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A case study on the effect of the cost-of-living on peoples' ability to afford interventions to prevent damp and mould arising in their properties

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Abstract

In the United Kingdom (UK) concerning figures report the high number of tenants that are living in a home with damp, mould or excessive cold and the rise in cost-of-living has created further challenges for tenants to afford interventions. For the tenants' physical and mental health, it is important that landlords and tenants understand their responsibilities to ensure that their houses meet the required standards.

There was an identified research gap linking the effects of the rise in cost-of-living and damp and mould arising in properties. Additionally, there is minimal research focusing on deprived areas such as Birmingham. This established the focus of the study.

The aim is to investigate the effect of the cost-of-living on peoples' ability to afford interventions to prevent damp and mould arising in their properties based on a case study assessment of tenants living in Birmingham.

To collect qualitative data semi-structured interviews with eight tenants and three Environmental Health Officers at Birmingham City Council were carried out.

The research concluded that tenants were aware of some physical and mental health effects associated with damp and mould growth, some of which tenants had experienced. The various behaviour changes which tenants have experienced as a result of the rise in cost-of-living were discussed. Furthermore, the results indicate that action is required to increase the knowledge and awareness of support and tenants' rights and responsibilities. Finally, the Environmental Health Officers provided an insight into the complaints that they receive regarding damp and mould growth.

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Table of contents

<i>Section</i>	<i>Page</i>
1.0 Introduction	Page 1
1.1 Overview	Page 1
1.2 Cost-of-living	Page 3
1.3 Effects of the increase in cost of living	Page 5
1.4 How the cost-of-living crisis is having an impact on tenants' ability to heat their home and prevent damp and mould	Page 7
1.5 Housing Health and Safety Rating System (HHSRS)	Page 9
1.6 Housing Theories	Page 10
1.7 Focus on Birmingham	Page 11
2.0 Literature about damp and mould in houses	Page 12
2.1 Physical and mental impacts of damp and mould	Page 12
2.2 Types of damp	Page 14
2.2.1 Condensational Damp and Mould	Page 14
2.2.2 Penetrating Damp	Page 15
2.2.3 Rising Damp	Page 16
2.3 Factors affecting the presence of damp and mould and how to overcome them	Page 17
2.4 Awaab's Law	Page 18
2.5 Tenants' rights and landlords' responsibilities	Page 19
2.6 Challenges faced by tenants experiencing damp and mould	Page 21
2.7 Research Gap	Page 22
2.8 Research Questions	Page 22

	2.9 Aim and Objectives	Page 23
	2.9.1 Aim	Page 23
	2.9.2 Objectives	Page 23
	3.0 Methodology	Page 24
	3.1 Overview	Page 24
	3.2 Advantages of qualitative research and semi- structured interviews	Page 24
	3.3 Limitations of qualitative research and semi- structured interviews	Page 25
	3.4 Research Participants	Page 25
	3.5 Location and Time	Page 26
	3.6 Ethical Considerations	Page 26
	3.7 Data Collection	Page 27
	3.8 Data Analysis	Page 29
	4.0 Results	Page 31
	4.1 Physical and Mental Health Effects	Page 31
	4.1.1 Tenant Interviews	Page 31
	4.2 Behaviour Changes	Page 33
	4.2.1 Tenant Interviews	Page 33
	4.2.2. EHO Interviews	Page 35
	4.3 Tenants knowledge of support and their responsibilities as a tenant	Page 37
	4.3.1. Tenant Interviews	Page 37
	4.3.2 EHO Interviews	Page 40
	4.4 Damp and mould complaints	Page 44
	4.4.1 Tenant Interviews	Page 44
	4.4.2 EHO Interviews	Page 45

4.5 Improvement to systems	Page 52
5.0 Discussion	Page 54
5.1 Physical and Mental Health Effects	Page 56
5.2 Behaviour Changes	Page 59
5.3 Tenants knowledge of support and their responsibilities as a tenant	Page 61
5.4 Damp and Mould Complaints	Page 63
5.5 Improvement to Systems	Page 66
6.0 Conclusion	Page 66
7.0 Limitations	Page 67
7.1 Recommendations for Policy, Practice and Further Research	Page 68
Bibliography	Page 70
Appendices	Page 80
Appendix 1 – Tenant Interview Questions	Page 80
Appendix 2 – Environmental Health Officer Interview Questions	Page 82

List of Figures

Figure	Page
Figure 1: Flow chat to show the impacts of “A well maintained roof” on damp and mould, health and finance (Care and Repair Cymru, 2024).	Page 2
Figure 2: Key elements of the cost-of-living crisis and the potential pathways linking it to health (Broadbent et al, 2023).	Page 4
Figure 3: Diagram of the Transtheoretical Model Stages of Change. (Faklaris, 2022).	Page 7
Figure 4: Table to show the average likelihood and health outcomes for all persons aged 14 years or under (GOV.UK, 2006)	Page 10
Figure 5: Dahlgren and Whitehead's model of the social determinants of health. (Bambra et al., 2010)	Page 12
Figure 6: The Six Phases of Thematic Analysis (Braun & Clarke, 2006)	Page 30
Figure 7: Diagram to show the theme (Physical and mental health effects) and related codes when analysing the transcripts	Page 31
Figure 8: Diagram to show the theme (Behaviour Change) and related codes when analysing the transcripts	Page 33
Figure 9: Diagram to show the theme (changes to behaviour) and related codes when analysing the transcripts	Page 35
Figure 10: Diagram to show the theme (knowledge of support and responsibilities) and related codes when analysing the transcripts	Page 37
Figure 11: Diagram to show the theme (knowledge of support and responsibilities) and related codes when analysing the transcripts	Page 40

Figure 12: Diagram to show the theme (Complaints) and related codes when analysing the transcripts	Page 44
Figure 13: Diagram to show the theme (Complaint data) and related codes when analysing the transcripts	Page 45

1.0 Introduction

1.1 Overview

High numbers of the United Kingdom (UK) population are living in homes with excess cold and the rise in cost of living has made it an increasing challenge to afford interventions to prevent this. A new report by The Institute of Health Equity (IHE) titled ‘Left out in the cold: the hidden health costs of Britain’s cold homes’ states that approximately 9.6 million households in the UK (34%) are at a risk of living in a cold home, on a low income and unable to pay for interventions to help insulate their home (Institute of Health Equity, 2021). The ability for tenants to heat their homes was also identified as being affected by the rise in cost of living in a study carried out by Shelter England (2021) which highlighted that 26% of adult renters in England say they cannot keep their homes warm in winter (Shelter England, 2021)

Poorly insulated houses are the root cause of many winter deaths particularly in the elderly. This is because the elderly are at a higher risk of suffering from certain chronic medical conditions such as diabetes and thyroid problems that make it more difficult to stay warm (National Institute on Aging, 2024). According to the Office for National Statistics (ONS), there were 13,400 more deaths in England and Wales from December 2021 to March 2022 in comparison to the average of non-winter months (National Energy Action, 2023). Fuel poverty charity National Energy Action (NEA) estimates that 4,020 of these deaths were due to living in cold homes and could have been prevented (National Energy Action, 2023).

In 2019, approximately 653,000 households in England had a ‘category 1 hazard’ of excess cold which could contribute to damp and mould growth (Care and Repair Cymru, 2024). A report which was published in Wales called “From wear and tear to disrepair: The cause and impact of poor housing” states that “Damp and mould is the second most prevalent Category

1 hazard present in Welsh homes, after excess cold” (Care and Repair Cymru, 2024). The CIEH reports that 45% of tenants in England are living in a home with damp, mould or excessive cold (Taylor-Smith, 2024). Damp and mould in a home can lead to various mental and physical health effects as discussed later in this literature review. Therefore, for the safety of tenants’ health it is important that landlords ensure that their houses meet the required standards to be free from serious hazards, such as damp and mould and excess cold.

Through meeting set standards this will contribute to reducing the risk of a further rise in preventable deaths due to excess cold and damp and mould. Figure 1 below illustrates an example of how ensuring a house has a well-maintained roof can benefit a tenant by preventing damp and mould and excess cold and consequently reducing the impact on their health and providing financial benefits which are of particular concern to many individuals since the rise in cost-of-living as discussed throughout this research (Care and Repair Cymru, 2024).

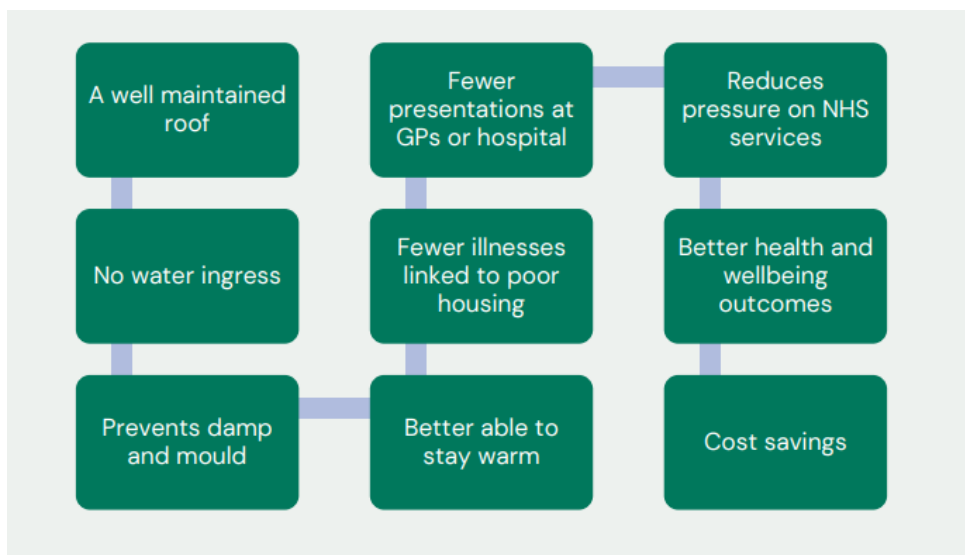


Figure 1: Flow chat to show the impacts of “A well maintained roof” on damp and mould, health and finance (Care and Repair Cymru, 2024).

1.2 Cost of Living

The 'cost of living' refers to the disposable income which a person has for their basic needs. Since late 2021 the UK has experienced a drop in disposable income as the rate of inflation increased impacting numerous households (Hourston, 2022). The annual rate of inflation increased to 11.1% in October 2022 before falling in 2023 (Barton et al., 2024). In January 2023, research shows that 92 percent of UK households' cost of living had increased from January 2022 (Clark, 2024). This has impacted the affordability of essential goods, for example, food, electricity and fuel. Figure 2 below indicates the key elements of the cost-of-living crisis and the potential pathways linking it to health (Broadbent et al, 2023). Figure 2 also shows the need for government action through highlighting the effects which the rise in cost-of-living has had to public policy responses, further impacting the short- and long-term health of the public.

Global factors were the primary cause of the increase in inflation; however, price rises in various areas of the domestic economy also accelerated (Barton et al., 2024). The United Kingdom (UK) encountered record rises in costs at the beginning of 2022 due multiple factors including, the economy being dependant on fossil fuels, continued under-investment in renewable energy, reduced gas storage, and failure to regulate the energy market (Broadbent et al, 2023). Therefore, a combination of factors contributed to the rise in cost and affordability of goods and services to the public.

Research identifies some individuals or groups to be at a higher risk of being vulnerable to suffering the impacts of the rise in cost-of-living. The rise in cost-of-living is most prominent among the poorest UK households, who typically spend a higher proportion of their income on food and housing (Brown, 2022). A study carried out in 2022 showed that

inflation for the richest households was 9.6%, however, for the poorest it was 12.5% (UCL, 2023). This has consequently impacted the standard of living within UK households due to individuals changing their behavior with respect to heating, energy and daily living by individuals prioritising how their income is spent. The UK population are reportedly more concerned about how they are spending their money and reducing expenditure on activities which they consider to be non-essential. Literature supporting this shows that 46% of people stated they had stopped or reduced the amount they eat out and 34% are shopping at a cheaper supermarket to reduce the financial impacts of the rise in cost-of-living (PwC, 2022).

