



Social housing tenants, Climate Change and sustainable living: A study of awareness, behaviours and willingness to adapt



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ARTICLE INFO

Article history:

Available online 21 March 2015

Keywords:

Behaviour modification
Climate Change
Households

ABSTRACT

Despite a focus in the UK on providing sustainable housing in recent years, it is unlikely that targets set to reduce resource consumption in housing will be achieved without a greater focus on human behaviour. It is necessary to understand the actions of people occupying dwellings, as it is invariably the occupants rather than the buildings that decided whether or not to consume resources.

In this paper the authors present a pilot study where 53 social housing tenant households in Northern Ireland were interviewed to ascertain their perceptions of Climate Change, their current behaviours and their willingness to reduce energy and water consumption in the home. The intention was to explore links between perceptions and reported behaviour as well as perceptions and willingness to reduce resource consumption.

Results show that 77% of tenants believed Climate Change to be an important issue; 57% accepted that it is up to the individual to take responsibility for tackling Climate Change; and demonstrated a strong desire to make a difference to reduce their impact. The researchers identified both passive (devices) and active (behaviours) resource savings currently in place and established where further resource reduction was feasible based on tenants' willingness to alter their behaviours.

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1. Introduction

1.1. Climate Change and low carbon living

The built environment is currently hugely carbon intensive. The construction and maintenance of buildings and other structures is responsible for around half of UK carbon dioxide emissions (Department for Communities and Local Government, 2008). Housing alone generates 27% of UK emissions, of which 73% is used for space and water heating (Constructing Excellence, 2008). This current set up is not sustainable. A number of policies and regulations have been put in place to try and reduce the impact the built environment has on CO₂ emissions. Most of these are technologically driven, however it is becoming increasingly evident that it is human behaviour that holds the key to reducing society's reliance on carbon (Pilkington, Roach, & Perkins, 2011).

A low-carbon or decarbonised society is a society that has a minimal output of greenhouse gas emissions, specifically carbon dioxide (CO₂) into the environment's biosphere. It is widely documented that CO₂ emissions due to anthropogenic activity are increasingly either causing or making Climate Change worse (IPCC, 2007, 2013). Scientists are concerned about the negative impacts of Climate Change on humanity in the foreseeable future. In order to reduce the impact of the built environment on the planet and therefore live more sustainably, it is necessary to take ownership of and reduce one's own impact on the planet through the way in which one tackles daily decisions that involve carbon-intensive activities, particularly where there are no readily available low/zero-carbon alternatives.

'Indoors', where we spend most of our lives, is set to be a crucial site in which efforts to mitigate and adapt to Climate Change play out (Chappells & Shove, 2005). As we have greatest control of our circumstances in our own environments, housing is a good place to start. In this paper the authors present a pilot study where social housing tenants were interviewed in order to ascertain their perceptions of Climate Change and environmental issues, their current behaviours and their willingness to reduce energy and water consumption in the home. The intention was to explore links between perceptions

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and reported behaviour as well as perceptions and willingness to reduce resource consumption.

2. Public perceptions of Climate Change

2.1. Awareness

There is a near universal awareness of Climate Change in England (DEFRA, 2002). However self-reported knowledge or understanding is patchier with 59% of British people surveyed claiming to know 'a fair amount' or 'a great deal' about Climate Change (Norton & Leaman, 2004), with only a quarter maintaining they are 'well informed' (Hargreaves, Lewis, & Speers, 2003). This is similar to results of surveys undertaken in the USA where Kempton (1997) found that US citizens' general awareness did not correspond to a detailed understanding of causes, consequences and solutions of Climate Change. A more recent British survey (Poortinga, Pidgeon, & Lorenzoni, 2006) however found that people were generally able to identify both anthropogenic and natural influences on the climate.

