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Published in:
Proceedings of the 35th Conference of the Association of Researchers in Construction Management

Publication date:
2019

Document Version
Publisher's PDF, also known as Version of record

Link to publication in ResearchOnline

Citation for published version (Harvard):

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Download date: 20. Jan. 2021
THE INTEGRATION OF RETROFIT PRACTICE WITHIN SOCIAL HOUSING

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Efficiently and sustainably addressing the social and economic demands arising for the world’s ageing population is a major global challenge. An ageing population has significant implications for public policy such as housing, health and welfare, therefore requiring holistic integration across a range of service providers. Through the lens of institutional theory, this study seeks to explore the levels of integrated retrofit practice within social housing under a constructivist approach. Following a scoping study of 24 key stakeholder interviews across Scotland, this paper presents the second phase of research undertaken to evaluate collaboration and knowledge sharing within social housing retrofit practice for the improved wellbeing of an ageing population. Presented are the findings of a single case study of a social housing provider, through analysis of nine hierarchical stakeholder interviews determining the success and failures to create integrated retrofit practice. The hierarchical structures with silo-based application have created the belief that each sector are separate entities with separate agendas, however these are interlinking, with a much broader social and economic impact. Therefore, there is a need to break through these intrinsic neoliberal barriers created, with defined boundaries of policy and budgets, to create a collaborative approach to retrofit practice.

Keywords: Ageing population, institutional theory, retrofit and social housing

INTRODUCTION

Whilst environmental health is closely related to and affected by socioeconomic status, public health research has given less attention to the complex relationship between housing and health within retrofit practice and the implications of this upon policy improvement (Van Hees et al., 2017). Housing as part of health improvements is often implicit within policy, however, unlike health service interventions, the main aim of housing enhancements are not improvements made to health. A need is emerging to examine the nexus between the energy, health and housing sectors to determine the practical implementation of the ‘Ageing in Place’ agenda through collaboration and knowledge share within housing improvements. A holistic, multidimensional approach is required to account for the social, economic, environmental and institutional aspects of sustainability, and must not focus solely upon the consumption of resources. Considering the fundamental necessity of the built environment to human existence and societal development (Smiley et al., 2014), there is a need to examine how the mechanisms commonly used to establish and develop collaboration and knowledge share may enable or hinder joint activity and interaction within, and across, different sectors (Bresnen, 2010). This paper presents

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the second phase of research undertaken to evaluate the success of collaborative efforts within social housing to perform retrofit practice for the improved wellbeing of an ageing population (Rodger et al., 2018). Present are the findings of a single in-depth case study of a social housing provider, through analysis of nine hierarchical stakeholder interviews determining the successes and failures to create integrated retrofit practice.

LITERATURE REVIEW

Theoretical framework

Institutional theory is vital in explaining how organisations are influenced by their environments (DiMaggio and Powell, 1983). Utilising the concepts of isomorphism (Hawley, 1968) it explains the constraining processes that force organisations to resemble one another. Thus, developing structural rules and procedures which do not necessarily improve efficiency, but gain the appearance of being legitimate to external parties (Abdul-Aziz et al., 2010). Within this research, institutional theory provides a lens to analyse decision-making and examine the broader implications of power struggles enabling or preventing collaboration and knowledge share within retrofit practice.

The importance of housing and retrofitting

A major global challenge is efficiently and sustainably addressing the social and economic demands arising from the global growing ageing population. An ageing population has significant implications for public policy encompassing health, housing and welfare amongst others. Both housing and health policy promote the idea of ‘home’ as the best place to grow old, with the option of moving to specialist accommodation to be avoided for as long as possible. Ageing in place, or “the ability to live in one’s own home for as long as confidently and comfortably possible” is the ability to be self-reliant at home for as long as it is viable (Shelter, 2007). As people age, declining mobility and illness can lead to their residence becoming unsuitable without support or adaptation, often forcing individuals to move into specialist accommodation (Van Hees et al., 2017). However, another major challenge is the prevention of the ageing and deterioration of the housing stock. Energy efficiency improvements made to buildings is considered to be one of the most effective measures to reduce carbon emissions, especially in those which are characterised by poor energy performance (Saidur, 2009). Reducing the exposure of older residents to cold housing and providing access to affordable warmth is a key priority in defeating health issues associated with poor housing conditions. Therefore, to achieve sustainability, there must be an understanding that human health and the environment are both inextricably linked.

