

Enhancing Well-being in Cat Shared Homes

THE EMOTIONAL IMPACT OF LIVING
WITH CATS IN SMALL HOMES

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WITH CATS IN SMALL HOMES

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- INTRODUCTION
 - BACKGROUND
 - BENCHMARKING

SECTION ONE

01 INTRODUCTION

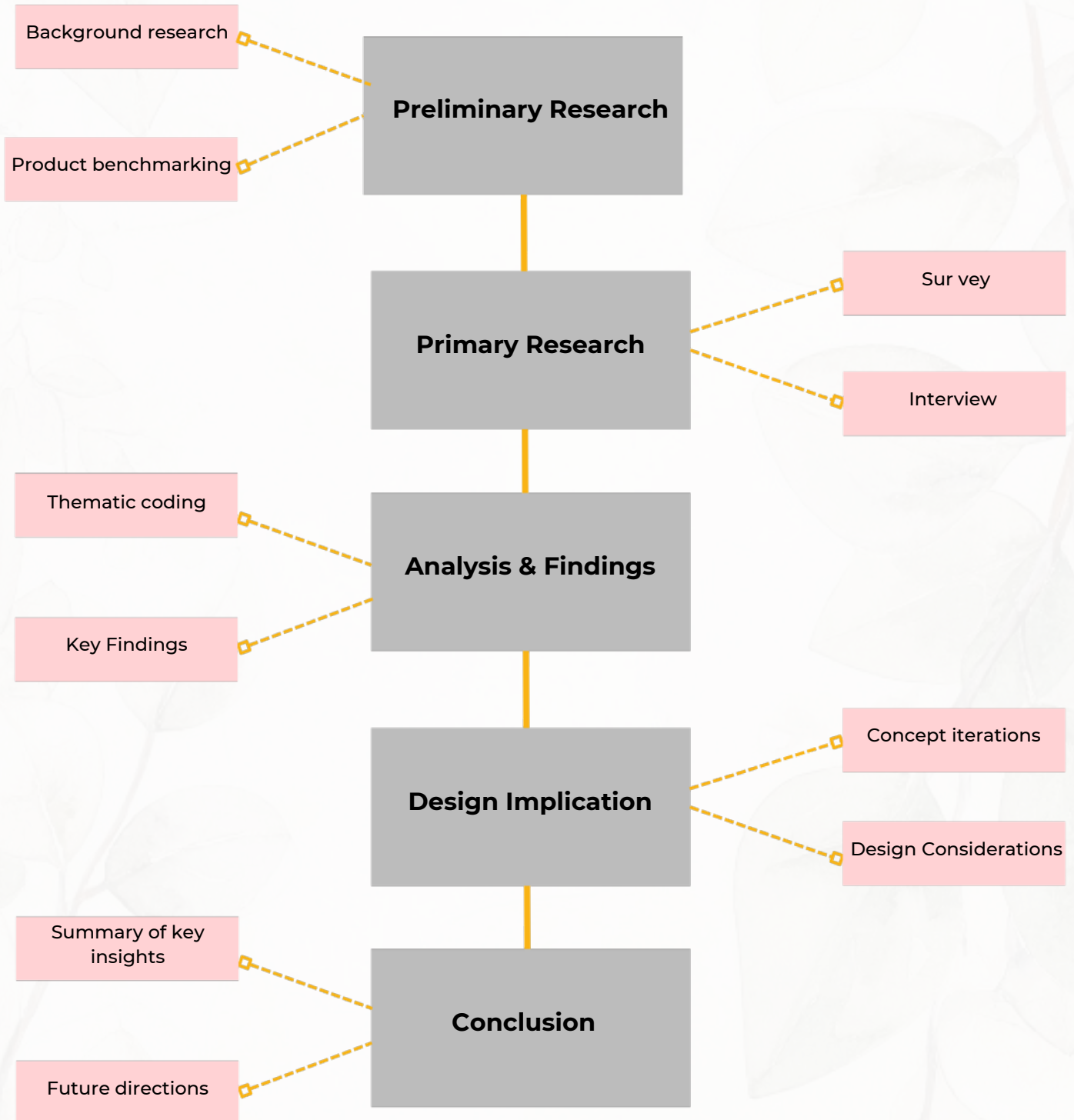
Across Australia and globally, pet ownership continues to rise, with cats being one of the most common companion animals among young adults living in urban settings (Taniguchi et al., 2024). Many adults aged 20–35 now reside in small apartments or shared rental spaces due to increasing urban density and rising housing costs (Kisley et al., 2024). While pets provide companionship and emotional support, the pressures of living in confined spaces present unique challenges for both owners and their cats.

