Mothers of Invention: How the Experiences of Women Working from Home during COVID-19 Could Reshape the Domestic Environment

by

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Abstract

Despite the desire of the postindustrial workforce, particularly women, for flexible work arrangements, only four percent of Canadian employees performed their job duties remotely - outside of the organization's central location - before the pandemic. However, this segment grew dramatically in March 2020 when COVID lockdowns forced office employees to work from home (WFH) on a scale previously unimagined. Because the recent merging of paid labour with the home has affected the genders unevenly, in this case study I focused on the WFH experiences of women like me, living in Metro Vancouver BC, with occupations that could be performed remotely during the pandemic. The study explored the material and behavioral challenges experienced by women working in the domestic environment, and the innovative modifications they implemented to overcome their difficulties. Using a mixed-methods approach, I collected data with an online survey, followed by semi-structured interviews. The results showed that many factors (some resulting from the pandemic) complicated women's WFH experiences, but almost every participant wanted to continue working remotely in some capacity. The research found that WFH is a viable labour model for women who want to combine paid and unpaid labour in what I have called the WFH nexus, within the dwelling. The study cited diverse examples of their innovations, undertaken in the home workspace to enable effective work performance. This examination of the domestic workspaces created to accommodate pandemic-induced WFH revealed new design considerations and solutions, with implications for the residential design industry although it is too early to predict their extent and longevity. As the postindustrial work environment evolves to include a larger segment of remote or home-based employees, the study's insights also have implications for organizations developing WFH best practices.

Keywords: COVID-19; Employment; Home; Interior design; WFH; Women

Dedication

To my mother, who raised and inspired three daughters, without a room of her own.

Joanne: When we were growing up in Flin Flon, where did you go or what did you do when you needed privacy? How did you feel about not having your own room?

Stella: I don't think I thought about it; my life was so full of three young children! Your father had his office, but there was nowhere else. Not many mothers had spaces of their own in Flin Flon, or anywhere else probably. The kitchen was always considered the woman's place. That was where I wrote my letters, wrapped parcels, etc. Always invaded by children, but that was considered to be perfectly normal by most women in the years I was in Flin Flon. Most of the houses were small and so no spare room. I think coffee around the kitchen table was as far as one's own space went!

(Mother, homemaker, artist; b. 1941)

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List of Acronyms

BC	British Columbia
BCIT	British Columbia Institute of Technology
CMHC	Canada Mortgage and Housing Corporation
COVID-19	Disease caused by SARS-CoV-2
GLS	Graduate Liberal Studies
IEQ	Interior environmental quality
SFU	Simon Fraser University
WFH	Work from home

Glossary

Ergonomics	An applied science that involves designing workstations, work processes, equipment, and tools to fit the employee.
Interior design	A profession with specialized knowledge applied to the design of interior environments that promotes health, safety, and welfare while supporting and enhancing the human experience ("Definition of Interior Design").
Open plan or open concept	Architectural term used to describe an interior space with few or no internal walls. In a dwelling, social areas like the kitchen, dining room, and living rooms are typically open to each other.
Metro Vancouver	Region around, and including, the City of Vancouver: a partnership of 21 municipalities, one Electoral Area and one Treaty First Nation (Metrovancouver.org).
Middle-income	Households earning between 75% and 200% of the median national income (OECD). In Canada, the median after-tax household income was $66,800 in 2020. Therefore, Canadian middle-income households earned between $50,100 and $133,600 in 2020 ("Canadian Income").
Middle-class	A standard of living based on similar social factors: wealth, middle-income earning, post-secondary education, white-collar or professional occupations. Some sociologists further divide this class into upper and lower subcategories (Little 279).
Zoom	Cloud-based video conferencing platform.

"The true creator is necessity, who is the mother of our invention" (Plato 369c).

Work-from-home kids meme ("Work-from-home").

Chapter 1.

Domesticating Change

It was about the beginning of September, 1664, that I, among the rest of
my neighbours, heard in ordinary discourse that the plague was [here]…
It mattered not from whence it came but all agreed it was come (Defoe 9).

For all our vaunted adaptability, we don't like change, and we respond
especially badly to rapid change. As soon as we can, we make our new
surroundings familiar…in doing so, we domesticate change in order to
take the threat out of it (Grady 195).

