Navigating building defect management in Australian apartments: processes and impacts on resident well-being

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Abstract

Purpose – This study aims to investigate how apartment residents and strata managers in Australian apartments navigate the challenges of building defects and examine the impacts of these experiences on residents' well-being.

Design/methodology/approach – Using a qualitative approach, photo-elicitation interviews were conducted with apartment residents and semi-structured interviews with strata managers. The study explored the types of defects encountered, the processes followed post-detection and the personal and organisational responses to defect management.

Findings – Findings show that the strata regulatory model, knowledge gaps and ineffective processes led to residents' feelings of frustration, hopelessness, shame and anxiety and to managers' feelings of despondency and cynicism. Successful outcomes, however, depend on the alignment of key factors, including proactive committees, experienced managers and adequate funding.

Originality/value – This study contributes to an emerging body of research by centring the lived experiences of residents and managers, highlighting the social and emotional dimensions of defect resolution. It underscores the need for systemic reforms that extend beyond technical compliance to improve post-occupancy defect management, strengthen governance and ensure housing quality and safety are maintained throughout the building lifecycle.

Keywords Defects, Safety, Maintenance, Health, Multi-owned properties, Multi-residential housing

Paper type Research paper

Introduction

With accelerating urbanisation, increasing numbers of people are residing in multi-residential housing, particularly apartment buildings (ABS, 2021; Crommelin *et al.*, 2024; Nethercote, 2022; NMHC, 2021; Richards *et al.*, 2020; United Nations, 2017). In Australia,

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apartments have become a progressively dominant component of the housing landscape, with an 81.7% increase in apartment construction commencements reported between the 2004–2005 and 2018–2019 financial years (ABS, 2020, 2021; Ruming *et al.*, 2025; Shoory, 2016; Troy *et al.*, 2020; Willing and Pojani, 2017). This growth reflects broader global trends in compact urban living and suggests that future generations are likely to reside in apartments across all stages of life (Andrews *et al.*, 2023; Holdsworth *et al.*, 2019; Raynor, 2018). Apartment residents, therefore, have reasonable expectations that their homes, and the buildings in which they are situated, have been built and maintained to sustain their safety and well-being.

Emerging evidence, however, indicates that there are widespread defects in newly built apartments reflecting systemic failures in design, construction and maintenance, alongside weak accountability mechanisms (Crommelin *et al.*, 2024; Johnston and Reid, 2019). Australian surveys and audits consistently report high rates of unresolved defects: approximately 75% of New South Wales (NSW) apartment owners (in buildings constructed since 2000) reported at least one outstanding issue (Easthope *et al.*, 2012); an audit of 212 buildings across three states identified 11–16 defects per building (Johnston and Reid, 2019); and 39% of buildings surveyed by over 1,400 strata managers had serious defects, most commonly waterproofing failures, fire safety risks, structural issues and combustible cladding (NSW Government, 2021). Similarly, Foster *et al.* (2022) found that 58.5% of residents across 114 apartment complexes in Sydney, Melbourne and Perth had experienced at least one defect, with wall cracks, mould and faulty plumbing the most frequently reported issues. Recent qualitative research further underscores the lived impacts of these quality failures. Nethercote (2022), drawing on 128 interviews with residents across 31 apartment developments in Melbourne and Perth built in 2009–17, found that many were poorly designed or constructed, with widespread and significant building defects contributing to resident dissatisfaction and financial stress. While this paper focuses on the Australian context, the rise of defects in new apartment buildings has been documented internationally, including in England (Pan and Thomas, 2015), Ireland (Department of Housing, 2022), South Korea (Kim *et al.*, 2022; Lee *et al.*, 2020; Yoon *et al.*, 2021), New Zealand (James *et al.*, 2017; Toomey, 2020), Spain (Forcada *et al.*, 2014; Forcada *et al.*, 2013), Italy (Elsayed *et al.*, 2023), Portugal (de Freitas, 2013) and Malaysia (Abdul-Rahman *et al.*, 2014).

While studies have developed structured evaluation and diagnostic frameworks for large and complex building stocks, including staged pre-diagnosis protocols, multidisciplinary performance assessments and stock-level monitoring approaches (Ascione *et al.*, 2017; Cornadó *et al.*, 2020; Gharib, 2014; Thomsen *et al.*, 2015), parallel research has begun to explore ways of empowering apartment residents and buyers by reducing information asymmetries in the apartment development and management process (Crommelin *et al.*, 2024; Loosemore *et al.*, 2025). Yet, there remains a limited understanding of what happens *after* defects emerge. Although the prevalence of defects in apartment buildings is well documented, less is known about how residents experience and respond to these issues. In particular, existing research provides limited insight into the well-being impacts of prolonged defect rectification, the communication challenges between residents and managers and the complexities of navigating defect management processes. These gaps highlight the need for a deeper understanding of the factors that facilitate or obstruct effective resolution, and the implications for residents' well-being, safety and trust in regulatory systems.

This study, therefore, aimed to answer the question: How do residents and managing agents in Australian apartments navigate the challenges of building defects, and what are the

impacts of these experiences on well-being? In doing so, the research objectives were to explore:

- the types of building failures currently experienced;
- the processes used when a building failure is detected; and
- the lived experiences of apartment residents dealing with building failures, including impacts on their well-being.

We adopted a qualitative approach, conducting interviews with residents and strata managers. The paper begins with an overview of oversight and complexities of shared ownership structures that can impede effective resolution of building failures and the associated impacts for residents. We then outline the study's methodology, present its findings and discuss their implications in relation to existing literature and policy frameworks.

