allowed the evolution of a method that we can see, in retrospect, draws on both biosocial and visceral geography approaches. In the literature review below, we will situate the methodology in the context of some of these recent trends in thinking about how to allow viscerality and visceral difference to become an object of knowledge.

For our purposes (and not to limit other ways of 'doing' food play or visceral research) we define 'food play' as the hands-on experience of food preparation, sharing and 'tasting opportunities' (where tasting is not essential to involvement) in a commensal setting where the research focus is co-produced with participants. We draw on our experience of undertaking food play workshops within a research project investigating the significance of the loss of pleasure and burden of eating for survivors of head and neck cancer (Burges Watson et al, 2018). We came to understand food play, *in the right setting*, enhanced participation, and was a means to explore how different bodies experienced food, pleasure and burden.

First, we provide a short background to the *Resources for Living* study. Second, we summarise the contributions of other fields of research, and particularly visceral geographies, to understanding the significance of food play, place and sensory methods. Finally, we describe the 'food play' methodology employed in the study.

Background to the research

Head and neck cancer survivors may live many years beyond treatment with chemoradiotherapy, but for some, on-going difficulties with food and eating may persist and become an enduring feature of their lives (Ganzer et al, 2015; Burges Watson et al, 2018). Over six years we have engaged research with 25 survivors of head and neck cancer, with the aim of developing a framework to systematically and comprehensively capture the impact an altered relationship with food had on their lives (Burges Watson et al, 2018). The project was underscored by a commitment to patient and public involvement in research in which participants were equal partners in establishing the research questions, designing the research, and disseminating the findings (Palm et al, 2013; Burges Watson and Lewis, 2011). The academic team was a multi-disciplinary group, with expertise in sensory methodologies, patient and public involvement, ethnography, health psychology, critical health geography, speech and language therapy and oncology and included a research cook skilled in ‘modernist’ cooking approaches (Barham et al, 2010), a film maker and head and neck cancer survivor participants trained in qualitative methodologies. The research approach was therefore interdisciplinary and involved mixed-methods in which contributors’ (researchers *and* participants) expertise was placed ‘on the table’ in equal contribution. Participants and researchers participated in cooking, eating and playing with food as part of the patient-led and participatory research process.

The sensory turn and visceral geography

A recent series of papers by Hayes-Conroy, Miele, Sexton and Ash in a special edition on visceral geography in the Journal *Geoforum*, addresses the question of *how to do* visceral methods. Hayes-Conroy and Hayes-Conroy’s (2010 (b): 2957) attention to the visceral is to the “bodily realm in/through which feelings, sensations, moods, and so on are experienced”. Visceral geography has presented a challenge to geographers and those interested in extending sensory methods into how research is able to account for the relational experience between bodies and places, how the sensorial world is considered in this relating, and the ‘political situatedness’ of bodily experience. Rather than research that avoids sensory experience, visceral geography regards the sensory as part of body-environment relations – what “materially, physically ‘activates’ people” (Hayes Conroy, 2017: 51).

Prior et al (2018a; 2018b) contribution to biosocial geographies has offered further possibility for how to ‘do’ visceral research. In biosocial geography the context of living (in places) becomes embodied through the “imprint of entangled biological and social exposures” (Prior et al, 2018: 2). This is of particular relevance to head and neck cancer as prevalence is linked to socio-economic disadvantage (Taib et al, 2018). Northern England, the setting for our research, has the highest incidence of head and neck cancer in the UK (Price et al, 2010). In other words, head neck cancer is related to the ‘exposome’. This concept draws attention to the relational experience of place; how inequalities may be ‘imprinted’ through disadvantage. For example, Prior et al (2018a) highlight work that notes how early life exposure, even during gestation, can impact on later outcomes for health; how for example, a biological ‘memory’ of undernutrition can continue to have effects through the life-course. Combined with

research on epigenetics, the plasticity of how gene expression may be altered by environmental exposure, and the notion of allostatic load, the accumulation of exposures to stresses, their work offers insight into the porous nature of body to environment (Mansfield, 2017; Prior et al, 2018b). Thus, Prior et al's work stresses biological and social entanglement, but is particularly concerned with how the environment in which we live helps determine, and may alter our fundamental biology. At the same time, we recognise concerns that 'biosocial' approaches, notably those that draw on environmental epigenetics (which explore interactions between gene expression and the environment) may run the risk of further entrenching 'biological essentialism' (Lloyd and Müller, 2018). For our purposes the notion of the 'biosocial' draws on the work of Mansfield (2008: 1016) in "recognizing and practicing health and disease as enacted, and hence biosocial".

