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article

'We are constantly overdrawn, despite not spending money on anything other than bills and food': a mixed-methods, participatory study of food and food insecurity in the context of income inequality

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This article reports on a participatory, mixed-methods study, of the causes and lived experiences of food insecurity in the context of an unequal city in England. Among families with young children, we find that income and housing tenure are strongly associated with food insecurity and food bank use, and these impacts extend to higher socioeconomic status groups. Higher costs of food, housing and transport associated with life in an unequal context, meant that food formed part of a series of competing pressures on household budgets. We urge future food insecurity research to focus further on these broader socioeconomic drivers of poverty.

Key words food insecurity • poverty • income inequality • food bank • food poverty

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Background

Food bank use and food insecurity in the UK

Over the past ten years, the United Kingdom (UK) has seen an unprecedented growth in emergency food aid provision, apparently in response to growing numbers of people experiencing food insecurity. Financial difficulties, such as redundancies, loss of working hours and in-work poverty, as well as long-term health conditions and welfare reforms are implicated in food bank use (Macleod et al, 2019). Food banks can be characterised as ‘agencies that enact the transfer of grocery-type foods free of charge to individuals in need’ (Loopstra and Tarasuk, 2015: 445) but it is increasingly well-established that food bank use is a poor proxy for food insecurity. Analysis of food insecurity and food bank data in Canada suggests that only 20–30% of food insecure households use food banks (Loopstra and Tarasuk, 2015), and indicates that food banks are most commonly used by those facing the most extreme level of food insecurity (Loopstra and Tarasuk, 2012). Similarly, Macleod et al, (2019) found in Glasgow, Scotland that just over one in six of those who had experienced difficulty paying for food had used a food bank. Qualitative research in the UK finds food bank use to be a strategy of last resort, and reiterates the finding from quantitative analyses that many experiencing food insecurity will not present at a food bank (Lambie-Mumford et al, 2014; Power et al, 2018a).

Nevertheless, there is clear evidence that food insecurity has increased across Europe since the 2008 economic crisis in keeping with a rise in food aid, with the sharpest rise in countries with Anglo-Saxon welfare regimes such as the UK (Davis and Baumberg Geiger, 2017). In 2017, the Food Standards Agency (FSA, 2017) reported that 13% of UK adults were marginally food secure and 8% had low or very low food security, with disproportionate impacts on low income adults and younger people. Multivariate analysis of the FSA data suggests that, while food insecurity affects many economically deprived groups in the UK, unemployment, disability and low income are characteristics specifically associated with severe food insecurity. Vulnerability to food insecurity may have worsened among low-income adults since 2004, particularly among those with disabilities (Loopstra et al, 2019).

Consistent with international evidence (Knowles et al, 2015); FSA (2017) data also indicates that households with young children in the UK are at greater risk of food insecurity than the general population and UNICEF findings similarly show that around a fifth of UK children under the age of 15 live with an adult who is moderately or severely food insecure (UNICEF, 2017). Food insecurity has considerable health implications for children including lower vegetable intake and higher added sugar intake (Eicher-Miller and Zhao, 2018; Fram et al, 2015). An unhealthy diet, defined as one which is high in fat, sugar and salt, and low in fruit and vegetables, can have long-term negative health consequences, and makes a major contribution to health inequalities (Department of Health, 2002). Poor nutrition is therefore a serious public health concern and one worthy of further research (Acheson, 1998; Gregory et al, 2000; Henderson et al, 2002; Department of Health, 2004).

Food insecurity, poverty, and inequality: unpicking the relationship

Extensive changes to the welfare system that have occurred in the UK since 2010 have had a significant impact on low income households. Benefit sanctions and the

removal of the spare room subsidy (bedroom tax) are both implicated in experiences of food insecurity (Macleod et al, 2019). More recently, Universal Credit, notably, the five-week wait, has also been associated with increased poverty and food bank use (Thompson et al, 2019). Alongside the sudden reductions in income associated with these social security policies that may require families to rely on emergency food aid, the economic climate has led to households experiencing prolonged low incomes over time. Stagnating wages and unemployment may each contribute to longer-term poverty and are associated with food insecurity – for example, 47% of those who are unemployed report experiencing food insecurity and 34% of those in the lowest income quartile (FSA, 2017).

Families with children have been particularly affected (Lambie-Mumford and Green, 2017), having seen shortfalls in household income associated with changes to tax credits and reductions to housing benefit, which offset potential gains from the broader tax cuts and increases to the National Minimum Wage designed to benefit low income households (Joseph Rowntree Foundation, 2018). Although levels of absolute poverty across the UK have remained unchanged at 19% of the population since 2017 (Institute for Fiscal Studies, 2019), the poorest fifth of households in the UK experienced a 1.6% reduction in average income between 2013 and 2018, while the richest fifth have seen a 4.7% increase (The Equality Trust, 2019a). Income inequality – defined as 'the extent to which income is distributed unevenly in a group of people' (The Equality Trust, 2019b) – reduced in the UK following the 2008 financial crisis (mainly due to contracting incomes among higher earners), but it is now increasing again (ONS, 2019). The UK remains one of the most unequal countries in Europe (Harari and McGuinness, 2019) and prior to the COVID-19 pandemic, income inequality was already projected to reach an all-time high by 2022–23 (Resolution Foundation, 2018). Despite a wide range of measures recently introduced to protect incomes in the immediate future (Department for Business, Energy and Industrial Strategy, 2020), the longer-term economic impacts of COVID-19 will likely increase levels of poverty and exacerbate existing inequalities (Ahmed et al, 2020).