1.1. Introduction

Very few people could have predicted, when the World Health Organization
announced the COVID-19 pandemic in March 2020, the full extent of its disastrous
impact. Now, over two years later, we are still trying to break free from the sticky web of
disorder and uncertainty spun by the deadly, mutating virus. COVID-19 is the most
disruptive global event since WWII, but despite its tragedies, this crisis created
opportunities for sweeping social change. The seeds of creativity, sown by massive
disruptions, flourish in the fertile soil of ambiguity and necessity: the longer the disruption
lasts, the greater its transformative impact. Disruption and design (the planned process
of creative problem-solving), are kindred spirits. Design "has had one constant role - as
an agent of change that helps us to interpret changes of any type…to our advantage"
(Rawsthorn). The pandemic's repercussions have already introduced a multitude of new
design problems to provoke and inspire a reimagining of the built environment, starting
in our homes. When my campus workplace closed during the early, bewildering months
of the lockdown, the townhouse I share with my husband alternated between haven and
prison. I found privacy in our guest bedroom, the center of my new virtual world where I
taught design courses, participated in graduate seminars, studied and wrote. It was
here, gazing at the trees through a south-facing window, that I designed this study - an

exploration of women's experiences when they moved into their homes to work during the pandemic, as seen through the lens of my interior design profession. The pandemic created the unique setting for a natural experiment - with conditions that could never be artificially replicated - in which millions of female employees, many unfamiliar with remote work, quickly improvised new home-workspaces. But because WFH was mandated, not chosen, their lack of space, amenities, preparation, and training created a wide range of challenges to overcome.

A confluence of social phenomena – knowledge work, remote work, Metro Vancouver's housing crisis, and the gendered impacts of COVID - provided the project's framework. The postindustrial rise of the knowledge economy[1] has long supplemented, or even replaced, resource-based industries in Canadian cities: now the country has "a highly developed economy with a high number of professional jobs that can [be] done remotely, a highly educated workforce and many people living a long commute from work" (Nixon). The knowledge worker category, originally consisting of "creative technology-based professionals such as web programmers or web designers, [now] includes those in the "thinking" occupations such as writers, researchers, accountants, academics, engineers, and designers" (Ricard). Their high-level communication and technology skills - well suited to collaborative work - are easily adapted to remote workplaces that "integrate life and work more fully than the early 20th-century nine-to-five model. This relationship between work and life - each has permeated the other's realm" for those who worked remotely before COVID (Antonelli 60).

The pandemic subsequently freed a greater proportion of knowledge workers and white-collar professionals, recently labelled the laptop class,[2] from the physical constraints of the corporate office. WFH has accelerated a postindustrial shift already in progress – the gradual dissolution of the centralized workplace - but it is also part of a wider context of social change around gender roles, domesticity,[3] and work-life balance.

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[1] Peter Drucker first described the rise of knowledge work and the shift to a society powered by knowledge in *Landmarks of Tomorrow* (New York: Harper, 1959).

[2] The term laptop class originated during the pandemic to describe the group of people who could work remotely with an internet connection, a digital device such as a laptop, and relatively little personal risk to their health and livelihood (Gray 2021).

[3] Domesticity refers to the "lived experience of private life, the material dimensions of the home, and an ideology that imaginatively organizes complicated and often contested ideas about privacy, work, gender identity, family, subject formation, socioeconomic class, civilizing morality, and cultural representation" (Cohen).

For the laptop class, WFH is redefining the nature of their employment. Remote work, now a mainstream labour model, is already impacting the built environment, starting with the interior design of workplaces and residences. Studies published over the past two years have investigated the pandemic's effects on a range of topics relevant to the themes of this study: the changing nature of employment, telework, and working from home (Aczel et al. 2021, DeFilippis et al. 2020, Galanti et al. 2021, Junge 2021, Wang et al. 2021); home-office ergonomics (Davis et al. 2020); and well-being in the built environment (Engineer et al. 2021).

        Housing affordability, availability, and floor area are decreasing in urban regions like Metro Vancouver (Haider and Moranis): Vancouver's socioeconomic, cultural, and geographic conditions, each integral to the current housing situation, provided the context for this case study. The housing crisis here is similar in other global cities, such as London, New York, Sydney and Melbourne, where there is a "widening gap between household income and the cost of housing to buy or rent. Emerging from this widening gap are patterns of spatial disadvantage and inequality, which are adversely impacting the liveability, productivity and fairness of cities" (Stanley 129). The high demand for housing in Metro Vancouver, especially types other than detached single-family houses, that will suit diverse incomes, households, ages, and abilities, has exacerbated the issue of unaffordability. Here, "migration from within and outside Canada and job growth are key drivers of [the] housing demand" that has escalated costs for owners and renters ("Housing Progress Report" Appendix B, 3). According to a report issued by the National Bank of Canada in May 2022, Vancouver is still the least affordable Canadian city for home-owners, with the representative mortgage payment now requiring 81% of the median income.[4] A household needs an annual income of $285,000 to afford the representative home (Arseneau et al). Simultaneously, the floor area of urban homes is decreasing as cities, in particular coastal cities, that are running out of space rely on the construction of higher-density multifamily housing with smaller individual units to accommodate population growth (Hopper).[5]

        The pandemic's impacts on the home and the workplace were not gender-neutral: women and men have experienced them differently (Costa Lemos et al. 2020,

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[4] According to BC Housing, if housing costs are over 30% of a household's gross annual income, it is considered unaffordable housing.

