

# Multiple vulnerabilities

## Examining the fuel and food poverty nexus



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## Rationale

Researchers have argued that there is a lack of consideration of the intersectionality of vulnerability types and multiple hardships in research and practice. For example, food and energy insecurity seem to intersect through householders' strategies to cope with their hardship, yet relief initiatives tend to focus on each problem in isolation, which disregards the overlapping of vulnerabilities and the opportunities of creating synergies. Therefore, by studying the energy-food-poverty nexus through everyday practices, this project provides insights into how multiple vulnerabilities are linked and shaped by each other.

## Key research aims

1. How are food and fuel insecurity related and how do we focus on the connections between food and fuel insecurity?
2. How can we connect individual lived experiences to larger and organised constellations of society through theoretical and practical frameworks that generate valuable understandings of multiple vulnerabilities?
3. How can these understandings help shape interventions towards reducing perverse outcomes of multiple vulnerabilities?

## Summary of research activity

This study draws from three sources of qualitative data in Victoria, Australia. For the first project, Housing Energy Efficiency Transitions (HEET), participants from low density areas that had considerable old housing stock in need of retrofit were chosen. Participants for the second project, housing resilience during COVID-19, were derived from the HEET project and in the third project, interorganisational collaborations, nine social renters were recruited. Household tours and semi structured interviews were used to generate data. 15 participants, who presented key elements in the intersections of energy and food practices, were chosen for detailed interpretive analysis using the frameworks of social practices and ontological security.

## Methodologies

The 100 semi-structured interviews conducted face to face and online, for the energy efficiency and retrofit based HEET project, focused on the householders' experience of living in the house, comfort, seasonal practices and use of spaces implemented, planned and aspired-to renovations and retrofits, future housing plans and how they coped with bills, especially energy. The households were recruited digitally and through snowballing and contacts provided by the partner organisations of the HEET project, including the Brotherhood of St Laurence. The housing resilience project was conducted online during the COVID-19 lockdown in 2020 with 21 participants from the HEET project. The semi-structured interview guides were designed to generate data about the diverse, unpredictable, and combined vulnerabilities faced by residents. The third project interviewed the nine social housing renters on the phone due to COVID-19 restrictions. The interview covered topics including the participants' housing conditions and their experiences with energy vulnerability.

The transcripts of all interviews were uploaded to NVivo and coded and analysed to ascertain the cases where distinct relationships between food and fuel insecurity occurred. The selection of 15 participants intended to showcase diverse voices and bundles of practices to highlight the amorphous nature of vulnerability.

## Findings

The findings presented here illustrate the connections between multiple vulnerabilities and ontological security. Ontological security is a complex and relational feeling on a continuum that is shaped by lived experiences, especially in the context of vulnerable households, and may be experienced as a 'sense' of ontological security (Banham 2019). The findings are structured around experiences of ontological security, as analysed through the selected 15 participants' everyday practices. These are

### **Anxiety about debt and disconnection: Paying fuel bills first**

Paying (fuel) bills first as an understanding organises household finance practices and captures how householders had to prioritise the payment of bills to avoid health risks, institutionalised penalties and the accumulation of debts. For P1 (Participant 1), an octogenarian social renter, whose age and emphysema made her very sensitive to heat and cold, getting cut off from electricity meant that she would have had trouble breathing and forced her to keep paying the bills and going hungry:

I've never allowed myself [to not pay bills]. I'd rather go without food than not paying the bills. If I leave the bills, it means I'm going to have food all the while, but if I pay the bills, at least I've got heating and cooling and I can live without, you know, a meal here and there.

### **(Not) Being able to eat nutritious food: Balancing food and energy**

Eating well provided ontological security to some of our participants and certain food items, when unaffordable due to prioritising energy bills affected their perceptions of well-being. For example, a reduction in buying meat was a common scoping strategy in response to rising food and energy prices. P2, a single mother who lived with her adult son, described how she struggled with satisfying food and energy needs during COVID-19:

Because all the prices have gone up so much. I feel like there's certain things you don't buy...Food wise, there is certain meats and it's too expensive.... Then, you've got your electricity and your gas, what has also gone up ...because you live in a home, you can't rest all the time in blankets. It's not good for your bones.