This is of concern, since income inequality exerts a range of harmful effects on health and social outcomes that persist above levels of absolute poverty (Wilkinson and Pickett, 2009). These detrimental impacts appear to be driven in large part by the increased status competition present in unequal settings (Layte, 2012; Wilkinson and Pickett, 2018). There are also financial implications attached to life on a low income within unequal settings. Income inequality is associated with higher levels of borrowing and household debt (Christen and Morgan, 2005), indeed Charles and Lundy (2013) find that in residential areas with high inequality, individuals spend a greater proportion of their income on food and housing. This is a result of expenditure cascades, in which greater spending by higher earners increases local standards of what is considered a normal and socially acceptable standard of living (Charles and Lundy, 2013). Both debt and increased living costs have a disproportionate impact on lower income households, who are less likely to have the disposable income to cover these extra costs (Christen and Morgan, 2005).

Income inequality, with all of these attendant practical and psychosocial consequences, has potentially important implications for experiences of food insecurity. Evidence suggests that food insecurity and food bank use can be deeply stigmatising experiences that already have harmful effects on self-esteem (Garthwaite, 2016a; Power et al, 2018b). At the same time one of the key drivers of food insecurity –

poverty – may be exacerbated by the increased living costs attached to life in an economically unequal setting. To date, this has been a neglected area of food insecurity research. Exploring experiences of food and poverty through an inequalities lens may offer important new insights into the causes and character of food insecurity in the UK and point towards un- or under-explored policy responses.

In this article, we explore the influence of economic factors, such as cost of living, on food experiences and household food security amid a broader unequal socioeconomic context, while also considering the psychosocial implications of inequality for life on a low income and experiences of food (in)security.

Research approach and aims

The article draws on two years of participatory research with people living in poverty – and at risk of food insecurity – and service providers responding to food insecurity and poverty. The dominant framing of poverty, including food poverty and insecurity, forefronts elite political and politicised accounts, which accentuate behavioural drivers of food insecurity, portraying it as an individual rather than a societal-level phenomenon (see [Garthwaite, 2016b](#) for an extended discussion); the voices and insight of those directly affected by food insecurity remain absent in these conversations. This study placed experts-by-experience, as both service providers and service users, at the centre of the research design and delivery. In doing so, it sought to open up a space for the emergence of alternative narratives of food poverty and insecurity, while also constituting a direct confrontation to unequal power structures which contribute to the marginalising of the perspectives of people living in food insecurity. The study was not only intended as a route through which to counter the silencing of marginalised groups but also as a means for building community capacity in confronting food poverty and insecurity.

The aims of the research were:

1. to assess the socio-demographics and lived experience of food insecurity, including food bank use, in a context of high socioeconomic inequality.
2. to construct and conduct research on household food insecurity that reflects community priorities, and to strengthen community capacity through the design and delivery of participatory research.

Methods

Setting

The City of York is situated in the Yorkshire and Humber region of northern England and has a population of 210,000 ([ONS, 2019](#)). It has a lower percentage of workless households and higher than average earnings compared with other parts of Yorkshire and Humber ([ONS, 2019](#)), alongside a thriving local economy due in large part to tourism. Wages, for both those working in York and those living in the city but working elsewhere, have seen an overall increase of 16% since 2015 ([City of York Council, 2019](#)). As such, York is a comparatively affluent city for the region but there are considerable inequalities and hidden poverty. [The York Fairness Commission \(2012\)](#) observed that there is an ‘Advantaged York’ and a ‘Disadvantaged York’. In

2017–18, over 4,000 people in the city used a Trussell Trust food bank, including over 2,600 children (Power, 2019). Only 12% of two bedroomed properties in the city are classed as affordable within 2018–19 Local Housing Allowance rates (Crisis, 2019). York emerged as a setting for the research because the local community identified a need to understand more about and tackle food insecurity in the city, which subsequently resulted in a research collaboration between community stakeholders and the University of York.

Survey

Sample

Adult household members of children aged 4–11 years in York were surveyed about their experiences of diet, food insecurity and food bank use. Ethical approval for the study was provided by the University of York Health Sciences Research Governance Committee on 06.07.2018.

The survey was disseminated via primary schools (n=25), each of which was recruited through the York Food Justice Alliance network, alongside being publicised through social media channels. The York Food Justice Alliance (YFJA) is a multi-sector organisation consisting of people with lived experience of food insecurity, community food aid providers, local authority representatives, local charities, academics and other relevant stakeholders, for example, York Citizens Advice, who are focused on tackling food insecurity in York. Alongside organising a community food aid response in the city, a key aim of the alliance was to generate evidence on food insecurity and experiences of food at the local level. These findings were subsequently developed into a programme of policy recommendations (Power, 2019).