Research background

The defects crisis in Australian apartment buildings has been attributed to a weak oversight by regulators and practitioners (Johnston, 2022; Randolph *et al.*, 2024). The National Construction Code sets minimum requirements for structural integrity, fire safety, water management and condensation control (ABCB, 2022), but compliance is assessed mainly at completion rather than throughout a building's life. Ongoing maintenance then becomes the responsibility of the owners. In apartments, where common property is shared, this is managed collectively under strata or community title legislation, arrangements comparable to those in New Zealand, Canada and Singapore (Easthope *et al.*, 2012, 2020, 2014). Despite these regulatory safeguards, building defects remain a persistent issue within the Australian apartment sector (Denman *et al.*, 2024; Gurmu *et al.*, 2023; Johnston and Reid, 2019; Shergold and Weir, 2018). Owners and tenants frequently face complex and protracted defect rectification processes (Foster *et al.*, 2022; Paton-Cole and Aibinu, 2021), highlighting a critical gap in our understanding of how residents experience building failures and the processes designed to address them. These dynamics have been documented in Australian strata-specific defect research showing that defect rectification can be socially and organisationally disruptive, with governance arrangements shaping whether schemes can coordinate timely responses (Brown and Cooper, 2014).

While defect-related building failures may manifest at different stages of a building's lifecycle, practitioners, particularly legal professionals, often distinguish between construction defects and repairs or maintenance obligations. This distinction is typically informed by statutory regulations: builders are usually responsible for defects that appear within a defined warranty period, while owners are responsible for maintenance and repairs beyond that period. In practice, these liability thresholds are shaped by state-based statutory warranty regimes and by legal determinations of whether an issue relates to common property or individual lot property, which in turn determine who has standing to act, who bears costs and which dispute resolution pathways are available. For example, in New South Wales, statutory warranties distinguish between "major defects" and other defects, with different limitation periods applying ("HOME BUILDING ACT 1989 – SECT 18E", 1989; New South Wales Government Building Commission, 2025a), whereas other jurisdictions operate under different limitation and enforcement frameworks. However, this boundary frequently blurs, as many issues initially classified as maintenance problems can be traced to latent construction defects.

In this paper, the term building defect is used to describe a failing or shortcoming in the function, performance, statutory, or user requirements of a building, which may manifest in its structure, fabric, services or other facilities (Denman *et al.*, 2024; Watt, 1999; Yacob *et al.*, 2021). The term *building failure* is used more narrowly in this paper to refer to the loss of performance or function experienced by occupants as a result of building defects or defect-related maintenance breakdowns, rather than to all forms of building deterioration. Accordingly, defects are conceptualised as a subset of building failures, and the analysis focuses specifically on defect-related failures, as they are identified, managed and experienced by residents and strata managers. This aligns with Berg Oppedal and Kvande's (2024, p. 2) definition of failure as "a deviation from intended performance or serviceability", while allowing the analysis to focus on the lived experiences of those navigating defect-related failures in apartment buildings.

Alongside efforts to define and categorise building defects, a substantial body of research has focused on the development of evaluation and diagnostic protocols for large residential building stocks. These approaches respond to the practical challenge of assessing extensive, heterogeneous and often privately owned housing portfolios, where full technical inspections are infeasible. Large-scale methodologies typically adopt staged or pre-diagnosis frameworks that rely on observable indicators, prioritisation indices and selective in-depth inspections to identify buildings at risk and to guide policy intervention. Cornadó *et al.* (2020) describe a multi-phase pre-diagnosis protocol applied to more than 3,600 residential buildings in vulnerable areas of Barcelona, combining external surveys, prioritisation of refurbishment need and targeted internal assessments to inform public refurbishment programs. Complementary conceptual work on residential obsolescence emphasises the need for holistic, stock-level evaluation frameworks that account for interacting physical and behavioural processes across the building lifecycle (Thomsen *et al.*, 2015). At the building scale, multidisciplinary diagnostic approaches have also been advanced, integrating structural, energy and performance-based assessments to support refurbishment planning (Ascione *et al.*, 2017). Similarly, assessment tools developed for historic urban areas highlight the importance of systematic monitoring frameworks that link physical condition, management effectiveness and long-term performance outcomes across large and diverse built environments (Gharib, 2014). While these approaches are critical for identifying patterns of risk and allocating resources at scale, they offer limited insight into how defect-related failures are experienced and managed within multi-owned housing.

Australian strata and community-title frameworks rely on collective decision-making by volunteer owners to manage shared property; however, the legislative structures, regulatory oversight and enforcement mechanisms governing these arrangements differ significantly across states and territories (Easthope *et al.*, 2020; Nethercote, 2022). Each owner becomes a member of the owners corporation, which is responsible for repairing and/or maintaining common property, with decisions made collectively at meetings or through an elected committee (Johnston *et al.*, 2021; Nethercote, 2022). While regulations across states impose duties on owners' corporations to repair and/or maintain common property [e.g. Body Corporate and Community Management Act – Queensland (1997); Owners Corporations Act – Victoria (2006); Strata Schemes Management Act – NSW (2015); Strata Titles Act - Western Australia (1985)], compliance is often complicated in practice. Broadly, these duties can be summarised as *best interest* or *good faith* obligations. Committees are typically composed of volunteer owners, many without specialist expertise, navigating mounting legislative responsibilities (Easthope *et al.*, 2012). Strata managers are engaged for administration and compliance support, but their role remains advisory and contractual (Bugden, 2021). Timely defect resolution is hindered by unexpected costs, unclear

responsibilities, interpersonal conflict, committee turnover and weak enforcement (Foster *et al.*, 2022).

Strata governance scholarship has shown that collective decision-making in multi-owned housing is vulnerable to coordination and collective action problems, including uneven participation, committee turnover, conflicts of interest and delays in reaching agreement on costly repair and maintenance decisions. Dispute resolution mechanisms, therefore, become central to how strata schemes function in practice, particularly where conflicts escalate between owners, committees and managing agents. Australian research has documented how strata living can generate heightened conflict and governance pressures and how formal pathways (e.g. tribunal-based processes) can be slow, complex and unevenly accessible to owners (Easthope *et al.*, 2008; Douglas *et al.*, 2016; Sherry, 2017).

