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Dietary health in the context of poverty and uncertainty around the social determinants of health

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Abstract

Lower household income has been consistently associated with poorer diet quality and poorer dietary health outcomes. Households experiencing poverty find themselves unable to afford enough food, and the food that they can afford is often poor quality, energy dense and low in nutrients. However, the relationship between diet, poverty, and health is complex. Not everyone on a low income has a poor diet. Poverty is about more than low incomes and it is not a uniform experience. Particular aspects of the experience of poverty have implications for diet and dietary health. It is increasingly apparent that *uncertainty* is one of those aspects. Recession, welfare policy, employment trends, and widening inequality have created more uncertainty for those on low incomes. In the context of heightened uncertainty, all aspects of household food provisioning – including budgeting, shopping, storage, meal planning, and cooking – are more difficult and sometimes impossible. This review will draw on research about food practices and dietary health in low-income neighbourhoods to explore the ways in which experiences of prolonged uncertainty shape dietary practices and impact on health and wellbeing.

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Poverty, diet, and resilience

Even in high-income countries, people on low-incomes are at risk of food poverty and low diet quality (1). The last 20 years has seen increasing interest and concern around structural factors that promote unhealthy dietary patterns and undermine efforts to adopt healthy eating practices (2). Those on lower incomes tend to lack access to healthy foods (3, 4) and epidemiological research demonstrates that diet quality follows a socioeconomic gradient (5).

Socio-economic differences in diet contribute to health inequalities and are responsible for a range of adverse outcomes including obesity (6, 7) , type 2 diabetes (8-10), cardiovascular disease (11, 12), and malnutrition (13). Unhealthy diets and the adverse health outcomes they lead to are symptomatic of wider social inequalities (14). There is an association between income, diet quality and food security (15, 16). Affording a healthy has become increasingly difficult in recent years in the context of rising living costs, falling incomes, welfare reform, insecure and low paid work, widening inequality (17). Economic recessions and, more recently, the COVID-19 pandemic have amplified this trend and caused financial hardship which is further widening dietary health inequalities (6, 18).

However, not all people equally exposed to adversity suffer equally (19). It is sometimes possible to take steps to mitigate adversity. For example, parents will compensate for neighbourhood-level deficiencies and may go to great lengths to overcome local constraints to physical activity or healthy eating when their children's health is involved (20). This idea has been taken up in public health and framed in terms of 'resilience' to challenging or hostile conditions (21). The concept of resilience has long been part of preventive policies designed to promote a long-term, holistic and socio-economic developmental approaches to individual, community health and wellbeing (22). Dietary resilience describes the strategies used by individual and groups to overcome dietary obstacles presented by their circumstances and achieve a healthy diet (23). Achieving dietary

resilience is dependent upon consistency and certainty in particular factors at the household level, such as access to nutritious food at home and financial adequacy (23, 24). Practices of resilience include prioritising health and healthy eating and developing cooking skills (25).

While the notion of resilience can be a framework for better addressing public health (nutrition) (26), there has been an emphasis on identifying personal risk and protective factors at the expense of exploring the role of the social, cultural and political context within which resilience occurs (27, 28). Canvin et al (27) present a framing of resilience as process. Resilience can be understood as involving dynamic transitions: progressing from one state to another as individuals developed over time. The focus is on the contextual and structural factors that help or hinder resilience as a process – rather than focusing on individual traits (27). This paper proposes that uncertainty around the social determinants of health as a structural factor that has a detrimental impact on dietary health and hinders dietary resilience for those on low-incomes.

Poverty, uncertainty, and the social determinants of health

Poverty is dynamic and uncertain and, it has been argued, there are different types of poverty that people can move in and out of or, sometimes, get stuck in (29). Room (30) describes this as a 'snakes and ladders' scenario in which people have contrasting trajectories of poverty marked by different opportunities, challenges, dangers, and levels of agency (30). It is those 'types' and experiences of poverty that are characterised by chronic uncertainty that have become of increasing interest to researchers considering the effects of poverty of health outcomes and behaviours, including nutrition and dietary health (31).

Poverty is characterised by uncertainty. Those on low-incomes tend to have less control over relationships and events around them. As a result, they are obliged to live more in the present and to discount the future (29). This can make it impossible to plan and perform strategies of dietary resilience. In particular it is uncertainty around the social determinants of health (SDH) that undermines efforts to achieve a healthy diet. The SDH are "the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels" (32). These conditions include housing quality, transport, discrimination, neighbourhood safety, education, employment, income, welfare, and the food environment. Uncertainty and insecurity is a pervasive and destructive feature of

contemporary experiences of poverty that go beyond being on a low-income (29). Insecure working conditions, punitive welfare regimes, increasingly casualised working conditions, widespread cuts to the funding of public services, and growing levels of personal debt (33-35) have all contributed to this.