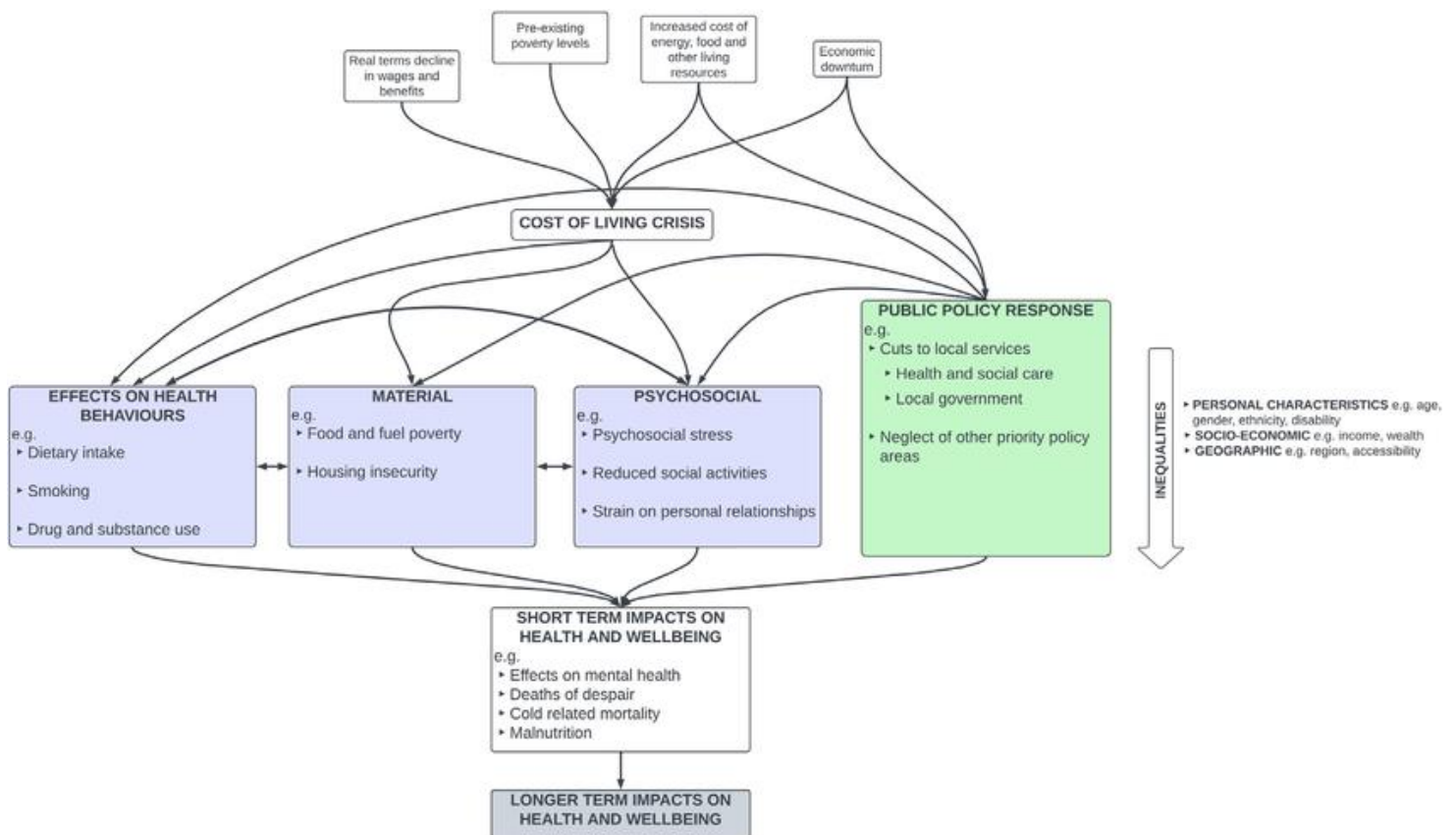


Figure 2: Key elements of the cost-of-living crisis and the potential pathways linking it to health (Broadbent et al, 2023).

1.3 Effects of the increase in cost of living

Researched literature indicates that one of the major effects of the rise in cost-of-living has been homeowners' ability to heat their homes due to the increase in energy prices. When a home is being rented to a tenant or sold in the UK it requires an Energy Performance Certificate (EPC) which is proof of the energy efficiency of the property taking into account fuel costs and carbon dioxide emissions. The EPC categorises the property from A (most efficient) to G (least efficient) with band E being the minimum requirement for properties which are being rented out by landlords to tenants (GOV.UK, 2023). EPCs have been planned for use as an energy efficiency system of measurement with other policy ideas; linking council tax or stamp duty to energy efficiency of the property or assessing whether a property meets the requirements to be rented to a tenant (Jenkins et al, 2017). This ensures that tenants are not renting inefficient properties which are difficult to heat further contributing the 'excess cold' hazard previously discussed.

Carrying out works to increase the energy efficiency of a property poses dilemmas to the Private Rented Sector (PRS) which are less likely to be encountered by those who own their property. In the PRS capital investments in energy efficiency are made by the landlord, however, the benefits are gained by the tenant, through for example, lower energy and heating bills (Adan et al., 2019). Therefore, in order for the landlord to achieve some economic benefits they may charge a higher rent (Adan et al., 2019).

Out of these homes which have an EPC, around 8 million homes in England (58%) and 460,000 in Wales (62%) had a rating below band C (Office for National Statistics, 2023). A C rating is recommended and is given to a property that is moderately efficient whilst below C indicates that the property has a low efficiency rating and may be more difficult to

keep warm proving to be more expensive to heat. These homes are likely to be occupied by older adults and those with multiple generations (Office for National Statistics, 2023).

Consequently, the impacts of energy and heating costs due to the rise in cost-of-living are experienced by many tenants. In a survey conducted by the National Residential Landlords Association (NRLA) in England and Wales during March and April of 2023, over 80% of tenants have had to make some form of cutbacks due to rising energy prices (Griffiths, 2023). “The Impact of the Cost-of-Living Crisis on European Households” studies the impact of the rise in cost-of-living on European households using data on individual consumption, income, and wealth (Chafwehé et al., 2024). The results from this indicate that, across Europe, the rise in cost-of-living had the greatest effect on pension-age households primarily due to the depreciation of nominal wealth gathered during the life cycle (Chafwehé et al., 2024). However, in contrast research from 2023 shows that those aged 65 years and over were the least likely age group to report finding it difficult to afford energy bill payments (Office for National Statistics, 2023). However, they were the most likely age group to cut back on gas and electricity expenditure due to the rise in cost of living (Office for National Statistics, 2023). In terms of those who were in the category of working-age differences in nominal balances and income growth further meant that the inflationary impact was regressive for this group of individuals (Chafwehé et al., 2024).

Due to the outlined effects many individuals have had to change their behaviours to afford essential goods and services. The Transtheoretical Model (TTM) as shown in Figure 3 below illustrates behaviour change as an intentional process that occurs over a period of time and involves progress through a series of six stages of change (Prochaska et al. 1992). Within Figure 3 arrows point to the stage transitions motivated by either Experiential or Behavioural

processes of change (Faklaris, 2022). The cycle starts at 'Precontemplation' and flows clockwise, but individuals can exit and re-enter the process at any stage (Faklaris, 2022).

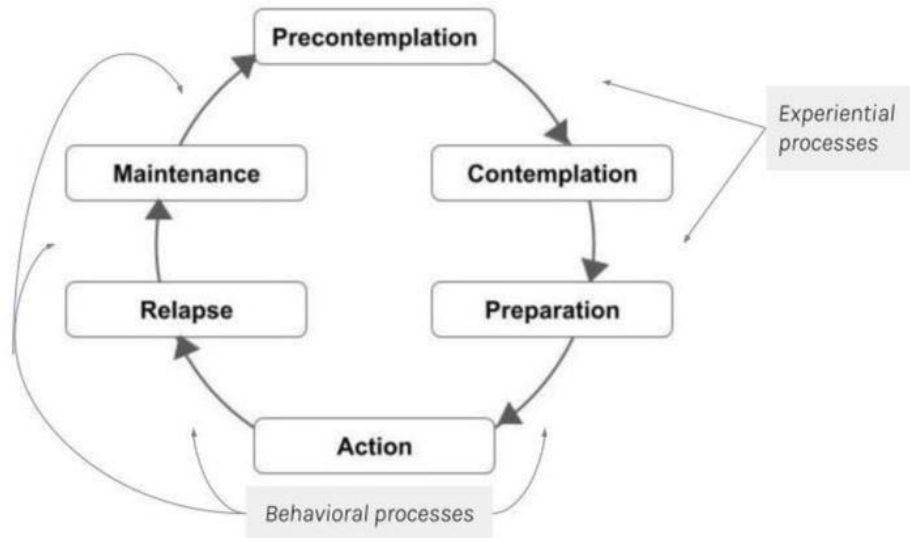


Figure 3: Diagram of the Transtheoretical Model Stages of Change. (Faklaris, 2022).

1.4 How the rise in cost-of-living is having an impact on tenants' ability to heat their home and prevent damp and mould

The ability for an individual to heat their home can have an effect on damp and mould growth. Depending on the way in which damp and mould growth is measured it is reported that the number of homes in England with damp and mould ranges from 4% to 27% (GOV.UK, 2023). However, existing literature does not identify what percentage of these have been related to condensational damp and mould which is the type associated with poor

heating of the home as discussed below. Concerningly, Citizens Advice states that in the UK 17% of renters have gone without heating, hot water, or electricity (Taylor-Smith, 2024).

Condensational mould formation in a home is due to moisture accumulating in an area and not being dried out properly which could occur if the house is not heated correctly (Birmingham City Council, 2024). Damp houses have the ability to encourage the growth of mould and mites (Halton, 2024). Mites feed on the mould and can increase the risk of respiratory illnesses in some people. (Halton, 2024). Therefore, not heating or ventilating the home correctly can increase the risk of damp and mould growth of condensational damp.

However, the rise in cost-of-living may create challenges for tenants to prevent condensational mould growth. One study which was carried out consisting of 671 participants concluded that participants living with inadequate heating and not heating due to the cost of fuel had an increased risk of mould contamination (Sharpe et al., 2015)

There are other types of damp which may occur within a house caused by other factors such as structural damage to the house or a damaged pipe. Depending on the degree of structural damage to a property some landlords may not view it as a priority to fix, particularly if they are struggling to cope with payments due to the rise in cost of living. Prolonging the time to fix these issues may heighten the risk of damp and mould growth arising (GOV.UK, 2023). Despite structural issues being the landlord's responsibility, not carrying out required works will negatively impact the tenant.

Evidence from "The impact of the cost-of-living crisis on population health in the UK: rapid evidence review" (Meadows et al., 2024) which was a recent review carried out in the UK suggests that financial help should be provided to those most at risk of living in a cold home

because of the rise in cost-of-living through targeted support for energy bills. Accessing this support would assist tenants financially with energy and heating bills.

1.5 Housing Health and Safety Rating System (HHSRS)

The Housing Health and Safety Rating System (HHSRS) is a risk-based evaluation tool used by local authorities in England and Wales when inspecting houses to identify and protect against risks and hazards to health and safety (GOV.UK, 2006).

When carrying out inspections, properties are assessed and any of the 29 different hazards listed in the HHSRS guidance which may be identified are scored based on their likelihood to occur and the harm outcome of these hazards. Figure 4 below shows the average likelihood and health outcomes for ‘Damp and Mould Growth’ (GOV.UK). There are 29 hazards such as excess cold, damp and mould growth and electrical hazards, all of which can cause a ‘serious and immediate risk to a person’s health and safety’ (Care and Repair Cymru, 2024).

The Housing Health and Safety Rating System (HHSRS) categorises those issues in the home that are hazardous to health as ‘Category 1 Hazards’ and assesses them based on the potential effects on those considered to be the most vulnerable (Care and Repair Cymru, 2024).

If there is a Category 1 hazard identified in property local authorities are under a duty to act (GOV.UK, 2006). However, if the hazard is a Category 2 hazard and is a lower risk in comparison to a Category 1 hazard the local authority has a power to take action, but it is not necessary (GOV.UK, 2006).

Damp and Mould Growth							
Average likelihood and health outcomes for all persons aged 14 years or under, 1997-1999							
Dwelling type & age		Average likelihood 1 in	Spread of health outcomes				Average HHSRS scores
			Class I %	Class II %	Class III %	Class IV %	
Non HMOs	Pre 1920	446	0.0	1.0	10.0	89.0	11 (I)
	1920-45	400	0.0	1.0	10.0	89.0	12 (I)
	1946-79	446	0.0	1.0	10.0	89.0	11 (I)
	Post 1979	725	0.0	1.0	10.0	89.0	7 (J)
HMOs	Pre 1920	430	0.0	1.0	10.0	89.0	11 (I)
	1920-45	219	0.0	1.0	10.0	89.0	22 (H)
	1946-79	967	0.0	1.0	10.0	89.0	5 (J)
	Post 1979	644	0.0	1.0	10.0	89.0	8 (J)
All Dwellings		464	0.0	1.0	10.0	89.0	11 (I)

Figure 4: Table to show the average likelihood and health outcomes for all persons aged 14 years or under (GOV.UK, 2006)

1.6 Housing Theories

In terms of tenants choosing houses, there are some theories that have been put forward.

Firstly, Herbert's Residential Choice Decision (RCD) Theory focuses on the decision-making which is carried out by tenants when deciding on a housing to rent (Aliu, 2024). It takes into consideration factors that influence choices and acknowledges that housing quality is linked to, for example, the safety of the area. People consider both the physical condition of the property and their subjective perception of quality.

Herbert's theory aligns with the Random Utility Theory (Aliu, 2024). This theory suggests that individuals make choices based on maximising their satisfaction or well-being. People assess different housing options and choose the one that provides the highest satisfaction.

However, challenges in housing choices such as affordability due to the rise in cost of living are outlined in this literature review. This may influence a tenant's decision to rent a house which is more affordable rather than a house which provides the highest satisfaction.