Such complexity in body/social/place relations presents a real challenge to how to 'do' visceral research because there are so many interconnecting factors - how can research make sense of the contribution of such a complex entanglement involving the senses? We describe below several approaches that are attentive to the sensory experience and attempt to employ it to go beyond just talking.

When it comes to food, Hayes-Conroy (2017) suggests it is a good place to start because participants are "already primed to talk about the visceral realm" (p.51). Hayes-Conroy and Hayes-Conroy (2010) pay attention to 'visceral difference' in their study on Slow Food. Hayes-Conroy (2010) draws attention to the 'power of feelings' as motivation to participate, or not, in Slow Food activism in San Francisco. The methodological approach to the Slow Food research included an invitation for Slow Food members to 'show' the researcher San Francisco in any way they felt appropriate – which turned out to be accommodated primarily in a range of food-related experiences such as meals, food cooking and preparation, gardening, tasting etc. The emphasis here is on how the attention and experience of the senses facilitate and enable a different type of *conversational* interview through which to explore the political situatedness of eating. However, they pay less attention to the embodied experience of food.

But the power of food is not only in engaging the senses or creating spontaneity and serendipitous opportunities for talking. In some research, food is employed more directly as a vehicle for bringing people together. This is a particularly powerful characteristic of food, most likely with evolutionary origins and 'hard-wired'. Food is a powerful resource for gathering together, for 'commensality' (Kerner et al, 2015). The notion of commensality entertains the idea that as socialised encultured beings we anticipate, expect and experience food in contexts – places, with others, in settings. Longhurst et al's study of migrant women in New Zealand, for example, was "a route to finding out more about migrant women's lives" (2009: 337). Again, food here is a starting point rather than the subject of the research processes.

Multi-sensory ethnographies are another of the ways in which social researchers have been questioning traditional approaches to method and the importance of cognitive

primacy, opening different ways of knowing and doing research ‘beyond talk’ (Harris and Guillemin, 2012). Multi-sensory approaches pay more direct attention to the experience of the visual, of sound, taste, smell and touch, and through this are able to explore questions of intimacy, sociality and emplacement (Pink, 2008, 2015; Sutton, 2010; Denger, 2008). For example, Low’s (2015) examination of smellscapes in the urban centres of Singapore, explores how smells (and often food smells) were significant in defining the ‘race dynamics of place’ – for one respondent, the disgust of smelling ‘Indian cuisine’ equated with a distrust of Indian people. Low’s review of sensory approaches suggests that the “interest in sensory methodology is not so much to account for the ethnographer’s own responses to smells and tastes and his/her other senses, but rather to situate their meaningfulness vis-a`-vis a given social group or individual social actors” (Low, 2015: 300). In this research, the focus on the embodied politics of sensory exclusion revealed much about how spaces are defined, demarcated and politicized through class-based sensory experience of them. Yet, ‘paying attention to’ does not necessarily mean directly engaging with the senses

Other research has focussed on the embodied experience of eating and savouring as performative (Meile, 2017). For Meile (2017) ‘foodsensing’ is an active process between the consumer and consumed in which a range of non-human actors are mobilised in the sensory experience of what comes to ‘taste’ good. Typically, however, the sensory has primarily been regarded as a *lens* through which to see social meanings beyond food. In our research food was focus around which other themes emerged, not least the visceral differences in how food was sensorially experienced.

Food has been the subject of much research in anthropology. Yet even here the workings of the *sensory experience* of food has not been fully unpacked as a biosocial phenomenon, particularly when it is altered. Rather, as Sutton’s (2010) review of anthropology of food suggests, the senses are valuable in what they reveal about settings and cultural difference, much like the interest in urban sensory research. Food is one of many possible avenues through which to explore what Sutton terms *gustamology* – through which researchers “organize their understanding of a wide spectrum of cultural issues around taste and other sensory aspects of food” (Sutton, 2010: 215). Sutton notes the many studies that have found differences in the sensory experience of food across cultures and settings: “sensory experience is not simply passively registered but actively created between people”, and is, Sutton suggests, a reason to consider why food and senses need to be considered in tandem. As such this research acknowledges cultural difference, but is less able to address the subject of visceral differences in sensory experience within a culture.