The survey (see Appendix I) formed part of the evidence gathering process and was designed to collect information on household demographics, income, diet and experiences of food insecurity and food bank use among families with primary school aged children (4–11 years). It was co-produced by the YFJA and researchers at the University of York through a series of three collaborative workshops designed to generate topic areas and key local priorities. Questions were defined and selected by group consensus and where possible, existing measures were used, for example, ONS income and household type categories, to ensure robustness. The survey therefore prioritises the questions and the sample (households with young children) deemed by consensus to be of greatest importance to YFJA stakeholders. The survey used a validated two-item measure of food insecurity (Harrison et al, 2019). The two-item tool is a derivative of the experience-based 18-item US Household Food Security Survey and is widely used in clinical settings. The two-item measure allowed for robust assessment of household food insecurity while limiting the number of survey questions overall – of considerable importance given the need to ensure an adequate sample for analysis while also allowing participants to 'opt-in'. In addition, the survey included a single question to assess self-reported food bank use. A free text response box was provided at the end of the survey, entitled 'Do you have any further comments on food in York?' to explore wider food experiences, including issues of food access.

Data collection

Schools were approached by YFJA members in the first instance with verbal and written explanations of the study. Once participation was confirmed, paper copies and an electronic link to the survey were provided and disseminated to the caregivers of pupils in each school by letter and/or email. The survey was also shared via social media channels, such as Facebook. The text of the survey was accompanied by an information sheet documenting the purpose of the study, data storage and use, and the process of consent. Informed consent was obtained from all survey participants. A locked post-box was placed in each school to enable the anonymous return of paper copies of the survey. The survey was open for participation from November 2018 to February 2019.

Focus groups

The lived experience of food insecurity was further explored in four semi-structured focus groups, held in January 2019. Four focus groups took place including 22 participants in total (7, 7, 5, 3). The topic guide was produced collaboratively with members of the YFJA (see Appendix II). It was constructed to explore the lived experience of food in contexts of poverty and inequality. In collaboration with community groups in York, parents who self-identified as living in low income households were recruited to participate in focus groups lasting between one and two hours, and held in a familiar location, such as a community centre or a community cafe. The focus groups were moderated by MP and a research assistant, with experience of moderating group interviews. The opening stage of the focus groups was conducted as an interview within a group (Morgan, 1997). Rather than presenting a question for whole group responses, the moderator concentrated on a single participant, subsequently requesting group members to respond. This approach aimed to involve all participants fully in the group and encourage each participant to give a meaningful response, with the goal of hearing from everyone (Morgan, 1997). As the focus group progressed the researcher adopted a less direct role, limited to maintaining the flow of the discussion and enabling members to participate fully.

Strategy for analysis

We adopted a parallel mixed-methods design, in which the qualitative and quantitative data were collected separately (Teddlie and Tashakkori, 2009). Both were informed by discussions using a participatory approach and this design reflected the iterative nature of the co-production process, in which priorities and study design were tailored according to community priorities at each stage. Convergence was used to triangulate the findings at the analysis stage (Blaikie, 2009), with qualitative findings used to explain and expand on the quantitative data.

Following collection of the surveys, quantitative response data were uploaded into Stata 16.1 (Statacorp, 2019) for analysis. Responses to the food insecurity questions were merged to create a single, binary food insecurity variable, according to established methods (Hagar et al, 2010; Radandt et al, 2018). Quantitative data were analysed using descriptive statistics, for example, cross-tabulation, and associations estimated by logistic regression modelling, which was selected for the binary, categorical outcome data. All associations are reported as odds ratios (OR).

Free-text responses were collated and analysed using a six-stage thematic analysis framework (Braun and Clark, 2006). KP and MP separately familiarised themselves with the data and proposed categories were formulated inductively. These categorisations were discussed until consensus was reached. Focus group transcripts were coded and analysed thematically by MP and a research assistant to elicit common themes related to the research aims. Data categorisations were discussed until consensus was reached.

Findings

The survey was distributed via both an electronic link, disseminated via schools and shared through social media, and hard copies of the survey distributed to parents via schools. Consequently, it is not possible to calculate an accurate overall response rate; however, the response rate from paper copies of the survey distributed via primary schools was 11%, highlighting the value of pursuing dual (online and offline) methods of dissemination. Overall, the survey achieved 612 individual responses, with 136 free-text responses.

Exploration of demographic characteristics in the sample (Table 1) suggests an overrepresentation of respondents from higher income backgrounds, 43.57% (n=261) of households have an annual income of over £38,399 and 69.24% (n=412) are homeowners. In England, 63% of households are in home ownership, and 60.58% in

Table 1: Sample demographic characteristics

Demographic characteristics	N (%)
Annual household income	
Less than £16,100	71 (11.85)
£16,100–£21,249	72 (12.02)
£21,250–£27,999	78 (13.02)
£28,000–£38,399	117 (19.53)
More than £38,399	261 (43.57)
<i>Total</i>	599 (100)
Household type	
Own outright/Mortgage	412 (69.24)
Private rental	87 (14.62)
Council/housing association	96 (16.13)
<i>Total</i>	595 (100)
Adults in Household	
Single adult	117 (19.12)
Two adults	463 (75.65)
Three adults or more	32 (5.23)
<i>Total</i>	612 (100)
Children in Household	
One child	161 (26.83)
Two children	329 (54.83)
Three children or more	110 (18.33)
<i>Total</i>	600 (100)

York (Gov.uk, 2020, ONS, 2016). Sample sizes do, however, allow for analysis by all income groups and household tenure. Only 5.23% (n=32) of households included three adults or more, so findings relating to this category should be treated with caution.