1.7 Focus on Birmingham

Research highlights the need for improvements in the quality of Birmingham's housing stock. In a regulatory notice published on 24th May 2023, the Regulator of Social Housing concluded that Birmingham City Council has breached consumer standards (Regulator of Social Housing, 2023). The investigation discovered that approximately 23,000 social homes owned by Birmingham City Council did not meet the Decent Homes Standard (Regulator of Social Housing, 2023). In addition to this health and safety issues were a major concern with almost 17,000 overdue asbestos surveys, around 15,500 late electrical safety inspections and more than 1,000 fire risk assessments that were overdue (Regulator of Social Housing, 2023). Furthermore, there was more than 1,000 overdue responses to tenant complaints highlighting the need for action to ensure tenants are living in safe environments (Regulator of Social Housing, 2023).

Birmingham is the second largest city in the UK after London. Between the census held in 2011 and the following census in 2021, the population of Birmingham increased by 6.7%, from just over 1,073,000 in 2011 to around 1,144,900 in 2021 (Office for National Statistics, 2023). However, evidence shows that there are high levels of deprivation across the West Midlands area with Birmingham being in the highest deprivation decile (Beecham and Radburn, 2021). Birmingham is within the top 3% of deprived local authority areas and has been ranked the 7th most deprived local authority out of England's 317 authorities (Birmingham City Council, 2019).

Those living in the most deprived areas are those who are more likely to have been impacted by the increase in cost of living (Office for National Statistics, 2023). Therefore, due to these statistics Birmingham is chosen as the focus area for this research.

2.0 Literature about damp and mould in houses

2.1 Physical and mental impacts of damp and mould

Damp and mould in houses can cause various physical and mental health effects for those living in the property. In the United Nation's (UN) sustainable development goals health has been linked to all the goals with particular focus in goal 3 "Ensure healthy lives and promote well-being for all at all ages" (Bailey-McHale et al., 1970). Figure 5 shows the Dahlgren and Whitehead social model of health which is a framework illustrating how various determinants such as education, work environment, and lifestyle choices influence health (Bambra et al., 2010).

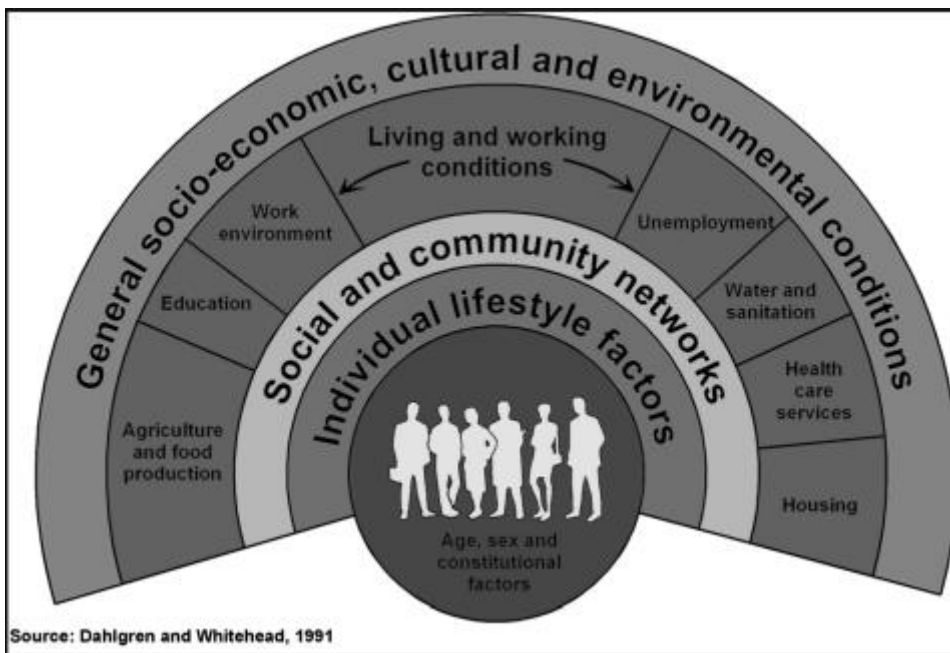


Figure 5: Dahlgren and Whitehead's model of the social determinants of health. (Bambra et al., 2010)

Firstly, in terms of physical impacts damp and mould can heighten the risk of experiencing respiratory problems. Inhaling or touching mould spores may lead to an allergic reaction, with symptoms such as sneezing, a runny nose, red eyes and skin rash (NHS, 2022). Mould exposure can also trigger asthma attacks (NHS, 2022). However, one study concluded that as

exposure to indoor moulds is usually categorised with long term and low dose, the causal relations between mould exposure and asthma development have not been fully investigated (Du et al, 2021). As mould can affect the immune system those with a weakened immune system, such as people undergoing chemotherapy, should be more careful to avoid damp and mould. Those who are more vulnerable to these physical effects include babies and children, older people, those with existing skin problems, such as atopic eczema, those with respiratory problems, such as allergies and asthma and those immunosuppressed individuals (NHS, 2022). Further research which was carried out reported that early-life exposure to mould has been linked to poorer cognitive function (Brooks et al, 2023)

As well as physical effects damp and mould can potentially lead to psychological effects. Research shows evidence of links between mental and physical health (Ohrnberger et al., 2017). For example, positive mental health can help reduce the risk of serious physical problems including heart attacks and strokes (Vázquez et al., 2009). Depression and anxiety are more common among people living in damp and mould conditions (Brooks et al, 2023). This may be due to for example, the stress of the physical impacts or trying to get the landlord to fix these issues. Six studies which were carried out relating to participants' experiences of damp and mould in their homes reported tenants feeling self-conscious that the smell of mould would linger, and others would be able to smell damp on their clothes (Brooks et al, 2023). Research shows those with mental illness may find it difficult to access adequate healthcare, further heightening any poor physical health which they may experience (Eisenberg et al., 2007). The NHS yearly spends approximately £1.4 billion on treating illnesses associated with living in cold or damp housing (Balogun et al., 2023). This shows damp and mould is having a significant impact on individuals and the healthcare system.

2.2 Types of Damp

The three main types of damp that can be found within a house include condensational damp, penetrating damp and rising damp. In the 2 years to March 2019, an average of 3% of households in England had damp in at least one room of their home (GOV.UK, 2020). Data from the English Housing Survey in 2021 shows that around 11% of houses in the private rented sector had damp problems (Balogun et al., 2023). In 2019 exposure to damp and/or mould was related to approximately 5000 new cases of asthma and approximately 8500 lower respiratory infections among children and adults (Clark et al, 2023). This highlights damp and mould as an area of concern.

2.2.1 Condensational Damp and Mould

Firstly, condensational damp is one of the most common types and often occurs during colder months (Halton, 2024). Condensation is formed through water vapour or moisture inside a building coming into contact with a colder surface, such as a window or wall (Halton, 2024). By just breathing a family of four can contribute moisture to the air equivalent to 30 to 40 litres of water a week (National Energy Action, 2022). Other activities that produce moisture include bathing, cooking, and drying clothes indoors (Birmingham City Council, 2024). The condensation can then soak into the wallpaper, paintwork or plasterwork on surfaces and develop black mould. Mould spores in the air can enter the home through, for example, doors, windows, vents or they can attach to clothing, shoes, and pets outdoors and be carried indoors (CDC, 2022).

Mould spores grow when they fall on places where there is excessive moisture (CDC, 2022).

Mould usually appears in room corners, north facing walls, on or near windows and behind

wardrobes and beds especially if they are against external walls. This is because mould requires some moisture on a relatively cold surface in an area of low relative air movement to grow (Adur and Worthing Councils, 2024). Therefore, the factors which mould requires to grow include the presence of moisture, food (for example, wallpaper or emulsion paint), the right temperature and oxygen (Halton, 2024).

Condensation is a common issue found in modern homes as they are built to keep energy loss to a minimum, however, they also reduce water vapour escaping, which can increase condensation (NHBC, 2023) Intermittent heating of homes is more likely to allow condensation to develop in comparison to continuous heating which maintains warmth in rooms and reduces the risk of condensation formation (NHBC, 2023).

2.2.2 Penetrating Damp

Penetrating damp is commonly due to an external issue such as, missing pointing, cracked rendering, missing roof tiles or faulty guttering and pipes (Halton, 2024). This allows water to penetrate through for example, roofs, chimneys, dormers, poorly fitted vents, doors and windows to the inside surfaces. These areas are usually visibly wet and contain salts that are collected when passing through the wall, which prevent the growth of black mould (Halton, 2024).

In the UK, poorly installed cavity wall insulation is one of the causes of penetrating damp. Cavity walls prevent water from penetrating the inner structure, however, when insulation is introduced, a bridge is created between the outer and inner walls, allowing the water to penetrate into the building (Sharman, 2016).

Defective plumbing causing leaks from water and waste pipes in bathrooms and kitchens, can be a source of penetrating damp. These leaks can affect both internal and external walls and ceilings and will remain regardless of the weather conditions. This type of damp doesn't usually cause black mould due to the area being too wet and the chemicals in the water preventing the growth of any mould (Halton, 2024). Timber can be affected over a period of time leading to rot and structural issues.

2.2.3 Rising Damp

Rising damp is generally as a result of water rising up through the fabric and brick walls of a building after being absorbed from the surrounding ground. The majority of buildings have a damp proof course (DPC) to prevent this from happening, however, over time the DPC may break down. The water can then get through or around the broken damp proof course (DPC) or if the house does not have a DPC the water is able to pass through the natural brickwork (Halton, 2024).

This type of damp mainly only affects basements and ground floor rooms as it usually rises 12 to 24 inches above ground level. Rising damp will be present all year but is more evident in winter with salt crystals being visible (Halton, 2024).

If left untreated, rising damp can cause wall plaster to crumble and wallpaper to lift off the wall. It may also lead to more serious implications such as structural damage due to timber rot. Black mould is not usually seen where there is rising damp as it carries with it ground salts which prevent the growth of black mould (Halton, 2024).

2.3 Factors affecting the presence of damp and mould and how to overcome them

The factors which mould requires to grow include the presence of moisture, food, (for example, wallpaper or emulsion paint), the right temperature and oxygen. Therefore, by eliminating certain factors the likelihood of damp and mould growth can be reduced.

Firstly, ventilation and reducing the amount of moisture produced can reduce the likelihood of any growth. For example, if its dry outside by drying clothes outdoors or if necessary, indoors in a well-ventilated room or in a tumble dryer can reduce the amount of moisture being produced. Ensuring that rooms are well ventilated particularly those where excess moisture is likely to be present will allow warm, moist air to escape outside and allow cool dry air to enter (Halton, 2024).

In regard to temperature, a lack of heat can be a contributing factor as damp and mould growth often occurs during colder months; therefore, it is important to ensure the house has adequate heating. Many tenants may find it difficult to heat their homes due to the rise in the cost of living particularly older people, those from poorer backgrounds and those with lower energy efficient houses.

However, damp and mould growth may be due to other factors which are out of tenants' control. Peer reviewed literature explains how the property design of can affect the risk of damp and mould growth. Optimising building design and policy making to reduce energy consumption, insulation and sealing against air leakages can improve heat transfer coefficients and higher airtightness which consequently improves thermal environments and reduces building heating/cooling demands (Du, et al, 2021). However, this may lead to lower

air change volume which causes additional moisture accumulation in buildings, heightening the risk of mould growth (Du, et al, 2021). Additionally, lack of structural maintenance by the landlord can provide additional opportunities for damp and mould growth. Ensuring damp proof courses, membranes and detailing around doors and window openings are kept in good condition can help to prevent water ingress (GOV.UK, 2006).

Therefore, this literature indicates how the prevention of damp and mould growth is affected by both tenant and landlord activities and requires action from both parties. If mould does occur in a house, it should be reported to the landlord/ managing agent and treated immediately with fungicidal wash or diluted bleach (Halton, 2024). However, brushing the mould could transfer it to another surface. The source of the damp and mould should be investigated and rectified to prevent further issues.

2.4 Awaabs Law

Damp and mould growth in 2-year-old Awaab Ishak's home was the cause of the child developing a severe respiratory infection which led to his death in December 2020 (GOV. UK, 2023). Despite Awaab Ishaks' mother reporting the issue for 3 years to Rochdale Boroughwide Housing, this issue was never resolved. Following this the government has amended the Social Housing (Regulation) Bill to introduce 'Awaab's Law', which will require social landlords to fix any reported health hazards within specified timeframes (GOV.UK., 2024).

In response to Awaab's death guidance has been developed for social and private landlords in England. This aims to improve standards and prevent harm to tenants by highlighting the legal responsibilities of landlords in relation to damp and mould. This guidance was

developed by the Office for Health Improvement and Disparities (OHID) within the Department of Health and Social Care (DHSC) in partnership with the Department for Levelling Up, Housing and Communities (DLUHC) and the UK Health Security Agency (UKHSA) (PHA) (GOV.UK, 2023).

Awaab's Law has made it a legal requirement for social landlords to investigate hazards within 14 days of damp and mould complaints being reported, commence carrying out works to repair them within a further 7 days, and make any emergency repairs within 24 hours (GOV.UK., 2024). Legal action can be taken against landlords who fail to meet these legal requirements (GOV.UK., 2023).