The need for integration within retrofit practice

The term retrofit is used to describe a range of activities involved in the repair, improvement and maintenance of buildings, incorporating innovations which directly shape energy use or influence user behaviour (Buser and Carlsson, 2016). However, in the context of this research it is used to describe all alternations to the internal or external building, including ramps and wet floor showers. With an ageing population, great challenges are presented due to increasing acute and long-term requirements. However, many social care and health experts have confessed the lack of linkages within, and understanding of, housing practice which has meant older people’s needs have not been optimally considered or prioritised (Zhang et al., 2018). Energy
efficiency adaptations affect and are affected by a wide range of policy domains including housing, construction, environmental, health and fiscal policy. However, across these various levels of policy and decision-making, there are diverse agendas and actors with different needs, methods and priorities, creating substantial barriers. It has been suggested that collaborative or partnership working brings a multitude of perceived benefits to all parties involved (Bresnen, 2010) including increased productivity, reduced costs, time and a reduction within industry fragmentation (Smiley et al., 2014). Nonetheless, despite enthusiasm from policy makers, this new way of working has yet to materialise (Bresnen, 2010). It is acknowledged that there are key institutional and political restrictions shaping partnership working within and across organisations, such as hierarchies, power, inequality and vested interests, particularly within capitalist societies (Smiley et al., 2014). However, there is a need for a holistic retrofit system which takes account of the varying needs of older people, creating a practice focused on all aspects of the resident’s domestic environment: of habitability, safety and accessibility, especially for older people. Thus, aligning national housing, energy and health policy into a cost-efficient practice with wider fiscal and societal benefits such as reduced pressure on primary health care.

Neoliberalism within public services

Framed by a sustained period of austerity, as a consequence of the 2007/8 financial crisis, the UK and much of Europe have experienced public spending cuts which were ideologically placed upon the most disadvantaged within society (Suttor, 2011). However, the restructuring and reduced investment of the public sector began in the 1970’s with the emergence of New Public Management (NPM); driven by the belief that the public sector was inherently inefficient, monopolistic and a drain on public financing (Hood, 1991). This restructuring of social housing and wider public services gave rise to a fragmented system, with privatisation, including sub-contracting work and competitive bidding, leading to institutional, organisation and managerial changes (Mullins et al., 2001). Furthermore, government has not protected social housing, with all state and not-for-profit housing providers adhering to neoliberal practices such as competition, hierarchy and public/private partnerships (Jacobs et al., 2013). The rationale behind these modernisation initiatives is constructing the appearance that services can improve during a time of reduced investment and resources (Jacobs et al., 2013). Therefore, these traditions of care are threatened by the growing commercialisation of state services, centred upon investment and asset management, rather than the care (Power and Bergan, 2018). However, partnership working between different areas of the public, private and voluntary sector is seen as a way of potentially improving services, especially where there is commonality of interest and a history of failing to coordinate services effectively (Rummery, 2009). With the collective agendas formed to support an ageing population, there is a need for social housing, the energy sector and health and social care providers to work together to support adaptation of the housing stock and ensure its long-term asset management (Boyle and Thomson, 2016).

