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Conference on 'Diet and health inequalities'
Symposium two: Lived experiences in food poverty

What qualitative research can tell us about food and nutrition security in the UK and why we should pay attention to what it is telling us

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Poor dietary patterns leading to poorer health and increased health care use have affected people living in disadvantaged economic circumstances in the UK for decades, which many fear will be exacerbated due to the UK's current so-called 'cost of living crisis'. The voices of experts by experience of those health and social inequalities are not routinely included in health improvement intervention development in relation to obesity prevention policy and programmes. Obesity is highly correlated with food insecurity experience in high-income country contexts (where food insecurity data are routinely collected) and is similarly socially patterned. Using a health equity lens, this review paper highlights qualitative research findings that have revealed the perspectives and direct experiences of people living with food insecurity, or those others supporting food-insecure households, that shed light on the role and influence of the socio-economic contextual factors food-insecure people live with day-to-day. Insights from qualitative research that have focused on the granular detail of day-to-day household resource management can help us understand not only how food insecurity differentially impacts individual household members, but also how behavioural responses/food coping strategies are playing into pathways that lead to avoidable ill health such as obesity, diabetes and other chronic health conditions, including mental health problems. This review paper concludes by discussing research and policy implications in relation to food-insecure households containing people with chronic health conditions, and for pregnant women and families with infants and very young children living in the UK today.

Key words: Dietary inequalities: Health inequalities: Qualitative research: Obesity: Food insecurity: Maternal food insecurity: Infant food insecurity: Chronic health problems: Health equity

Poor dietary patterns leading to poorer health and increased health care use have persisted for people living in the most disadvantaged economic circumstances in the UK over some decades[1,2]. These patterns are predicted to worsen within the context the UK's current so-called 'cost of living crisis'[3–5], which has followed on in the wake of the COVID pandemic and it is associated with the exacerbation of household food insecurity (HFI) reporting[6]. Moreover, despite several decades of accumulated knowledge and evidence base that has identified

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the policy, systems and environmental changes needed to support healthy eating, physical activity and weight control, the prevalence of obesity and its concomitant health inequalities has continued to increase[7,8]. At the same time, that evidence base has been developed with limited input from low-income and ethnic minority populations who bear the greatest burden of dietary-related ill health, and has largely focused on downstream, individual-level interventions, with little consideration of the wider social and economic context in which those individuals live[8–10]. This review paper highlights qualitative research findings that have revealed the perspectives and direct experiences of people living with food insecurity, or those supporting food-insecure households, to shed some light on the role and influence, on their lives, of the so-called 'social determinants of health' using a health equity lens[8]. The social determinants of health are widely understood in policy and research circles to play an ultimately fundamental role in determining health behaviours and outcomes[11–14] and yet are often downplayed or 'controlled for' in research designed to develop health improvement interventions or programmes[14–16]. Therefore, this review aims to highlight often overlooked socio-economic contextual factors and generate critical reflection and alternative framing and understanding around explanations and interpretation of those persistent dietary inequality patterns that have eluded notable improvement in the past decades in the UK[17]. The review paper concludes by discussing implications for nutrition research and public policy making in relation to food-insecure households containing people with chronic health conditions, and for pregnant women and families with infants and very young children.

Background

Poverty is commonly framed within media and public discourse as an outcome of personal or moral failure[18,19]. Moreover, people living with poverty are often well aware of the pejorative judgements made by others, including notions of their being 'lazy, disregarding of opportunities, irresponsible, and opting for an easy life'[20]. Media and popular explanations of obesity have also historically been framed in the similar way, where notions of lacking personal responsibility and personal failure are commonly muted as its primary causes[21–24]. Therefore, people who are living with poverty and obesity face a 'double whammy' in terms of societal disapproval and judgment about their status. Yet, factors beyond individual control, the so-called social and economic (structural) determinants of health, are known to be primarily responsible for modifiable negative health outcomes and health inequalities[11,14,25].

In the field of obesity research and policy making, people's experience of poverty and food insecurity has until very recently been often overlooked. Qualitative research exploring people's experiences of attempts to lose weight or assist others to lose weight revealed that those individuals were also often trying to cope with multiple social, economic and other health challenges alongside the need to eat as cheaply as possible, to pay the household bills[21,26,27]. In Scotland and the UK, the risk of overweight and obesity is far greater if you are a poor woman or a poor child, than if you are one who's better off, and is a pattern that has existed for some time[28], similar to that which exists in the USA and Canada[25,29,30]. HFI monitoring those contexts has a longer history, and consequently, a body of epidemiological evidence has emerged that indicates that obesity in high-income countries is closely associated with food insecurity experience as well as a range of other chronic conditions including diabetes, heart disease and mental health issues[31–37].