2.5 Tenants' Rights and Landlords' Responsibilities

Households on the lowest incomes often experience the worst end of the PRS with many living in substandard conditions out of fear of having their tenancy ended by the landlord or because they have come to accept such conditions as normal (Chisholm et al, 2020; McKee et al, 2020). Section 2.3 has highlighted how damp and mould growth can be affected by both the landlord and tenant activities. If tenants are not aware of their rights and what their landlord is responsible for doing, this may affect the length of time which they are living in a property which is damaging to their physical and mental health.

Firstly, under the Housing Act 2004 properties must be free from category 1 hazards including damp and mould (GOV.UK, 2023). According to the Landlord and Tenant Act 1985 this is the responsibility of landlords (GOV.UK, 2023). They should ensure that their rented property is free of hazards which are so serious that would make the property unsuitable for anyone to live in it (GOV.UK, 2023). When a tenant reports any signs of

damp and mould, landlords should have a proactive approach by inspecting the property and carrying out any required works to resolve issues (Shelter England, 2023).

Furthermore, under the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 landlords should have valid EPC certificates for properties being rented and sold in England and Wales. Homes which are privately rented must meet the minimum level of energy efficiency standard of Energy Performance Certificate (EPC) band E (GOV.UK, 2023). A more energy efficient home may be easier to heat and consequently reduce the likelihood of condensational damp and mould growth.

However, if the landlord does not attempt to resolve any issues regarding damp and mould the Environmental Protection Act 1990 gives tenants and councils powers to take legal action where homes contain a ‘statutory nuisance’, which includes where they can be prejudicial to health (GOV.UK, 2023). If damp or mould in the house was affecting the tenant’s physical or mental health this can be classified as being prejudicial to health. Recent guidance published by the Department for Levelling Up, Housing and Communities (DLUHC) provides clarity on landlords responsibilities stating that “landlords must treat cases of damp and mould with the utmost seriousness and act promptly to protect their tenants’ health.....Damp and mould in the home are not the result of ‘lifestyle choices’, and it is the responsibility of landlords to identify and address the underlying causes of the problem, such as structural issues or inadequate ventilation” (GOV.UK, 2023).

The tenant also has a role to play by ensuring that they promptly report any signs of damp or mould to their landlord. Additionally, as condensational damp and mould may be caused by

the tenants' daily activities such as showering or washing clothes, they should understand the causes and how to reduce the risk of damp and mould growth (GOV.UK, 2023).

2.6 Challenges faced by tenants experiencing damp and mould

Nationally in 2016 around 27% of Private Rented Sector homes were classified as non-decent (Ministry of Housing, Communities & Local Government, 2018). Research indicates that in England over 80% of tenancies are granted for an initial fixed term of 6–12 months (Sandoul, 2018). This causes concerns for many tenants about insecure housing, making it difficult to make a home in their community. Moving houses every time a contract ends is a costly process and disruptive to the social networks that provide support to people.

Whilst legal support is available for those living in poor conditions it can be time-consuming, and tenants may be reluctant to proceed with this as they may be at a heightened risk of being evicted by their landlord or rent being increased if they complain (Harris and McKee, 2023). Local authorities who enforce action often lack the resources to act against the worst offenders. For example, finding out who the private landlord is often challenging in some areas due to a lack of low-level geographical data (Harris and McKee, 2023). The Chartered Institute of Environmental Health (CIEH) supports this view stating that “37% of renters living with damp, cold or mould have never complained to their landlord, with 51% saying the fear of retaliation, including eviction or a rent increase, as the reason” (Taylor-Smith, 2024).

2.7 Research gap

There is existing literature as outlined throughout the introduction and literature review focusing on the damp and mould and the rise in cost-of-living. However, there is a research gap linking the effects of the rise in cost-of-living and damp and mould arising in properties. In addition to this, there is little research focusing on deprived areas such as Birmingham.

2.8 Research questions

What physical and mental health associated with damp and mould growth are tenants aware of?

Has the cost-of-living crisis changed tenants behavior with respect to energy, heating and daily living?

What is tenants' knowledge of support which is available for them and their rights?

What type of complaints are Birmingham City Council receiving regarding damp and mould?

2.9 Aim and Objectives

2.9.1 Aim

The aim of this research project is to investigate the effect of the cost-of-living on peoples' ability to afford interventions to prevent damp and mould arising in their properties based on a case study assessment of tenants living in Birmingham.

2.9.2 Objectives

- Objective 1 – To investigate tenants', living in Birmingham, understanding of physical and mental health effects associated with damp and mould.
- Objective 2 – To investigate any changes to behavior from December 2021 with respect to energy, heating and daily living of tenants further to the cost-of-living crisis.
- Objective 3 – To investigate tenants' knowledge of support which is available for them and their rights.
- Objective 4 – To analyse the complaint data from Birmingham City Council regarding damp and mould.

3.0 Methodology

3.1 Overview

Qualitative data has been collected to obtain data in support of this research project. This type of research gathers participants' experiences, perceptions, and behaviour in regard to the rise in cost-of-living and damp and mould as a tenant in a rented property (Tenny et al., 2022).

To collect qualitative data 8 semi-structured interviews with tenants were carried out in various areas of Birmingham, for example, Small Heath, Erdington and Moseley. In addition to this, 3 semi - structured interviews with Environmental Health Officers at Birmingham City Council were carried out.

3.2 Advantages of qualitative research and semi-structured interviews

There are a range of advantages of carrying out semi-structured interviews as qualitative research for this project. Firstly, it allows collection of detailed data that provides a deeper understanding of complex social events while considering the focus of the study (Mashuri et al, 2022). For example, in this research detailed information of people's experiences of damp and mould can be collected and how the rise in cost-of-living has had an impact on this.

Qualitative research prioritises the perspective of the participant (Tenny et al., 2022).

Therefore, this allowed the tenant to express their subjective views of damp and mould and the rise in cost-of-living through open ended questions rather than using closed questions which would limit the response that they could provide.

3.3 Limitations of qualitative research and semi structured interviews

However, there are some limitations to conducting qualitative research using semi-structured interviews. Firstly, they are time-consuming, labour intensive, and require interviewer sophistication. The process of preparing for the interviews, data collection, transcribing data and data analysis can be long.

Secondly, qualitative research relies on the subjective interpretation of the interviewer, which can introduce bias into the research process (Tenny et al., 2022). The interviewer's perspective, experiences and knowledge can influence the way data is collected, analysed, and interpreted.

Qualitative research typically involves small, purposive samples that may not be representative of larger populations (Tenny et al., 2022). This limits the findings to a certain area, for example, in this scenario the research is limited to Birmingham.

3.4 Research Participants

The participants who were taking part in this interview were tenants who were having housing inspections carried out on their properties by Birmingham City Council (BCC). These housing inspections were being carried out as part of a pro-active project being undertaken to improve property standards and management practices within the Private Rented Sector (PRS). Therefore, the participants were not just limited to those who had complained to BCC about damp and mould in their house. However, due to the interviews being carried out whilst working at Birmingham City Council as a Housing Standards Officer this may have influenced the tenants' responses as they may have been reluctant or more willing to share some information compared to if the interviews had been carried out by someone who was not working at BCC and consequently not in a position of power. The tenants were from Small Heath, Erdington and Moseley where housing inspections were

taking place during the period when research was being carried out. To obtain a range of views, each tenant who had a housing inspection carried out was given the opportunity to take part in the semi-structured interview. This ensured that interviewees were not just limited to those worst affected by damp and mould and the rise in cost of living.

Three of the Environmental Health Officers at Birmingham City Council were also participants for semi structured interviews. This was to gain their view of the damp and mould in properties and their understanding on how the rise in cost-of-living has had an effect on this. All of the Environmental Health Officers were informed about the research being carried out and given the opportunity to take part in the study. Participants were then chosen depending on who was available and willing to take part.

3.5 Location and Time

The interviews with the tenants were carried out in person at the end of housing inspections by Birmingham City Council. To ensure the safety of this location the interview was carried out at the door of the property accompanied by an Environmental Health Officer from Birmingham City Council. The interviews with the Environmental Health Officers were carried out at Birmingham City Council. The location of these interviews was a convenient and comfortable location for the participants.

The time to do the interview varied, however, the tenant was informed prior to starting the semi-structured interview that there are eight questions as shown in the Appendix 1 and it should take a maximum of 10 minutes. The Environmental Health Officers were informed that their interview consisted of nine questions as shown in Appendix 2 should take no more than 1 hour.

3.6 Ethical Considerations

Prior to conducting the interviews, the ethics of the research had to be taken into consideration. The main research procedure was explained to the participants in advance so that they were informed about what to expect and understood the reason for the research and how the research is going to be used. For example, they were informed that their research was being used for a university research project and would not influence anything which Birmingham City Council was investigating in relation to their property.

Participants were informed that their participation was voluntary and that if at any point throughout the interview they wanted to withdraw they could. Prior to conducting the interview signed consent was received from each of the participants.

They were also informed that their feedback will remain anonymous and is unrelated to the housing inspection carried out as this may lead to inaccurate responses if they think it is related to their case. This is one limitation of the case and working as a Housing Standards Officer and being with an Environmental Health Officer for a Birmingham City Council housing inspection may create bias in some people's answers.

3.7 Data Collection

When collecting the data variables had to be taken into consideration. Due to the changing energy and fuel prices the research may only be relevant at the time when the research was carried out. This is because if the energy prices dropped tenants may have provided a different answer in regard to how they changed their behaviour.

Data collection can be a timely process to record all the information being provided by the participant if it has to be written down. Therefore, by getting permission from the participant for the interview to be recorded it allowed the interviewer to be more actively engaged in the

conversation instead of having to concentrate on writing down answers. The information was then able to be carefully transcribed after the interviews have taken place.

The semi structured interview questions as shown in Appendix 1 for the tenants and Appendix 2 for the Environmental Health Officers were used to achieve the objectives of the research and answer the research questions.

Prior to starting the semi-structured interviews, the participants were provided with an overview informing them about the research.

The tenants were asked questions relating to the impact of the rise in cost-of-living on them and how they have had to change their behaviour with respect to energy, heating and daily living. This gave an insight into the tenants' daily living behaviour and their ability to afford interventions to prevent damp and mould in their property. The tenant was then asked about their knowledge of types of damp and mould to provide an understanding on their awareness of this. Questions were then asked regarding interventions put in place to prevent damp and mould and how this has changed since the rise in cost of living. This provided information on tenants' knowledge of prevention measures for damp and mould and how their ability to afford them affects how they are implemented. Tenants were then asked about their knowledge on how to tackle damp and mould to give an understanding on what they would do to solve damp and mould issues if they did occur. Following these questions the tenant was provided with an opportunity to share their experiences of living with damp and mould, if and how it was solved and the reason for the issue occurring. In addition to this they were asked about how this has or would have impacted their mental and physical health. The interview concluded by questioning the tenant's knowledge on their rights and support available.

In terms of the Environmental Health Officers, questions were asked relating to their experiences of inspecting properties with damp and mould. There were firstly asked approximately how often they deal with damp and mould complaints and if they believe that there has been any change in the number of complaints that they are receiving regarding this since the rise in cost of living. Questions were then asked about their opinions on tenants' knowledge of types of damp and mould. To gain an understanding on their opinion, Housing Standards Officers were asked about if they believe that tenants who are living with damp and mould understand how to prevent and tackle it. They were then asked if landlords are generally willing to cooperate and resolve damp and mould issues if they can. Their opinion on how they believe living in properties which they have inspected with damp and mould has had an effect on tenants was asked. Finally, they were asked what improvements they believed could be made to systems to prevent damp and mould.

3.8 Data Analysis

After each day that the interviews were completed, voice recordings were transcribed to obtain qualitative data. The interviews are then analysed using interpretative phenomenological analysis (IPA). This aims to provide detailed examinations of the participants personal lived experience.

Phenomenology is a philosophical approach, initially expressed by Husserl, which aims to produce an account of lived experience in its own terms rather than one prescribed by pre-existing theoretical preconceptions (Smith and Osborn, 2015).

IPA recognises that this is an attempt to interpret experiences and therefore the researcher is trying to make sense of what is happening to the participant (Smith and Osborn, 2015).

IPA is idiographic in its commitment to examining the detailed experience of each case, prior to the move to more general claims (Smith and Osborn, 2015). In the context of the rise in cost-of-living, IPA could be used to investigate how individuals perceive and navigate the challenges posed by rising living costs. This allows theories related to housing to then be explored such as Herbert's Residential Choice Decision and the Random Utility Theory as previously discussed in section 1.6. The goal is to gain deeper insights into the human experience.

Furthermore, Thematic Analysis was carried out using the six phases outlined in Figure 6 below. NVivo which is Computer Assisted Qualitative Data Analysis Software (CAQDAS) was used to individually code the interviews and subsequently organise the codes from each of the interviews into their corresponding themes. The themes and related codes are shown in the results section.