It is implicit in the attention to embodied experience, that the senses matter to people’s engagement altogether with the wider world and each other. Food and the senses are intertwined in ways that make researching each in isolation of limited value. Coming from a different epistemological tradition, biomedical and biosocial approaches to food have given us significant new insights in recent years into the embodied, visceral experience of food.

Neuroscience, cognitive psychology, multi-sensory perception and the pleasure of food

Recent developments in neuroscience and psychology have led to much greater understanding of ‘unified’ human experience as an interplay between perception (experienced through various sensory modalities) and cognition. In psychology, there has been a shift away from the long-held view of cognition and perception as “encapsulated domains operating independently of each other” (Mroczko-Wąsowicz, 2016:1). Rather, experience is understood to be of a more hybrid nature, a cognitive-sensory interaction in which beliefs, expectations, desires intersect with what we smell, taste, see, hear and feel. Moreover, the tendency in much research has been to study perception through one sensory modality – most commonly visual or auditory, but with a recent flourishing of interest in smell (Henshaw, 2013). Mroczko-Wąsowicz (2016: 2) suggests, because of the heterogeneous nature of multi-sensory interaction, “perceptual experiences cannot be easily categorized as belonging to only one of the senses”. Scholars interested in sensory geography have cautioned against “privileging one sense over another” (Middleton, 2010: 582) – yet there is evidence not all senses are ‘equal’ in multi-sensory experience, particularly when it comes to food, and even more so where sensory perception may be altered.

Neuroscience has made some striking observations in mapping out the ways in which cognition, multi-sensory perception and the environment are entangled. Food has become a particular area of interest, not least because here, the link between memory, emotion and flavour experience is understood as directly linked to physical structures within the body as well as being demonstrably social. The overall experience of the ‘flavour’ of food is understood to involve a process of multi-modal integration – cognitive processes including anticipation, memory, learning and setting intersecting with sensory perception of taste (bitter, sour, sweet, umami, salty), aroma, sound, sight and feel(Kringelbach, 2015) . The importance of smell (aroma) is highlighted because of the close association between smell, memory and emotion – including depression, pleasure and disgust - and the connection between the olfactory bulb (through which smells are processed and transmitted to the brain) and the rest of the limbic system (linked to motivation, emotion, learning, and memory) (Markowitsch and Staniloiu, 2011; Grabenhorst, 2014).

Flavour perception is understood to be predominantly driven by smell (Spence, 2015), providing some rationale to emphasise this sense over others in food research. Smell memories and the emotions generated by them are understood to be more powerful, and overall more positive, than emotions evoked by other sensory cues such as sight, touch or taste (Auvray and Spence, 2008; Kringelbach, 2015, Herz 2016). Yet research also shows that olfactory systems are modified by environmental exposure over time (such as exposure to pollution). *Sensory inequities* may then arise in which the highest burden is felt by those most vulnerable to such exposure – such as those disadvantaged by socioeconomic circumstances or race (Hoover, 2018). The important implication of this work is that differences in appreciation of food may be related to sensory inequities and diminished olfactory function. Hoover also points to

the complex link between perception of odours and satiation, noting that with reduced olfactory function, food choices may shift to high fat, salt and sugary foods that stimulate ‘taste’ but not flavour. Moreover, research is now showing that the size of the olfactory bulb appears to have distinct correlates with the experience of depression (Flohr et al, 2017; Croy et al, 2014). The physical ‘stuff’ of food when savouring the smell of it or eating, stimulate the physical ‘stuff’ of the body through which emotions and feelings manifest, but not equally. Where sense of smell is lost or diminished, there is an enhanced risk of social insecurity, sensory inequity and depression (Hoover, 2018; Croy et al, 2012). Moreover, research on what it is that makes people better at smelling points to the complex interplay between biological underpinnings, life experience and physical and social environments. The human sense of smell is enacted through different exposures to smells and conceptual processing; the sense of smell can be trained to be better (for example as is common practice for sommeliers and perfumers) (Majid et al, 2017). The act of eating is united within a social-cultural experience and the flavour of the experience is an affective brain-culture-environment or ‘biosocial’ and exposomic interaction. The emotional element and memorialising of such experiences also involves interaction between brain, body and environment¹.