HFI as a construct is recognised globally as the negative human experience associated with being unable to acquire or consume an adequate quality and quantity of food in socially acceptable ways and includes experiences of associated anxiety and uncertainty related to meeting current and future food needs for the household[38]. In high-income countries, HFI is primarily associated with insufficient economic resources within low-income households leading to inadequate or insecure access to food due to financial constraints. Food insecurity is a serious public health issue and is regarded as an indication of economic struggle in an increasing number of low-income households, in high-income countries[39].

HFI has been an increasingly persistent, yet hidden problem, in wealthy nations[40]. Perhaps one of the reasons it has remained as a hidden and under recognised problem as it has, in those contexts, reflects the fact that chronic (and episodic), mild/marginal food insecurity is more prevalent and therefore it is not so obviously problematic from the perspective of policymakers and politicians, and the public, compared to the more visible and severe forms of food insecurity observed in middle- and low-income countries[41,42]. However, there is now growing evidence that the adverse health outcomes associated with marginal food insecurity correspond to those associated with more severe levels of food insecurity[42–45].

Tackling food insecurity commonly fails to differentiate between the risk factors for food insecurity, food insecurity as a phenomenon in itself, and the health consequences arising from HFI[41]. Insights from qualitative research that have focused on the granular level of day-to-day household resource management can help us understand how food insecurity differentially impacts the individual household members within them. It can also provide insights as to how those individual-level responses to the presence of HFI are playing into avoidable ill health[46], and why policy interventions that reduce the risk of food insecurity can play a role reducing dietary inequalities[41].

What are the manifestations of food insecurity in high-income countries?

Firstly, living with food insecurity means not having enough household income to feed yourself or your family in the way you need or would like to[47], and because the

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food budget can be shrunk to manage fixed costs such as rent, mortgages, loans, etc., or unexpected financial shocks such as loss of employment or replacing a broken fridge. Food is often the weakest link in the household budget, and the place where decisions and compromises are made in terms of the quality and quantity of food bought and prepared[48]. Furthermore, people living with food insecurity are not only constrained in terms of the types and quantity of food that they are able to purchase due to cost, but those food choices are also constrained and determined by the necessary energy and other essential costs needed to procure, prepare and consume food safely, e.g. transportation, kitchen equipment and means of maintaining food hygiene in the home, e.g. hot water and washing facilities[49,50]. In 2014, when health, social care and third sector staff were asked about their perceptions about what food insecurity in Scotland looked like, by reflecting on their front-line practice experiences of supporting clients and patients who are at risk of food insecurity, they did not conceptualise the concept in terms of absolute food deprivation, i.e. people going hungry, but that this was more associated with the economic constraints that dictated the choices people had about what, where and when they are able to eat[51]. In a 2013 food bank study that directly investigated the experiences of people living in food crisis in a city in north east Scotland (one of the first of its kind in the UK at the time), energy costs and having the equipment needed to store and cook food was a major factor in determining study participants' decisions about food purchasing and menu planning[52].

Therefore, given the current economic context, it is of even greater concern that it is currently estimated that the poorest fifth of people living in the UK would have to spend 40 % of the household income, after housing costs, to purchase the food required for a healthy diet according to government guidelines[53], i.e. before the necessary transport and energy costs are factored into the food procurement and household management equation. According to the Joseph Rowntree Foundation's cost-of-living tracker research, across the poorest 20 % of families, it was estimated in October 2022 that around six in ten low-income households were unable to afford an unexpected expense, over half were in arrears, around a quarter use credit to pay for essential bills and over seven in ten families are going without essentials[54]. In addition, almost a fifth of poor households and a quarter of households in receipt of Universal Credit experienced food insecurity in 2020/2021[54]. The Joseph Rowntree Foundation also report that the impact of the cost-of-living crisis on normal daily life means that half of the poorest families have reduced spending on food for adults, around 40 % of families with children are spending less on food for their children[ibid].