<i>Six Phases of Thematic Analysis</i>	
<i>1. Familiarizing yourself with data</i>	<ul style="list-style-type: none"> • <i>If required transcribe the data,</i> • <i>Reading and rereading the data.</i> • <i>Noting down any initial ideas.</i>
<i>2. Generating Initial Codes</i>	<ul style="list-style-type: none"> • <i>Coding interesting features of the data in a methodical fashion across the data sets.</i> • <i>Collating data relevant to each code.</i>
<i>3. Searching for themes</i>	<ul style="list-style-type: none"> • <i>Organising data into potential themes.</i> • <i>Proceeding to gather all data into relevant themes.</i>
<i>4. Reviewing the themes</i>	<ul style="list-style-type: none"> • <i>Checking that themes work in relation to the coded extract.</i> • <i>Generate a thematic 'map' of the analysis.</i>
<i>5. Defining and naming themes</i>	<ul style="list-style-type: none"> • <i>Ongoing analysis to refine the specifics of each theme and overall patterns the content shows.</i> • <i>Generating clear definitions for each theme.</i>
<i>6. Producing the report</i>	<ul style="list-style-type: none"> • <i>The final opportunity for analysis</i> • <i>Selecting vivid and compelling extract examples</i>

Figure 6: The Six Phases of Thematic Analysis (Braun & Clarke, 2006)

4.0 Results

The aim of this research project is to investigate the effect of the cost-of-living on peoples' ability to afford interventions to prevent damp and mould arising in their properties based on a case study assessment of tenants living in Birmingham. Semi-structured interviews were carried out with eight tenants of privately rented properties in Birmingham. Semi structured interviews were also carried out with three Environmental Health Officers (EHO's) to achieve the set objectives.

4.1 Physical and Mental Health Effects

Objective 1 – To investigate tenants', living in Birmingham, understanding of physical and mental health effects associated with damp and mould.

4.1.1 Tenant Interviews

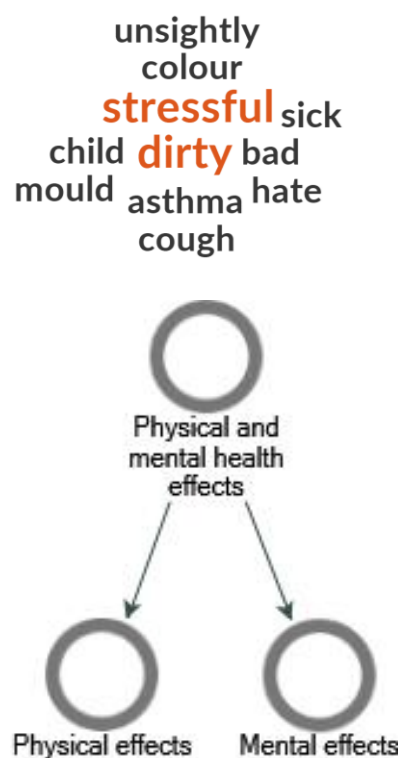


Figure 7: Diagram to show the theme (Physical and mental health effects) and related codes when analysing the transcripts

All of the tenants have some understanding of the effects that damp, and mould can have on a person's physical and mental health. However, the main physical effects which tenants have experienced or understand to be associated rare:

“our child has asthma now.” (Tenant 1)

“it can make you cough quite a lot.” (Tenant 2)

“It makes me feel sick.” (Tenant 5)

The mental effects of damp and mould which were recognised by tenants included:

“It has been stressful.”- (Tenant 1)

“gets you down, you feel like your house is dirty” - (Tenant 2)

“It's very unsightly” - (Tenant 3)

“It doesn't look nice to look at. I hate the colour of black mould. It makes me feel bad.” -
(Tenant 4)

“made me feel not great.” - (Tenant 6)

“make me feel a little not clean, yeah and that the house is dirty.” - (Tenant 7)

“It's very stressful trying to get it fixed.” - (Tenant 8)

4.2 Behaviour Changes

Objective 2 – To investigate any changes to behavior from December 2021 with respect to energy, heating and daily living of tenants further to the cost-of-living crisis.

4.2.1 Tenant Interviews

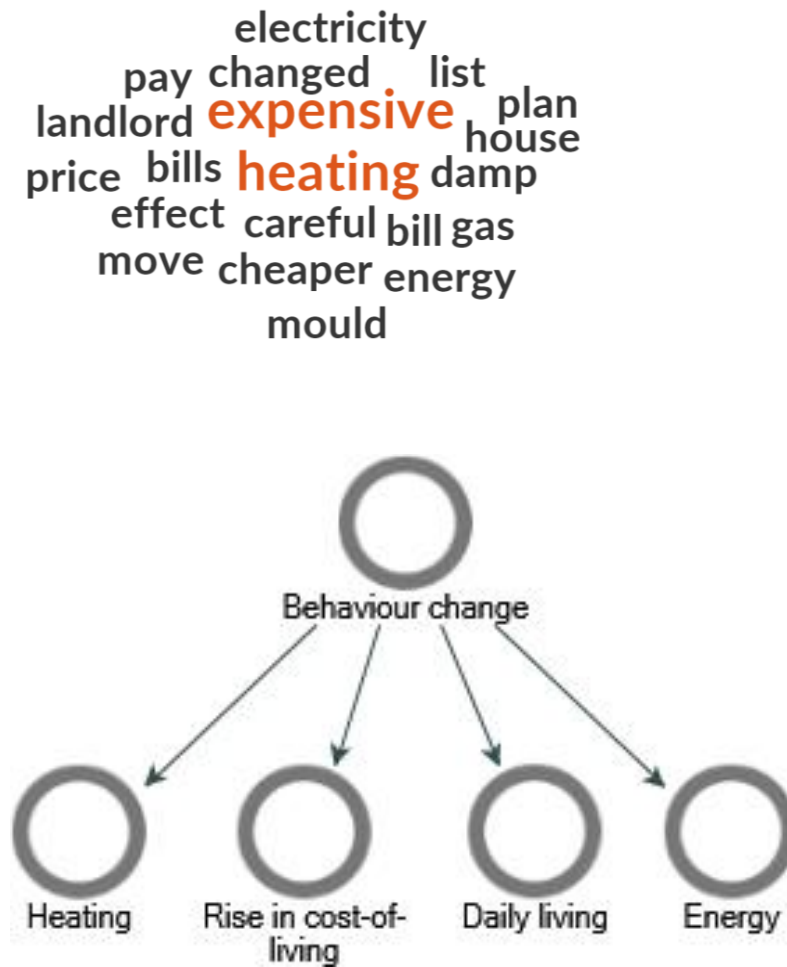


Figure 8: Diagram to show the theme (behaviour change) and related codes when analysing the transcripts

The tenants were firstly asked “Further to the rise in cost of living in what ways has your behaviour changed with respect to energy, heating and daily living?”

Out of the eight tenants who were interviewed two tenants discussed how the rise in cost-of-living has had minimal or no effect on them.

Tenant 3 said “It has not had much of an effect on us.” They also said that anything which they did since the rise in cost-of-living to prevent damp and mould “we would have done this before.”

Tenant 7 also said the rise in cost-of-living had “no effect on us” and when asked if what they do to prevent damp and mould is any different to prior to rise in cost-of-living they said “No, it’s the same.”

However, in terms of heating many of the tenants discussed the effects that the rise in cost-of-living had on them. For example:

Tenant 1 said “We still use the heating a lot, but we have to turn our heating down so that there’s not a big bill.” However, they also said that due to damp and mould in their house they do “use heating more now because more mould”.

Other opinions included:

“we don't have our heating on as much” – (Tenant 2)

“Our last house was full of damp and we couldn't keep up with heating it all the time because it was so expensive, so we had to move out of that place. And the landlord was not taking responsibility for the repairs and was not very helpful.” – (Tenant 5)

“we put our heating on less now” – (Tenant 6)

In terms of daily living Tenant 8 stated “I make a list all the time to plan what I get but if something that I have to take is expensive, I still buy it”

Some tenants talked about their behaviour change in relation to energy since the rise in cost-of-living:

“I’ve had to reduce how much I use my electricity. I’ve had to be very careful so that I don’t have to pay big bills.” – (Tenant 4)

“I was with British gas but it was more expensive, so I changed to Octopus energy but now I’m with a different one because it’s cheaper.” – (Tenant 8)

4.2.2 EHO Interviews



Figure 9: Diagram to show the theme (changes to behaviour) and related codes when analysing the transcripts

EHO’s were asked “In your opinion since the rise in cost of living (late 2021) have you seen any evidence of people being affected by the cost living crisis, for example, struggling to pay bills or using heating less because of the costs?” Responses included:

“What I often find is they won't admit to not using the heating. So, whilst we really shouldn't be taking into account when assessing damp and mould. I do tend to ask for the bills that they pay over a 12-month period.” - (EHO 1)

“this was a prolific problem before the cost of living in deprived areas, people were already struggling to heat their properties effectively. It's then also exacerbated that they're living in poor quality housing, which is not very efficient and now obviously the cost of heating is even higher. And I think as the cost of living has come as well now that has then prevented them from heating it to a very low level that they still had issues with damp and mould to they're not heating it at all, and obviously that damp and mould is then running quite rampant through the property and affecting the health.” – (EHO 2)

“It's had a massive impact on sort of the amount of damp, more cases we've had come through. It's been a significant rise definitely over the last sort of three or four years that I've noticed.” – (EHO 3)

4.3 Tenants knowledge of support and their responsibilities as a tenant

Objective 3 – To investigate tenants’ knowledge of support which is available for them and their responsibilities.

4.3.1 Tenant Interviews

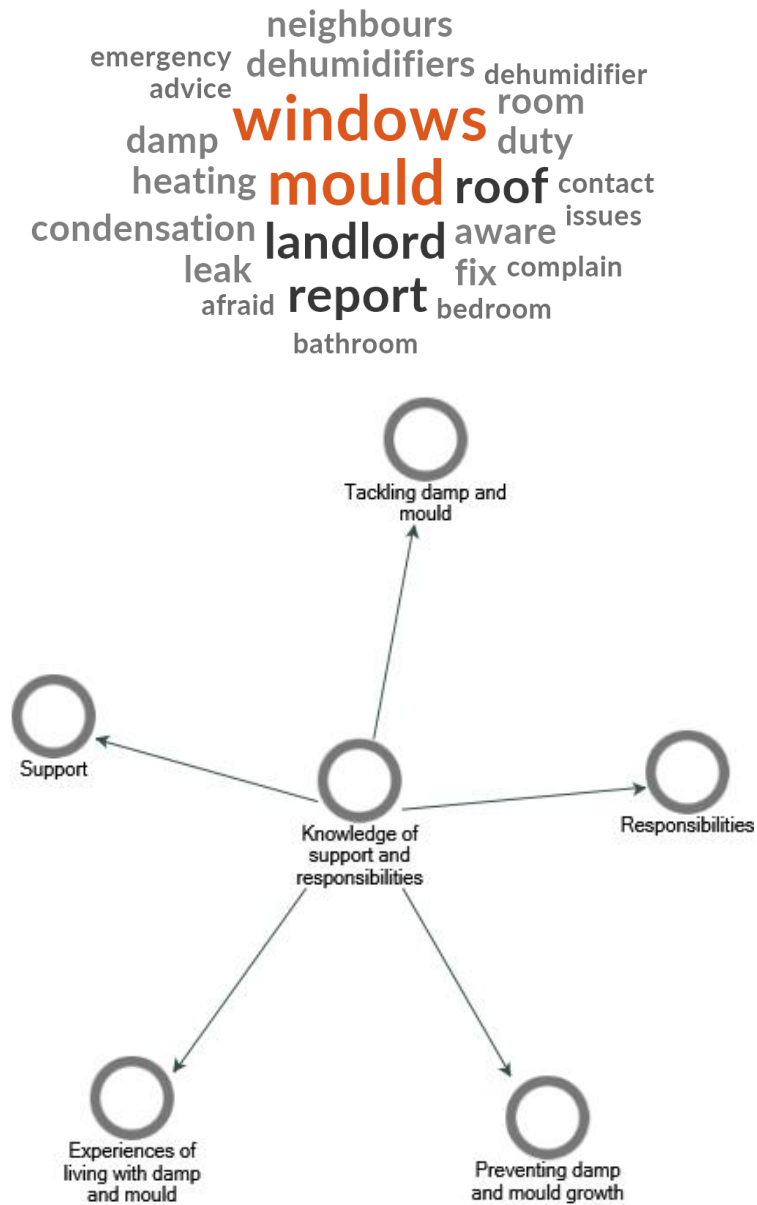


Figure 10: Diagram to show the theme (knowledge of support and responsibilities) and related codes when analysing the transcripts

In relation to tenants' knowledge of support and their responsibilities when questioned if they had any experiences of living with damp and mould only one out of the eight tenants who were interviewed said:

“No, I haven't had” (Tenant 4)

Various experiences of damp and mould include:

“I've had issues with black mould in the past” “in the property I'm in at the moment. It's mainly caused by condensation” (Tenant 2)

“When we moved here there was a leak in the roof.” “two years ago” (Tenant 3)

“my old room used to have mould.” “about two years ago now” “I think it was just the ventilation. Yeah, because it was a smaller room it was harder to keep it ventilated enough.” (Tenant 6)

When the tenants discussed their knowledge on how to prevent damp and mould one tenant said

“I always open my windows” (Tenant 4)

Six tenants shared this view while Tenants 1, 7 and 8 said that they put the heating on to prevent damp and mould.

Three tenants (5,6 and 7) use “dehumidifiers” to prevent damp and mould.

Tenant 7 discussed how they have “a dehumidifier which I use in the bedroom, open the windows and keep the heating on” to prevent damp and mould occurring in their property.