In our view, methodological approaches are lagging behind in considering the significance of these new understandings about sensory entanglements. Food is then for us, more than a ‘foil’ for investigating human/environment/culture relations, rather, the presence and pungency of food experienced with others actually evoked biological, environmental, emotional and social relations to food.

Food play as methodology in the Resources for Living Study

Our first ‘research encounter’ resulted from an approach to the lead author, a health geographer, by a Speech and Language Therapist (SALT) who for several years had been leading support group sessions for head and neck cancer survivors. The SALT commented that, despite the range of clinical advice on offer for all the survivors’ ‘other’ problems, all participants seemed interested in was talking about food: individual struggles with particular foods and drinks, the loss of pleasure in food and eating, and the commensal exclusion that their problems were causing. It appeared that their ‘problems’ with food were very individual but there was value in sharing the experience of it with others.

The *Resources for Living* research did not begin with an explicit methodology; rather it ‘emerged’ as an approach through our awareness of the centrality of food concerns, and our commitment to patient and public involvement (PPI) led and engaged research (see for example Burges Watson and Lewis, 2011; Lewis and Russell, 2011).

¹ The relationship between aroma and the limbic system is a topic of a large amount of recent research in neurology and hedonia research literatures. We cannot cover the field here, but rather point to the compelling evidence that smell and emotion are strongly linked.

The resulting study design was co-produced with participants and consisted of 16 engagement ‘food play’ workshops involving a research cook skilled in modernist techniques (that is, with an understanding of the science of what makes food delicious), qualitative researchers and film-maker (for documentation and research) and 25 head and neck cancer survivors who were all at least 6 months post treatment but experiencing on-going difficulties in eating and enjoying food, and their partners or carers. Each ‘food play’ workshop was developed through participant directed collaboration; that is, the theme (e.g. sauces, meats, chocolate, etc.) for each subsequent workshop were identified during reflexive discussion at the conclusion of each session.

The workshops were also extensively documented as survivors had emphasised that one of their key concerns was that there were few ways to ‘present’ their difficulties to others. We employed a video-reflexive ethnographic method – involving the negotiated videoing of the workshops and reflexive discussion of the work they helped produce or featured in (Collier et al, 2016). In addition, participants participated in a two hour professionally-led workshop to improve use of their own equipment through which to document eating issues they encountered (video recorders, mobile phones, cameras). Given the centrality of survivors’ experience of food and eating, we paid increasing attention to the embodied experience of food ‘beyond talk’ documenting and attending to questions of intimacy, sociality and emplacement and to sensory issues including visual, sound, taste, smell and touch.

Each workshop explored a different food group or theme: stocks, meat(s), smoothies, chocolate mousse, alcohol, soups and gravies, alternative grains, Christmas food, ‘testing’ taste ability. Towards the end of the workshop series, summative focus groups were held around the pleasure and burden of eating.

Methodological signposts in our research

Signpost 1 The “spatiality of care” in research

Geographic interest in the “spatiality of care” (Bondi and Fewell, 2003; Fenner, 2011) point to the importance of settings in making places ‘safe’ with freedom to speak. On this view, ‘almost any space’ is not good enough for psychological therapies – rather, the setting of counselling may upset the narrative of lay versus professional knowledge. As Bondi and Fewell suggest, “spaces of care invoked by counsellors are one in which relative positions can be questioned, disturbed, inverted, contradicted and redefined” (2003: 544). Arguably, the same applies to research settings, particularly where there is a vulnerability around self-hood and care is part of the ecology of engagement. An example of how spaces may not be ‘good enough’ occurred quite early on in the *Resources for Living* research process. The first venue we selected was a specialist cancer support centre. It was not a hospital or care setting, but rather beautifully designed as an informal space where cancer patients and families could gather together or take a range of different classes. Within the first few sessions, participants requested the venue be changed:

The whole set-up, [Centre name] is all about cancer sufferers. Dee.