Findings: quantitative survey data

Food insecurity

The data show a clear association between lower annual household income and increased risk of food insecurity (Table 2). Those in the middle household income bracket in our sample (£21,250–£27,999 per annum), for example, were four times less likely to be food insecure than those with an annual household income of £16,100 or less (OR: 0.24, 95% CI: 0.12, 0.49). There was, however, no difference between respondents in the two lowest income groups, suggesting that, in our dataset, respondents with a household income under £21,250 were similarly affected by food insecurity.

Compared to single caregivers, households with two adults were less likely to report experiences of food insecurity, although this relationship was accounted for by income (model 1b.i), and there was no relationship between number of children in the household and food insecurity.

There was an association between housing tenure and experiences of food insecurity (Table 2). Respondents who were private renters were 5.76 (OR: 5.76, CI: 3.39, 9.77) and those in social housing were 11.15 (OR: 11.15, CI: 6.6, 18.7) times more likely to be food insecure, compared to homeowners. After accounting for income, the risk of food insecurity in private and social housing/council renters was similar with each being around three times more likely to experience food insecurity than homeowners (model 1c.i). This suggests that there is an independent relationship between rented housing and greater risk of food insecurity in York.

Food bank use

In the sample, 140 (23.37%) respondents reported experiencing food insecurity and 7.54% (n=46) reported that they or a member of their household had used a food bank. Of those who reported experiences of food insecurity, only one fifth (n=29, 20.71%) had used a food bank. Food insecurity was, however, strongly associated (OR: 7.2, CI: 3.77, 13.72) with food bank use.

Those with a household income over £21,250 per annum were 10 times less likely (OR: 0.10, CI: 0.02, 0.48) than those with an income of £16,100 or less to report having ever used a food bank but similar to food insecurity there was no statistically significant difference between those in the two lowest income groups (Table 3). Income, however, only partially accounts for the relationship between food insecurity status and food bank use (model 2a.i).

In relation to housing tenure, we found a limited difference in likelihood of having used a food bank between homeowners and private renters, but there was an increased risk of having used a food bank for those renting from the council or a housing association (OR: 5.03, CI: 2.5, 10.11), when compared to homeowners. This relationship persists when accounting for income and for food insecurity status (OR: 2.25, CI: 1.00, 5.07). After controlling for housing tenure, however, an independent relationship between food insecurity status and food bank use remains (OR: 4.89, CI: 2.31, 10.34).

Table 2: Logistic regression models for household demographic characteristics and food insecurity status, OR (95% CI).

Model 1: Food insecurity	a	b	c	d	b.i	c.i
Annual household income						
Less than £16,100	-				-	-
£16,100–£21,249	0.52 (0.26, 1.04)				0.53 (0.26, 1.06)	0.61 (0.29, 1.27)
£21,250–£27,999	0.24 (0.12, 0.49)***				0.25 (0.12, 0.53)***	0.35 (0.16, 0.77)**
£28,000–£38,399	0.10 (0.05, 0.21)***				0.10 (0.04, 0.23)***	0.17 (0.08, 0.39)***
More than £38,399	0.04 (0.02, 0.08)***				0.04 (0.01, 0.09)***	0.09 (0.04, 0.20)***
Adults in household						
Single adult		-			-	
Two adults		0.23 (0.15, 0.36)***			0.92 (0.52, 1.62)	
Three adults or more		0.26 (0.10, 0.69)**			0.59 (0.20, 1.75)	
Household tenure						
Own outright/Mortgage			-			-
Private rental			5.76 (3.39, 9.77)***			3.04 (1.69, 5.47)***
Council/housing association			11.15 (6.63, 18.75)***			3.06 (1.61, 5.83)***
Children in household						
One child				-		
Two children				0.88 (0.56, 1.40)		
Three children or more				1.4 (0.80, 2.45)		

Note: ***<0.001, **<0.01, *<0.05

Table 3: Logistic regression models for household demographic characteristics and food bank use, OR (95% CI).

Model 2: Food bank use	a.	b.	c.	d.	e.	a.i	b.i
Annual household income							
Less than £16,100	-					-	
£16,100–£21,249	0.88 (0.38, 2.03)					0.94 (0.38, 2.28)	
£21,250–£27,999	0.10 (0.02, 0.48)**					0.15 (0.03, 0.71)*	
£28,000–£38,399	0.07 (0.01, 0.31)**					0.13 (0.02, 0.62)*	
More than £38,399	0.19 (0.08, 0.43)***					0.44 (0.16, 1.17)	
Household type							
Own outright/Mortgage		-					-
Private rental		1.93 (0.78, 4.78)					1.05 (0.39, 2.79)
Council/housing association		5.03 (2.50, 10.11)***					2.25 (1.00, 5.07)*
Adults in household							
Single adult			-				
Two adults			0.48 (0.24, 0.95)*				
Three adults or more			0.75 (0.20, 2.80)				
Children in household							
One child				-			
Two children				0.93 (0.45, 1.92)			
Three children or more				0.96 (0.38, 2.45)			
Food insecurity status							
No					-	-	-
Yes					7.20 (3.77, 13.72)***	4.25 (1.92, 9.41)***	4.89 (2.31, 10.34)***

Note: ***<0.001, **<0.01, *<0.05

Findings: qualitative survey data and focus group data

The qualitative data across the survey and focus groups was rich with themes relating to experiences of food on a low income. In view of the inequality framework of this article and its associated focus on food insecurity in relation to broader economic factors, we focus in our analysis on the socioeconomic factors relating to food insecurity, and on the practical and psychosocial implications of inequality for experiences of food. Additional findings from the qualitative data will be reported elsewhere (forthcoming).