[5] Multifamily housing: a residential property containing more than one housing unit, such as apartments, condominiums, town houses, and rowhouses.

Goldin 2022, Sharma and Vaish 2020). With the dwelling still considered the feminine domain, women who managed the domestic labour while performing job duties in the home shouldered a heavier burden, especially with the inclusion of activities linked to work, school, and leisure during COVID lockdowns. The dwelling and the office – usually two separate places or spheres – have merged into one WFH nexus (fig. 1).
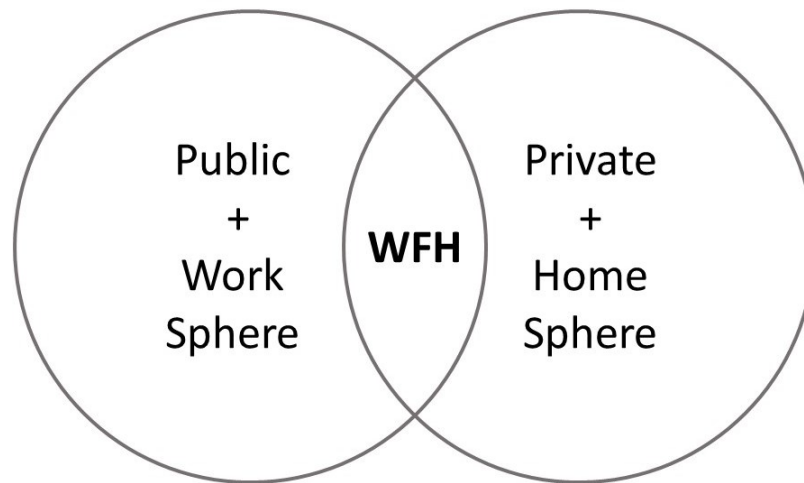
Figure 1   Work-from-home nexus.

The past two years have shone a light on, and into, the residential interior spaces where many people found safety and comfort when lockdowns or quarantines confined them at home. There, the bounding planes of rooms redefined our physically diminished worlds. How women working from home would manipulate or reimagine their environments, in response to new physical, social, and mental-health conditions, piqued my professional interest. How they addressed their greatest challenge (what I have considered to be an interior design problem), the creation and merging of a workspace within the home, is the focus of this study. The research, however, necessarily transcended the material and spatial challenges associated with workspace design to explore the associated domestic and personal conditions that also influenced the WFH experience. To the interior designer, the dwelling is a physical structure surrounding an internal organization of spaces and objects that accommodate a specific set of user requirements. But the home also has personal significance and meaning. It is a special place, where one "maintains his or her own life, joins that life with others, creates new lives and social categories, and gives meaning to the process, thus gaining a sense of identity and place in the world" (Saegert 288). By sharing a home environment,

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household members share the experience of its sociocultural, psychological, and economic conditions, which vary widely and change over time. According to Witold Rybczynski, "ideas about privacy, intimacy, domesticity, and comfort… are prominent and recurring themes in contemporary analyses of the meaning of home" (Mallet 67) that will be examined in this study. The home workspace, set within a wider domestic environment, connects to rooms and areas that support other activities and household members. The dwelling itself is part of a larger social and physical context, like a house in a neighbourhood, or units in a condo tower. In this sense, the home workspace affects, and is affected by, internal and external conditions that are often beyond the control of the occupants. By exploring the experiences of women in the WFH nexus, I hoped to answer these questions:

- How did women, many new to WFH, create and merge a workspace within their home?
- How and why did WFH influence home design? How could home design affect the future success of WFH?
- What other challenges affected women working from home? How did women innovate or problem-solve to address these challenges, and were they successful?
- How did the benefits of WFH outweigh the limitations? What compromises were made?

I chose the case study methodology, a "research approach in which one or a few instances of a phenomenon are studied in depth" (Given 68). Data collection started with an online survey with open and closed-ended questions about women's WFH experiences. I subsequently interviewed 15 participants from a variety of household types: cohabitating, single, with and without children. The participants lived in the region of Metro Vancouver BC, and with digital technology their jobs could be performed from home. However, this study recognized that most working women don't have the flexibility to work remotely since many occupations - health and long-term care, food services, hospitality, retail, etc. - can't be performed off-site. But considering the dramatic increase of Canadians working from home, from four percent in 2016 to 33% at the height of the pandemic (Mehdi and Morissette), this exploration of the limitations experienced by women working from home during the pandemic has valuable implications for the future.

The thesis is organized into four chapters. Chapter One explores the phenomenon of remote work, and how the fear of COVID-19 contagion necessitated the merging of two places - home and work - in a flexible labour model traditionally popular among women. The chapter then provides a historical perspective of the blurring line between work and domesticity beginning in the 20th century, and its effect on women's privacy. Chapter Two introduces the methods used to collect and analyze the primary source data; the study's observations are discussed in Chapter Three. The final chapter presents the conclusions and future implications of the case study.