Secondly, food-insecure people generally have a good appreciation of and knowledge about healthy eating messages[55], and as a rule, do not lack interest or motivation to eat well[56,57]. This finding emerged in our 2013 foodbank study (as our study participants explained that the foods they missed most were 'meat and two veg', things that they could make into 'eatable meals', and things they found missing in food parcels they received)[52]. This interest in healthy eating and the desire to feed the family good quality food also featured again in a study of low-income parents' experiences of feeding the family on a low income in north east Scotland[58] and has been widely reported by other qualitative researchers both at home and abroad[59–61].

Thirdly, people living on low incomes have demonstrate considerable capability and resilience around food procurement and management practices, by stretching out food resources to make them last[49,52,59–64]. As academic researchers, it is humbling to hear, through our work, not only of the desperate circumstances that force some people to step of over the door of a food bank, but also their extreme gratitude and reluctance to criticise or complain about the food they receive[65,66]. Equally humbling is the importance some place on not wasting donated food, by passing on items to others who they believe could use it, or whose needs are greater, when they are unable to use the donated food for whatever reason, including the food received not agreeing with them, or because they do not like it[52,67].

Fourthly, living with food insecurity is not only about having sufficient food in the immediate future, but is also the experience of living with the uncertainty and anxiety about where, when and what food resources will be available to you and the household in the future[62,68]. It is the anticipation of food scarcity that leads to what are variously described as 'mal-adaptive behavioural responses', or 'poor lifestyle choices', something that I think is better described as 'day-to-day food coping or management strategies' which are the very ones that are playing a significant role in fuelling future ill health[62].

The *how* and the *why* behind the *what* of dietary inequality patterns?

The following four household food management coping strategies are commonly reported in qualitative research studies of people affected or workers involved with supporting food-insecure people that provide some insights that provide at least partial explanation of the dietary inequalities that currently exist in the UK.

(1) Eating as cheaply as possible to make the food budget go further. This is common practice in mildly food-insecure households, and generally means looking to maximise the amount of energy that can be acquired with the available budget. Mildly food-insecure households are often faced with the dilemma of having to choose to buy cheaper energy over nutrients to cope week to week[69–72]. Most recently, nourish Scotland's right to food study demonstrated, using community researchers who were themselves on low income, that given the option of having more money to spend on food, the nutritional quality of food they imagined buying and making into meals was considerably nearer the recommended dietary guidelines, compared to the

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foods they indicated that low-income families were able to buy[73].

(2) Stockpile food when some money or food becomes available[74]. Food stockpiling is something that featured in a 2020 interview study with people who were both food insecure and managing multiple health conditions[9]. As mentioned earlier, not wishing to see (donated) food go to waste was an evident concern of the people living in extreme food crisis. Therefore, the risk of periodic excessive energy intake seems likely for those affected households and has been hypothesised as a determinant of chronic non-communicable disease aetiology, in food-insecure populations[6,75].

(3) Parents going without food in order to feed children or other loved ones[76–78]. Food-insecure parents commonly report anxieties around making sure their children are fed which means they will go without eating themselves – or survive on very little by having smaller meals and snacks, less often, or eating their children's leftovers as their only meal[79–84].

(4) Relying on others for food items or meal, i.e. family members, friends or food banks as a last resort. This is a problem for health for a few reasons. That an individual's food 'choices' are determined by someone else means having little or no actual choice *per se* but are determined (choice edited) by the available resources and decisions of others. This is a particular problem for people living with health conditions that need good dietary management[9,66,85–88].

There remains profound social stigma and shame experienced in not being able to provide food for yourself or your family, in ways you find socially acceptable[39,89,90]. As children, we are all guided by our parents (regardless of social class) to become self-reliant as adults, and therefore, for most people, having to become dependent again, on others, and particularly charities such as food banks to survive, is profoundly counter-intuitive to one's sense of self[91]. In the UK, dependence on food bank provision has increased and remains a principal response to the increasing number of people experiencing food insecurity[88]. Consequently, we may think that food banks have lost some of the previously reported stigma[92], since the COVID pandemic when they became a lifeline to many. However, no matter how sensitively food parcels are given out, the notion of using one still evokes a sense of shame, embarrassment and resistance[67,93]; and related to this, whilst food banks have grown in number and have importance as a societal coping strategy, they are still only an indication of a much bigger, hidden problem, as some people will choose not to use a food bank regardless of the extent of their food crisis[88].

Reflecting on risk factors for and manifestations of food insecurity in the UK context described earlier, there are some important health and nutrition implications for food-insecure UK households containing people with chronic health conditions, households with pregnant women and families with infants and very young children, which have been amplified by the COVID pandemic and the current cost of living crisis.