Theme 1: structural socioeconomic drivers of food insecurity

A key theme emerging from the qualitative data in the survey and the focus groups was the impact of increased costs of living over time and relating to the local economic context. Food was characterised as part of a series of competing financial demands on monthly budgets and affordability had a direct impact on diet quality.

It is harder to afford everything like we used to and we are often overdrawn or at the edge of our budget for the same lifestyle as a couple of years ago when we seemed better off – the cost of everything has gone up dramatically.
(Focus group)

Geographically, some of the most deprived areas of York, as measured by the Index of Multiple Deprivation, are in or relatively close to the city centre ([City of York Council, 2019](#)) but this is where our respondents felt that food was the least affordable.

Living in a tourist orientated city means food in central shops is sold at a premium...this can force expensive in between supermarket trip meals as the food runs out and has a knock-on effect for the budget for future shops.
(Survey)

Respondents were likely to be financially disadvantaged regardless of whether they chose to spend extra money on food in order to buy from city centre outlets closer to home and or opted to pay for travel to access larger (and cheaper) supermarkets. These findings are supported by the quantitative survey data, which suggests that in our sample, it was not only households with the lowest incomes who were affected by food insecurity.

The cost of travel for shopping is often forgotten with most of the big supermarkets being on the outskirts. For people with disabilities, this can be an extra £20 or more per shop. (Survey)

The high cost of housing was noted by multiple participants to be problematic, since it consumed a high proportion of monthly income and further constricted household budgets. This is in keeping with our quantitative findings that those living in rented housing were at greater risk of food insecurity.

My partner and I both work full time, but due to rent and council tax there is very little left over. We are constantly overdrawn, despite not spending money on anything other than bills and food. Despite us both working we have a combined income of less than £25,000 a year, with almost half our wages going on rent. (Survey)

As a result, for some participants, food became a flexible element of the household budget and time-consuming strategies, such as visiting multiple supermarkets, were required to reduce costs.

The cost of living in York is so high, mainly rent/accommodation and council tax, that you have to make savings in other areas such as food. You have to spend time shopping around to get the best deals. (Survey)

Similar to other recent studies on experiences of food insecurity, respondents described the difficulties attached to living on the income provided by Universal Credit and in relation to waiting for payments.

The reality is that on Universal Credit I cannot provide the recommended amount of fresh fruit and vegetables per day for my children and I go without more times than not so they can have my share. (Survey)

Universal Credit has wrecked us. We have just gone on it and I have been told that me and my five-year-old will have to go at least seven weeks with no income at all. We will have to go to food banks and try to get food. (Survey)

Within the focus group, a significant minority of participants were in receipt of Universal Credit, Jobseekers Allowance or Income Support as their main source of income. Discussion of the social security system transcended food experiences to address wider questions of agency and dignity. Universal Credit was described as ‘not working’: faults in the system of processing payments were seen to penalise claimants, reducing or stopping income entirely. The tendency for such systemic faults to penalise claimants was considered to be exacerbated by the impersonal, bureaucratic character of the system (for instance, online journals² were responded to inconsistently by different members of staff despite the illusion of being afforded a personal service).

Who has the right to say what we do, when I’m ill, what is right or wrong or whether I’m wasting my money or savings. It’s very intrusive when they tell us what we can and can’t spend our money on. (Focus group)

The social security system was described as inherently punitive, degrading, intrusive and a cause of stress. Claimants described feeling that they were being tightly controlled in how they lived their daily lives and how the money received was spent.

Theme 2: psychosocial impact of food insecurity

Agency and dignity in relation to food was a further key theme in the qualitative data. Some survey participants highlighted that social status was associated with food

quality. As such, those in higher social positions were able to afford better food that lasted longer:

Food represents class, organic is available to those with higher incomes, cheaper fresh produce is worse quality, doesn't last long. (Survey)

In turn, the association between social status and good quality food had impacts on the self-esteem of those who were unable to buy it. This was difficult and stressful for participants because it conflicted with aspirations for a healthy diet.

It is not nice to feel you can't buy food that is healthy or better because it's more expensive. (Focus group)

The stigma attached to food bank use was evident in our sample and appeared to impact on whether or not people sought out this support when experiencing difficulties. Participants described the shame attached to food bank use or expressed concerns about (their) eligibility for support. This may contribute to explaining why our survey data showed that only a fifth of people reporting food insecurity had visited a food bank.

I use food banks but I hate using them; it's embarrassing but sometimes I have to. (Focus groups)

I have had many issues with Universal Credit and was given the number for a food bank but I felt that there are others that are more in need than I. Rather than use a food bank I bought groceries on my credit card. (Survey)

Alongside examples of shame and stigma associated with food experiences on a low income in both the survey and focus group data, there existed evidence of alternative attitudes to food and food insecurity (in this case it was the food insecurity of others, rather than participants themselves). A minority of comments showed an alignment with dominant narratives of a 'culture of poverty' (Lister, 2004) and reflected the stigmatisation of those in food poverty/insecurity:

I don't see a problem at all. People need to budget properly and not spend money on non-essentials then they wouldn't have to scrounge at food banks. (Survey)

However, more prominent was an arguably related narrative of paternalistic attitudes to those in food poverty:

I'd like to be able to invite a family who is struggling to feed their household to dinner sometimes. It would be nice to set up a community to do that. Or maybe a community kitchen where people could donate food and people could come to make and eat meals together. (Survey)

Paternalistic narratives, while sometimes well-meaning, may also deny agency and risk problematising the individual (Ben-Ishai, 2012). In the data here, the focus is

on providing charity; attempts to address the underlying causes as to why a person might struggle to feed a household are absent from the discussion, undermining the more fundamental structural change that may be required to address household food insecurity (Dowler and O'Connor, 2012).