Existing research highlights the mental health benefits of pet ownership, including reduced loneliness, stress relief, and improved emotional well-being. However, cohabiting with cats in small dwellings can also generate psychosocial and environmental stressors. Limited space, clutter, and odour management can lead to tension, guilt about insufficient interaction time, and emotional fatigue for owners (Sweeney & Switzky, 2019). The rising cost of living further exacerbates these pressures, impacting quality of life and the human animal bond. This project investigates how cats influence adults' emotional well-being in small homes and explores design strategies to support healthier shared living. Through a combination of primary and secondary research, this study seeks to understand the interplay between emotional support, spatial constraints, and financial pressures to inform design strategies that enhance well-being for both owners and their pets.

The Three Key Objectives are:

- 1** • To **identify key emotional and environmental pain points** faced by young adults living with cats in small urban homes, where design interventions could improve overall well-being for owners and pets.
- 2** • To **assess gaps in current support and resources** related to cohabiting with cats in compact living spaces, informing opportunities for innovative design solutions that address unmet emotional and practical needs.
- 3** • To **explore how spatial and financial pressures influence** the human–animal bond and emotional well-being, providing insights for design strategies that foster healthier and more balanced shared living environments.

Project Structure



02 BACKGROUND

Urbanisation and changing housing trends have significantly shaped human–animal relationships in recent years. Across Australia, over 60% of households own pets, with cats accounting for nearly one-quarter of this figure, and many owners residing in apartments or shared rental spaces (Taniguchi et al., 2024). Worsening housing affordability and densification in Australian cities have created shortages of affordable inner-city rentals, forcing many low-income and younger households to economise on space, often resulting in overcrowded or compact living arrangements (Batterham et al., 2022). Within these environments, companion animals play an important role in providing emotional stability, routine, and social connection.

Research highlights the mental health benefits of pet ownership, including reduced loneliness, stress relief, and improved emotional well-being. Emotional support animals are also increasingly incorporated into therapeutic interventions to assist with anxiety and depression. These findings emphasise the potential of cats to enhance psychological health for urban residents. However, emerging literature also identifies challenges when cohabiting with cats in restricted spaces. Environmental and psychosocial stressors include limited litter box placement, odour and noise management, and lack of dedicated pet care areas, which can create clutter and tension in small homes (Sweeney & Switzky, 2019). Affective mapping research by (Ravenscroft et al. 2023) visualises how everyday cat interactions from feeding to cleaning can evoke both emotional comfort and fatigue, especially in space-limited households.