1.2. Disruption and innovation

Exploring the human capacity for innovation grounded this research: we use creativity to navigate uncertainty while facilitating adaptation, and even transformation, during periods of instability such as the current pandemic. While creativity is generally defined as the ability to think in new and different ways (Blissett and McGrath 174), Margaret Boden proposed that it be further categorized as one of two types: historical, or the eureka moments that change the world; and psychological, the ideas that are only new to individuals or groups (43). This study focuses on the latter: creative problem-solving by individual women in order to work effectively from home. When the pandemic and subsequent lockdowns caught societies off-guard, large-scale technological workarounds, from virtual classrooms to e-commerce websites and videoconferencing, quickly ramped up to keep people digitally connected while physically apart. Office employees, many with no prior remote-work experience, fled corporate workplaces to work from home. Some travelled even further as they traded small, urban dwellings for larger homes in the suburbs and beyond, pouring gas on an incendiary real-estate market. In British Columbia, the shift to remote work, coupled with the high cost of living in Metro Vancouver, turned it into Canada's most mobile province during the pandemic, with almost 20% of respondents moving to a different community ("COVID at Two").

Early reports of pandemic-induced surges in real-estate transactions, home construction, and home renovations, signaled the start of a socioeconomic shift in how and where knowledge workers want to live. During the pandemic, home-bound occupants with extra time and money undertook physical improvements to their dwellings and outdoor spaces, trying to accommodate needs introduced by COVID. Building professionals "have seen these interesting new demands put on our spaces,

and they are absolutely a byproduct of the shifting [pandemic] lifestyle" (Kaysen), including the rising demand for dedicated home workspaces for remote workers (Yuko). But the pandemic also revealed difficulties arising from the newly-merged dwelling and workplace, since they are two separate design typologies with functional, social, and aesthetic requirements expressed architecturally in different forms. In architecture and interior design, finalizing the program - the data that informs the design direction for the proposed environment - marks the project's starting point.[6] A home workspace, for example, would require the client to identify functional needs (activities, behaviors, spatial requirements, equipment sizes), and desired conditions (aesthetics, mood, comfort, acoustics, lighting, heating, etc.). Since the massive implementation of COVID-related WFH, new demands have arisen, as this study will show, that must be met to successfully merge the workplace within the home.

1.3. Women in the WFH nexus

Since the 1970s, feminist geography has examined the intersection of gender and space, or the "study of space as gendered, and the spatiality of gender" (Blunt and Wills 121). Gender, class, and income disparities affect how people use and experience the built environment: according to this research, gender values and social expectations still influenced Canadian women's roles in the merged home and the workplace.

Paid labour and domesticity coexisted prior to the Industrial Revolution, when industrial capitalism split the political and domestic economies. For the middle class, this division resulted in the gradual relocation, physically and ideologically, of men from the dwelling into the public sphere where they worked for wages. Women, still at home, performed the unpaid domestic labour. Therefore, while the merged home and workplace is an old labour model, the current WFH version differs because now women perform both paid and unpaid labour in a domestic realm still considered their domain. For this reason, flexible working arrangements appeal more to women than to men (Beatson 4), but flexibility traditionally came with a high cost. Women who took employment that offered it, such as long leaves of absence, job sharing, working part-time or working remotely, often sacrificed fulfilling careers for lower-paying or less-

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[6] The building program is a list of client requirements to be fulfilled within the parameters of the site, budget and schedule.

challenging positions that tolerated the interruptions of child-rearing. As sociologist Mary Blair-Loy noted, "So much of being rewarded at work is being seen as a devoted professional, an ideal worker; and part of being seen as an ideal worker is being around a lot" (Ember). The negativity directed at women working remotely exemplified a gender-based bias: perceived as less committed, "working mothers fell into "slow track" status progression, which was reflected in the paucity of women at the highest professional, managerial, and ownership levels" (Offer 325). When the pandemic shuttered offices indefinitely, organizations successfully connected with their decentralized employees using technological solutions like videoconferencing: the resultant work-performance gains of WFH could mean that the "unfair penalty for mothers doing remote work will recede" (Ember). However, the loss of productivity experienced by mothers working from home during COVID revealed that childcare is still an unresolved issue for working women regardless of their workplace location (Miller, "Shorter Hours").