Discussion

Structural determinants of food insecurity and food bank use

The qualitative and, particularly, the quantitative data provided clear evidence of a strong relationship between household income and food insecurity, echoing the findings of a growing body of research on UK food insecurity (Loopstra et al, 2015; FSA, 2017; Macleod et al, 2019). Here, it was not only the lowest income households who reported food insecurity; those in the second lowest income group (£16,100 to £21,249 p/a) were similarly affected. The qualitative survey and focus group data evidenced widespread issues around affording food on a low income (in the context of competing financial priorities); participants spoke of similar financial constraints and complex budget management strategies to those in other qualitative research focusing on lived experience of food insecurity (Cooper et al, 2014; Perry et al, 2014; Lambie-Mumford and Snell, 2015; O'Connell et al, 2019). The impact of (low) household income on food (in)security was further compounded by the increased living costs associated with life in an unequal city; given that people on the lowest incomes were under-represented in our sample, it is likely that our findings are an under-estimation of these effects. Our findings, thus, suggest that in this unequal context, people with higher incomes were also affected by food insecurity.

The study supports existing evidence that social security policies, in particular, Universal Credit, are implicated in experiences of food insecurity (Environmental Audit Committee, 2019). Our findings go further by demonstrating that other structural economic factors such as housing are also important. In our sample, private and social renters were at considerably higher risk of food insecurity than those who were homeowners, even after accounting for income. Our survey did not ask about household debt or monthly expenditure, but this was mentioned frequently by participants in free text responses. Higher rents could explain the independent relationship between housing and food insecurity, while the increased outgoings attached to higher costs of living in York could explain why the relationship between food insecurity and food bank use persists even after accounting for both housing and household income. Participants described how lower priced, healthier food was only available in supermarkets situated outside of the city centre and noted the premium attached to purchasing food at city centre 'metro' stores. This is suggestive of the existence of an urban 'food desert', in which a cheaper and healthier diet is only available by travelling outside of the city (Shaw, 2014; Vonthron et al, 2020), which in itself carries additional costs.

The quantitative data indicated that the demography of food insecurity and food bank use was similar: both were strongly associated with household income and housing tenancy. Of particular note was the elevated risk of having used a food bank among social housing tenants. This finding may relate to characteristics that differ in these tenants compared to private renters or homeowners. According to the 2017–18 English Housing Survey, individuals in privately rented housing are more than twice

as likely to be in full-time employment as social housing tenants (64.8% compared to 27.5%) and less likely to be unemployed (3.2% compared to 5.5%). Given the known links between Universal Credit and food bank use ([The Trussell Trust, 2019](#)) our findings could potentially be explained by the impact of policies such as the five week wait and benefit sanctions, which could have a disproportionate impact on social housing tenants who may be more likely to be reliant on social security payments. Additionally, national data suggests that around half of households socially renting contain at least one person with a life-limiting illness ([English Housing Survey, 2014–15](#)) and around a quarter of social housing tenants list their economic status as 'other', that is, not related to being in employment, education or retirement, perhaps suggesting economic inactivity due to reasons such as health status ([English Housing Survey, 2017–18](#)). Life-limiting health conditions may be indicative of a greater likelihood of social security receipt and could also mean a higher likelihood of being in contact with agencies who are able to issue food bank vouchers, for example, health or other support agencies. Where one of these households reports experiencing food insecurity, there may be a greater chance that they are then referred on to a food bank.

Our findings suggest that there is a strong relationship between food insecurity and food bank use, but the data also illustrate that most people who are food insecure do not visit food banks. Only one fifth of our respondents who described experiences of food insecurity, reported having ever visited a food bank. This is consistent with existing estimates that the majority of food insecurity is hidden ([Loopstra and Tarasuk, 2015](#)). Reasons for this may include the use of assistance from informal family and social networks to manage food insecurity and avoidance due to the stigma and shame associated with food bank use ([Power et al, 2018a](#); [Power et al, 2018b](#)). Similar themes were reflected in our qualitative data in which participants discussed visiting food banks as a stigmatising experience.

The respondents in our survey felt that an appropriate range of healthy foods were only available to those of higher social status and described experiences of shame and low self-esteem attached to food insecurity. Increased costs of living attached to living in a wealthy city, orientated towards tourism, pushed families towards debt and made more affordable food difficult to access. Indeed, multiple participants spoke of relying on credit cards to purchase food. The greater the proportion of household income devoted to housing costs and food, the more likely that those on lower incomes will struggle to make ends meet and may experience food insecurity.