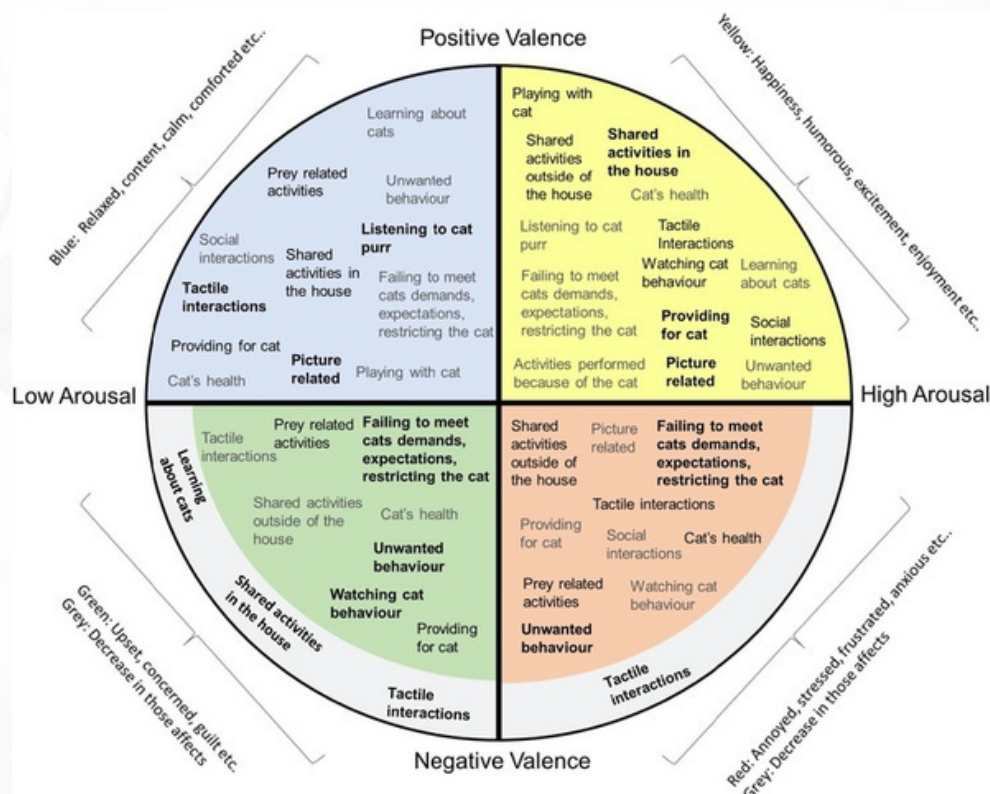


Figure 1 Model for Hedonic Affect (Valence and Arousal) for All Themes of Cat Human Related Activities (Ravenscroft et al., 2023))

Financial pressures further exacerbate these challenges. Housing unaffordability and rising living costs reduce overall well-being and are linked to poorer mental health outcomes, with financial stress acting as a key mediator (Jurčišinová et al., 2025). As shown in Fig. 2, while behaviour issues are the most frequently reported reason for pet relinquishment, financial strain and housing-related pressures are also notable contributors, underscoring how economic and spatial stressors impact pet ownership (Kisley et al., 2024). Many apartments are not designed to accommodate pets, leading to overstimulation for cats and mental fatigue for owners. Although research highlights the emotional benefits of pet companionship, there is limited investigation into how these benefits intersect with financial and spatial constraints, particularly within urban cat-shared homes.