In order to tackle damp and mould various methods were discussed by tenants such as

“We wipe it down with a wet cloth.” (tenant 1)

“mould spray” “dehumidifiers” (Tenant 2),

while Tenant 6 “wouldn’t be sure” how to tackle damp and mould and Tenant 3 “ would probably just contact the agent.”

Question 8 of the tenant interview asked “As a tenant are you aware of your responsibilities if you are experiencing and damp and mould?”.

The majority of tenants were aware that they should make their landlord/ managing agent aware of any issues. Responses include:

“We must report that.” (Tenant 3),

“report it to the agency.” (Tenant 7).

Tenant 6 in response said “No.” they were not aware of their responsibilities

Tenant 8 said “I know I should report it, but I don’t want to complain. I’m scared of what the landlord would do. He might make me leave”.

When asked about what support they are aware of five out of eight tenants stated views similar to

“No, I’m not aware of any at all.” (Tenant 2)

whilst support that tenants were aware of included

“Citizens Advice Bureau.” “The council” (Tenant 1),

“our letting agent.” (Tenant 3)

“the Council” (Tenant 5).

4.3.2 EHO Interviews

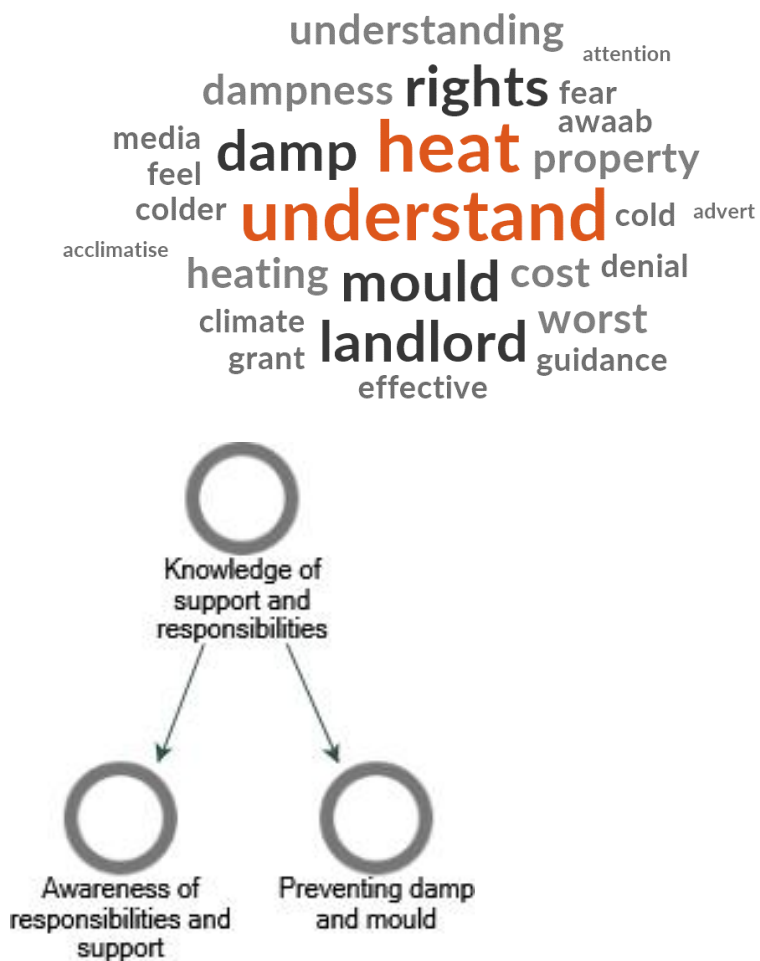


Figure 11: Diagram to show the theme (knowledge of support and responsibilities) and related codes when analysing the transcripts

The EHO’s were asked “Do you think that there is a lack of understanding from tenants around how to prevent and tackle damp and mould in houses?”

EHO 1 opinions on this included:

“Yeah, they know a little bit, but sometimes you think do they know because they don't tend to mention the heating. They're just quick to say I open the windows, and I keep cleaning the mould.”

“It's always very defensive and it's not helpful because it just says to me that they just want the landlord to deal with everything, which we can make the landlord deal with the structural issues. But, you know, you have to get the message across that if you don't do these things, even if that is insulated, doesn't mean to say you should heat the property less. That's the message as well.”

“And it's tricky because the guidance as well, you know the one that came in since baby Awaab, that recent guidance, it's almost like saying it's not to do with the tenant lifestyle. And I can understand that because people are just jumping to that and they're not doing what they're responsible for. So, one doesn't substitute the other is the message that I think we need to be following. It has to be both.”

“There's a bit of denial. Yeah, I think even if you come from a hotter climate, and they come here. They have a concept of condensation”

“But it is the cost that they want to save some money”

“They want, like, like they want 25 and they want it now instead of you need to acclimatise to between 18 and 21.

“maybe, there is a bit of an understanding about rapid heat.”

However, EHO 2 opinions were:

“I'd say on that as well I think it's got to do with the governments and the media portrayal of damp and mould, I think it's got worse in this last couple of years basically.”

“Again, the types of dampness. I think there's a complete lack of understanding of types of dampness and identifying what is the root cause of the dampness.”

“And more importantly, their role in preventing damp and mould and I think that's the worrying one that people just don't understand.”

“And the private renting sector are very quick to blame the landlord and then take nothing to do with it. And that's when the problems occur then I think.”

EHO 3 views were:

“I'd say probably I'd say yes.

Only because I don't think that they can really be bothered to educate themselves about it.”

“I think there's definitely a cultural issue there about educating people who haven't necessarily had to deal with it in the past and how to manage it in a colder climate.”

Following this the EHO's were also asked “Do many tenants understand their rights and are aware of support available to them in terms of damp and mould and the cost-of-living crisis?”. The responses to this question included:

“I don't think so. I think they they're not told. I think there was only recently probably in the last three years where I know that I've been to a property that complained about damp and

mould, but thankfully it's amazingly the landlord had finished a new heating system, insulation and stuff like that. I think that they were the ones that inquired with the landlord about it.” – (EHO 1)

“I think it needs something more nationally, even if it's just an advert for a couple of months on TV or something to say here is this grant. I just don't think it's getting through, and it depends on officers like us to, you know, give the cost-of-living leaflet to them” – (EHO 1)

“Unfortunately, I'd probably say there's a lot of tenants out there that we don't come into contact with who don't understand their rights, and they're probably some of the worst in some of the worst properties with some of the worst health impacts and they don't understand their rights and won't come forward.” – (EHO 2)

“a bigger percentage of people who don't understand what their landlords should be doing. And they probably won't come forward because they again don't understand their rights or rights or they're in fear that the rent will go up, they'll be evicted. Most people won't complain because they're in fear of eviction.” – (EHO 2)

It's not very well known, especially since the case of Awaab came out. I think that's brought a lot more media attention to it, but it's not really been backed up with any kind of support. – (EHO 3)

4.4 Damp and mould complaints

Objective 4 – To analyse the complaint data from Birmingham City Council regarding damp and mould.

4.4.1 Tenant Interviews

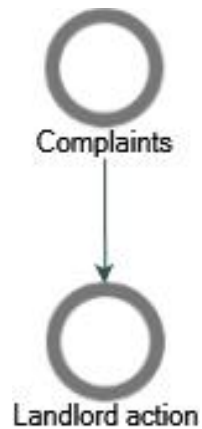


Figure 12: Diagram to show the theme (Complaints) and related codes when analysing the transcripts

In relation to complaints from tenants to landlords after experiencing damp and mould some of the action from landlords included:

“They fixed the leak, put in insulation and put the trickle vents on the windows.” – (Tenant 1)

“He just said buy some dehumidifiers.” – (Tenant 2)

Yeah, he did fix the leak. – (Tenant 3)

“No, he wasn’t very helpful.” - (Tenant 5)

4.4.2 EHO Interviews

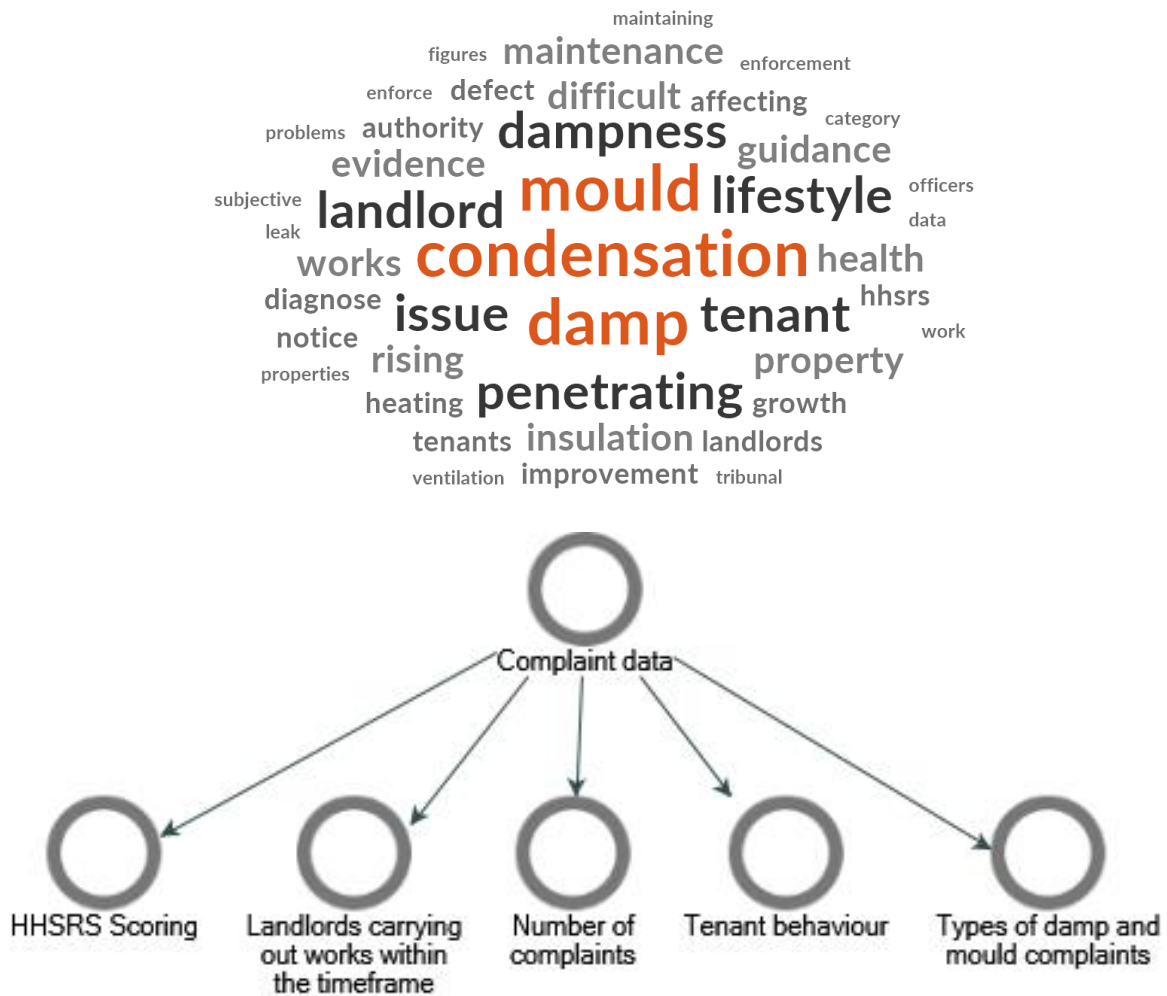


Figure 13: Diagram to show the theme (Complaint data) and related codes when analysing the transcripts

When asked “In your opinion approximately what percentage of cases that you have dealt with in the past year are related to damp and mould?” the EHO responses included:

“I'd say 90%.” – (EHO 1)

“It's got to be the high 90s, if not probably coming up to like, 95. I think probably every single case will have damp and mould in there in some form.” – (EHO 2)

“80%” – (EHO 3)

The types of damp and mould complaints which EHO's believe they mainly deal with are:

"I come across about 70% condensation issues. Sometimes it'll be condensation and some penetrating damp and sometimes it will be there has been penetrating damp and now there are signs, the effects are still there and condensation." – (EHO 1)

"as they're reported as a complaint, and I think we discussed earlier that nobody really seems to understand the difference between dampness and the different types of penetrating and rising and condensation." – (EHO 2)

"I'd probably say probably 90% is condensation dampness." – (EHO 2)

"probably all of them are condensation dampness and then a few of them you may find there are small elements of a little bit of rising dampness in a corner or there might be a little bit of penetrating dampness in one of the bedrooms. But the problems they've experienced in the whole property, that's actually affecting their health is probably due to condensation dampness" – (EHO 2)

"A mixture between condensation and penetrating. Rising's quite rare.

And it's very obvious to spot, but I definitely say.