Our study demonstrates the well-documented negative psychological impacts of living with poverty and food insecurity, but we are also able to comment on attitudes towards people experiencing poverty and food insecurity. Our findings suggest that dominant narratives relating to poverty, whereby experiences such as food insecurity are characterised as individual issues that must be addressed through paternalistic interventions ([Ben-Ishai, 2012](#)), continue to persist. While similar attitudes undoubtedly exist in other economic contexts, there is evidence that income inequality increases prejudice and negative stereotypes – particularly intergroup comparisons made on the basis of wealth ([Jay et al, 2019](#)).

The terms 'food insecurity' and 'food poverty' were used interchangeably by participants in the qualitative data collection and in the broader participatory work. 'Food insecurity' was adopted as the focus in the quantitative data analysis as a variable that could be instrumentalised with validated tools. The qualitative survey

data emanated from an open-ended question concerning wider experiences of food in the local area, while in the focus groups, the questions and discussion was framed, at least initially, around the lived experience of food in contexts of poverty and low income. Nevertheless, we found that food insecurity – or food poverty – is primarily a function of what would traditionally be considered as the structural drivers of poverty: low income and high costs of living, particularly high housing costs. We, therefore, question whether food poverty or, within academic contexts, food insecurity is the appropriate term for a phenomenon that is largely a question of poverty – or, more specifically, the malleability of food expenditure within the household budget and its tendency to be squeezed amid competing financial pressures. We propose that food insecurity should be viewed as one aspect of multi-dimensional, intersectional definitions of poverty.

Building community capacity and impact

The participatory approach to research lead to real impact, including improved awareness of severe poverty and compromised food access within the local area. It was notable that the wider community of anti-(food) poverty activists and organisations who engaged with project outputs and events, expressed appreciation of and appeared to develop a greater understanding of what really matters for people living in (food) poverty.

This study is one of the first to adopt a consensual process to explore food insecurity, food bank use and food practices among a UK population. By so doing, it reflected the concerns of local stakeholders in its research focus – food practices and diet quality among low income families with young children – strengthening community cohesion and instigating community action to improve the quality of food in local community food aid. The co-produced research underpinned meaningful policy impact, precipitating the establishment of a Food Poverty Scrutiny Group within the local authority, a key demand of the YFJA. The Alliance is now chaired by two people with direct lived experience of food poverty.

Strengths and limitations

This study constitutes the first to simultaneously use a mixed-methods and participatory approach to explore UK food insecurity and food bank use. The mixed-methods approach provided rich and varied data, allowing for insights into the mechanisms behind and nuances of the associations identified by the quantitative data. We started from a grounded and inclusive approach, asking service users and service providers in the core participatory research team to identify the issues, relating to the broad topics of food and poverty, that they perceived to be the most important to study. It responded to community needs and inquiries around food poverty and, as a consequence, asked new questions and adopted a novel framework: inequality. The focus on structural determinants at the local level, identified dimensions of the lived experience of food and poverty, such as transport and housing, that may have been neglected by research taking a more traditional approach.

Nevertheless, the study has some limitations. The research was conducted in a single city, and one with a particular demography; comparability may therefore be limited to similar towns and cities rather than to the UK as a whole. The sample

includes families with young children only and both the quantitative and qualitative sub-studies were opt-in, potentially leading to an under-representation of low income and marginalised groups, and an over-representation of more affluent groups. This does suggest, however, that our findings relating to the socioeconomic drivers of food insecurity may in fact be an underestimation. It also suggests that in economic contexts where costs of living are high and there is greater inequality, food insecurity may have an impact on greater numbers of families, by exerting effects higher up the income distribution.

While the qualitative sample is relatively large, including 19 focus group participants and 136 free-text qualitative responses, the sample for the quantitative analysis is small; in particular there are low numbers of people using a food bank as part of the overall sample (N=46) and people reporting food insecurity (N=140), limiting analysis of these groups. As a consequence of the collaborative design of the survey, social security receipt was not included and, therefore, assessments of the relationship between social security and food poverty are based on the qualitative data only.

Involving service users and service providers in the design and delivery of the research allowed for new insights into food insecurity and provided a space for the narratives of marginalised groups to emerge. However, it also brought challenges. There are dangers that in privileging the voices of some experts-by-experience a new essentialism can emerge, in which one person or a small group of people with experience are seen as speaking for all those who have had similar experiences (Frankham, 2009). The survey design and delivery, while a collaborative process, was dominated by individuals who were already identified as 'community leaders' and/or who had a personal connection to the study, for instance, by having children at local schools. Similarly, the focus groups, which were organised and conducted as a collaborative process, could privilege the voices of a minority of experts-by-experience, who were seen as speaking for all those with similar experiences. Participatory research is a collaborative and messy process (Patrick, 2020), and this study was no exception.

Implications for policy

We briefly set out the implications of this study for research, policy and practice. The qualitative and quantitative data was collected prior to the onset of the COVID-19 pandemic in the UK and associated lockdown. Writing at the height of the pandemic, we are keenly aware of the potential impact of both the pandemic itself and the lockdown on families with children living in poverty. Our recommendations are made according to our findings and in the light of current circumstances, including recent changes to social security policy (such as the increase in the value of Universal Credit). It is worth noting that in view of the demographic composition of the sample, we can only comment with certainty on the policy implications of the study for households with children.