When asked what issues arose for them in being in a specialist cancer centre participant reflected that it reminded them too much of the painful journey of treatment. While they highly valued the opportunity to use the Centre during treatment, the experience of revisiting in survivorship was one they did not care for. The venue was then changed to kitchen in a community farm, surrounded by an orchard and farm animals. The participants were asked to reflect on how and why the experience was now different:

Personally, I think it's because we've been sitting in kitchens [here] and ... it's a friendly group. It's not too formal and we're messing about with food and, like, last week we were messing about with drinks and stuff like that, and I think that made a big difference. Ron

The notion of 'messing about' expressed a sentiment of playful exploration and how informality and lack of clinical resonance of the 'space of care' (or research) generated a feeling of normality, but one in which they also valued the 'purpose' and the importance of the 'focused' research process. "We're messing about with food" signified participants' co-ownership of the research and research environment. Ron enjoyed the informality that food play provided in enabling engagement and participation but differentiated it from a regular 'support group' meeting, something he regarded as "a waste of time" because, there, attendees were "just sitting around chatting". Food play created a space for engagement that was informal but at the same time focused and offering learning opportunities that were not didactic:

I hate sitting at something like this [a medical clinic] where, a prime example is that pain management course, I went there for eight months and they just sat and dictated to me and I thought it was very patronising, Ron

Neither were the opportunities 'all about cancer'. As Vera noted, It is somehow easier to share experiences of cancer and its effects when the reason for gathering together is food – and thus social, and 'normal' – than if drawn together as patients, and because of one's cancer. Vera

Signpost 2: Animated engagement

The narrative featured in the short film 'The Cheese Sandwich' documented in a short piece for a patient involvement newsletter (Burges Watson and Lewis, 2011) was our first shared experience of the powerful emotions that food can evoke. John was diagnosed with cancer of the aerodigestive tract in 2008 and had lost the pleasure of eating because of his profound swallow difficulties (dysphagia). He told the chef that what he missed was a "decent cheese sandwich". In the video John is emotionally absorbed by the sandwich. Head down and focused on the sandwich he remarks between mouthfuls 'definitely cheesy... mmmm' ... it's lovely!. His wife Val, standing beside him says "that's the first time he's ever had *anything* like that... isn't it John". John does not respond, but continues to eat until the sandwich is finished.

While most research on food tends to view the pleasurable experience as diminishing over each successive mouthful, there are examples that suggest a process of ‘hedonic escalation’ in which the “liking of a palatable food can escalate within a consumption episode” (Crolic and Janiszewski, 2016: 388). Importantly for our participants, hedonia researchers note that “the consumption of high-intensity sensory stimuli elevates individuals’ arousal levels, which in turn minimizes rumination on thoughts related to the threat and thus restores one’s self-worth” (Batra and Ghoshal, 2017: 916). Food animates experience and, in pleasurable doses, can increase confidence in expressing both pleasurable and negative experiences of food. Due to the totality of the embodied experienced evoked by the physical and social encounter with food, the accounts people gave of their experience was not ‘normalised’, or seeking to reach a discursive consensus, but rather a deeply detailed individual account of their present experience. This led to a group where highly differentiated narratives of experience became the group norm. As such, one participant could be recounting a joyful experience of one food, followed by another recounting difficulty or disgust with the same thing.

Signpost 3: Safe to express distress and disgust

You cannot hide disgust. The expression on Ron’s face as he chewed a piece of sous vide sausage during one of the food play workshops was not the kind of responses a cook would wish for. As Sam Storey, the research cook reflected:

It’s like painting a picture and someone saying ‘that’s terrible, the composition is terrible – you burnt it’. It’s the same with cooking, you get used to someone saying I don’t really like that. But to have a room full of people spitting out food saying ‘that tastes disgusting’ or ‘urgh that tastes like cat food’! It was... like one of those dreams where your trousers fall off and you realise you are in a school full of people, completely naked with nowhere to hide. That meat workshop, I made about 30 things – I cast the net really really wide – I tried quail, chicken, poussin of different varieties, I tried rib eye steak, sirloin, filet steak, I tried chopping them up into tiny pieces and gluing them back together with an enzyme called transglutaminase (meat glue) and I kind of hoped that there might be one thing in there that people could get away with. When I think back to it, I don’t think there was! (laughs). [The meat workshop] definitely highlighted that the sensory deficits that people had were life-changing. I took a lot of advice on that session, technical advice from a food scientist... but I think I leant too heavily on that. I didn’t really feel it could be a magic bullet, and yet part of me wanted to find one too. I tried sous-vide... it was worth trying I guess, it was research. Sam

But the attempt was far from being seen by participants as ‘failure’. Great hilarity broke out as the group witnessed Ron’s visceral response to a small piece of sausage.