Although strata governance, maintenance and lifecycle management have been well studied, there remains limited qualitative research on residents' lived experiences of long-term defect rectification and its impacts on well-being. A 2012 study of New South Wales strata owners found that, of those aware of defects in their buildings, 69% reported that defects in buildings over eight years old remained unrectified (Easthope *et al.*, 2012). Yet, unresolved building failures can pose significant risks to residents' well-being (Andrews *et al.*, 2024). Water ingress, for example, has been linked to mould growth, causing respiratory problems and allergies (Johnston and Reid, 2019; Law *et al.*, 2021). Fire safety defects, including combustible cladding, present serious risks, as seen in the Grenfell Tower fire (The National Archives, 2019). Nevertheless, many fire-related defects, such as unsealed penetrations or faulty fire doors, remain invisible to residents until triggered by an emergency (Johnston, 2022). Structural failures, such as the Champlain Towers South collapse, can be catastrophic (Simons *et al.*, 2022), yet most jurisdictions do not mandate lifecycle structural audits. Beyond physical risks, prolonged rectification causes stress, anxiety and financial strain (Foster *et al.*, 2022; Nethercote, 2022), especially amongst renters (Vima-Grau *et al.*, 2019). Recent international reviews have echoed these findings, calling for more holistic, interdisciplinary approaches to understanding how building failures intersect with resident well-being (Andrews *et al.*, 2024).

Methods

Given the emerging nature of this topic, a qualitative descriptive approach was used to explore the lived experiences of apartment residents and strata managers dealing with building failures (Peräkylä and Ruusuvuori, 2008). Participants included:

- Australian apartment residents living with building failures; and
- strata managing agents supporting owners' corporations in addressing those issues.

The study was approved by a university ethics committee, with informed consent obtained.

Recruitment

Participants were recruited through purposive sampling, allowing inclusion of individuals with direct, information-rich experience of building failure management (Ahmad and Wilkins, 2025; Creswell and Poth, 2016). Residents were invited via owners' corporation networks, and strata managers were approached through professional associations and authors' network. The final sample included seven residents and nine strata managers. Sample size was guided by data saturation, reached when no new insights emerged (Guest *et al.*, 2006).

Development of interview guides

Resident interviews were open-ended and led by a discussion of their photographs. However, a review of existing literature on housing defects, health and well-being and resident-agency interactions provided discussion prompts about the nature of the defects, the emotional and physical impacts on daily life, interactions with building managers and expectations of the regulatory system where necessary. The strata managers' interviews were semi-structured and involved questions focused on defect identification, procedural responses, communication with residents and systemic challenges.

Resident interviews

To engage residents meaningfully and provoke detailed, personal narratives, photo elicitation interviewing was used (Harper, 2002; Wang, 1999; Warner *et al.*, 2016). Seven residents (five from Victoria, one from NSW, one from SA) were asked to take photographs over a two-week period that represented their experiences of living with building failures, then discussed these in one-hour online interviews. Interviews were audio-recorded and transcribed. Table 1 highlights the types of building failure experienced by resident interviewees and the resident demographic information.

Strata manager interviews

Strata managers' interviews were semi-structured and involved questions on defect identification, procedural responses, communication with residents and systemic challenges. Nine senior strata managers from four Australian states participated in the interviews (Table 1). Each participant was sent a question guideline prior. The interviews were audio-recorded and transcribed.

Data analysis

The analytical process was iterative and guided by Braun *et al.*'s (2019) six-phase approach. Initial coding was conducted manually by two researchers to identify recurring concepts and experiences. These codes were then grouped into broader themes that aligned with the study's research objectives. A constant comparative method was used across the two participant groups to identify convergences and divergences in perspectives. Discrepancies in coding were discussed and resolved collaboratively, ensuring reliability and depth in the analysis. Direct quotes from participants are used in the findings section, with identification codes assigned to protect anonymity.

Findings

Here we present the findings in relation to the three primary objectives of the study:

Typical building failures

SM interviewees highlighted that recent rain events had exposed numerous water leaks in apartments. One explained:

> Water leak issues […] Every single building […] some of which might be original construction defects, some which might be long-term maintenance issues. (SM 2)

Resident interviewees similarly highlighted water ingress from failed systems or significant condensation. One resident photographed the cracked plasterboard in their ceiling [Figure 1(a)] and discussed how water ingress had led to several ceilings caving in:

Table 1. Apartment resident (AR) codes and defects experienced; strata manager (SM) codes and details; and resident demographic information

Identification code		Building failures
AR1		Water ingress
AR 2		Condensation
AR 3		Multiple – water ingress, roofing defects
AR 4		Water ingress
AR 5		Condensation
AR 6		Water ingress
AR 7		Water ingress
Identification code		*State where participant works*
SM1		Western Australia
SM 2		New South Wales
SM 3		Victoria
SM 4		Western Australia
SM 5		New South Wales
SM 6		New South Wales
SM 7		Victoria
SM 8		Queensland
SM 9		Queensland
Variable	*Details*	*No. of residents*
Age (years)	30–39	3
	40–49	1
	50–59	2
	60–69	1
Gender	Female	5
	Male	2
Place of birth	Australia	3
	Overseas	4
Length of time in apartment (years)	2–3	5
	4–10	1
	Over 10	1
Tenure	Renter	2
	Owner with mortgage	4
	Owner outright	1
Occupation	Manager	2
	Professional	3
	Sales worker	1
	Full-time student	1
Employment status	Full time	4
	Part time	2
	Not employed	1
Time spent in apartment on typical weekday (hours)	22 or more	1
	19–21	1
	15–18	3
	Less than 15	2