Institutional structures

The ‘rolling back of the state’ within UK government policies is perceived to have created an irreversible reduction within the role of public sector institutions. Furthermore, the introduction of market competitiveness through the emergence of NPM exacerbated the government’s inability to direct and develop multi-agency arrangements, focusing on target driven, rather than cooperative progress (Hood,
1991). This concept of strategic management and modernisation have become key to organisational effectiveness; emphasising the importance upon structures and its hierarchically regulated public sector (Mullins et al., 2001). Likewise, within this context policy evaluation can be understood to be a means of providing evidence to legitimise policies and political commitments, rather than completing the policy cycle and providing feedback to improve policy design (Sanderson, 2002; Rasmussen et al., 2017). Thereafter, this process leads to the marketisation of functions, traditionally held within public sector, transforming policy-making away from joint programmes led by an active governance (Rasmussen et al., 2017). This can be represented within social housing’s hierarchy and coordinating systems which are based on the principles of command and control, creating clear specification of roles, responsibilities and functions, with formalised communication and reporting procedures (Mullins et al., 2001). Thereafter tying in with the increased influence of managerialism and modernisation which is linked with privatisation, marketisation and contracting out policies; creating the appearance of success whilst not always selecting the most efficient processes (Mullins et al., 2001). Thus, institutional theory is utilised in analysing the influence of hierarchical structures and the normalisation of neoliberal concepts within the practical implementation of an integrated retrofit practice in line with a global agenda of ageing in place.

**METHODOLOGY**

The aim of this study is to explore the levels of integrated retrofit practice within social housing for the improved wellbeing of an ageing population under a constructivist approach. This is the second phase of research following 24 in-depth interviews across housing, energy, health, and governance to determine the wider issues felt within these sectors, creating the framework which revealed institutional theory as a lens for future enquiry. This research seeks to develop an understanding of collaboration and knowledge share within retrofit practice, through an in-depth single case study of a social housing provider (SHP) within Scotland, UK.

**Epistemology**

To ensure a strong research design, it is vital to choose a research paradigm compatible with personal beliefs about the nature of reality. By subjecting such beliefs to an ontological interrogation aided within the decision-making process of the epistemological and methodological variables available it was possible to determine the most appropriate methodology (Mills et al., 2006). We are all influenced by our history and cultural context, which shapes our view of the world and the meaning of truth. Therefore, assuming a relativist ontological position; the world consists of multiple individual realities which are influenced by context (Mills et al., 2006). Epistemologically, constructivism is a research paradigm that denies the existence of an objective reality, asserting instead that realities are social constructions of the mind, and there are many that exist (Hayes and Oppenheim, 1997). By taking a constructivist perspective to data analysis in this research, the data is seen through the perspective that meaning and experience are socially produced and reproduced, rather than existing within the individuals. Furthermore, constructivism permits an emphasis on the subjective interrelationship between the researcher and participant, and co-constructing of meaning (Hayes and Oppenheim, 1997) which is important in this context given the need to engage with actors who shape decisions. This enables the researchers to be part of the research and enabling our values to be acknowledged by themselves as an inevitable aspect of the analysis and discussion.
Approach
Within this research, an exploratory single case study approach was adopted. By undertaking this approach, it enables the researcher to closely examine the data within a specific context, investigating contemporary real-life phenomenon through contextual analysis of an environment (Yin, 2017). However, the limitations of a single case study are acknowledged, with multiple case studies creating more robust insights in a wider context (Yin, 2017). However, theoretical explanations of the data observed may be applicable across similar state housing providers.

Methods
Purposeful sampling was undertaken, by interviewing a wide range of stakeholders, at multiple levels, it leads to richer, more reliable emergent theory (Eisenhardt, 1989). Interviews lasted between 42-93 minutes. In total 13 stakeholders were contacted, with 9 providing written consent to participate (response rate 69.2%). Their demographic details are displayed in Table 1, aided by Mintzberg’s organisational structure theory (1993). Initially individuals were selected due to their prominent position, for example Councillor C1 who create the Housing and Community Wellbeing portfolio. From this, the snowball sampling method was employed, where interviewees recommended individuals, they believed would be fundamental. Data collection took place until saturation was achieved and no new themes emerged.