Chronic uncertainty around the SDH – such as dealing with insecure and inadequate housing conditions, or not knowing from week-to-week how much money you have to live on – often means a lack of agency and difficulty in engaging in behaviour change and health seeking behaviour. Healthcare professionals have long raised concerns about the corrosive health impacts of chronic uncertainty in terms of 'chaotic lives', 'complex contexts', and a 'lack of stability' (36). The topic has also been recognised across a range of disciplines and terminologies. Social scientists have framed this uncertainty in terms of precarity – referring to contemporary social and economic insecurity in wealthier nations that is driven by the post-industrial resurgence of insecure labour and shrinking welfare states. It has cumulative and negative impacts on health and wellbeing in the longer term, such as hunger and reduced access to health care, and can be understood as a structural vulnerability (31). Material-need insecurities make 'healthy choices' and longer- term considerations around dietary health difficult or impossible to enact. They force people into short-termist and potentially damaging dietary practices (31). This review brings together work that addresses dietary health with reference to uncertainty around the social determinants of health in three fundamental areas income, housing, and the food environment (see figure 1).

Facets of uncertainty around diet and the social determinants of health

Income uncertainty and diet

Income is perhaps the most fundamental SDH because it shapes overall living conditions, affects wellbeing and mental health, and influences health-related behaviours, including dietary practices (37). Lower incomes are associated with less disposable income, which acts as a barrier to achieving a healthy diet (38). Healthier, nutrient-rich foods tend to cost more compared to less healthy foods (39, 40). Poorer households can find themselves unable to afford enough food (41), and the food that they can afford is typically energy dense and low in nutrients (42). Unsurprisingly, those on low incomes are at greater risk of food insecurity (43-45).

The challenges associated with low-incomes are compounded when those incomes are uncertain and unstable. There is a growing trend in economic instability for those in low incomes, which is fuelling health and social inequalities for children and families (46-48). Chronic financial uncertainty makes activities such as food preparation, meal planning, and facilitating family meal times extremely difficult. In the longer term, these activities become deprioritised and occasionally abandoned altogether, especially when parents were in a perpetual state of crisis (49). Households experiencing income uncertainty, especially due to insecure work and welfare regimes, have multiple and conflicting constraints on their time as trying to secure a basic level of income under these conditions is very labour intensive and often requires them to be in different places and provide 'evidence' at short notice. Planning dietary behaviours in advance is, therefore, difficult. In order to mitigate this, these households tend to place greater importance on preparation convenience and a long shelf-life. Foods that are quick to prepare and last longer without spoiling make the most sense in this context (50, 51). Although this is a reasonable strategy for ensuring that money and food last longer when both are in short supply, it does mean that these individuals more frequently consume food high in fat, salt and sugar (HFSS) and consume less fruit and vegetables than those with more stable incomes and food security (16).

Strategies of short-termism and cost-reduction in the context of uncertain incomes can overshadow many aspects of self-care and render long term health-related considerations such as diet seem unimportant (49, 52). Those experiencing financial uncertainty are very much aware of this trade-off (47), of the necessity of sacrificing longer term gains for short term necessities (29). Polling research from North America reports that achieving financial security was a greater priority for those experiencing hardship than increasing their household income (47). Income uncertainty creates dilemmas and difficult choices around food that have consistently negative implications for health, such as having to choose between paying for medication or food (49) and having choose between feeding yourself or feeding your children (53).

Housing instability and diet

Housing conditions are closely linked to income and represent a significantly impacts upon physical and mental health and wellbeing via factors including housing provision, quality, safety, (over)crowding and security (54, 55). Housing is more than accommodation providing shelter. These spaces are homes where people raise families, socialise, keep their possessions safe, take refuge from the world, and spend most of their time (56). They are also where most of us store and prepare

food. Housing and food are two of the biggest areas of expenditure for low-income households and are widely regarded as basic necessities (57, 58). In some cases, they can be competing priorities, spending on one means not having enough to pay for the other (59) or for other necessities such as clothing and transport (60). Knowles and colleagues' (61) qualitative work on the lived experience of these competing priorities explores how the chronic, extreme stress of economic hardship, including food and housing insecurity and basic needs trade-offs, is reflected in parent descriptions of experiences with depression, anxiety and fear. Parents described how adversity associated with lack of access to food, lack of affordable housing, and exposure to violence are negatively reflected in the behaviour and well-being of their children (61).

