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“It’s not too bad” - The Lived Experience of Energy Saving Practices of Low-Income Older and Frail People

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Abstract

Drawing on evidence from a mixed methods retrofit intervention trial of the homes of low-income, older and frail people in Victoria, Australia, this study explored practices of heating and keeping warm in terms of equity and health. In most homes, heating restrictions led to inadequate indoor temperatures. Adaptation practices increased householder resilience, however, some technical responses presented safety risks. Low-cost retrofits did not eliminate underheating and had little effect on householder practices. The study highlights that a promotion of no-cost energy saving activities acknowledges the adaptive capacity of individuals. However, failure to address material and technical conditions and the vulnerability of older people may lead to unintended health risks.

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1. Introduction

This paper addresses simple ways of saving energy and keeping warm in the home of low-income older and frail people and their meanings for a transition towards a low carbon and equitable society. A common policy approach to lower carbon emissions from the residential sector and to reduce the burden of energy costs is to encourage householders to engage in individual, voluntary low-cost and no-cost energy saving actions [1], however the lived

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experience of such actions is underresearched. In the Australian state of Victoria recommended low-cost technical energy saving actions are added ceiling insulation and draught proofing [2, 3]. However, low-income households and tenants, who are more likely to live in homes with sub-standard thermal performance, often lack the financial resources and agency needed for such retrofits [4, 5]. Rebates only address small energy improvements of homes [6], and tenants are not protected by mandatory standards for the energy efficiency of rental properties [7].

General no-cost behavioural energy saving activities encouraged by state and local governments include the temporal and spatial restrictions of heating and the layering of clothes in winter [2, 3]. However, opinions on how these no-cost activities should be interpreted are divided. Some scholars support such activities as opportunities to save energy. They argue that the reliance on active space conditioning and the shift towards thermally homogenous spaces disregard the adaptive capacity of people and their diverse perceptions of comfort, e.g. [8, 9]. By contrast, researchers who explore the daily life of fuel poor households on the premise that achieving ‘warm homes’ should be a public health goal, describe the same ways of saving energy and keeping warm as regrettable coping and adaptation responses to unsatisfactory situations, e.g. [10, 11]. The difference in interpretations raises the question of fairness in efforts to meet the challenge of emissions reduction.

Social practice research is useful in the evaluation of the assessment of equity and health outcomes of such energy conservation activities, as it acknowledges that energy consumption is not only the outcome of individual behaviour, but also shaped by material, social and cultural contexts [12, 13]. ‘Behaviour’ is seen as the observable performance of a practice in a particular moment in time, whereas ‘practice’ refers to the recognisable entity that is performed repeatedly across space and time, and which is comprised of the interacting elements of material, meanings and competences [14]. Practices are dependent on or intersecting with other practices, forming so-called ‘bundles’ [14]. Walker argues that the value judgment of practices in terms of equity should rely on the capability of householders to enact the practice and to function to their optimal potential [15]. This approach requires a good understanding of the preconditions of practices, their meanings to householders and an evaluation of their outcomes. Hence, to enable the interpretation of ‘behavioural’ no-cost energy saving advice in terms of applicability, soundness and equity, research is needed on how such practices are shaped, how they may influence health as an integral part of daily functioning, and how these practices may shift (or not) after low-cost technical retrofits.

A recent residential energy efficiency intervention trial conducted by the South East Councils Climate Change Alliance (SECCCA), provided the opportunity to explore the lived experience of householder energy saving practices and to reflect on them in terms of health and social equity. This study had three aims: firstly, to identify practices of heating and keeping warm among a sample of low-income, older and frail people and to describe how these were shaped; secondly, to appraise these practices in terms of health and equity; and lastly, to explore if and why these practices had changed after a low-cost retrofit intervention that did not include behavioural advice.

2. Method

This paper is based on the so-called Health Study, which supplemented the retrofit intervention trial of SECCCA’s Energy Saver Study (ESS). The ESS targeted low-income older or frail householders living independently near Melbourne to investigate the effectiveness of various methods in helping manage domestic energy use. The participating councils recruited participants through their Home and Community Care (HACC) services. In the context of the Energy Saver Study, ‘low-income households’ loosely described households with an income in the bottom 40 per cent of the national income distribution, people who were socially disadvantaged, received financial governmental support or HACC services or were recognised as experiencing fuel hardship. Householders were promised at least AU\$500 of energy saving home improvements for participating in the ESS. This paper focuses on the analysis of the conditions and householder experiences during the pre-intervention winter months June, July and August in 2014 and post-retrofit in 2015. The retrofits took place in autumn 2015.

The Health Study was a quasi-randomised controlled trial. Householders in the Health Study belonged to the two ESS study groups of ‘retrofit only’ and ‘control’. No behavioural advice was given. The intervention households received R4 ceiling insulation and draught proofing valued around AU\$2500 free of charge. The control group received retrofits worth AU\$500 at the end of the data collection period. The Health Study accompanied 16 intervention and 13 control households. One control household left the study due to the sale of the dwelling.

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