This case study focused on the WFH experiences of middle-class, middle-income women, and the findings illuminated a deterioration in the already-fraught relationship among gender, employment, and domesticity.[7] Workplace flexibility and job creep represent two sides of employment autonomy: the ability to do a load of laundry, attend an appointment, or deliver children to/from school while working from home often translates into extended work hours. The traditional binary workday (morning and afternoon), when interspersed with domestic tasks, requires a third evening shift to catch up with the day's job duties. Women then have little time or energy to meet their personal needs. By performing their jobs at home, rather than in the corporate office, women also miss out on the workplace's social benefits, and their professional self-concept can be diminished, further impacting mental health. Engagement in multiple roles is regarded as a key characteristic of female identity in western societies (Sumra and Schillaci 3): for working women, having a separate professional identity over and above feminine domesticity is critical to self-esteem. But trying to excel at several roles simultaneously can impact mental health, according to the American Psychological Association's definition of Superwoman Syndrome. As this study found, women's overexertions in domestic, professional, and other roles led to stress and exhaustion.

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[7] In 2020, a Canadian middle-income household earned between $50,100 and $133,600.

Regardless of occupational sector, the pandemic has inequitably affected women's paid employment (Wheatley). As this case study corroborated, many women chose, or were forced, to reduce their hours, resign, or change jobs in order to manage the "second shift", Arlie Hochschild's term for the unpaid domestic labour performed by working women. Today there are almost as many women as men in the Canadian labour market, but women's work has less value: the Canadian gender pay gap in 2021 showed that women working full-time earned 89 cents to the male dollar ("Average and median gender wage"). The public institution of work is based on an ideal worker stereotype that for many employees has never existed (Giang), and an outmoded, biased employment system in which work is "structured around the expectation that people don't have a family" (Goldberg), or that women are, or should be, prioritizing domesticity (fig. 2).

Email Auto-Responses for Your Mental Health

Thanks for your message. Mothers taking personal, professional and caregiving breaks is necessary, particularly in a society that does not adequately compensate us for our time and labor (especially during a pandemic). I will get back to you when I can, in the next 1-2 weeks. If we are already in touch about a project, you'll hear from me sooner.

Thanks for your understanding and take care.

— Angela Garbes, Seattle. Author of "Like a Mother: A Feminist Journey Through the Science and Culture of Pregnancy."

Figure 2   A mother's email auto-response during the pandemic.
Source: Retrieved from https://www.nytimes.com/interactive/2021/08/23/well/mind/out-of-office-mental-health.html

Hochschild referenced the "stalled revolution," in which "most workplaces remain inflexible in the face of the family demands of their workers, [while] at home, most men have yet to really adapt to the changes in women" (12). An unfair assumption persists that women working from home are better positioned to perform the domestic duties that are often unfairly distributed between couples. Men have, over the past few decades, stepped up with childcare and housework, but as this study shows, childcare remains a significant challenge, and women are still expected to be the primary caregivers (Livingstone and Parker). Between 2015 and 2019, women in BC did 59% of the unpaid domestic labour in all age groups. This included single women who outperformed single men: studies investigating the reasons suggest that "the differences are not due to men and women having different preferences or perceptions of cleanliness, but rather are

driven by societal expectations placed on women to have clean homes" ("Estimating the economic value"). During COVID, domestic inequality prevailed despite the fact that men spent more time in the dwelling (fig. 3). Women working at home performed additional housework, and "all childcare, with little adjustment to husbands' work roles, as well as similar scenarios wherein husbands pitched in with childcare occasionally" (Shockley 21), a finding corroborated by this study.

Figure 3   "Work-from-home errands" meme.
Source: Retrieved from manofmany.com/wp-content/uploads/2021/07/Work-from-Home-Errands.jpg

Personal space shrank during COVID with so many people at home all the time. New activities in the home interior, such as WFH and home-schooling, created more noise, dirt, and clutter while amplifying tension, anxiety, and interpersonal conflicts. The condition of furniture, appliances, and interior finishes deteriorated, while the need for cleaning, provisioning, and childcare increased. For women, pandemic-induced stress infused their domestic and employment duties, making it more difficult to filter out distractions. This potent mixture took its toll on the mental well-being of Canadian women, who fared significantly worse than men according to an Angus Reid Institute poll ("COVID at Two"). The poll results didn't explain the obvious gender disparity, but the participants in my case study encountered a multitude of mental health issues that are described in Chapter Three. Working from home, and "the challenges of creating home workspaces in small living quarters… especially where there are young children

requiring home schooling, have contributed to the general pandemic-related increase of stress and mood disorders," according to recent research (Engineer et al. 10).

Despite their WFH challenges, women who can work from home, want to work from home: in the current tight labour market, they can find new jobs to achieve it.[8] Further, the proportion of women who could potentially work remotely, such as those employed in jobs requiring a high degree of analytical skill, is growing rapidly (Kochhar). "If organizations want to stay competitive, they are going to have to re-evaluate what work looks like," according to Patricia Faison Hewlin, an associate professor of organizational behavior at McGill University. "If they don't, they are going to lose excellent, productive employees" (Nixon).