There is no standard definition of housing instability or uncertainty. Working definitions include frequently having to move home, difficulty paying the rent, spending more than half of household income on housing costs, being evicted, and living in overcrowded conditions (62). Homelessness or being made homeless through eviction, are associated with a range of negative health effects, including low birth weight, increased hospitalisations, adverse mental health outcomes, increased risk of asthma and higher levels of food insecurity (63-66). People on limited incomes can feel forced by economic constraints to make their homes in unsafe environments in which they and their children were exposed to violence, crime, and social isolation (61).

A specific relationship between housing instability and diet has yet to be established, although plausible mechanisms exist (67). In general, temporary and insecure housing can impact negatively on health because people who feel they lack adequate control over their life circumstances, especially in terms of where they live and how they live, are at increased risk of depression and physical illness (68). More specifically, the children of low-income families in rented accommodation are much less likely to shown signs of undernutrition if their parents are in receipt of public housing subsidies, as compared to families that do not receive subsidies (69). Added financial security and certainty around housing status could be instrumental in improving diet and reducing food insecurity. Long term stays in temporary accommodation can mean limited or no access to adequate facilities to store and cook food, inadequate space to eat together, and increased reliance on food banks and other food assistance (49). Including not having enough space to eat together. Chronic housing instability can also hinder family meal routines and opportunities for social eating (67, 70).

Uncertainty around food environments and diet

The term food environment refers to the collective physical, economic, policy and sociocultural surroundings, opportunities and conditions that influence people's food and beverage choices and nutritional status (71). They are the physical and social spaces in which uncertainties around the social determinants of health converge and are translated into diets and dietary practices. Material conditions, including material need uncertainties, shape how people interact with their local food environments, the foods they obtain (either through retail or food aid outlets) and the food choices they make. Unhealthy food environments are symptomatic of the interacting pathologies of low-incomes, community disadvantage, and the actions of the food industry (72). Economically and socially disadvantaged groups are exposed to environments that may not support health eating, environments in which healthy food outlets are less accessible and less healthy alternatives are abundant (73).

For those on very low-incomes, food environments are changing and becoming more uncertain. If current trends in food insecurity continue then the diets of low-income people may become characterised by the inclusion of significant amounts of donated and surplus food accessed via the third-sector from outlets such as food banks and food pantries (74). Food aid use is rising and the sector is now firmly established both in communities and as an increasingly regular source of food for those on low-incomes (75-77). Those on low incomes can experience barriers in accessing both the retail and food aid environments. Specifically, they may lack the financial resources to obtain all their food from the retail food environment, especially given that food tends to be poorer in quality and in higher in price in low-income neighbourhoods (78). As a result, they may have to rely on food aid. But this supplementary or 'hidden' food environment is not easy to access. Different outlets tend to operate very limited opening hours and can only be accessed by means such as referral, membership fees, and subscription (74). There is no legal right to food-aid and access to can be dependent on local capacity and characterised by uncertainty. Food aid outlets tend to open where there is volunteer capacity to run them and not necessarily where levels of food insecurity are highest. As a result, some areas – particularly rural and costal ones – can be underserved (45, 79).

Exemplar: crisis and diet

Public health and economic crises are known to impact disproportionately on low-income and disadvantaged groups (80). The coronavirus pandemic (2020-2021) served to widen economic and health inequalities and amplified uncertainty around the social determinants of health (81-83). The

economic shock resulting from measures to contain the spread of the virus created further poverty and uncertainty for those on low incomes and complicated the complex strategies they used to feed themselves (84). Access to food aid during the pandemic was made more difficult for some groups, as demand increased and contact with professionals who could provide referrals was limited by social distancing measures (85). Research suggests that COVID-19 and the associated mitigation measures served to amplify dietary health inequalities. Those who had security around the social determinants of health, particularly income and housing, were able to improve their diets during 'lockdowns' and spend more time planning and preparing meals. Those experiencing uncertainty around the SDH had to contend with deteriorating dietary quality and difficulties accessing food (86). In times of unprecedented change and disruption, population health researchers must reflect on how evidence is generated (2). The disruption caused by the pandemic brought renewed attention to diet and the social determinants of health, particularly in terms of precarity and uncertainty (87).