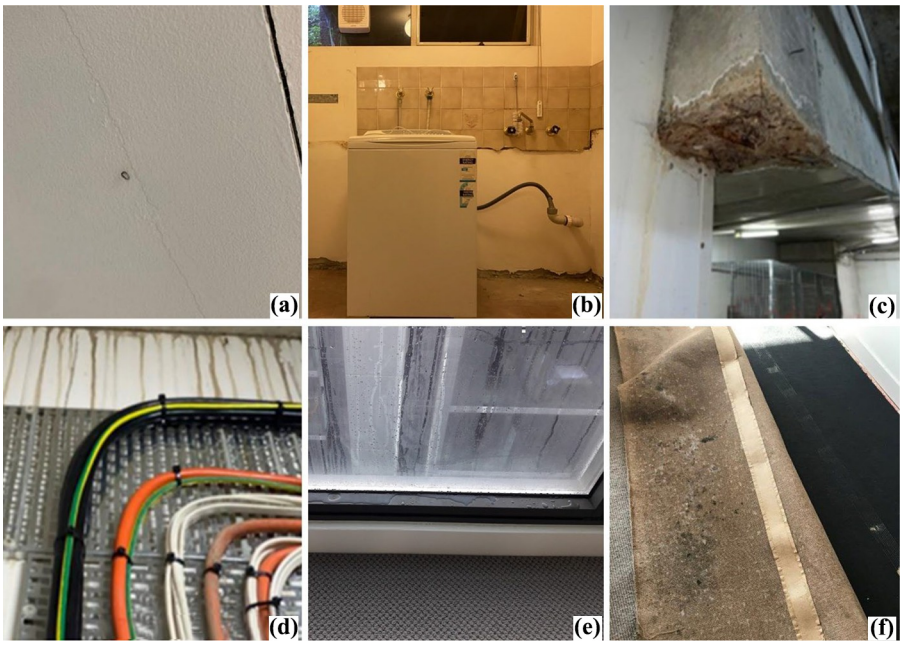

Figure 1. (a) Cracked ceiling plasterboard (AR3); (b) water ingress into a partially sub-terranean laundry (AR1); (c) water ingress into the concrete pillar in the underground car park (AR4); (d) water ingress into the main apartment electrical switchboard (AR4); (e) significant condensation build-up on the inside of an apartment window (AR2); (f) mould damage to carpets (AR6)

> [In] six apartments so far – the ceilings have fallen in totally from a height of four metres, or they've just cracked and sagged […] So, we found out that the ceilings had not been installed according to code […]. I came home, and there was a river […] the amount of water was extraordinary. (AR 3)

Two residents who lived in ground-floor apartments described water ingress through the walls of their apartments [Figure 1(b)]. One who had a partially underground laundry explained:

> A structural engineer came to conduct an inspection of this laundry room […] the uppermost line of the tile, that pretty much marks the soil level on the other side of the wall […] he said that he couldn't identify any damp-proof course […] it's likely it either failed or was never there to begin with. (AR 1)

Another resident documented water ingress into multiple sites in their building (both private and communal) during heavy rain [see Figure 1(c) and (d)]:

> That's concrete cancer […]. That's the pole in the basement […] there's waterproofing issues […] that's the switch room, next to the pole with concrete cancer […] when it rains heavily. (AR4)

Two residents experienced significant condensation in their apartments associated with a lack of ventilation. AR2 [Figure 1(e)] explained:

> There is no ventilation in the apartment because – they didn't put any trickle vents into the windows […]. it looks like it had been raining on the inside […] It's just dripping down from the top of the window then continues dripping down onto the skirting board. (AR 2)

Beyond water-related building failures, SMs identified fire safety (including combustible cladding) and balcony balustrade failures. One explained the extent of the defect issues many were experiencing:

> And it's probably the worst I've had in terms of defects […] flammable cladding […] waterproofing, glazing, fire safety issues; we're up to about 4 million bucks in special levies. Builder and development both gone into liquidation. It's a mess. (SM 2)

Evaluating building failure–management processes

Management processes involved: how defects and maintenance issues become known, the steps undertaken to manage or rectify these and any barriers that may prevent effective maintenance or rectification. For defects or maintenance issues directly impacting a lot, particularly habitability, SMs spoke of a bombardment of enquiries:

> We're the first point of contact for everything. We'll receive multiple complaints […] it's up to us to make that decision on whether we believe it's building defect or not. (SM 1)

Most other failures required inspection by qualified professionals; in some jurisdictions, a defects report is mandatory before the first AGM. One SM highlighted the impacts of this mandated process:

> Because it's mandatory, I think that alleviates a lot of issues. Before we even get to the first Annual General Meeting, we've already instilled the defects process […] it is a great process because it initiates a conversation. But there's flaws because owners think that [the report] covers everything. (SM 5)

In jurisdictions where this reporting process is not mandatory, SMs generally encourage owners' corporations to obtain their own defects report. However, these may be limited in scope and cost is often a barrier to in-depth inspection and reporting.

Some SMs discussed a general process: determining the issue; engaging an inspector; notifying the developer; engaging an independent contractor; and if relevant, engaging a lawyer. However, none detailed a start-to-finish standardised process for residents to initiate concerns and continue to be informed throughout the management or rectification stages.