Table 1: Interview participants

<table>
<thead>
<tr>
<th>Code</th>
<th>Gender</th>
<th>Role</th>
<th>Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Male</td>
<td>Councillor</td>
<td>Strategic apex</td>
</tr>
<tr>
<td>C2</td>
<td>Male</td>
<td>Director of Place</td>
<td>Strategic apex</td>
</tr>
<tr>
<td>C3</td>
<td>Male</td>
<td>Service Coordinator</td>
<td>Techostructure</td>
</tr>
<tr>
<td>C4</td>
<td>Male</td>
<td>Area Based Scheme Coordinator</td>
<td>Middle line</td>
</tr>
<tr>
<td>C5</td>
<td>Male</td>
<td>Head of Property and Maintenance</td>
<td>Middle line</td>
</tr>
<tr>
<td>C6</td>
<td>Female</td>
<td>Housing Services Lead</td>
<td>Middle line</td>
</tr>
<tr>
<td>C7</td>
<td>Male</td>
<td>Housing Officer</td>
<td>Operational</td>
</tr>
<tr>
<td>C8</td>
<td>Female</td>
<td>Housing Occupational Therapist</td>
<td>Operational</td>
</tr>
<tr>
<td>C9</td>
<td>Male</td>
<td>Head of Adaptations</td>
<td>Operational</td>
</tr>
</tbody>
</table>

To ensure coherence and consistency, a standard interview guide containing questions and probes was created to guide the conversation with a neutral approach adopted, asking no leading questions. Interviewees were asked questions related to three topics: the strategy and model of retrofit practice, collaborative practice and the alignment of their role within the ‘ageing in place’ agenda. The results underwent thematic analysis, allowing for an abductive approach of inquiry (Braun and Clarke, 2006). The results were analysed using the 6 phases of thematic analysis outlined by Braun and Clarke (2006). The first phase involved becoming immersed in the data during transcription and repeatedly reading the data solidify personal understanding of the text. The data was coded for key words, phrases and sentences which indicated recurring, meaningful and interesting patterns. The codes were then re-focused at the broader level of conceptual themes. Once themes emerged, these were reviewed and refined, and representative extracts were selected. Within this, an iterative approach was implemented, where the emerging data was informed and consistently reviewed by current literature and the theoretical framework of institutional theory.

DATA ANALYSIS
From analyses, five key themes arose: barriers of governance, fragmentation, data infrastructure, dereliction of skills and communication and knowledge share.
**Barriers of governance**

The structures of government funding allocation differ between organisations, creating limited efficacy of planned works as C1 Councillor states, “we are given grants over three years, whereas the energy agency work year to year…there could be good savings to work like external cladding at the same time as roof repair because the staging is there…we can’t plan because we don’t know their funding”. However, C4 ABS comments that there are wider issues that could potentially arise from their funding structures, “we have to deliver a policy or programme very quickly…it’s a case of get the money, get the bodies on site…we are doing significant work to people’s homes and getting it wrong it can be catastrophic”. Showcasing the potential for detrimental consequences on the house and health of the resident if proper procedure is not followed; catalysing erratic and absentminded results, due to neglect of the criticality of the task. Furthermore, C4 ABS states that internal structures and governance inhibits projects, with its vast structure and focus on efficiency, or appearance of efficiency, creating significant obstructions, “(SHP) have went through a major restructuring…there’s been a lot of uncertainty…we have felt that because you can’t pin anyone down to make a decision or even point you in the direction of who to talk to”.

**Fragmentation**

Discussing the integration of retrofit practice between housing, energy and health, a key emergent theme was fragmentation between the sectors, despite being state funded and controlled. This can be understood by C1 Councillor’s comments, “we could target people coming out of hospital but there is a breakdown in communication with health and we don’t know who is in hospital…they report to their bosses but they should report to us too and that is how you get bed blocking”, this view was echoed by C6 Housing Lead, “we go round in circles…they are looking at their budget and we are looking at ours…it’s an ‘that is your responsibility, that is not our responsibility’ kind of thing” and Director C2, “the potential cost to the NHS from delayed discharge could be £25,000, whereas we could spend £12,000 on adaptations to get them home, but how do we get those connections?”. Thus, displaying the impact of silo-based funding and policies, preventing interconnections and fragmenting services when there are mutual benefits. However, there are individuals trying to combat this barrier, actively making the connections the council cannot, as seen by C4 ABS, “(ABS) is a joint project with the NHS, they have been very involved in the design and monitoring process” displaying that meaningful connections and collaborative practice between energy and health can not only possible, but successful.