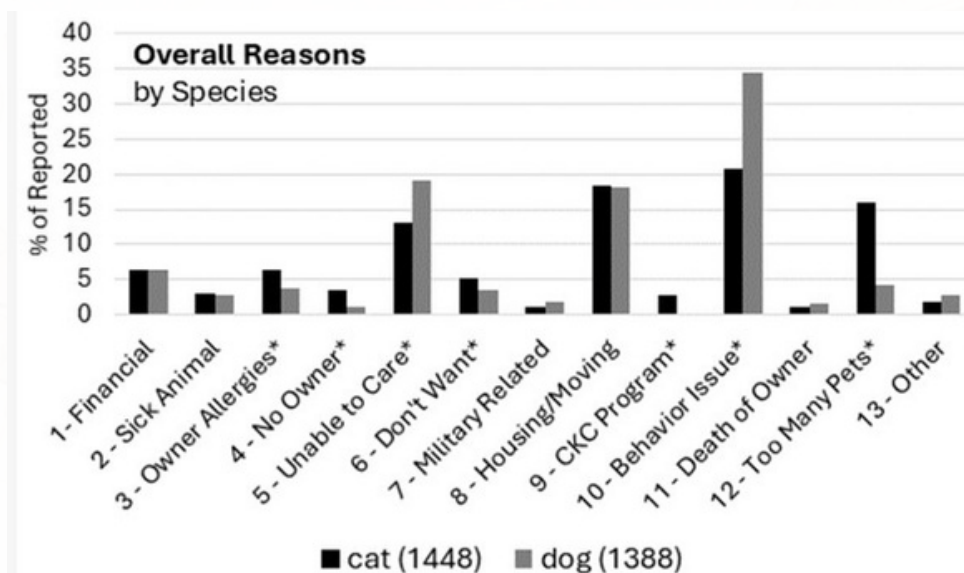


Figure 2 :Reported Reasons for Cat and Dog Relinquishment (Kisley et al., 2024)

Addressing this gap is critical. Understanding how cats influence adults' emotional well-being in small homes can inform design-led solutions that improve living conditions for both owners and animals. Examining the interplay between emotional support, environmental limitations, and economic pressures provides a foundation for interventions that promote healthier, more balanced relationships between humans and their pets.

03 BENCHMARKING

Benchmarking provides critical insight into the existing pet care market, helping identify strengths, weaknesses, and gaps that can inform future design opportunities. The analysis compares a range of cat-related products across automation, wellness, and environmental support. Together, these highlight how product functionality, price, brand reputation, and user well-being integration vary across the market.

Table 1 evaluates seven key products against criteria such as air-quality improvement, cleaning automation, enrichment, stress monitoring, and cost of ownership. The benchmarking shows that highly automated and wellness-integrated products like the Whisker Litter-Robot 4, Dyson Purifier HP, and iRobot Roomba j7+ consistently score highest across automation and well-being features. However, these benefits come at a premium price, making them less accessible to most everyday cat families. In contrast, simpler products such as Ceva Feliway Optimum or basic water fountains are more affordable but offer limited innovation and integration.

	PRODUCTS FOR CAT ENTERTAINMENT & WELL-BEING				PRODUCTS FOR HOMEWARE / ENVIRONMENTAL SUPPORT		
	Whisker Litter-Robot 4	SureFeed Microchip	Catit PIXI Fountain	Ceva Feliway Optimum	Dyson Purifier HP	Core 400S Pet	iRobot Roomba j7+
Air-quality improvement	8	1	2	1	10	10	3
Mess reduction in the home	7	4	2	1	2	1	9
Feeding & portion control	1	10	1	1	1	1	1
Hydration	1	1	10	1	1	1	2
Enrichment & (well-being)	9	6	5	3	9	5	4
Cleaning automation	9	2	1	1	3	1	10
Space integration	4	8	8	9	5	7	7
Stress reduction & monitoring	5	7	3	9	5	4	2
Cost of ownership	3	7	7	5	7	6	4

Table 1: Cat Care and Home Environment Product Benchmarking

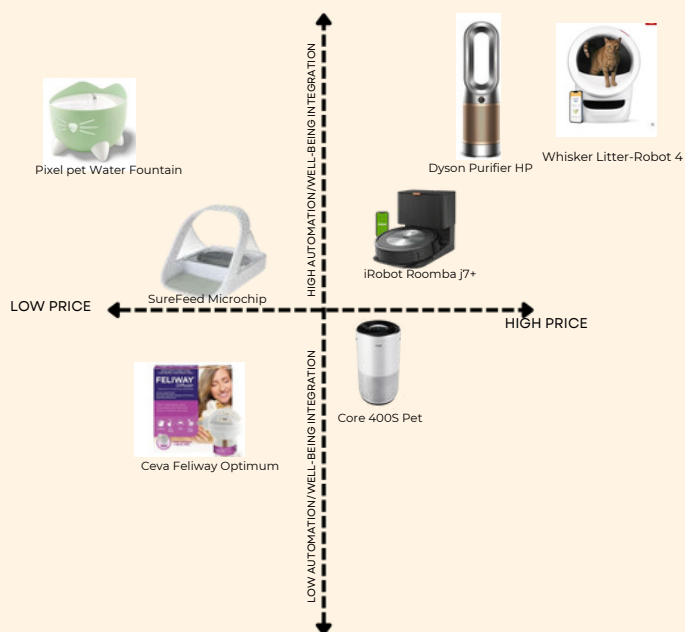


Fig 3 – Price vs Automation & Well-Being
Most automated and wellness-focused products are positioned at the higher end of the price range.