The usual process involved contact from a resident, followed by the SM determining whether the issue concerned private lot property or common property, and then a decision regarding responsibility was made. Private lot property issues appeared to fall back to the owner for management, including contacting the original builder. If the builder was no longer liable or the building company had gone into liquidation, then the lot owner would need to navigate the process on their own. Unsurprisingly, residents were confused about these processes:

> I noticed it in October 2021 and then I didn't really know what to do to be honest […]. I didn't know if it was my responsibility. (AR 7)

A key finding was the imbalance in knowledge and power inherent in this:

> […] they were using our incompetence […] Apart from being first time buyers, all of us we're first-generation immigrants, I only came to the country in 2015. (AR 4)

Most were still waiting for their building failures to be addressed. As a result, many resorted to their own temporary methods of 'fixing' their issues, which were less than ideal:

> We had to leave our bedroom window open to try and bring in a little bit of that fresh air […] you're playing this constant balancing act of opening windows, putting a heater on, opening windows, putting the heater on. (AR 5)

While several residents had some formal rectification of their problems, all remained sceptical about whether they had been resolved. Common property defects and maintenance issues usually progress to the owners corporation committee for further action. The approach by strata managers from this stage onwards varied depending on several factors.

Services provided by managing agent. The extent of SM *involvement* varied across companies and jurisdictions. Some saw their role as simply notifying owners corporations of statutory or compliance requirements. Services were often limited to secretariat duties, with additional fees charged for managing specific issues. One SM explained that as they were not specialists in defect or maintenance management, they limited involvement:

> I guess our process is to not deal with it. We learnt probably the hard way […] by trying to facilitate ourselves and then learning hey, this isn't what we specialise in. Sure, we can assist, and the way in which we assist is clearly understand how the process works in our state, and empower owners and tell them, 'This is how you do it.' (SM 4)

Another noted it was up to the management company to decide what services to offer, with advising owners' corporations on compliance forming the core of their role. A lack of qualifications and the difficulties of handling rectification were barriers to providing additional services:

> We very fundamentally believe that it's an option to perform fee-for-service. You just don't want to do the additional stuff because it just turns out to be way too much drama, and we're not qualified […] We make sure that the scheme follows all their compliance requirements. We tell them their requirements and they are to do with it what they will. (SM 9)

Other managers focused on providing more specialised services, investing time in defects and maintenance management:

> We tailor our portfolio so that we're heavily invested and have enough time to invest it in that side. I think my big advocacy for strata is that prevention […] maintenance is the key. (SM 5)

SMs acknowledged that their job was easier, and outcomes better, when a building manager was involved. SMs explained that building managers were particularly helpful in terms of preventative maintenance and planning:

> They [building managers] have these building management systems, software packages where you can have a maintenance schedule. Normally, without that tool, there's no building that would have a maintenance plan. (SM 6)

Funds available. SMs explained that rectification and maintenance costs were often the main sticking point for owners' corporations, with delays closely linked to expense. These expense burdens were eased somewhat if the owners' corporation had a well-established capital works fund:

> What they're complaining about is the levies. They're oblivious to the fact that their building is falling down. They haven't got much money on the account because what this particular OC has been doing is, every time the levy goes up, they keep changing managers. It comes down to the money. (SM 3)

Any financial incursion on owners to fund above a normal levy was often met with obstacles:

> The property for about five years spent $10,000 each year on fixing the roof, even though five years earlier they got a quote for less than 200k to re-do the roof. They waited five years of spending 10k each year and then went okay, we need to do the roof and the roof might have been 300k. (SM 4)

SMs also commented that owners generally lacked an understanding of how the owners corporation worked and often blamed the managing agent when levies increased to cover the costs associated with repair and maintenance.

Proactiveness of committee or member. The proactiveness of a committee or member was a key factor in progressing rectification or maintenance. SMs often referred to a "committee champion" who invested time in gathering and sharing information and actively seeking a resolution. Many described their relationship with such committees as a necessary partnership for effective management:

> It helps when you've got a committee member that is on-site that is really in tune with what's going on, because they become your eyes and they actually help to move the others along. (SM 3)

SMs suggested owners corporations with engaged committees had a better understanding of their statutory obligations to maintain and repair the common property. Conversely, inactive committees or self-interested members focused on cost savings were viewed as a barrier to effective decision-making:

> A lot of people on the committees have their own agendas. They get on the committee. They don't want to spend any money. (SM 6)

Four resident interviewees had been, or were currently, members of their owners corporation committee. All had joined because of experiencing building failures. Although this gave them access to more information, involvement was generally not positive, with two leaving because of clashes with other members. One explained:

> And they just bullied me really terribly, sending emails saying that I was trying to get my apartment renovated at the cost of everybody else […] the way they treated me in meetings was appalling. Another guy […] they started rumours that he was mentally ill and his wife had left him. These are the kind of people you're dealing with […] (AR 3)

Another proactive committee member spoke of the complexity of the work and pressure from investor-owners:

> There was a real sense of feeling helpless and frustrated and realising fairly quickly that there seemed to be a bit of a grey area in the laws to protect us here […] Pushback from other committee members, as well […] apartment owners [who] weren't actually living there. (AR 5)

Experience of managing agent. Some SMs said their backgrounds influenced their interest and involvement in assisting owners corporations through defects and maintenance processes. Complex issues required greater specialisation. Several experienced managers noted they would refuse or end engagements if the owners corporation failed to rectify or make appropriate maintenance decisions:

> If they choose not to have any reports or do anything or engage a lawyer, we will 90% of the time terminate our agreement with them and wouldn't continue management. (SM 5)

Inactive or ineffective committees were considered so burdensome that experienced managers preferred to move them on. Some SMs also raised concerns about the risk and liability they faced when committees or owners corporations failed to meet legal obligations.

Resident well-being

The impacts of living in apartment buildings with defects and maintenance failures revolved around three areas: physical health; psychological health; and safety.