1.4. A work-life sea change

Although the social aspects of the corporate office, such as interpersonal contact, teamwork, mentoring, and supportive supervision are important to employee well-being (Offer 242), working from home provided a welcomed mental break from the stress and anxiety generated by the pandemic. Away from the office, we could slow down, developing a greater appreciation "for the value of one's own life, stronger appreciation for friends and family, better appreciating each day, [while] changing priorities about what is important in life" (Asmundsen et al. 4). Material and professional gains took a back seat as employees reflected on what was meaningful: personal time, health and well-being, community, and relationships. "If we truly want to be healthy, happy and fulfilled as a society," according to United States Surgeon General Vivek Murthy, "we have to restructure our lives around people. Right now our lives are centered around work" (Leland). Businesses trying to bring back their WFH contingents are fighting fears of new contagions, but also the reluctance of employees who preferred WFH's work-life balance, autonomy and lack of commute. Now, corporate leaders need to "think about different ways to organize our socio-economic system to prioritize the human element as opposed to this ever-increasing need for productivity" (Dickson). Pre-COVID, corporate

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[8] A study from the non-profit Angus Reid Institute found that more than half (56%) of those Canadians currently working from home say they would look for a new job if they were asked to return to the office, including almost one-quarter (23%) who say they would quit on the spot. (Angus Reid 2022)

culture was "one-size-fits-all. [Now companies] cannot return to business as usual" because one size does not fit all (Levere). "The biggest shift in the post-pandemic workplace will be the radical change in flexibility. People's behavioral habits are going to be different" (Levere). For the contemporary remote worker, the standard M-F / 9-5 work week no longer applies, and work methods are determined by the individual. "In the past someone might say 'It has to be done in this way'. Now it doesn't *have* to be done that way. It just has to be done, and done well," said Paola Antonelli, curator of *Worksphere*, a MOMA design exhibition held in 2001 that focused on innovation in the conjunction of digital-analog work. Freedom fuels creativity, and yet the knowledge worker's potential to excel has been constrained by traditional employment practices and workplaces. If work can now be performed wherever one chooses to be, the corporate office is not necessarily the best place to be creative:

> For all the new tools of the workplace, for all its electronic appliances and communication apparatus, for all its human-engineered desks and ergonomically correct chairs, why do so many of us do our best thinking when we're someplace else? (Antonelli 13)

When the pandemic accelerated the shift to remote work, corporate leaders began to acknowledge the interconnection of employee autonomy, well-being, and work performance. If workers can choose the conditions that optimally enhance their performance in terms of how, when and where they work, then employees and businesses thrive. Employers who offer remote-work opportunities are implying a relationship of trust and respect, rather than suspicion. The resultant reimagining of labour practices is a cultural shift in which more laptop-class employees can choose how and where to work. But as this study found, to be comfortable and productive while working from home requires an appropriate physical environment, even in the present digital age. A laptop and a cup of coffee are not enough, especially when working in a shared dwelling.

1.5. Redefining the home office

Bringing paid employment into the home disrupts domestic rhythms. The front door once represented a line where the employee shed her professional identity like a

coat, entering into "the conversations that humanize and ground us into the particular territory we have made our own" (Whyte 215). Work-family interference (WFI), according to Greenhaus and Beutell, is "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (77). Tensions arise when the household's needs and expectations collide with job duties, especially now that work emails and texts have surreptitiously infiltrated domestic life. An office within the home provided a place where corporate employees working remotely, small business owners, and the self-employed, could perform employment duties. Functionally related to the gendered Victorian study and mid-20th century den, today's home office accommodates either gender.[9] In existing dwellings, the home office is usually the product of a spatial conversion: a spare bedroom, basement, or outbuilding is converted into a workspace. Individuals with the financial means can commission a custom-designed home office, but even in this situation, "people have very limited choice about the design of their houses," according to Mallett. Owners are:

> Constrained by cultural and economic limitations to home design; its constraints are also the preferences of "developers, architects, urban planners, [building regulators], politicians, engineers, builders, interior designers - all of whom have their own ideas about what is a desirable, appropriate, [safe], and acceptable living space (68).

Therefore, the merging of the workplace into the home must respond appropriately to its site within the dwelling, the client's needs (program, budget, schedule), and interior design data that evolves over time.

To redefine the home office, I examined design reference books from the past half-century, finding vague definitions, diverse nomenclature, and some prescient predictions concerning remote work. The home office is interchangeably called a workspace, den, study, or studio, with further variations in the definitions of these rooms. For example, some interior design sources defined the den as a comfortable, informal room or a library, but in Metro Vancouver real estate parlance, a den can be anything, even a closet-sized space (fig. 4) (Britten).

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[9] In this study, couples who shared a home office often struggled with distractions. If the room couldn't be shared, determining which half of the couple occupied this premium workspace could depend on the perceived value of each person's employment.