People living with health conditions and food insecurity

A high proportion of people who are food insecure and who also disproportionately use food banks have health problems[53]. The self-reported prevalence of food insecurity in households with people affected by chronic ill health varies but is significantly higher than the background prevalence which runs at between 9 and 11 % of households in Scotland[28]. When considering this issue from both a clinical perspective and a qualitative evidence-based perspective associated with the lived experiences of HFI, and the UK's charity food aid landscape, leads to questions about how the needs of people with multiple health conditions, who are using food banks as a coping strategy are being met by this system[9,94]? It also leads to questions about the role of statutory health and social care systems, and the professionals working within them, who are regularly referring people with health problems, who are commonly asked to follow health professional administered, healthy eating advice, to food banks and a food system that was not set up with their needs in mind and is struggling to meet demand due to the current cost of living crisis[95].

During a study of food insecurity prevalence in Scotland in 2014, interviews with emergency food aid distributors described their concerns about the precarious and unhealthy nature of the food they were able to access often through a franchise agreement with a food industry gleaner of surplus-to-requirements, supermarket food[96]. Those concerns centred around the fact that much of the food they were given to distribute to their clients was high in sugar, fat and salt, which they knew did not suit the needs of many of their clients, many of whom had health problems. It is remarkable that little attention has been given within health services and nutrition-related research in the UK, to process and impact questions about how people with health problems and who are living with food insecurity are managing their conditions, such as diabetes, where a predictable and stable food supply is an essential prerequisite to optimal self-management[75]. A 2018 qualitative research study investigating the experiences of people living in food crisis and multiple health conditions living in north east Scotland indicated that food insecurity experience was undermining their self-care intentions and exacerbating unpleasant side effects and their condition as a result[9]. Participants also described feeling ashamed and embarrassed, and constrained in raising this issue due to their perceptions of the lack of time and relevance the health care professionals involved in their care would attribute to this problem if they admitted they were struggling to put food on the table during a routine health care consultation[9].

North American research with people with health problems requiring good dietary management has also established that the existence of food scarcity, and the anticipation of food scarcity, makes it more difficult for

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people to manage their health problems. For example, research with people living with diabetes indicates that food-insecure patients have much poorer outcomes compared to those who are food secure[31,97–99]. It has been argued that the UK's reliance on food banks, as a societal response to food insecurity, gives the illusion of universally available support, while food insecurity continues to persist among those receiving help from food banks, including many people with health conditions[88,100].This may ultimately impede the formulation of effective policy interventions to reduce food insecurity amongst who should be assured access to the best nutrition possible, and not left to cope with the vagaries of the precarious and unsustainable food banking system we have all come to rely on. If we accept that the food insecurity is affecting more people that might appear to be the case, it seems more urgent than ever that health professionals are sensitised to this possibility (including nutrition professionals and researchers), and consider the implications in research and clinical practice.

Family and infant food insecurity

As highlighted, food-insecure parents commonly sacrifice their own food needs in favour of their children to prevent them from going hungry[101]. Interviews held with health, social care and third sector workers in 2014 revealed concerns about pregnant women and families with young children who they believed, compared to the past, were living more financially precarious lives and were consequently more susceptible to food insecurity, than was previously the case[96].

Something this current crisis has thrown up is the extent to which it seems almost normalised and accepted that food-insecure parents go without food themselves to feed their children. Lone parent families and families with young children have been shown to be one of the most severely food-insecure groups in the UK[28,53]. This has implications not only for the future health and wellbeing of all parents of course, but we should be seriously concerned about the health and wellbeing of women of childbearing age, pregnant and breast-feeding women and infants living in food-insecure households[39,101–104]. International research has shown that coping with food insecurity in households with infants can result in dietary compromises, for example, by watering down milk or infant formula to make it 'stretch' further, and/or using food substances other than infant formula when not recommended. It is also well established that the presence and prospect of food insecurity amongst women and female parents is a highly stigmatising experience and has a negative impact on mental wellbeing due to feelings of shame, guilt, alienation and social isolation as a consequence[105,106].

Given longstanding Scottish and UK public health policy aspirations to reduce health inequalities associated with the variation in breast-feeding rates between the most and least deprived households in Scotland[107], there is a gap in our understanding about how food-insecure pregnant women in the UK (as intended food producers themselves) or perinatal women approach or experience the prospect of infant feeding, when not eating properly themselves through economic necessity, at the same time as dealing with anxiety about future food access for themselves and their families[108–111]. Canadian researchers have established that food-insecure mothers initiate breast-feeding at the same rates as food-secure mothers but struggle to sustain those feeding intentions due to physical and emotional challenges associated with living with food insecurity[105,112,113].