We do not diminish the risks involved for participants - aspiration and choking was a constant concern – but it is important to acknowledge that this apparently ‘negative’ result not only taught us something about their altered sensory experience of the food item being tested, but simultaneously revealed the growing level of mutual trust within the group. So much so, that we were able, together, to admit that we may not find a solution to this particular problem. Not least, participants had tried everything to cook meat themselves at home and the experience validated their failed attempts. They offered condolences to Sam suggesting he not worry – they knew how it felt. Moreover, as Sam further reflected:

I just remember giving the first samples and it going really badly wrong and then saying ‘oh my gosh, should we keep going?’ People were like, oh go on, let’s try anyway. Sam

The engagement and trust engendered through negative experience placed the cook in a seemingly compromised and uncomfortable position. Sam had to some extent ‘lost control’ of the research encounter, offering to end the tasting experiment. The participants ‘took control’ in order to continue. Given a core concern for visceral geography is to attend to ‘context and power’ in research relationships (Hayes-Conroy, 2017), this moment in the research stands out as one where power relationships were overturned.

It was not only the researchers who had to experience and express difficulty and distress. Playing with food brought into the room experiences of embarrassment and shame that the participants had to contend with on a daily basis. Residues in the mouth and ‘sticking’ is a common concern for survivors (Ganzer et al, 2015) because the lack of ability to clear food either by physical movement of the mouth structures, or by the cleansing afforded by saliva. For example, in a workshop focused on using alternative grains such as barley and quinoa, participants expressed distress at the difficulty of swallowing and the way the food ‘dried the mouth’ (Elly), ‘went into little bits and got stuck’ (Vera). They also explained that the ‘the detritus sticks in the mouth’ (Matt). Almost all participants had problems with reduced salivary function and needed to consume foods with liquids such as water, gravy or sauces to prevent choking and detritus.

Describing negative experience, participants explained that food could sometimes remain in the mouth for days before dislodging, and sometimes at inopportune moments, when in company. Dee explained:

It’s not the difficulty of swallow for me, it is the way the food sticks in my mouth. You can’t even spit it out, it just stays there. I always carry a toothbrush with me and brush my teeth a lot. I have scar tissue that is like a line from ‘here to here’ [points to area above cheek and draws a line to chin], cleaning the mouth on that side is really difficult and I have to physically hold that side to do it. Even then I can’t feel food in my mouth and I just have to wait till it dislodges and moves. Sometimes it does move and you feel it [in another part of the mouth] and think, ‘when did I eat that? Dee

For the researchers and participants, however, evidence of the freedom participants felt in revealing and exploring such intimate personal experience again provides us with further demonstration of the value of food play. The deeply personal embodied experiences brought up in the work shop were shorn of their embarrassment and rather than isolate the participants (as they did in daily life), they brought the group together in a space where it was safe to share an experience whose embodied reality could not be denied. We contend that ‘just talking’ about food would have been unlikely to evoke these difficult experiences or engender the safety and trust to share them.

Signpost 4: ‘Beyond’ food and sensory re-engagement

Despite our research focus on food, the experience of sensory engagement enabled a broader understanding of the place of food in social life, to ‘non-food’ issues and to how non-food issues can re-establish sensory engagement.

Through the course of the research, we came to appreciate that the eating of food was not necessarily a primary motivator for participation, suggesting that while food was powerful, other ‘higher order’ pleasures (Kringelbach and Berridge, 2010; Kringelbach 2015) from participating in meal preparation also enabled a deep engagement with the research. Gen was initially, viscerally repulsed by food smells. In the first few workshops she did not eat any of the prepared foods, and physically disengaged from the space by sitting away from the food preparation areas. In baseline interviews, she talked at length about how she had divided her house down the middle so as to avoid the smell of her partners cooking.

Gen’s sensitivity to food smells had rendered her unable to participate in the ‘normal’ commensal experience of the sharing food with others. As researchers concerned with sensory experience, Gen’s early rejection of any tasting experience was perplexing, why did she continue coming to workshop that were focused on ‘food play’? We observed that Gen enjoyed dishwashing (as also noted in Hayes-Conroy’s examination of Slow Food above) but also the ‘higher order rewards’ of just talking about food, whether or not she could eat it (Kringelbach and Berridge, 2010; Kringelbach 2015). The space created by the food play was also and already ‘beyond food’, bring us back to the importance of the spatiality of care, or in this context, the ‘research space’ which had all the elements of being at home with friends in a kitchen rather than being a space of interrogation or clinical assessment.