Directions for future research

Greater attention needs to be focused on the role of the SDH in shaping diet (2). Specifically, the cumulative negative impacts of uncertainty around the SDH need further attention because they place households in precarious situations: having little control of the conditions of their life; having to make constant and difficult trade-offs between their basic needs; and foregoing long-term gains for short-term survival (61). In this context, maintaining a healthy diet becomes both more difficult and less of a priority. There are simply more pressing material needs to be addressed. Uncertainty around the SDH undermines the efforts and strategies used by those low incomes to achieve dietary resilience. Research is needed to categorise household food-related resources. This is because interventions to build dietary resilience must be informed by a reliable assessment of capacity to be resilient on the part of the groups being exposed to the intervention (23)

Dietary health can be compromised by coping strategies to mitigate chronic uncertainty. These strategies often necessitate prioritising food pricing and optimizing food usage when making food choices, and sacrificing quality (88). This is not always enough to ensure that there is a sufficient amount (and certainly not sufficient quality) of food for the household. In which case, intermittent and even regular use of food aid outlets such as food banks becomes a consistent necessity and strategy. At present, there is little research on how on-going food aid use figures in household food provisioning practices (49) or shapes local food environments (74). Given that food aid is embedded

and institutionalised in high-income countries (89), exploring the longer-term dietary health implications of donated and surplus food must be a priority.

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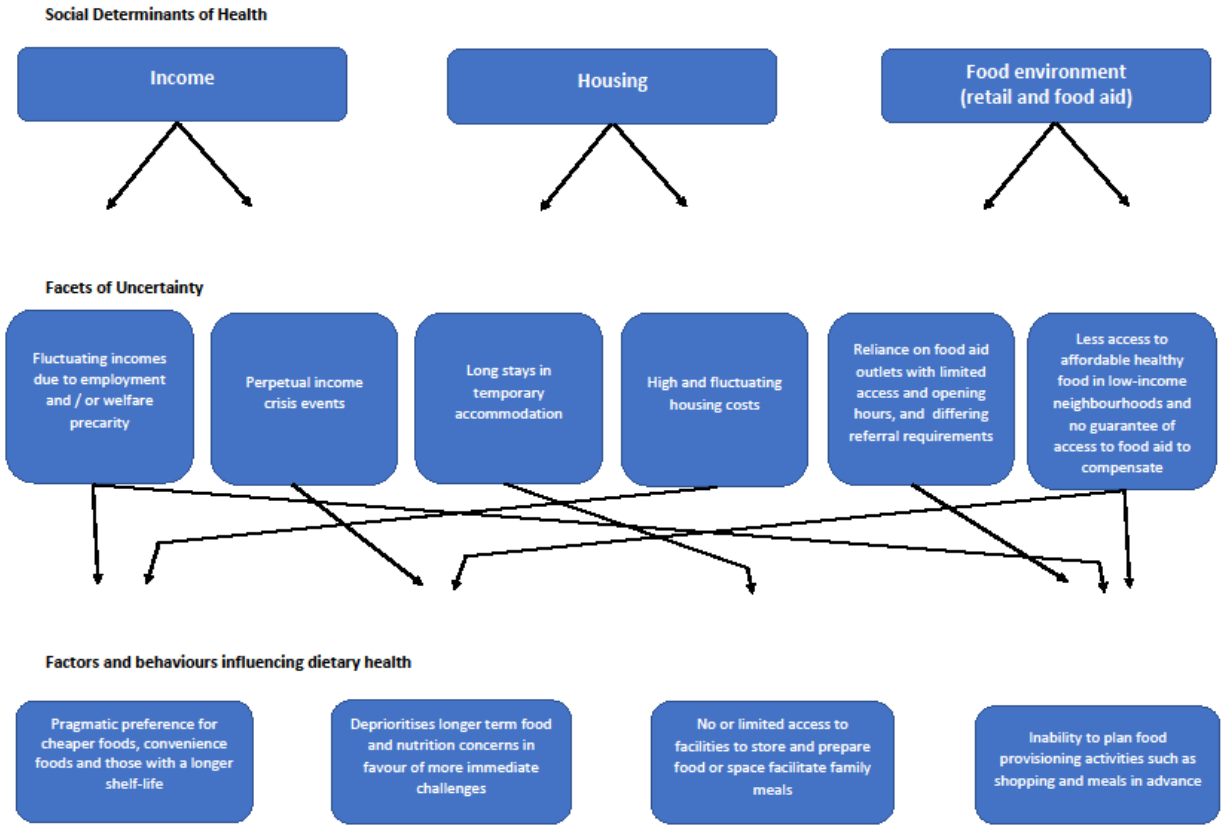
Conflict of interest

None

Authorship

The author had sole responsibility for all aspects of preparation of this paper



[Figure 1: Facets of uncertainty around the social determinants of health and implications for diet]

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