Our findings demonstrate that households with an income of up to £21,249 per annum may be at increased risk of food insecurity and food bank use. For a single adult with children, the benefit cap is currently £20,000 per annum (Department for Work and Pensions, 2020a), meaning that all families who are reliant on social security as a key source of income could be at increased risk of the negative impacts of being unable to afford enough food, in relation to both nutrition and mental wellbeing. This is in addition to the income shocks generated by the Universal Credit five

week wait and benefit sanctions more broadly. Social security receipt was frequently mentioned as being problematic during free-text responses and focus groups. In line with growing evidence and multiple campaigns ([Joseph Rowntree Foundation, 2020](#); [The Trussell Trust, 2019](#)), we suggest that the Universal Credit five-week wait is harmful for families and should be addressed through policy change. While the increase in Universal Credit of £20 per week ([Department for Work and Pensions, 2020b](#)) introduced in response to the COVID-19 outbreak is a welcome measure, further increases in child benefit by £10 per week would benefit families and reduce child poverty by up to 5% ([CPAG, 2020](#)). In the longer term, the impact of rising costs of living on families could be addressed by uprating both in and out of work benefits to bring these closer to Minimum Income Standards ([Joseph Rowntree Foundation, 2019](#)).

Housing has to date been a relatively neglected area of food insecurity research but our study suggests that closer attention needs to be paid to the impact of housing on other living costs such as food. In response to COVID-19, local housing allowance rates have been increased to cover 30% of market rents in a particular area, meaning more generous housing benefit entitlement for those privately renting ([Valuation Office Agency, 2020](#)). This progressive approach, recognising the increased financial difficulties faced by some families, may assist in reducing socioeconomic inequalities, and their subsequent psychosocial costs. Measures such as this – which have been shown to be within the government's power and ability to implement – will need to remain in place in the longer term to mitigate the association we see in our data, between housing and food insecurity.

Implications for future research

We urge food insecurity researchers to consider household food insecurity within a framework of broader socioeconomic inequalities, taking a more critical perspective to food insecurity as one of a competing set of costs of living that may be compromised in contexts of poverty and low income. Future research should aim to explore whether these associations exist on a larger scale, for example, by using national population-based surveys and across different geographical locations.

Notes

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² An online record of an individual's Universal Credit Claim, where claimants communicate with DWP and check payments.

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Conflict of interest

The authors declare that there is no conflict of interest.

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APPENDIX I: Survey questions

Questionnaire: Food and food affordability in York

Guidance on filling in the questionnaire:

- We would like to know about your experiences around food in York.
- Please answer questions and tick boxes as appropriate.
- This study will be carried out in accordance with data protection protocols – no names or identifying features of individual schools will be used.

	Fruit	Vegetables	Meat	Fish	Other
1.Which of the following items do you consider the most unaffordable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Less than once a week	One to three times a week	Once a day	At least twice a day
2.How often do you and your household eat fruit and/or vegetables?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.How often do you and your household eat processed food and/or ready meals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please read the following statements and consider how they apply to you and your household:	Yes	No	Do not wish to answer
4.Within the past 12 months, we worried whether our food would run out before we got money to buy more?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Within the past 12 months, the food we bought just didn't last and we didn't have money to get more?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	£10 or less	£11–£35	£35–55	£55–£80	£80+
6.How much does your household spend on food each week?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Do not wish to answer
7.Have you or another member of your household ever used a food bank?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Do you have any further comments on food in York?

9. Name of child's school	
10. Number of children in your household	
11. Number of adults in your household	

12. In which of these ways does your household occupy its current address?

a. Buying it with the help of a mortgage or loan	<input type="checkbox"/>
b. Owns outright	<input type="checkbox"/>
c. Rents it from a private landlord or letting agency	<input type="checkbox"/>
d. Rents it from the Council or Housing Association	<input type="checkbox"/>
e. Lives here rent free (including rent free in relative's/friend's property)	<input type="checkbox"/>
f. Don't know	<input type="checkbox"/>
g. Other	<input type="checkbox"/>

13. Which of the groups in the table below represents your total household income from all jobs (full and part time), all tax credits, all benefits, and all other sources and earnings after tax when all income is added together? Please tick one group

	Weekly	Monthly	Yearly	
Group 1	Less than £310	Less than £1,304	Less than £16,100	<input type="checkbox"/>
Group 2	£310–£409	£1,304–£1,769	£16,100–£21,249	<input type="checkbox"/>
Group 3	£410–£539	£1,770–£2,329	£21,250–£27,999	<input type="checkbox"/>
Group 4	£540–£739	£2,330–£3,199	£28,000–£38,399	<input type="checkbox"/>
Group 5	More than £739	More than £3,199	More than £38,399	<input type="checkbox"/>
Don't know				<input type="checkbox"/>

14. Do you consent for the information above to be used anonymously in a report on food in York?

Yes <input type="checkbox"/>	No <input type="checkbox"/>
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15. Please provide contact details if you would be interested in participating in a workshop on food and affordability in York

THANK YOU VERY MUCH FOR

COMPLETING THIS QUESTIONNAIRE If you have any questions, please

contact:

xxxx, Department of Health Sciences, University of York, YO10 5DD

Email: xxxx Tel: xxxx

APPENDIX II: Focus Group Interview Schedule (semi-structured)

Question 1

What is your experience of food and food prices in York?

Question 2

Are you managing to make ends meet?

Follow-up question: how are you managing to make ends meet?

Question 3

Do you get any support in accessing food, for instance from a food bank? What has been your experience of any support you have received?

Question 4

What changes would you make in York to improve access to food?