**Data infrastructure**

A vital issue which arose was the poor infrastructure in place creating reduced efficiency and increased cost. This is seen within C3 Coordinator’s example, “I was asked why we weren’t doing EWI to a property, I stated the data said it was already insulated…they had issues of dampness, previous insulation had been removed but never replaced, but our data showed it there…his son was diabetic and they couldn’t keep his room warm…I know 16 properties in (location) alone which they declare pass (SHQS/EESH) which wouldn’t”. This issue was reinforced by Housing OT C8, “the record will say there is a ramp, but that was taken out and never up-dated…or I ask for a wet floor shower but something changes…what actually happens is different but our records will still say wet floor shower” displaying the vast extent of this problem, of insufficient recording procedures, impacting not only future planned
works but the health and wellbeing of vulnerable residents. This was experienced externally by C4 ABS, “the quality of data is questionable…we know 50 houses that had insulation extracted because something went wrong but there is no record of that” and explains a key reason for this is the aversion to systematic procedure and technology in the past, “they had a person for 30 years, a bank or knowledge, but that is lost, not just skillset, but the information because there are no records…it surprised me how little the council knows about their own stock”, displaying the deep-rooted difficulties, which can be backdated to historic work, and still creating substantial problems to date.

**Dereliction of skills**

Following years of austerity cuts few inhouse skills have been retained, resulting in an over reliance upon subcontractors, as C5 Prop and Main states, “some of the work we are asked to do, we can’t because we don’t have the traders or ability, so it has to go to an external contractor” and is reinforced by C4 ABS, “SHP outsource everything, they don’t even do their own health and safety anymore, they have one full-time and one part-time clerk of works for all council work…we have never been able to rely on them”. This displays the impact and lack of trust in ability, resulting in them having to invest themselves to ensure high standards. Within the SHP, there is dissatisfaction with these circumstance and a desire for change, with C6 Housing Lead commenting, “Energy Agency (ABS) are really good at working with us but we need more skills to be honest; to be able to go and do what we need to do (meeting EESH standards)”. However, C3 Coordinator is trying to change this practice, seeing the economic and decision-making mistakes, as seen by his introduction of a salaried architect “his commission was for only planning applications for ramps, so if we wanted a housing warrant for a bathroom adaptation or building warrant, he wasn’t allowed and we had to get someone else…now it’s streamlined and he does everything”.

**Communication and knowledge share between stakeholders**

Following discussion it emerged that there was serious fragmentation within communication and knowledge share in the SHP, creating increased cost through a disjointed approach to retrofit practice, as C3 Coordinator experienced, “we were doing fire resistant work, pipes and electrical work were penetrating walls, property and maintenance went in with expanding foam…it went everywhere, it was someone who didn’t care and just fired it in…I am now paying a contractor to clean it out and get back to where we started” and reinforced by his example of, “(tenant) had a motorised wheelchair, I discovered from the OT property and maintenance installed a new door with a large threshold…poor chap couldn’t get in his own house…its bonkers, the joiner sees the tenant and ramp, yet puts in a door with a threshold you have to step over…they’re just going purely by data or whatever”. This creates the question of wider thinking, and an overriding focus upon data and orders prevailing above the consideration of tenants and need. This concept of communication across departments has polarised views, with Director C2 stating, “in years past people were very myopic in terms of what was in front of their noses…now people are reaching out and share practice and knowledge…they understand the opportunities” however, C3 states, “it’s a thing we’ve forgotten, we sit in our splendid isolation and fire out an email…go speak to them, understand what they are about and let them understand you” displaying opposed views from a strategic to practical view of the factual levels of communication and knowledge share practically implemented in retrofit practice.
DISCUSSION