Physical health. Overwhelmingly, the most topical health issue is related to mould. Three residents spoke of physical health issues associated with mould in their apartments. One interviewee, currently not living in their apartment, noted [Figure 1(f)]:

> As soon as the water started coming in, we noticed it. Anything you can do to mitigate potential for mould, do it […] Because if you've got mould you really can't live in it […] My sister-in-law […]. started to feel unwell during maybe a two hour stay. And my wife is mildly sensitive […]. Since we left this unit, she's been getting less headaches. (AR 6)

Most SMs acknowledged the relationship between water ingress, mould the associated health impacts for residents and the need to be proactive:

> Mould takes a while to grow. As soon as you hear the word 'mould' your red flags are up […] Mould leads to health issues and it can get worse, so respiratory issues and things like that. (SM 7).

> I like to think we got it just in time. Because after vacating, probably about six months after the mould report came out […] for us to even enter the building, we had to put hazmat suits on due to the amount of mould that is there. (SM 5)

However, there was also a feeling that residents mentioned mould to ensure repairs were undertaken quickly or by tenants wanting a rental reduction:

> It's a scapegoat […] I've seen enough opinions to say, "It's just water on the ceiling. It's not harmful and only if it's left long enough is it going to be harmful. Don't get me wrong, sometimes there are cases of harmful mould. (SM 4)

Psychological health. Stress, anxiety and depression were commonly discussed implications of living with building failures. One resident explained:

> Just the mental burden dealing with it, even when you're not dealing with it, it's still there in the back of your mind. (AR 5)

Frustration with repair delays was also described:

> It's almost like everything is on hold waiting for something to get fixed and you have no level of escalation. I'm used to being able to know, "Okay, there's a problem. I will fix it. It's my problem, I'll fix it." It's my problem, and I can't fix it is the frustration […] (AR 7)

A sceptical SM related the stress to the increase in financial outputs:

> You get the general owners who often throw that out there [mental health issues] in what I think is a way of trying to get attention to what they want done. Maybe that's a bit cynical. And it can be coming from two directions. This water levy is causing me mental health issues […] these special levies are causing mental health issues, you're a monster for imposing these on people; why is the strata doing this? (SM 2)

However, one manager, had a more nuanced view:

> Some people are going to be bankrupt from it […] I think people have had marriage breakdowns over it, mortgage issues, having to pay that when you're not living there. I know one lady, a single who bought off the plan, first apartment ever, has had to move about two and a half hours away and living with a friend in order just to make ends meet. (SM 5)

Similar sentiments were expressed by one of the residents:

> We paid with special levies, and there's probably more to come - like 'there'd be no holidays in my future' […] on top of that, we're going to borrow about $2 million with this strata loan. So, I worked out that's going to be like $50,000-$70,000. If I wanted to sell, nobody's going to want to

> buy it with this debt […] That debt goes with the apartment […] It's all lose-lose this apartment. (AR 3)

Another participant described the stigma associated with having bought an apartment with building failures:

> Yeah, embarrassing to tell family members that we're dealing with an issue in a brand new apartment, feeling like our judgment was impacted and our reputation was damaged a bit, so feeling a bit ashamed […] (AR 5)

While a resident who was renter highlighted the unique stresses of their situation:

> It was an investment property that was created to generate rental income from international students […] They relied on the fact that I did not know about tenancy rights […] I had to educate myself […]. I've had to try and rely on public resources […] I cannot afford a lawyer, so I have to represent myself. Because this could potentially affect my rental record […] anyone who is in a position to be a tenant, we're so vulnerable. (AR1)

SMs also spoke of the stress on some committee members who were attempting to fix the problems but also dealing with owner complaints:

> You've got a few committee members who are taking the lead, where sometimes you look at them, and they look seriously exhausted. And some committee members who've just said, "That's it, I've had enough". I had one committee member on the phone in tears because she just couldn't take it anymore. (SM 2)

Safety. Interviewees also discussed safety concerns with living in a defective or poorly maintained building. One participant who lived in a complex where several ceilings had collapsed explained:

> I've never felt so unsafe in my own apartment […] I've got no confidence in the future that anything that goes wrong here will ever be fixed […] The first one that collapsed, that was 10 years ago. In the middle of the night, I heard a terrible explosion, and screaming. [My neighbour] just missed being hit. (AR 3)

However, many SMs were rather cynical and believed owners prioritised cost and convenience over safety:

> It's surprising how many owners don't care about their safety. I would say the vast majority, 80%, are more concerned about the financial implications and the inconvenience to them than their health and well-being […] (SM 9)

Discussion

This study offers new insights into the factors that either support or hinder outcomes for apartment residents dealing with building failures. It addresses a critical gap in the literature by examining how residents navigate complex and often unclear systems and how these interactions impact their well-being. Our findings contribute to a growing body of research exploring the lived experiences of residents navigating building failure-related challenges (Andrews *et al.*, 2024; Denman *et al.*, 2024; Foster *et al.*, 2022; Oswald *et al.*, 2021).

Although this study adopts a qualitative descriptive approach, the findings offer conceptual insights into how building defects become experienced as ongoing building failures through governance processes rather than through technical conditions alone. By distinguishing between defects (as technical shortcomings) and failures (as lived losses of performance, safety, or habitability), the analysis demonstrates how governance

arrangements, information asymmetries and collective decision-making processes mediate the translation of defects into sustained resident harm.

In particular, the findings suggest that building failure is not a static condition but an emergent outcome, shaped by interactions between regulatory settings, strata governance capacity, managerial expertise and financial resources. Where information asymmetries persist and responsibility is fragmented, even relatively common defects can escalate into prolonged failures with significant well-being consequences. Conversely, where governance capacity, expertise and funding align, failures may be contained or resolved despite similar underlying defects. This framing advances existing defect and governance scholarship by moving beyond static classifications of defect types toward a process-oriented understanding of failure in multi-owned housing, positioning defect management as a critical site where technical, institutional and social dynamics intersect.