I'd say a 50/50 split between penetrating and condensation." – (EHO 3)

In terms of the scoring of damp and mould under the HHSRS rating systems some of the EHO's opinions included:

"I think it's weak. I think it does require updating." – (EHO 1)

"It's also almost like they can't just change the statistics, they just have to also give us more leeway to ask for additional things, because how far do we go? And you go as far as making sure that all of the relevant matters are addressed." – (EHO 1)

"I think that if they change the hazards, they need to give be able to give officers the confidence to ask for more. I think that's where the issue is. I'm quite happy to ask for a fan. I'm quite happy to ask them to resolve a leak because it's so straightforward and easy and to treat the mould and stuff." – (EHO 1)

"So now they are weak, but then you can't just say they're weak alone. It's like you need to give us more." – (EHO 1)

"With the fire safety, there's a guidance for that. There's a guidance for crowding in space. There's a guidance for excess cold. There needs to be one for damp and mould and it needs to not just say, oh, we think this, it needs to just be baseline." – (EHO 1)

"before you get to the rating diagnosis of an issue is very difficult and I think for officers and I think local authorities to take action." – (EHO 2)

"It will open the local authority up to more challenges if it's a lower category two, especially if you're asking for works. Maybe again thermal improvements at a tribunal situation and you're relying on your HHSRS. That is all going to come out in the tribunal appeal and there's

a very big risk to the local authority of not being successful without very good evidence.

I don't think that damp and mould category takes into account all of those elements very well at all. It's very it's very subjective.

Probably one thing I would say as well is that data is probably over 20 odd years old.

Like we said, with the cost of living and how damp and mould is probably affecting people's health, I don't think those figures even probably relate into it now.” – (EHO 2)

“I don't believe it takes into the equation enough your psychological harm.

A 14-year-old kid not being able to bring, their friends back to their house because it's covered in damp and mould growth is that child's childhood gone. And I think that isn't reflected in the HHSRS guidance whatsoever. And massively out of date in regard to its figures and its data.” – (EHO 3)

EHO 's were asked if landlords are normally willing to carry out any works required in relation to damp and mould within the given timeframe and the following responses were received:

“It rarely ever happens, within the time frame. Sometimes you'll get some. Really, surprisingly, they'll just do what you want” – (EHO 1)

“You'll explain to them the factors, you'll guide them to the damp and mould guidance, the recent one, and you'll explain to them what it's about. They've got the responsibility of supporting the tenant in terms of managing it” – (EHO 1)

“So they need to work with them and ask them questions about what can't you afford. OK, let's sort out a grant and these are the types of grants they need to do that..” – (EHO 1)

“what I tend to do now is I tend to take a much more staged approach. So, I'll do everything like the leak, extraction, any windows that aren't working, any draughts. All of that tends to be done in the first instance. That gets resolved. If they don't do it, then it goes to improvement notice and then they've done all of that, and then the only thing is the insulation part. Then it has to be a recurring issue. So, if they report it again, it's on the notice that I've written. I've written to you, and I've advised you to do the insulation. So, if it comes again after you've done all the works that are required you to do at this stage, then it's either I or whichever officer are free then to serve an improvement notice for the insulation.” – (EHO 1)

“I think it depends on how well you can diagnose the defect. I think if there's a defect and you can evidence that there's slipped roof slates, penetrating dampness. You can take photos. It's coming through into the ceiling.

I think you've really got them then, and I think they know it. So, I think they're probably more inclined then to carry out works. I think for the condensation sort of ones where there's less, it's more difficult to diagnose what's causing the dampness, and it probably is condensation. Then I think those ones, they will tend to always blame the tenants and state that they've gave advice, it's tenants lifestyle and they won't be doing the work.

And I think that's when that leaves the officer very vulnerable, of trying to diagnose exactly what's causing, which is very difficult because, like we said, the tenant's going to be integral to that problem also as well. And what we've found now is trying to evidence that point and trying to obtain evidence of gas and electric bills to evidence that they actually adequately heating the property and using those services.” – (EHO 2)

“there's always been embedded that it's a tenants lifestyle issue. It's even embedded when you come across damp reports it's lifestyle” – (EHO 3)

“that is the hardest one I would say to enforce only because so we're coming in sunny season now, but say you have a damp and mould growth sort of November, December time it's raining or say penetrating damp, you can see it, it's a lot more noticeable. So, by the time you get to enforce, you're coming into sort of sunny season and then it all goes away because obviously got no rain, you've got no condensation because there's no heating on.” – (EHO 3)

“So it is difficult so that landlord then goes, oh, it's gone away now. And it kind of almost has, but you know, it's gonna recur in the next 12 months. So that difficult to put across to them that it's not just about now, it's about you know over the next 12 months is what we're enforcing on. So, there is an unwillingness to do it because that they just see it as a periodic thing, not as an actual issue.” – (EHO 3)

Finally, EHO's were asked “In terms of the cases which you have dealt with over the past year how far do you believe that tenant's behaviour has had an effect on damp and mould growth in houses?” Some responses to this question included:

“So, like say, of those condensation purely condensation cases, I'd say that about 60 to 70% of that is tenant use.” – (EHO 1)

“the media messages that have come out that are a tenant's lifestyle can't be blamed for condensation or damp and mould and I think it's probably got worse.

They are a lot more aware of the health risks of it, which is good, but equally they seem to

have taken the cells out of the situation completely and like you said.

How they live in a property again, heating and ventilation. If that's not being done, but then they're almost distancing themselves from that problem.

They're not going to try to alleviate it. They're not going to heat and ventilate, and they're not going to clean mould growth away when it forms. Those mould spores will spread. That'll spread through the property.” – (EHO 2)

“the properties haven't changed. Really. They're not just suddenly deteriorated in the last year” – (EHO 2)

“the way properties are used are now causing problems that's affecting their health.” – (EHO 2)

“I think personally it's a mixture of both. I think the poor maintenance from the landlord coupled with a lack of willingness to want to maintain a property from the tenant exacerbates the situation. So, landlords are not maintaining, tenant can't be bothered maintaining it themselves. I think it is more landlord maintenance than it is tenant lifestyle.” – (EHO 3)

“So, I think it's an educational thing as well. I'd say more maintenance than the landlord and probably I'd say about a 60/40 split 60% landlords' maintenance and 40% tenant lifestyle.” – (EHO 3)

4.5. Improvements to systems

EHO's were asked "what improvements do you think have been made to systems more generally to prevent problems with damp and mould?" Some of the suggestions included:

"Definitely the operating guidance in the first instance, I think there needs to be not just a subjective thing. I think there needs to be a minimum and I think that's like a kind of a hybrid.

But something that should say you should have this or this or this." – (EHO 1)

"MEES definitely needs to be improved to require a higher level of thermal efficiency of privately rented properties. I need to think needs to go from the E perhaps to a C from the EPC." – (EHO 1)

"The operating guidance needs to be adjusted not only just current statistics, but also what remedial works. And maybe and I think in addition to a revision of the guidance, there should be a dedicated guidance on damp and mould in the same way that the crowding and space." – (EHO 1)

"I think more training needs to be made available to officers free of charge" – (EHO 1)

"They should have a body that goes around and delivers at least a two to or even maybe like a five-day intense course going from the very basic right, the way up." – (EHO 1)

"more of a media drive for things that are available for tenants on a national basis."

"Government grants being more available, more widely available free grants to make it really easy, especially for the private rented sector." – (EHO 1)

“I think education is key. I think it’s needed as we've had public health messages about obesity and about smoking and stuff like that. I think there needs a bigger drive on damp and mould” – (EHO 2)

“Dictating minimum statutory standard that a landlord needs their property be at as you would with HMO management regulations. It needs to have XY and Z. And we would go out and say you haven't got any insulation and there would be a stricter enforcement policy rather than us having to try to use HHSRS to try to reason this damp and mould” – (EHO 2)

“I think there needs to be better training out there about what preventative measures, what's out there” – (EHO 3)

"definitely a change of legislation, I don't think we should tolerate it any anymore. Should be a harder line on the guidance about a standard that, should be expected for a household.” – (EHO 3)

“some harder guidance on what's acceptable and what's not acceptable and try and take the impacts off the tenant and stop blaming the tenant for maintenance and poor maintenance standard issues and put it back onto the landlord.” – (EHO 3)

5.0 Discussion

5.1 Physical and mental health effects

Objective 1 – To investigate tenants', living in Birmingham, understanding of physical and mental health effects associated with damp and mould.

Tenant interviews and researched existing literature show that there is an association between damp and mould and a range of physical and mental health effects

It was found that three tenants associated coughing, asthma and sickness with damp and mould as quoted in 4.1. Physical symptoms which were not recognised include atopic eczema (NHS, 2022). As previously discussed in section 2.1 damp and mould literature shows that damp and moulds can cause allergic reactions and are linked asthma (NHS, 2022). Section 2.2 highlights how the concerning figures from 2019 data with exposure to damp and/or mould being linked to approximately 5000 new cases of asthma and approximately 8500 lower respiratory infections among children and adults (Clark et al, 2023). However, one study concluded that as exposure to indoor moulds is usually characterised with long term and low dose, the causal relations and underlying mechanism between mould exposure and asthma development have not been fully investigated (Du, et al, 2021). Therefore, despite it being a growing concern it is difficult to be sure that mould is the cause of asthma, but it is clear that asthma is associated with damp and mould.

The social model explained in the literature review describes how mental health is linked to where an individual is in society and is affected by factors such as employment and money. Therefore, if people cannot afford to access services and support to resolve damp and mould issues their mental health may be further impacted.

Existing literature shows how there is a link between physical health and mental health (Ohrnberger a et al., 2017). Therefore, tenants who are experiencing physical symptoms such as asthma may also experience mental effects such as anxiety and worry as a result.

Mental effects which tenants were not aware of was, early-life exposure to mould has been linked to poorer cognitive function (Brooks et al, 2023). Tenants also did not mention anxiety or depression as identified in 2.1. Therefore, tenants who were interviewed may be aware of mental effects but unaware of the severity of them.

In conclusion, these interviews indicates that tenants have a basic understanding of the effects of damp and mould on an individual's health and recognise some effects which are associated with damp and mould growth. However, further research is needed to understand how damp and mould causes these physical and mental health effects. For example, the causal relations between mould exposure and damp and mould. Balogun et al., 2023 highlights the impact on the NHS of treating illnesses associated with damp and mould and therefore showing the importance of raising awareness of the physical and mental effects and how to reduce the risk of these occurring.

5.2 Behaviour changes

Objective 2 – To investigate any changes to behaviour from December 2021 with respect to energy, heating and daily living of tenants further to the cost-of-living crisis.

The results indicates that most tenants who were interviewed have changed their behaviour since December 2021 with respect to energy, heating and daily living further to the cost-of-living crisis.

EHO 3 highlights the rise in damp and mould cases which is also supported by data received from Birmingham City Council showing the rise in damp and mould complaints. This shows an increase in Category 1 damp and mould complaints from 60 Category 1 damp and mould complaints and 201 damp and mould complaints overall between 19/08/2021-19/08/2024 in comparison to 33 Category 1 damp and mould complaints and 190 damp and mould complaints overall between 18/08/2018-18/08/2021 (Birmingham City Council, 2024). This may be linked to the rise in cost of living; however, these figures may also be affected by factors such as staff shortages. EHO 2 and researched literature shown in Section 1.7 indicates that the existing poor quality housing stock in Birmingham is a contributing factor to the number of damp and mould growth complaints with Birmingham being in the highest deprivation decile (Beecham and Radburn, 2021). This suggests that damp and mould growth has been an issue prior to the rise in cost-of-living which further exacerbated the issue.

Only two tenants discussed how the rise in cost-of-living has had minimal or no effect on them. Section 1.3 explains how the rise in cost-of-living is most prominent among the poorest UK households and therefore it is possible that these tenants may fall out of this category. However, the majority of tenants interviewed were able to discuss ways in which they had to

change their behaviour with respect to energy, heating and daily living showing that it is still a concern for many tenants.

Most tenants have had to change their behaviour. The Transtheoretical Model (TTM) shown in the literature review illustrates behaviour change as an intentional process that occurs over time and therefore tenants may have experienced the effects of the rise in cost-of-living at different rates with some changing their behaviour quicker than others (Prochaska et al. 1992).

Tenants 1, 2, 5 and 6 discussed how the rise in cost-of-living has meant that they have had to change their behaviour with respect to heating. The ability for tenants to heat their homes was also identified as being affected by the rise in cost of living in a study carried out by Shelter England (2021) which highlighted that 26% of adult renters in England say they cannot keep their homes warm in winter (Shelter England, 2021) (Section 1.1). Section 1.1 also highlights that, tenants being unable to heat their properties contributes to the rise in winter deaths.

Additionally, if these tenants are heating their home less this could encourage the growth of mould and mites which would increase the risk of respiratory illnesses (Halton, 2024).

Citizens Advice states that in the UK 17% of renters have gone without heating, hot water, or electricity (Taylor-Smith, 2024). However, EHO 1 stated that tenants “won't admit to not using the heating” which may be due tenants feeling embarrassed that they are struggling to pay bills. Additionally, they may want to appear that they are doing all that they can to prevent damp and mould occurring in the property if an EHO is carrying out a reactive inspection following a complaint from a tenant. Therefore, the number of tenants who are living in cold homes may be significantly higher than figures show, however, it is clear that the rise in cost-of-living has impacted tenants behaviour with regard to how they heat their property.