Fig 4- Technology vs Brand Reputation
High-tech pet care is dominated by well-known brands, while affordable options remain less innovative.

The brand positioning maps (Fig. 3 and Fig. 4) evaluate the relationship between price, automation, wellness integration, technological advancement, and brand reputation across leading cat care products. As shown in Fig. 3, high-end products like the Whisker Litter-Robot 4 and Dyson Purifier HP sit at the upper end of both price and well-being integration, offering highly automated experiences that reduce user stress and improve home hygiene. In contrast, budget-friendly options such as Ceva Feliway Optimum and standard water fountains provide minimal automation or functional depth but remain accessible to everyday cat households.

Figure 3 illustrates that brand reputation and technology are closely aligned, with top-performing products clustering in the high-tech, strong-brand quadrant. These include iRobot Roomba j7+, Whisker Litter-Robot 4, and Dyson brands recognised for performance, reliability, and longevity. This demand for automated and enrichment-based products is supported by Ravenscroft, Barcelos, and Mills (2021), who found that human well-being is significantly enhanced by engaging in cat-related activities such as feeding, providing enrichment, and observing pet behaviours. Their study identified that 86% of surveyed cat owners reported personal growth and life satisfaction benefits when caring for their cat's needs especially through activities like play, hydration, and hygiene. Products that streamline these tasks, such as smart litter systems or hydration fountains, support both pet welfare and owner satisfaction, validating their higher market positioning.

Figure 5 maps the current landscape of cat care products based on their functional contribution to well-being and level of integration into small home environments. Premium brands such as the Whisker LitterRobot 4, Dyson Purifier HP, and Roomba j7+ are positioned as primary competitors due to their automation, hygiene support, and emotional relief for owners. Their dominance is supported by strong brand trust and recognition, which research shows significantly influences consumer decisions in the pet sector (Xu, 2024). In contrast, secondary and tertiary products including basic bowls, trays, and sprays are more affordable but offer limited well-being or enrichment support. Gromek and Perek-Białas (2022) note that pet owners often prioritise emotional comfort and attachment over purely functional or cost-driven factors an aspect often overlooked in traditional economic models. Furthermore, Li and Krutasaen (2025) demonstrate that thoughtful product design in small homes can reduce cat anxiety and support shared human cat well-being. This reinforces the market need for multifunctional, emotionally supportive products, especially for small urban households.