Figure 4   Closet-office, or "Cloffice"
Source: Retrieved from
https://www.reddit.com/r/AmateurRoomPorn/comments/sqw8hq/closet_wfh_office_denver_co/

The current edition (2018) of the *BC Building Code* prescribes nothing for a home office, although natural ventilation is required in a den. Two industry-standard references, *Human Dimensions and Interior Space* (Panero 1979) and *Time-Saver Standards for Interior Design* (Chiara et al. 1991) provide the dimensional data needed to plan commercial offices but neither book defines the requirements for domestic offices. *A Pattern Language: Towns, Buildings, Construction* (Alexander et al. 1977), describes how to design for human experience and well-being: home workspaces should have sufficient space, solitude, and a view of the outdoors (fig. 5). *A Pattern Language* predicted "a society in which work and family are far more intermingled than today; a

society in which people work for themselves, alone and in groups, with much more relation to their immediate surroundings than they have today" (778).

Figure 5   Woolf's writing desk at Monk's House, East Sussex, UK, c. 1921.
Source: Retrieved from https://www.britain-magazine.com/features/48601/attachment/virginia-woolfs-writing-desk-in-the-writing-lodge-at-monks-house-east-sussex-3/

In 1997, the *Encyclopedia of Interior Design* noted that while "rapid technological development will theoretically enable more of us to work from home, it remains to be seen whether the home office will really be accepted by a significant share of employers (and employees)" (Banham 897). The employees who participated in this case study overwhelmingly embraced remote work, but many of their WFH challenges will need to be addressed by employers. Designers exploring how to best accommodate knowledge work in the home should keep in mind that "the same principles that apply to designing office spaces for optimizing integrative health and wellbeing apply to home workspaces" (Engineer et al. 10).

In urban regions such as Metro Vancouver, smaller homes are becoming the norm. Although a home office would be ideal for WFH (as Woolf advocated in *A Room of One's Own*), a dedicated room for working is financially and spatially impossible for most women in Metro Vancouver, especially those living with other household members. Medium and high-density residential buildings - townhouses, row houses, high-rises, etc. – represent 83% of the occupied private dwellings in the City of Vancouver ("Census

profile 2021") while building permit issuance for multifamily housing has far surpassed that for single-family dwellings. Over the past decade, units in multifamily buildings increased by 50% to 4,580 in 2021, while the number of new single-family houses decreased from 650 in 2011 to just over 100 houses in 2021 ("Statistics on construction activity").[10] Vancouver's "see-throughs, [the] glass condominium towers, pale blue or pale green, that have come to dominate the city skyline since 1990" (Coupland 126) are homes for some, and investments for many. As high-rises spread throughout the region (fig. 6), these grottos of spikey metal and glass extrusions are the latest generation of modern "rows of soulless housing and tower blocks…[that] promote isolation and otherness" (Elza 271).
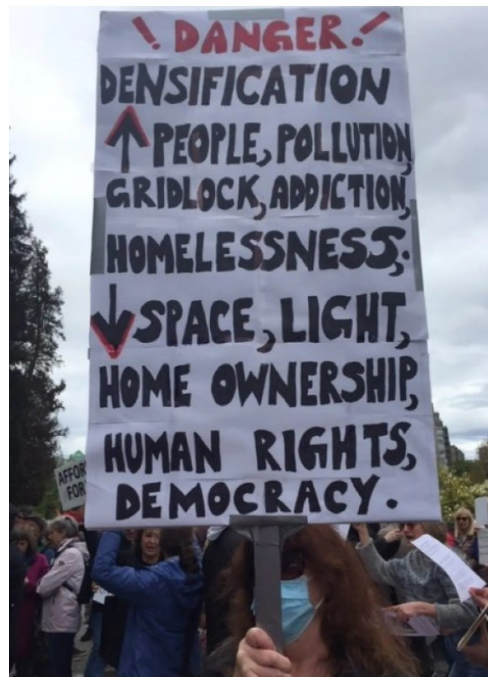
Figure 6   Vancouver residents protest proposed Broadway Plan.
Photo: Jane Frost. Retrieved from https://www.cbc.ca/news/canada/british-columbia/vancouver-broadway-plan-division-affordable-housing-density-growth-1.6451522

Single-family houses are becoming a thing of the past in cities, as developers raze them for higher-density buildings: urban house construction is declining. Housing starts in the City of Vancouver dropped from 77% at its post-war peak to 25% by 2020 ("Canada Mortgage and Housing"). Yet the footprint of new single-family homes is

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[10] Numbers based on issued building permits.

growing: the median living area grew from 1,200 to 1,900 square feet between 1960 and 2017, increasing the future return on their owners' investments ("Median above-grade"). Condominiums, on the other hand, are shrinking: new condos in BC have 15% less floor space than those built in the 1980s and 1990s ("Canadian Housing Statistics"). Michael Kluckner described the compact layout of a typical condo unit in *Vanishing Vancouver: The Last 25 Years:*

> The new condos are much smaller and the spaces more broken up, with few spaces where even a TV or couch can fit…There are few books, fewer pictures, and little clutter in the units I've seen. Furniture, except for the sumptuous beds that all but overflow the tiny bedrooms, is doll-like, usually referred to as three-quarter size. Often there is no stereo and no collection of CDs, although there might be speakers for an iPod or computer. The key device is the wireless router (158).