2.2. Concern

Previous research has suggested that a majority of people in the US and Europe are concerned about Climate Change and believe that the world's climate is changing (Lorenzoni & Pidgeon, 2006; Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; Upham et al., 2009). However, recent studies have suggested that this long-term trend may have peaked, as demonstrated by Leiserowitz et al.'s comparison of a 2008 and 2010 survey of US citizens, where 71% of those surveyed in 2008 believed Climate Change was happening, compared with 57% in 2010 (Leiserowitz, Maibach, & Roser-Renouf, 2010). This downward trend can also be seen in the results of two UK based studies by Curry, Reiner, de Figueiredo, and Herzog (2005) and Spence, Venables, Pidgeon, Poortinga, and Demnski (2010). They demonstrate a shift in perceptions of risks and concerns about Climate Change between 2005 and 2010. The 2010 survey saw a 13% decrease in the percentage of people who consider the climate to be changing (91% in 2005–78% in 2010). Of these, 47% believe Climate Change to be a combination of natural and human impact; 31% believe it to be solely as a result of human activity, whilst 18% believe it to be from natural causes. The UK Department of Transport's 2011 report on Climate Change reflects this trend. The report states that levels of belief in (87% in 2006; 75% in 2010) and concern about Climate Change (81% in 2006; 70% in 2010), and willingness to change behaviour to limit Climate Change (77% in 2006; 72% in 2010) have all fallen (Department of Transport, 2011), possibly due to a greater focus on the economic crisis. Others have pointed to possible rising scepticism about the anthropogenic causes of Climate Change in Britain (Whitmarsh, 2008). In line with the decrease in people considering the World's climate is shifting, the results of the Spence et al. (2010) survey also revealed an 11% decrease in the percentage of people who believed they were at risk from Climate Change (from 77% to 66%). In short, in the space of five years, concerns surrounding Climate Change fell from 82% in 2005 to 71% in 2010 (Spence et al., 2010).

2.3. Responsibility for action

Overall, there is still a widespread perception that individuals, as citizens of a World at risk, have a responsibility to act to tackle Climate Change. Forty five per cent of those surveyed by Leiserowitz et al. (2010) felt that human action could reduce the impact of Climate Change, even though they were not convinced people are willing to do what is needed. Seventy one per cent of those taking part in the 2010 UK survey accepted responsibility to help to

do something about Climate Change, 63% believing that this can be achieved by altering their own behaviour. However, in line with the 2005 findings, most respondents consider taking action against Climate Change to be difficult and when asked to suggest who should take greatest responsibility, national governments (32%) and the international community (30%) were named. Sixty-eight per cent were happy for the UK Government to spend taxpayers' money on British projects aimed at tackling Climate Change (Spence et al., 2010). It is a common perception that governments hold the responsibility for tackling Climate Change. An European Parliament and European Commission study found that a majority of respondents were placing significant responsibility on governments, 76% feeling that governments and industry were not doing enough to tackle Climate Change, with 64% believing their own national governments were not doing enough and 58% thinking the EU was not doing enough to tackle Climate Change (EPEC, 2009) whilst 67% believed citizens themselves were not doing enough and consequently felt a moral responsibility to take action.

2.4. Barriers

It is widely understood that individuals perceive a wide variety of barriers to engaging with Climate Change. However there are only a few examples in the literature that explicitly address these barriers (Lorenzoni et al., 2007). For example social identity has been shown to be an important influence on people's energy use (Layton, Jenkins, Macgill, & Davey, 1993; Steg, Vlek, & Slotegraaf, 2001) that implicitly highlights the difficulty in changing consumption behaviours. A BBC poll in 2004 found that only just over half those surveyed believed that altering their behaviour would have an impact on Climate Change. Furthermore, Darier and Schule (1999) found through qualitative work that many people in the UK want government to impose regulations to make them act, because they consider only collective action to be effective in response. This may reflect a more profound disenfranchisement and lack of trust among the British public that has been observed elsewhere in relation to other environmental and political issues (see Lorenzoni et al., 2007).

2.5. Energy specific behaviours and thermal comfort

The focus of behaviour modification literature with respect to Climate Change is predominantly on energy reduction actions irrespective of the motives underlying these although DEFRA (2002) report that the majority of people who conserve energy do so for financial and health reasons than for any environmental concern. Few studies have addressed the individuals' willingness to alter behaviour in relation to Climate Change although a study by Whitmarsh (2009) found that recycling and energy conservation were the most likely changes people were willing to make. Spence et al.'s (2010) UK study reported that 65% stated that they were willing to take measures to greatly reduce their energy consumption, yet only 44% were prepared to pay more for energy efficient products. A further study by DEFRA (2007) reported that the introduction of energy labelling for domestic appliances had greatly influenced the general public, with 70% of participants stating that they actively looked for the energy rating sticker during most purchases. Overall public inclination to significantly improve energy consumption habits does not seem to be increasing; at best a slow transition is taking place. This is substantiated by an EST study (2010) where only 38% of those taking part in the survey perceived they were taking larger steps than previously (a small increase from previous years); with 32% taking small steps; and 10% holding the belief that they could not reduce their energy consumption.

Research has found that the goal of shifting into a lower carbon society has created a new context for thermal comfort too (Cole,

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