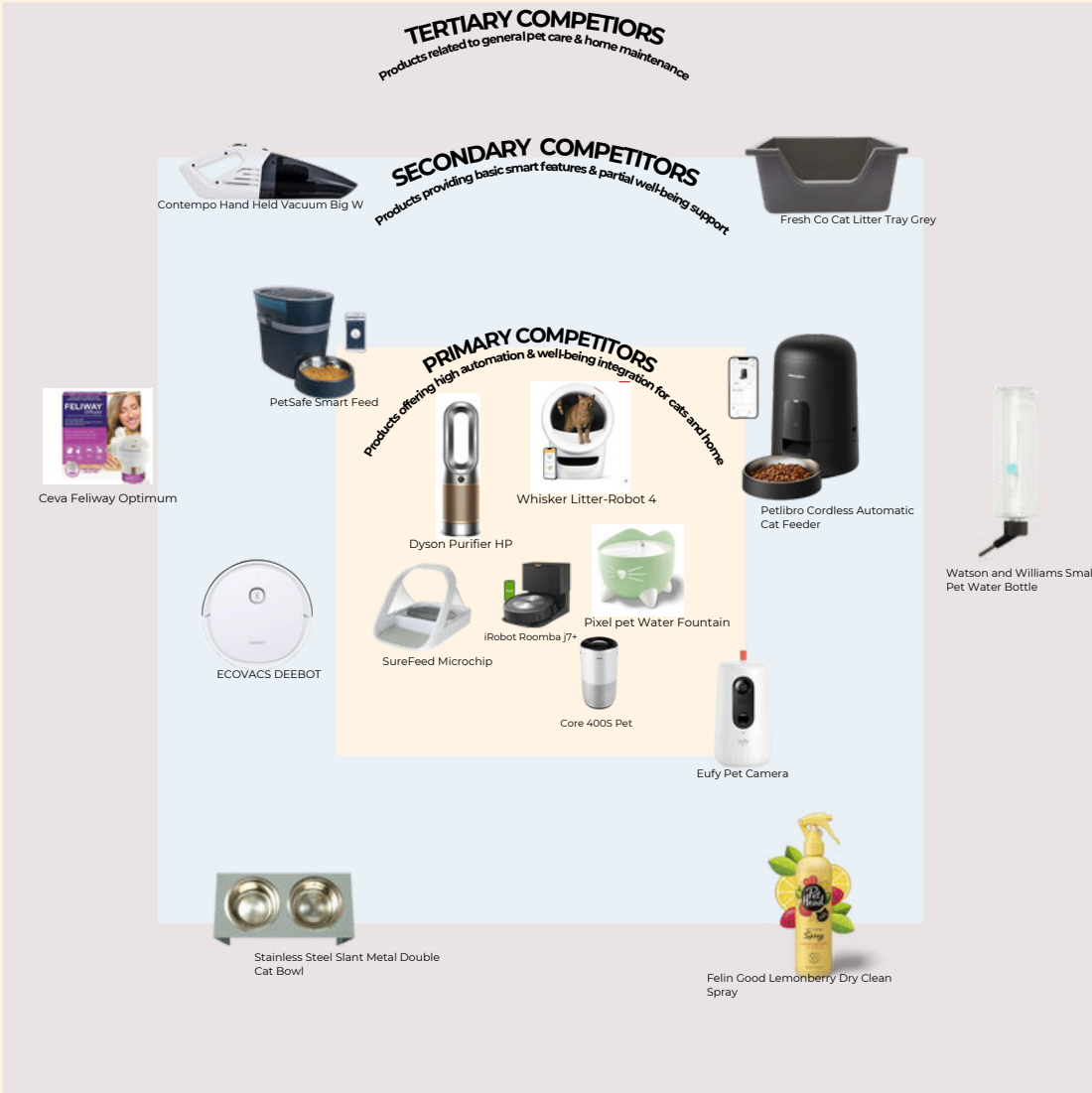


Fig 5: Cat Care Competitor Landscape

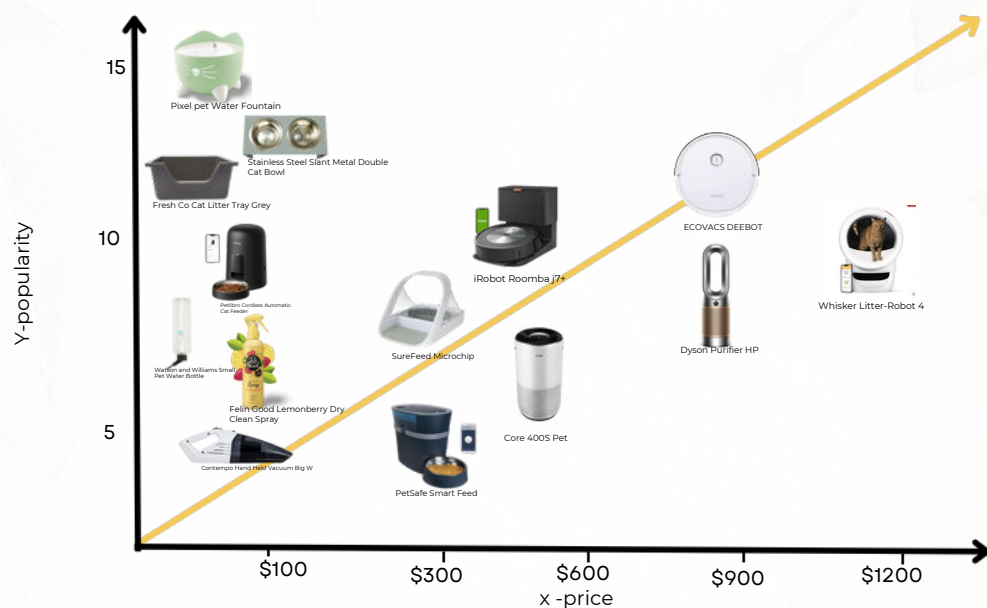


Fig 6: Market Adoption of Cat Care Products by Price

Figure 6 illustrates the price-to-popularity relationship across cat care products. Premium products such as the Whisker Litter-Robot 4 and Dyson Purifier HP offer high levels of automation and hygiene support but remain inaccessible to most households due to cost. In contrast, basic items like litter trays, bowls, and water fountains are widely adopted for their affordability and simplicity, despite offering limited well-being or enrichment value. This reflects what Gromek and Perek-Białas (2022) describe as a trade-off between emotional value and functional necessity one that is often underexplored in traditional economic frameworks related to pet ownership.

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- RESEARCH
 - ANALYSIS & FINDINGS

SECTION TWO

04 RESEARCH

4.1 Overview

This research explores the emotional and practical experiences of adults living with cats in small or shared homes. It examines how limited space, daily routines, and financial pressures affect the human cat relationship and personal well-being. Special attention is given to how cat care responsibilities such as feeding, cleaning, and enrichment contribute to stress, comfort, and home satisfaction. By investigating these lived experiences, the study aims to build a deeper understanding of the challenges faced in compact, pet-sharing environments.

4.2 Methodology