Across interviews, residents and strata managers described a wide range of building failures, with water-related issues emerging as the most pervasive. Problems such as water ingress, failed waterproofing membranes and condensation were commonly reported. These issues are widely recognised in the literature as both prevalent and costly (Coulburn and Miller, 2022; Johnston and Reid, 2019; Mills *et al.*, 2009; Sandanayake *et al.*, 2022). Interviewees described persistent damp, mould and leaks as not only damaging to the physical structure but also harmful to residents' health. For many residents, these failures became chronic rather than isolated events, with temporary repairs masking underlying faults. The persistence of these issues was attributed to poor workmanship, inadequate oversight during construction and limited maintenance, mirroring long-standing critiques of systemic quality control failures in the Australian apartment sector (Crommelin *et al.*, 2024; Shergold and Weir, 2018). In addition, interviewees raised concerns about fire safety, flammable cladding and structural integrity. While less visible on a day-to-day basis, these failures carry significant financial burdens and emotional strain (Chen *et al.*, 2019; Hossain *et al.*, 2021; Oswald *et al.*, 2021).

Importantly, residents' experiences were not only shaped by the nature of the failures themselves but also by the processes, or lack thereof, designed to manage and rectify them. This study highlighted that for rectification outcomes to be successful, several factors needed to align: the range of services provided, experienced strata managers, the inclusion of a dedicated building manager, the proactiveness of the committee or members and the financial stability and accessibility to funds for capital works. Where these elements were lacking, residents encountered delays, confusion and in some cases, complete inaction. Insolvency of builders or developers further constrains rectification options, often shifting schemes from cooperative rectification to adversarial recovery pathways (e.g. insurance claims, statutory schemes or litigation), with major implications for timelines, costs and resident distress. State-specific mechanisms (such as New South Wales's Strata Building Bond and Inspections Scheme) also shape what pathways remain viable when responsible parties are unwilling or unable to rectify defects (New South Wales Government Building Commission, 2025b). Together, these findings align with previous research identifying the disproportionate burden placed on individual owners to navigate technically complex, legally fragmented and jurisdictionally uneven systems, particularly where insolvency, liability thresholds and enforcement gaps constrain collective action (Crommelin *et al.*, 2024; Easthope *et al.*, 2014).

The volunteer structure of committees, the complexity of legal frameworks and the varying quality of strata management all contributed to confusion and inaction. Residents often found themselves caught between disengaged committees, inconsistent advice and under-resourced managers. The lack of expert guidance and limited regulatory enforcement

further compounded these issues. Collectively, these dynamics created an environment where resolution was the exception rather than the norm. From this, three key themes emerged.

Breakdowns in communication and responsibility

One of the strongest themes was the breakdown in communication and role clarity. Many residents were unclear about the distinction between private and common property, leading to disputes over liability, aligning with previous work which identifies confusion about the scope of responsibilities between lot owners and owners corporations as a core governance challenge in strata schemes (Easthope *et al.*, 2012). In cases where owners corporations were inactive or underfunded, critical maintenance was either delayed or neglected. This issue was particularly evident in cases involving condensation. These findings reflect the information asymmetries identified in the literature, seen as a significant barrier to effective building governance (Crommelin *et al.*, 2024; Easthope *et al.*, 2014; Ivić and Cerić, 2023).

Strata managers themselves varied widely in knowledge and capability. This variability also reflects the contractual and professional positioning of strata managers, whose responsibilities are typically defined by management agreements and may be limited to administrative and compliance functions rather than technical defect diagnosis or project management. Research on the professionalisation of strata managers highlights tensions between expectations placed on managers and the formal scope of services they are contracted and trained to provide, with governance implications for committees that rely heavily on their guidance (Altmann, 2015). Clarifying scope-of-services, qualifications and escalation pathways for complex defects may therefore be as important as improving technical standards, particularly in schemes with inexperienced or high-turnover committees.

Interviews suggested three broad categories: those lacking expertise; those offering general support with limited scope; and those with the necessary experience to manage complex defects. In schemes without competent management, owners corporations struggled to navigate processes effectively. Calls for stronger regulation, professionalisation and even government intervention (e.g. mandatory audits) echo recent research advocating for sector-wide reform (Britton and Bell, 2021; Randolph *et al.*, 2024).

Ineffective management systems and processes

This study found that across all interviews, not a single resident described a clear or standardised process for identifying and resolving building failures. Instead, participants consistently reported having to navigate a fragmented, inconsistent and often confusing set of procedures. Even in jurisdictions where initial post-construction inspections are mandated, residents described these processes as superficial, poorly communicated and rarely followed by any structured course of action. There was no commonly understood pathway that guided residents from the point of defect identification through to resolution.

In practice, the management of defects was highly variable. Some strata managers described a general process (engaging an inspector, reporting to the developer), but this was typically limited to the original defect liability period and often failed to capture the full scope of issues. For many, the financial burden of inspections and expert reports also acted as a barrier to pursuing rectification. Aside from mandatory capital works forecasts, proactive maintenance planning was largely absent unless a dedicated building manager was employed.

These issues reflect deeper governance shortcomings. The lack of prescriptive provisions and penalties for non-compliance has impeded effective building maintenance and

management. Addressing these challenges will require both policy and structural change. Standardising inspection processes, clarifying roles, improving access to expert advice and creating transparent reporting mechanisms (such as public defect registers) could significantly improve outcomes for residents (Crommelin *et al.*, 2024; Ivić and Cerić, 2023; Randolph *et al.*, 2024). Recognising these challenges, initiatives such as the Strata Defects How-to Guide, developed by the City Futures Research Centre and the Strata Community Association (NSW), have sought to empower owners by providing practical guidance on identifying and rectifying defects (City Futures Research Centre *et al.*, 2020). However, such resources remain limited in scope and geography, are currently focused on New South Wales and cannot substitute for nationally consistent standards, regulatory oversight and accessible support mechanisms.