Institutions are networks through which political interests interact and compete, therefore shaping and constraining subsequent choices (Hall and Taylor, 1996). State social housing holds a unique position within the sector; government funded and regulated, it must not only care for the most vulnerable, but be accountable to the people. Thus, it is imperative that retrofit practice takes a holistic, innovative approach to the cross-sector problems aligned with the global issue of an ageing population. Neoliberalism, characterised by marketisation, privatisation and deregulation, holds the perception that social good is maximised by expanding the reach and frequency of market transactions (Bourdieu, 1998). The establishment of NPM, coupled with a decade of fiscal restraints due to an ideologically driven austerity agenda has created a target-driven culture that is reluctant to take on institutional responsibility (Heald and Steel, 2018). Through data analysis, it was clear that this agenda and philosophy has impacted skills and knowledge base within retrofit practice: creating increased pressure and restricting internal and cross-sector collaboration through a focus upon calculable outcomes. Institutional theory aids in explaining how both deliberate and inadvertent choices lead organisations to mirror the norms, values and ideologies of the field. As a result, meeting the environment’s expected characteristics, thus receiving legitimacy (Lepsius, 2017). Weber (1958) described these expectations and social pressures as the “iron cage”, where institutions are pushed towards isomorphic forms of normative behaviour; becoming identical to those within the same sector. Institutions can only escape this by transforming their environmental expectations, with their environment holding a reduced deterministic role (Lepsius, 2017). Therefore, it could be asserted that social housing follows the concept of mimetic isomorphism (DiMaggio and Powell, 1983), with current practice viewed as successful and legitimate within the field. However, if this fragmented practice is deemed acceptable, as best practice, then there is a vital need for change— for the boundaries and very definition of collaboration to be redefined into one which incorporates all aspects of care. There is a need to break through the deep-rooted intrinsic barriers created within the defined boundaries of policy and budget and see the public sector for what it is: An institution in place to maintain the wellbeing and prosperity of the population. Moreover, within Foucault’s concept of Governmentality (1982), he referred to the power struggles felt within neoliberal societies. This is clearly visible within the power relations across different sectors: seeking to protect their budgets and follow direct sectorial rule, therefore releasing responsibility of care unto others. Although emergent from neoliberal practices such as performance benchmarking and increased pressure due to economic restraint, this is accentuated by the institutional structures of silo-based funding, policies and hierarchical structures within the public sector. These highly bureaucratic organisations outlined by Weber (1958) are resistant to change. The prevailing atmosphere of control and predictability favours continuity and is threatened by change and innovation. However, there must be a repositioning in the minds of those implementing retrofit practice, creating a view focused upon the needs of the individual within the wider setting, rather than focusing on individual agendas (Rodger et al., 2018). These boundaries must be released, and a renewed focus formed within the context of an ageing population and the significant implications for public policy across housing, health, energy and welfare provision realised. Thus, shifting from the management and implementation of a single sector delivery, to an inclusive, integrated, agenda with mutual benefits across the public sector.
CONCLUSIONS

There is a need for greater levels of integration within retrofit practice, not only to improve the wellbeing of the older population, but to increase efficiency and economic savings within public services. Fundamental change must occur in the way in which housing, health and energy sectors interpret themselves; there must be a realisation that all funding, policies and regulations arise from one source, a source with the exclusive aim of the maintenance and care of the population. The hierarchical structures with silo-based application have created the belief that each sector are separate entities with separate agendas, however these are government and social constructed boundaries. These are interlinking agendas, with a much broader economic and social impact and this is particularly significant when looking at the global agenda of ageing in place. Therefore, there is a need for a system-wide recognition of the potential benefits of cross-sector collaboration, and a step back from the neoliberal values in place: understanding the potential for reduced cost and dependency upon state through increased knowledge share and collaboration within retrofit practice. Key areas of future research include undertaking a multiple case study research of social housing providers within different geographic locations to test emergent theories and increase generalisability across the UK and wider international world. Furthermore, there is a need to examine the perceptions and impacts upon the ageing population residing within social housing to determine their perceptions and the potential for a greater participatory approach to retrofit practice and policy.

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Retrofit Practice and Social Housing


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