This research uses a qualitative methodology to investigate the lived experiences of adults sharing small or compact homes with cats. Qualitative approaches are valuable for uncovering emotional and contextual insights, enabling deeper understanding of human-pet dynamics in everyday routines (Rana et al., 2023). A mixed-methods toolset comprising surveys and semi-structured interviews was used to collect both broad patterns and rich, in-depth narratives. To enhance the reliability and validity of the findings, a methodological triangulation strategy was applied by cross-verifying data from different sources and methods (Bhandari, 2022). The data collection process involved designing and distributing a survey, followed by interviews with selected participants, and analysing responses through thematic coding. Figure 7 illustrates the step-by-step design of this process.

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- DISCUSSION
 - DESIGN IMPLICATIONS
 - CONCLUSION

SECTION THREE

06 DISCUSSION

1

Emotional Relief vs Daily Strain

This study reveals a nuanced tension between emotional companionship and daily stress in small cat-shared homes. Survey responses strongly highlighted the mood enhancing benefits of cats, particularly in reducing work-related fatigue and providing general emotional relief. Interview narratives echoed this, with participants describing their pets as calming presences and mood regulators. However, deeper discussions revealed that caregiving responsibilities feeding, cleaning, and maintaining hygiene also contributed to time-consuming or stressful routines. This contrast underscores a dual dynamic: cats provide psychological support, yet they also introduce practical burdens that influence daily living in compact spaces.