Towards the middle of the workshop series we conducted a ‘smoothies’ workshop inviting participants to choose from many ingredients and to construct their own blend. For Gen this was a transformative moment that led to a complete re-engagement with eating, and through it, an intensified participation in the research. She reported:

Since we started with the smoothies it's been a godsend ...I tell you what I love is raspberries and strawberries together poured over a piece of cream sponge. Yeah and everybody's saying about chocolate, they can't get away with it. I found caramel chocolate buttons, you can buy a packet for a pound and I can eat them until the dogs come home, or whatever you want to say. And that was only after I tried the mousses Sam made. Gen

For Gen, participation that had initially been driven by the commensality of being with others, shifted to engagement with the sensory pleasures of food. Her experience of disgust of food smells also changed. As she began to re-engage with food, she began to talk more, and her disgust at food smells diminished. This was reflected in her home life, where her and her partners food spaces became re-integrated. She attributed her change to the food play workshops.

Signpost 5: compensatory elements

After 16 workshops together, there were many changes within the group in their relationship with food, place and the senses. Like Gen, many of the participants evolved new ways of coping with altered eating. Vera and Elly had found what we have termed compensatory strategies (Burges Watson et al, 2018). Prior to the cancer, Vera had loved dining out. The treatment that saved her life left her with profound swallow difficulties, preventing her from eating out, and almost cancelling her enjoyment of food altogether. Tube feeding through the stomach (PEG) became an essential, but resented, lifeline. The research space enabled her to accept that PEG feeding was not a failure or a rejection of herself as a social being. Her use of the PEG became publicly more visible over the course of the research, and she developed an activist mentality, wanting to campaign for PEG feeding opportunities in order that she would not have to use public toilets to eat. Towards the end of the research, Vera sent an image of herself PEG feeding on top of the Skiddaw mountain. The grin on her face expressing the joy she felt. For Vera, the transition was one from anger at 'what the treatment' had done to her enjoyment of food, to an acceptance that the PEG feed enabled her to continue enjoying other compensatory activities that gave her pleasure.

A final Christmas party rounded up the research and was the culmination of commensal experience. The cook prepared a 'tasting menu' that included multiple small dishes that were consumed over a leisurely 3-hour lunch in a restaurant that generously donated the space for the event. It was, as we reflected in a blog about the experience (<http://fuseopencienceblog.blogspot.com/2016/01/christmas-dinner-pleasure-not-to-be.html>), a 'Babette's feast' in bringing the sensory world together with a shared social gathering. When we started the research, survivors had told us that food had become an isolated and isolating experience. Not only did they find eating socially embarrassing because of physical responses, including the risk of choking, but because 'enforced mindful eating' – having to co-ordinate the act of swallowing and breathing – required almost complete attention on the act of eating (Burges Watson et al, 2018). At the Christmas feast however, that same visceral experience that we witnessed in John's face with the cheese foam was multiplied for

all in attendance. As they ‘grazed’ on the menu, there were no expectations that the eating required conversation, or that it would occur in the normal time frames expected of a traditional restaurant experience. Gen’s partner, a ‘normal eater’, was now the one that felt excluded. Silence was anticipated and accepted. The expectations of performance around the social elements of the meal had shifted. The commensal culture shifted to one focused on slow eating and tasting. It was a largely silent tasting adventure in which it was accepted by all – cook and diners alike, that the sensory experience of each dish may or may not ‘work’ for individuals, but that overall the group had plenty of other dishes to sample at leisure and in commensal comfort.

Discussion

Food play offers a novel approach that offers one option on how to ‘do’ visceral methods (Sexton, 2017). The *Resource for Living* research involved participants with some of the most complex eating difficulties of any patient group. Their sensory experience of the world was profoundly altered because of cancer and/or the treatment needed to overcome it. In our food play workshops, their individual differences in the sensory experience of the same events were laid bare, and lay bare the danger of ‘universalizing’ sensory experience to expected norms (Hayes-Conroy, 2017). In other research, food has been recognised as important to visceral engagement, being ‘primed’ to talk about visceral experience, but only in its importance to participants own settings (Hayes Conroy 2017). In contrast, our approach, ‘food play’, is ambulatory (can be taken to various research settings and adapted) and co-produced in ways that allow participants to influence the research set up and setting.