It is important to note too, in thinking about the food-related costs associated infant feeding as a fundamental requirement involved in raising a baby, that both breast-feeding and formula feeding incur additional costs to the household food budget. Canadian research has estimated through community-based participatory research methods, and based on the assumption that the household is in full receipt of all eligible government social assistance payments, that the food costs of growing and raising a baby in this context, whether those infants are breast or bottle fed, are considerably more, on a monthly basis, than the available average household incomes[114]. To the best of the author's knowledge, no similar analysis has taken place in the UK, but indications are that there is a similar type of shortfall in the household budgets of families with pregnant women and infants, given the current cost of living crisis. For example, First Steps Nutrition have also argued that rising food insecurity makes it harder for some women to breastfeed and expressed concern about the sufficiency of the diets of pregnant women and young children in food-insecure households[115]. Therefore, the policy aspiration of increasing breast-feeding rates amongst low-income households, through actions that solely focus on strengthening individual agency alone (e.g. through more, increasingly scarce, breastfeeding support), whilst ignoring the presence and impact of structural, economic challenges, including HFI experience seems ill-conceived, and particularly so in light of the current cost of living crisis.

Moreover, the signs of economic household stress, and the spillover effect this has on infant food security is further illustrated by recent research by FEED UK which indicates that low-income families are increasingly turning to food banks to source infant formula[116]. First Steps Nutrition have also reported that cost of formula feeding has increased well above the baseline rate of inflation, reporting that between March 2021 and November 2022, the most widely available and purchased infant formulas increased in cost by 15–23 % and the cheapest and only 'own-brand' infant formula increased by 33 %[117]. Their analysis also suggests that there are no infant formulas that are affordable with the Healthy Start allowance[115]. Recent UK media reports have highlighted the phenomenon of desperate parents foraging for formula online, as well as other risky behaviours such as watering down formula to stretch out limited infant food resources[106,118]. This disturbing picture is further

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reinforced by anecdotal evidence which suggests that infant formula is now one of the most stolen food items from British supermarkets[119].

In addition, contemporary qualitative research indicates that pregnant women living in food-insecure households resort to eating cheap, nutritionally poor food, despite recognising the value of eating well during pregnancy[102]. Their choices were determined by their limited finances, the cognitive stress associated with living with food insecurity, alongside the physical challenges associated with pregnancy[102]. Systematic review evidence also indicates that food insecurity experience during pregnancy is associated with negative health and nutrition outcomes[120].

There is therefore an urgent need to develop a better understanding of the nature and prevalence of maternal and infant food insecurity in the UK, to ensure policy and programmatic interventions to ensure optional maternal and infant nutrition are working as intended. If we do not know the true nature and extent of the problem, it is easier for policymakers and politicians to ignore it, or try to fix the problem with ineffective or the wrong solutions.

Conclusion

Qualitative research that has surfaced lived experiences of food insecurity provides understanding of the influence and impact of structural challenges on the lives of those who shoulder the greatest burden of poor diet, and their related negative health impacts. Qualitative research indicates that individuals' experiences of insecure or precarious access to food resources, and the nutritional deprivation that accompanies it, in a high-income country context like the UK, should be understood as a continuum of dynamic deprivation of basic food needs, accompanied by a parallel process of decision making and behaviour which occurs in response to those resource constraints. Those qualitative insights also indicate that food insecurity experience is more common in the UK than is currently recognised[75]. It might therefore also provide some additional explanation as to why the UK's dietary (and nutritional) inequalities continue to persist, despite continued policy investments in individual-level behaviour change campaigns and programmes, intended to improve those patterns. The current cost of living crisis and the COVID pandemic before it has only served to amplify pre-existing health and dietary inequalities, and further reinforces the need to focus more research and policy attention on the impact of food insecurity on the lives of people living with chronic health conditions, pregnant women and families with infants and young children in the UK today. For health and nutrition professionals and researchers, the current cost of living crisis and the impact it is having on those vulnerable groups can no longer be ignored, treated as background demographic information or downplayed in our interactions with patients or clients.

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Conflicts of Interest

None.

Authorship

I am the sole author of this manuscript.

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