### **Having control over finances**

Some of our participants used retrofits and low carbon microgeneration as ways of restoring a sense of autonomy and control over essential energy services, and budgeting, bartering (participating in a thriving informal economy) and growing food as control over household budgets and their well-being. Participants, such as P4, relied on fridges and freezers to carry out time tested practices of bulk buying,

Both fridges are full, freezers rather. The small one's full of fish, that one's full of meat, that's got vegetables and some meat in it too. Because I go down to Chickerell Street to a wholesaler, and I buy my meat there. Bring it back and I chop it up... That's why we're in front because I buy wholesale. The fish costs about \$260. The meat costs about \$210. So, spend that, we go without for a couple of weeks, get the pension back in, then we can go and buy other stuff.

Bulk buying is seen here as a form of experiencing ontological security. It ensures food will not run out and that by buying cheaper food, everyday budgeting has been accomplished.

### **Care: Being able to care and the assurance of having help**

Cooking and feeding children as an act of care disrupts the heat or eat paradox when feeding/caring practices do not abide by peak tariff times. Caring for her child's needs provides P5, a single

mother living in social housing, with the ontological security that she is looking after her child but also exacerbates her energy poverty. P5 commented that peak tariff rates did not work for her as she preferred to remain flexible in terms of cooking for her children,

It's just there's a tariff, what they say off-peak. So, those ones, the one that makes difference probably in terms of the payment, every month's payment. It doesn't work for me because I have a daughter, whenever I need to cook her, I'm not going to say, "Oh, this is now off-peak", so I just have to do it.

This case study indicates that householders that could benefit from peak tariffs are not able to do so. As shown above, with electric cooking, some were not willing to sacrifice cooking times to take advantage of peak tariff rates. P5's case also illustrates how heat and eat is not a simple choice, or for that matter a binary.

## Discussion of findings

### **1. This study contends that heat or eat is not an individual choice but embedded in the intersection of everyday practices of coping with challenges of food and fuel.**

The findings from this study illustrate how householders used several practices and manipulated material arrangements to negotiate food and fuel insecurity.

### **2. Experiences of ontological security motivate and shape everyday fuel and food practices.**

The sense of self is strived for in everyday practices by this study's participants in different ways, including keeping their heads above water by paying bills on time, trying to eat nutritious food as prescribed or understood, maintaining control over their budgets, and engaging in practices that provide care.

### **3. The strategies and coping mechanisms that our participants use for ensuring that enough food that is nutritious is put on the table may have led to exacerbating energy security.**

This study illustrates that sometimes when people cope individually using materials or understandings, it may be counterintuitive to longer term positive change. For example, bulk buying is a common strategy, which may lead to storing large amounts of food, that is eventually stored in fridges and freezers that increase energy bills.

### **4. When practices and daily activities that help cope with bills are performed with meanings other than deprivation and necessity, they become a part of people's lives in different ways and may enhance experiences of ontological security.**

The emotions and understandings expressed by our participants highlights how food growing has been infused with meanings other than paying bills and food provisioning and helps its persistence and enhances the sense of ontological security.

## Policy implications

This study illustrates a framework that considers multiple vulnerabilities together, not only for research purposes, but for de-siloed policy initiatives. This study uses examples and cases to illustrate how everyday practices are operationalised to achieve some level of ontological security while some diminish ontological security as well. This section discusses the practice and policy implications of this study and based on the analysis above highlights several points of discussion for further research as well as interventions that go beyond individual behaviour change, beyond emergency measures and stop gap arrangements, and beyond siloed interventions.

### **Beyond emergency measures that are stop gap arrangements**

Necessary emergency measures and stop gap payments have been initiated in many ways by the government, the community, and individuals to ameliorate the immediate effects of food and fuel insecurity. However, as we have seen above, there are many other deeply connected issues. For example, learning from food insecurity literature – food banks provide a mirage of food security (Ronson & Caraher 2016) and maybe allowing corporates to exploit food spaces (Suschnigg 2012). Furthermore taking help from the community is not always easy (Rosier 2011). Again, there is evidence in literature which matches our findings that when close social networks are not present, larger community networks are accessed, although there can come with issues like stigma and shame (Rosier 2011).

However, combining different vulnerability sets helps in terms of access to householders and individuals in need, such as providing energy and food help services together. A further research agenda would be to find out how this would work, in terms of continuous service, rather than being the responsibility of NGOs and intermittent help.