2

Alignment with Existing Literature

The findings affirm and extend existing research on the emotional benefits of pet ownership, which is often linked to reduced loneliness and improved mental well-being, particularly in younger urban populations (Taniguchi et al., 2024; Sweeney & Switzky, 2019; Brooks et al., 2018). This study reinforces those emotional benefits but complicates the narrative by showing how spatial constraints and domestic tasks can dilute the positive impact. In particular, the emphasis on odour management, layout limitations, and failed product trials adds dimension to prior studies by highlighting how environmental discomfort intersects with emotional wellbeing. The perspectives of veterinary professionals further contextualise this, emphasising hygiene and efficiency over emotional value, suggesting a contrast between lived experience and clinical observation.

3

Addressing the Research Gap

This study contributes new knowledge by integrating both user and professional insights through a triangulated method. The comparative analysis across survey, interview, and veterinary feedback reveals a gap between emotional support and practical strain that is currently underexplored in existing literature. Furthermore, the connection between participants' work arrangements and their home improvement priorities (Fig. 14) introduces a novel understanding of how spatial and occupational contexts shape pet care stress. These insights directly respond to the research question and deepen understanding of the emotional and functional challenges of living with cats in small homes.

07 IMPLICATIONS

What the Findings Mean for Design

This study reveals a tension between emotional support and daily strain in cat-shared small homes. Participants reported mood-lifting benefits, but also noted routine fatigue, odour concerns, and space limitations. Veterinary professionals prioritised hygiene and manageability, while general users emphasised emotional bonding and enrichment. These perspectives—shaped further by participants' work arrangements—highlight the need for designs that support both emotional well-being and practical routine efficiency in spatially constrained environments.

Key Problems Identified

- Odour control: Litter placement is limited, and smells spread quickly in small interiors.
- Routine fatigue: Cleaning and feeding are time-consuming and mentally draining.
- Space constraints: Existing cat products are often bulky or visually intrusive.
- Lack of enrichment: Boredom is common, yet play items occupy valuable floor space.
- Affordability barriers: Premium litter tech exists but is often unaffordable or oversized for compact homes.

Design Opportunities

- Odour management solutions: A sealed, compact litter system with deodorising and quick-clean features tailored for renters.
- Routine simplification: Light automation (e.g., scooping assist, maintenance reminders) that reduces effort without removing human–pet interaction.
- Modular, space-efficient furniture: Designs that combine storage, litter, and vertical play zones in slim or corner-placed formats.
- Micro-enrichment features: Sensory and modular play elements that provide stimulation without taking up floor space.
- Work-pattern adaptability: Systems with “home” and “away” modes that shift enrichment cadence or airflow based on occupancy patterns.
- Affordably scaled options: Mid-range modular kits and retrofit add-ons for budget-conscious or renting pet owners.

Design Direction Summary

Design outcomes should prioritise simplicity, routine relief, and spatial adaptability. Solutions must work within the constraints of renters and small urban dwellings, while also supporting cat well-being and emotional companionship. Key principles include:

- **Must:** Reduce odour and cleaning time; be compact, hygienic, and quiet.
- **Should:** Be renter-safe, modular, easy to maintain, and visually discreet.
- **Could:** Include smart notifications, sensory aids, or sustainable/closed-loop materials.

These insights directly inform the upcoming design phase and address gaps identified through both user feedback and benchmarking analysis.

08 CONCLUSION

This research explored how living with cats affects adults' emotional well-being in small homes. Through triangulated data from surveys, interviews, and veterinary professionals, the study identified a clear tension between emotional support and daily routine strain. While participants valued cats for stress relief and companionship, they also faced challenges such as odour control, cleaning fatigue, space constraints, and product limitations. The findings confirm existing literature on the emotional benefits of pet ownership, but also expand on it by showing how spatial and routine burdens can dilute these benefits. Importantly, the connection between participants' work arrangements and their improvement needs adds a new layer of understanding. This research highlights the need for designs that support both emotional connection and efficient daily routines. Future steps should consider not just product function but also the user experience before, during, and after interaction. Designers should test with a broad range of users and consider both individual and shared living contexts to improve generalisability. Overall, this study provides a strong foundation for designing responsive, space-conscious products that enhance the shared human-cat experience in compact homes.

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