The toll of living with defects

A pervasive sense of frustration, cynicism and hopelessness characterised many of the accounts provided by both residents and strata managers. For residents, building failures were not simply technical problems but deeply personal and emotional experiences. They frequently described feeling powerless, some regretted purchasing their property, while others felt unsafe or anxious living in it. This aligns with emerging research highlighting the emotional burden of apartment living when defects and poor governance structures intersect (Denman *et al.*, 2024; Oswald, 2021).

While existing housing and health research has primarily focused on the physical presence of hazards such as dampness, mould and structural risk, this study extends that literature by demonstrating that the processes through which building defects are managed, or not managed, are themselves a critical determinant of resident well-being. Consistent with prior findings linking housing defects to respiratory illness and mental distress (e.g. Foster *et al.*, 2022; Andrews *et al.*, 2024), our findings show that prolonged exposure to unresolved defects is compounded by uncertainty, powerlessness and sustained engagement with opaque governance systems. In this sense, health impacts do not arise solely from defective building conditions, but from chronic procedural stress, including delays, unclear responsibility, financial insecurity and adversarial interactions with institutions.

This highlights the importance of shifting housing–health debates beyond the presence of environmental hazards to include the institutional and governance pathways through which residents seek redress. By foregrounding defect rectification as a lived, prolonged process rather than a discrete technical event, this study contributes to housing and health scholarship by identifying defect governance as a key social determinant of well-being in multi-owned housing.

Active owners involved in governance often faced further stress, including interpersonal conflict and bullying. Strata managers also expressed frustration, citing unrealistic expectations and mistrust from residents. In some cases, managers downplayed defects, attributing issues such as mould to resident behaviour rather than construction flaws. There was also a common perception among some managers that personal safety concerns were often secondary to cost considerations within owners' corporations, contributing to a breakdown in trust between stakeholders. In line with Vima-Grau *et al.* (2019), already vulnerable residents highlighted specific challenges, such as language barriers and tenancy issues, in trying to address their apartment defects.

Ultimately, this study highlights that communication breakdowns, unclear responsibilities and inconsistent governance are as damaging to residents' well-being as the physical defects themselves. Thus, if the goal of regulatory frameworks is to ensure housing safety and

quality, future reform must not only address technical and legal mechanisms but also the social and emotional dimensions of defect resolution.

These findings also reinforce broader critiques of Australia's high-density housing system. Troy *et al.* (2020) and Randolph and Tice (2017) argue that the rapid expansion of apartment construction has far outpaced regulatory oversight, giving rise to declining quality, governance fragmentation and a crisis of consumer confidence in the sector. Similarly, Easthope *et al.* (2020) highlight systemic weaknesses in the governance of strata-titled housing, where diffuse responsibilities and limited enforcement leave owners exposed to defects and costly rectification. Framed within this wider context, the issues identified in this study reflect not just failures of individual buildings or management practices, but deeper structural shortcomings in the way high-density housing is planned, regulated and sustained in Australia.

While many of the challenges identified in this study reflect national-level issues in apartment construction and post-occupancy management, the implications of these findings must be understood within Australia's state-based regulatory context. Australia's strata framework, Strata and community title legislation, enforcement mechanisms and defect resolution pathways vary considerably across states and territories, shaping both the management processes available and residents' lived experiences. For example, New South Wales has introduced comparatively stronger post-construction regulatory mechanisms, including mandatory defect inspection reports and the Building Commissioner role, whereas other jurisdictions such as Tasmania and South Australia rely more heavily on general consumer law, contractual remedies and owners corporation governance, often with more limited enforcement capacity (Easthope *et al.*, 2020; Johnston and Reid, 2019; Randolph *et al.*, 2024). These jurisdictional differences influence not only how defects are identified and addressed but also the degree of certainty, timeliness and emotional burden experienced by residents navigating rectification processes.

Accordingly, while this study highlights systemic issues common across Australian apartments, policy and practice responses must be sensitive to state-specific governance arrangements and regulatory capacities. Future reforms would benefit from greater national consistency in minimum post-occupancy standards and enforcement, while retaining flexibility to respond to local legislative frameworks.

Limitations

A key strength of this study was integrating perspectives from both residents and strata managers. Due to the sensitive nature of the topic and resident hesitancy, the sample size was limited and recruited via owners corporation networks, so it may have been skewed to those more engaged or distressed participants. Future research should expand the participant pool to deepen the understanding of resident experiences and inform more effective defect management strategies.

Given the state-based nature of strata regulation in Australia, findings should not be interpreted as uniform across all jurisdictions. Further research comparing resident experiences under different state regulatory regimes (e.g. NSW, Victoria, Tasmania) would strengthen understanding of how governance settings shape defect resolution outcomes and well-being impacts.

Conclusion

This study highlights that the challenges apartment residents face when dealing with building failures extend well beyond technical repairs. Conceptually, the findings reframe apartment defects not merely as technical deficiencies but as governance-mediated failures whose

health and well-being impacts are produced through prolonged institutional processes rather than isolated building conditions. Navigating fragmented governance, unclear responsibilities, information gaps and emotionally charged social dynamics often compounds the stress and complexity of managing defects. While construction quality remains a critical issue, this research points to the need for reforms that strengthen post-occupancy management systems, improve governance practices and foster more resident-centric, collaborative processes.

Given the scale of apartment living and the potential health, safety and financial risks posed by unresolved defects, there is an urgent need for policy, regulatory and practical changes. The implications for residents in defective and poorly maintained apartments emphasise the necessity of addressing the hurdles identified in this study to ensure buildings are compliant and safe.

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Further reading

Body Corporate and Community Management Act (1997)

Owners Corporations Act (2006)

Strata Schemes Management Act (2015)

Strata Titles Act (1985)

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