There were two elements to these food play workshops that brought out the individual visceral differences in a way that talking may have missed. The first was the embodied, multi-sensory nature of the experience. Perforce, each individual had their own unique encounter with the same ‘food object’ – a source of joy for one, disgust for another. Through the relational experience of the same food object we were able to better understand, and bring to the fore, *sensory difference*. Biosocial accounts such as those of Prior (2018) highlight the complexity of visceral experience, but taking account of such difference may be difficult to achieve. Food play gives insight into sensory experience as relationally different. Moreover, smell is a particularly valuable ‘sense’ in bringing the experience of visceral difference to biosocial geographies because people have such different smell worlds – not just because of biology, but through exposure and learning. Food play is a ‘pragmatic’ approach in so much as difference is decontextualized from the complexity of living spaces.

Secondly, the commensality, trust and co-produced nature of the space enabled this experience to be shared in all its individual diversity without the pull to achieve consensus or be researcher-pleasing. The physical space was important only in-so-far as participants rejected the ‘medicalised’ experience of food and eating. Through the *relational* experience of preparing, tasting, and experiencing food, we were able to

experience and share just how diverse our sensory entanglements are. The same event, the same meal, the same smell, were viscerally different – and not always in ways that could be discovered just through talk. This opens up a potentially profitable addition to visceral geography because the senses themselves are biosocial and some senses, particularly smell, are more viscerally involving than others. Attention to *sensory difference*, and the ways in which different senses mediate our experience, supports the individuality of experience and engenders trust with in a group.

The other observation that emerged from this ferment of participant lead research, was the productive working together of different research epistemologies. Our team included a critical health geographer, an anthropologist, a health psychologist, a speech and language therapist, an oncologist and the expertise of the participants in the day to day managing of food burden. No-one position was privileged around the table. Rather what evolved was a methodology-as-performativity that generated new knowledge, including a framework for understanding altered eating (Burges Watson et al, 2018). The methodology reconciled biomedical, biosocial and visceral geographic approaches as contributions to ‘a set of social practices’ (Mansfield, 2008:1016). As Mansfield (2008) has argued, it is unhelpful to force a choice between the social and the biological in health and medical geographies. We would extend this to health research in general.

Of course, head and neck cancer patients are not alone in the experience of sensory difference. Sensory experience is uniquely different for everyone. The senses are increasingly of interest to researchers, yet there is little explicit examination of the multi-modal nature of sensory experience, or explicit drawing upon the other biological and social sciences to help us understand and enact a genuinely biosocial approach to visceral geography. Nor is there explicit attention to how food and eating may be used as a methodological tool that has the potential to evoke multi-sensory, embodied experiences that are a potentially rich source of data. Experience of food brings something unique to the research process and to *how* people engage with it. Insights from our research suggest food play may be a powerful tool for research and one that can be developed to deepen visceral geographic methodologies. We believe this methodology and the expression of visceral difference it enables could be used to explore more overtly political and exposomic factors in the participants experience, such as sensory inequities (Sexton, 2017).

This methodology could also be used in other areas where altered eating is an issue. There is strong evidence that many people may live with an altered experience of the sensory whether as a result of disease and illness (e.g. cancer, Sjögren's syndrome, Cartner et al, 2018; Burges Watson et al, 2018) or life-course transitions (e.g. ageing, Resnick et al, 1997).

In conclusion, food play evoked a visceral response from researchers and research participants that enabled us to understand, and potentially intervene, in an issue that ‘just talking’ may never have elaborated with such richness and depth.

Declarations

Ethics approval and consent to participate: Written informed consent was obtained from all participants included in the study. All participants have been anonymised. The study received favourable ethical approval from the North East-York Research Ethics Committee (Reference 13/NE/0365) and the Durham University School of Medicine, Pharmacy and Health Ethics Sub-Committee (Application ESC2/2013/19).

Availability of data and material

The datasets generated and/or analysed during the current study are not publicly available due to the potential breach of confidentiality in use of names of participants but are available from the corresponding author on reasonable request.

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