Tenants did not discuss the effects of the cost-of-living on their shopping habits suggesting that it may not be a primary concern for those who were interviewed. However, in contrast section 1.2 highlights that in another study 46% of people stated they had stopped or reduced the amount they eat out and 34% are shopping at a cheaper supermarket (PwC, 2022).

Two tenants considered the effects of the rise in cost of living on their energy bills. With 58% of homes in England having an EPC rating of below band C in England this may be the cause of some tenants having to change their behaviour with respect to energy (Office for National Statistics, 2023). This figure would suggest that the effects of the rise in cost of living on energy bills would be higher however, this may not have been identified in this research due to the limited number of tenants interviewed. In contrast, Section 1.3 highlights how in a survey conducted by the National Residential Landlords Association (NRLA) in England and Wales during March and April of 2023, over 80% of tenants have had to make some form of cutbacks due to rising energy prices (NRLA, 2023).

5.3 Tenants knowledge of support and their responsibilities as a tenant

Objective 3 – To investigate tenants’ knowledge of support which is available for them and their responsibilities.

Furthermore, in relation to tenants’ experiences of living with damp and mould only Tenant 4 said they had no experiences of damp and mould. Data from the English Housing Survey in 2021 shows that around 11% of houses in the private rented sector had damp problems (Balogun et al., 2023). In contrast the CIEH highlights a higher figure of nearly half (45%) of England tenants are living in a home with damp, mould or excessive cold (Taylor-Smith, 2024). EHO 2 talked about how “most people won't complain because they're in fear of eviction.” The Chartered Institute of Environmental Health (CIEH) supports this view stating that “37% of renters living with damp, cold or mould have never complained to their landlord, with 51% saying the fear of retaliation, including eviction or a rent increase, as the reason” (Taylor-Smith, 2024). Therefore, the number of tenants living in properties with damp and mould may be higher than any figure which is recorded as a large number of cases may be unreported.

Some tenants had an understanding regarding ways to prevent and tackle damp and mould growth. Whereas some tenants gave views indicating that they had a lack of understanding around how to prevent and tackle damp and mould. EHO 1 believes there may be a lack of understanding around “rapid heat” as they believe that tenants often think that intermittent heating will “save money”. Literature in Section 2.2.1 supports EHO 1’s view and describes how intermittent heating of homes is not cost effective and is more likely to cause condensation formation (NHBC, 2023). However, EHO 2 believed that the governments and media portrayal of damp and mould has contributed to this. Media plays a key role in informing the public about health issues and has a responsibility to report accurate health and scientific information to the public (Kmietowicz, 2022). There is an emerging evidence base

of ways that media can be used to create positive behaviour changes (Evans et al., 2022). Strategies to change behaviour implemented using media have included a variety of platforms and program strategies, all of which are potentially more effective with increased frequency, intensity, interactivity, and feedback (Evans et al., 2022). Therefore, media could be used as a tool to improve tenant knowledge and change behaviour by providing a better understanding of how to prevent and tackle damp and mould.

In terms of tenants' rights and responsibilities, the majority of tenants who were interviewed understood that they should make their landlord/ managing agent aware of any issues.

However, one tenant shared how they were aware of their responsibilities but still had a fear of retaliatory eviction as previously discussed. The EHO's who were interviewed believed that many tenants were not aware of their rights. If tenants are unaware of their rights this could put them at risk of living in substandard conditions. Research shows that this is often out of fear of having their tenancy ended by the landlord or because they have come to accept such conditions as normal (Chisholm et al, 2020; McKee et al, 2020). Herbert's theory which is described in Section 1.6 suggests that individuals make choices based on maximising their satisfaction or well-being (Aliu, 2024). However, having a lack of understanding around rights and responsibilities increases the difficulty of maximising satisfaction if tenants are living in conditions which have damp and mould due to fear of complaining. Therefore, more education is required to ensure that tenants have a better understanding of their rights and responsibilities.

From the tenant interviews it was apparent that the tenants were unaware of support available to them in terms of both damp and mould and the cost of living. This shows the need for awareness to be raised about support that tenants can access if they require it. Educating the public on support available will help to achieve the United Nation's (UN) sustainable

development goal 3 “Ensure healthy lives and promote well-being for all at all ages” (Bailey-McHale et al., 1970). Therefore, support cannot be provided to those who may be living in the worst conditions if they are unaware support or have concerns about accessing support.

5.4 Damp and mould complaints

Objective 4 – To analyse the complaint data from Birmingham City Council regarding damp and mould.

In relation to complaints from tenants to landlords after experiencing damp and mould Tenants 1 and 3 explained repairs which had been carried out by their landlords however tenants such as Tenant 5 said that their landlord “wasn’t very helpful”. However, research has identified that it is the responsibility of the landlord to investigate any issues reported and failure to do so gives councils powers to take legal action (GOV.UK, 2023). However, if these tenants are those unaware of support or concerned about the consequences of complaining as described in Section 5.3 then they may not avail of the support and continue living in worsening conditions leading to physical and mental health impacts as highlighted in Section 2.1.

EHO 1 and 2 believe that a high percentage of their cases are related to condensational damp and mould whereas EHO 3 says that in their opinion in terms of the damp and mould cases that they deal with it is “a 50/50 split between penetrating and condensation”. Halton (2024) supports EHO 1 and 2’s view describing how condensational damp is one of the most common types and often occurs during colder months. Section 2.2.1 explains how condensational damp and mould can be caused by tenants’ activities and therefore, more education may be needed to help tenants understand how to reduce these effects. The Housing Act 2004 outlines that the landlord is legally responsible for maintaining a rental property in a good and safe condition for their tenants and free from hazards. However, as Section 2.2.1 explains condensational damp and mould is often created and exacerbated by tenants’ activities there may be some misunderstanding around who is responsible for condensational damp and mould growth. However, recent guidance published by the Department for Levelling Up, Housing and Communities (DLUHC) makes it clear that

landlords are the responsible person for resolving any form of damp and mould growth. It is stated in the guidance “landlords must treat cases of damp and mould with the utmost seriousness and act promptly to protect their tenants’ health.Damp and mould in the home are not the result of ‘lifestyle choices’, and it is the responsibility of landlords to identify and address the underlying causes of the problem, such as structural issues or inadequate ventilation” (GOV.UK, 2023), Therefore, this makes it easier for the tenant to blame the landlord for condensational damp and mould which may have been due to their own activities.

Interestingly EHO 1 believes that “of those condensation purely condensation cases, I'd say that about 60 to 70% of that is tenant use” with EHO 2 agreeing that “the way properties are used are now causing problems that's affecting their health”. EHO 3 believes that it's a combination of both parties at fault. In order to reduce the impact on landlords, both tenants and landlords need to be educated on the causes and types of damp and mould to understand that in order to prevent any damp and mould within a property it requires a shared responsibility between both parties despite guidance taking the blame away from tenants.

According to the English housing survey 2021 to 2022, the highest proportion of non-decent homes are in the private rented sector (PRS). However, EHO’s discuss challenges they experience with the HHSRS rating systems which is used to assess damp and mould in properties. All of the EHO’s share a similar view and agree that changes are needed to make it easier to take action. As discussed in section 1.5 the local authority is only required to take action on category 1 hazards. However, as discussed in the literature review the HHSRS rating system was develop in 2006 suggesting that figures are outdated and consequently inaccurate and unreliable for accessing housing currently. This highlights a need for a review

of this assessment tool which has a major influence on what enforcement action EHO's can carry out.

All EHO 's explained how landlords are often unwilling to carry out any works required in relation to damp and mould within the given timeframe. EHO 2 explained how they believe that they "think it depends on how well you can diagnose the defect". EHO states how "there is an unwillingness to do it because that they just see it as a periodic thing, not as an actual issue." Therefore, landlords appear to have a lack of understanding around their roles and responsibilities which are highlighted in the Housing Act 2006 and other relevant guidance.

5.5 Improvements to Systems

EHO's were asked "what improvements do you think have been made to systems more generally to prevent problems with damp and mould?"

EHO 1 believed that the EPC rating required for properties to be rented should be increased from band E to band C. Whilst this would ensure that the energy efficiency of properties are increased and provide many benefits to tenants this would pose many challenges as the Office for National Statistics (2023) highlights that around 58% of homes in England (had a rating below band C.

All of the EHO's have discussed how the HHSRS guidance requires updating with current data to support figures set to assess the category of damp and mould. In addition to this, they believe that the guidance requires more clarity and less subjectivity to make it easier to assess identified hazards in properties. This would help to improve the standard of housing in Birmingham which has been identified as an area of concern,

Training was also identified by EHO's as a suggestion regarding improvements which could be made. This would help to ensure that EHO's are all at the same level and have the confidence to carry out any enforcement action that is necessary.

6.0 Conclusion

In conclusion, through carrying out semi-structured interviews with Environmental Health Officers and Tenants in Birmingham the research aims and objectives were met. The links between the effects of the rise in cost-of-living and damp and mould arising in properties were identified.

Throughout the objectives researched literature and interviews answered the research questions. It was identified that tenants had an awareness of physical and mental health effects that were linked damp and mould, some of which tenants had experienced. Both research literature and interviews highlighted that tenants have experienced various behaviour changes as a result of the rise in cost-of-living.

Interviews helped to gain an understanding of tenants' knowledge of support which is available for them and their rights. The results showed that many tenants have lived in properties which have damp and mould growth. However, it is clear from the results that more action is required to increase the knowledge and awareness of support and tenants' rights and responsibilities.

Environmental Health Officer interviews provided an insight into the type of complaints that Birmingham City Council are receiving regarding damp and mould with literature and figures from Birmingham City Council's database supporting these figures.

Finally, recommendations for improvements to systems to prevent the problems of damp and mould growth were made by Environmental Health Officers.

7.0 Limitations

This study provided an overview of the effects of the cost-of-living on peoples' ability to afford interventions to prevent damp and mould arising in their properties. The research questions were answered, however, there were limitations to these results which may have been prevented if further analysis was carried out. Only eight tenant interviews and three EHO interviews were carried out. Due to a limited number of interviews being carried out this meant that the amount of data collected which was collected was limited.

More interviews were not able to be carried out due to the time constraints. These results could have been achieved if the research had been completed over a longer period of time.

7.1 Recommendations for Policy, Practice and Further Research

The results of this project indicate that the rise in cost of living has had an effect on tenants' ability to afford interventions to prevent damp and mould.

Further research is needed to understand the causal relationship between damp and mould and physical and mental health effects.

Scaling up the interviews would provide more reliable results. If results were carried out over more areas of Birmingham comparisons could be made between results for different areas.

Interviews could also be carried out with landlords to achieve more results by asking further questions. This would allow landlords an opportunity to share their opinion. For example, regarding tenants' communication with them if there are any issues. This would also provide an insight into the level of knowledge which landlords have regarding damp and mould and their responsibilities as landlords.

Information could be collected regarding tenants' energy bills prior to 2021 and now for comparison. This would show changes in usage. It was discussed how some tenants would state that they are struggling to pay bills and therefore having bills as proof would increase the accuracy of results.

EPC ratings could be recorded for households that are interviewed. This would be easy to achieve as the EPC register is available for anyone to access online. This would provide more information regarding energy efficiency of properties to identify whether they are less efficient and consequently harder to heat.

Furthermore, it is clear from the EHO interviews that policies need to be reviewed to provide clarity and reduce subjectivity of hazards. Policies should establish that damp and mould growth can be exacerbated by both tenants and landlords and therefore should be a shared responsibility. This will make it easier to understand roles and responsibilities, assess

conditions within properties and carry out enforcement to ensure that tenants are living in safe conditions.

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Appendices

Appendix 1

Tenant Interview Questions

1. Further to the rise in cost of living in what ways has your behaviour changed with respect to energy, heating and daily living?
2. Are you aware of different types of damp and mould?
3. Is there anything that you do to ensure that damp and mould does not occur in your house? If yes, is this any different to what you would have done prior to the rise in cost of living (late 2021)?
4. Do you know how to tackle damp and mould growth if it occurs?
5. Have you had any experiences of living with damp and mould? If yes, when was this and when was the cause?
6. If yes, how has your landlord dealt with this?
7. In your opinion what effects did/would living with damp and mould in your house have on your mental and physical health?

8. As a tenant are you aware of your responsibilities if you are experiencing and damp and mould?

9. What support are you aware of that is available to you regarding damp and mould?

Appendix 2

Environmental Health Officer Interview Questions

1. In your opinion approximately what percentage of cases that you have dealt with in the past year are related to damp and mould?
2. In your opinion since the rise in cost of living (late 2021) have you seen any evidence of people being affected by the cost living crisis, for example, struggling to pay bills or using heating less because of the costs?
3. Do you believe that the majority of cases with damp and mould growth are condensational, rising damp or penetrating damp?
4. In terms of the cases which you have dealt with over the past year how far do you believe that tenant's behaviour has had an effect on damp and mould growth in houses?
5. Do you believe that the scoring of damp and mould growth under HHSRS is fair? If not, why not?
6. If required are landlords willing to complete any works within the required timeframe?

7. Do you think that there is a lack of understanding from tenants around how to prevent and tackle damp and mould in houses?

8. Do many tenants understand their rights and are aware of support available to them in terms of damp and mould and the cost-of-living crisis?

9. What improvements do you think could be made to systems more generally to help prevent the problems of damp and mould growth?