### **Beyond siloed interventions**

Ontological and empirical nexus in thinking about energy and food simultaneously requires consolidated approaches to the main expenditures of households but also the ones that households prioritise for their ontological security. The capabilities and the negotiations of practices differ at household levels, sometimes at societal levels and at national levels. Accessing lay knowledge and supporting diverse economies (Gibson-Graham & Dombroski 2020) may be some ways that policy makers and institutions can address poverty. This means a flexible approach is required that lets householders make informed decisions. Some recommendations and interventions are:

- A continuation of a mix of free, interest free and discounted or incentivised strategies and offerings may help householders provide care for their families and feel secure. For example, alternatives to peak tariffs may be beneficial. Utility grants that require non-payment of bills do not cover vulnerable people who fear being in debt or being disconnected.
- Retrofit practices and interventions are sometimes found to be delinked from everyday living experiences (Willand, Middha & Walker 2021), especially in cooking. In Victoria, cooking appliances, range hoods, back yards are not part of the energy retrofit programs. Designing interventions at household levels to be intersecting such as considering cooking appliances, such as induction cooking as part of energy retrofits, and including energy audits/retrofits for food insecure households may be beneficial. As argued in Middha et al. (2022), outside spaces form a part of home and homemaking practices. There is increasing evidence, as shown in this study that

including outside spaces in home retrofits may be a useful strategy – especially for shade and food growing.

- While bulk buying is encouraged as one way of saving on food, the change in energy bills may be a hidden cost that may not be apparent immediately, apart from the cost and maintenance of appliances. This has been described as the poverty premium in literature, where vulnerable people are forced to spend more overtly or as hidden costs to cope with immediate issues such as providing food to their families and themselves (Davies, Finney & Hartfree 2016). An arrangement with the supermarket (or butcher/fish supplier) through the Department of Housing and Social services may free up space, energy bills and buying of cheap and inefficient appliances. This arrangement ensures supply at the same rate as discounted bulk food and may ensure a fresh supply rather than frozen. What may be a limitation is how that arrangement can provide the same security as having food in the freezer for the month.
- Meat was a common item that was renounced when the food budgets were tight, which concurs with previous research on energy and food insecurity (Snell, Lambie-Mumford & Thomson 2018). Meat is imbued with meanings of good nutrition and wealth however many people around the globe satisfy their physiological needs for iron and protein by plant-based diets (Daly 2020). Moreover, the regular consumption of red meat has been shown by many studies as having association with cardiovascular ailments and other diseases with other substitutes such as plant ferritin having better outcomes (Agarwal 2013). The disruption of participants feelings of adequate nutrition and physiological security revealed in this study highlights how ontological insecurity is shaped by social norms rather than by food science. Building a new social framework about the adequacy of vegetarian diets may help people feel secure eating vegetarian diets.

### **Beyond individual responsibilities and coping mechanism**

While regular above poverty line income, secure housing or housing tenure are seen as generators of ontological security, there are other factors that can be considered as well as part of a positive feedback cycle. For example, when new meanings and understandings are diffused in a practice, it indicates that the practice may continue being reproduced, and ensures that the insecurity of food/fuel is diminished. Urban gardening/community food networks have long been associated with public health all over the world with balconies, backyards and community spaces being used by individuals and organised groups (Rose & Gaynor 2018). Positive outcomes of urban agriculture supersede merely economic concerns and many studies have pointed to psychosocial, environmental, food security and health benefits (Brown & Jameton 2000). Similarly, for many of our participants it was also essential that they be able to sell, barter or swap their food, for economic, but also socialising and networking reasons. Balancing the negative outcomes and taking into consideration the impossibility of everyone having the access or capability to continue farming for their needs, the possibility of inclusion of the backyard and open community spaces as part of home and urban retrofit programs is on the agenda of many scholars and urban planners, which should be encouraged (Christensen & Neil 2009; Middha et al. 2022).

These interventions are imagined as a part of a positive feedback loop. While regular above poverty line income, secure housing or housing tenure are seen as generators of ontological security, there are other factors that can be considered as well. These include the space, and support for growing

their own food. For many of our participants it was also essential that they be able to sell, barter or swap their food, for economic, but also socialising and networking reasons.

## Outputs

1. Presentation at the RGS-IBG conference (September 2022)
2. Conversation/Fifth estate article (will be submitted soon)
3. Full draft of journal article- attached for reference (Submitted)

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**Front cover image:** A Melbourne participant complained of a cold kitchen and electric coil cooktop she could not use and substituted the cook top cooking by buying other appliances such as an air fryer.

## About the Funder

The [Fuel Poverty Research Network](#) (FPRN) was established in 2016 by researchers who were all concerned with different aspects of the interaction between people, homes and energy. The charity supports researchers and facilitates dialogue between researchers, policy and practice. FPRN's grant programme, Engaging in Energy Poverty in Early Career (EPEC), supports early career researchers (ECRs), postgraduate students (PGRs), and early career practitioners (ECPs) based in any country to contribute to efforts to tackle fuel and energy poverty through original research and publication.



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