As urban homes simultaneously shrink while rising in price, carving out a quiet space for work or personal reflection is increasingly difficult. In a small home, finding a private location that satisfies the intimacy gradient is a challenge for those without a dedicated home-office. The gradient, a spatial ordering principle used in interior design, establishes the relationship between the public and private areas of the dwelling (Alexander et al. 610). The degree of privateness desired for each room or area, in accordance with cultural norms, determines its placement relative to the overall floor plan: bedrooms are usually the most private spaces, located far from the main entry. The intimacy level of every other space will land somewhere in between the private (bedroom) and the public (entry). Similarly, Edward Hall describes a behavioral approach to controlling intimacy: people will unconsciously reposition themselves to increase or decrease proximity to others (114). The desire for personal space is both elastic and dynamic: sometimes we want solitude, but too much separation results in feelings of isolation or loneliness. As psychologist Irwin Altman noted, how humans control their privacy is a "changing process in which people open and close themselves to others, to different degrees at different times, using personal space, territorial behaviour and other mechanisms" (211).

The benefits of privacy in the home workspace are similar to those in the corporate office. Landscapes of open-plan corporate workstations are "widely

acknowledged to be more disruptive due to uncontrollable noise and loss of privacy"
(Kim and de Dear 18). I have argued that women working in open-plan homes struggled
with similar distractions. Without a private home-office, intrusive noise interrupted the
participants' concentration, with a decline in work performance and mental well-being as
the result. Researchers (Magee 2000) studying the design of home offices in single-
family houses found that workers placed "significant emphasis on fundamental
behavioral concerns, such as privacy" (39), over comfort, ergonomics, and décor. The
majority of the study's participants chose an office location that afforded seclusion and
separation from busy areas, a room that "truly maintained its identity as a workspace,
and rarely allowed non-office activities to penetrate its spatial boundary" (40).

If people can control social and acoustic disruptions, negative effects are
avoidable, but the women in my study suffered mentally when they were subjected to
uncontrollable noise from construction, traffic, neighbours, and other sources. *A Pattern
Language* (Alexander et al. 1977) established the link between environmental stress and
human experience at least twenty years before the existence of green-building
certification programs such as LEED and WELL.[11] Green-building standards now include
health and well-being alongside energy efficiency, with strategies in place to promote
improved acoustics, ergonomics, indoor air quality, thermal comfort, and occupants'
access to nature. A visual and physical connection with nature, achieved through access
to daylight, views, and the outdoors (fundamental to biophilic design[12]), is proven to
enhance well-being (Engineer et al. 1). I have argued that, regardless of the home
workspace's location within the dwelling, functional and environmental prerequisites,
critical to work performance and mental well-being, needed to be met.

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[11] LEED is the acronym for Leadership in Energy and Environmental Design. LEED v1.0 launched
in 1998 and the WELL Building Standard v1.0 launched in 2014.

[12] Biophilic design: a holistic design approach that connects humans' inherent need to affiliate
with nature within the modern built environment.

1.6. Privacy, gender, and the open plan

> The conclusion—the prosaic conclusion-—that it is necessary to have five hundred a year and a room with a lock on the door if you are to write fiction or poetry (Woolf, *A Room* 158).

The open-concept home, a typology favoured by contemporary designers for its quality of natural light, flowing social spaces (kitchen, dining room and living room in particular), and eye-catching vistas, is so ubiquitous that few Canadians will remember any other layout. But the open-plan interior is a relatively recent architectural innovation, emerging in the late 19th century. Until then, the closed and separated rooms of the dwelling reinforced the separate-spheres ideology, or the "gendered distinction between private and public life" that evolved during the Industrial Revolution (Sparke 13). Walter Benjamin's essay "Louis Philippe, or, The Interior" described the separate spheres in the middle-class home, with an emphasis on masculine privacy:

> Under the reign of Louis Philippe, the private individual makes his entry into history. For the private individual, the place of dwelling is for the first time opposed to the place of work. The former constitutes itself as the interior. Its complement is the office. The private individual, who in the office has to deal with reality, needs the domestic interior to sustain him in his illusions. This necessity is all the more pressing since he has no intention of allowing his commercial considerations to impinge on social ones. In the formation of his private environment, both are kept out. From this arise the phantasmagorias of the interior - which, for the private man, represents the universe. In the interior, he brings together the far away and the long ago. His living room is a box in the theater of the world. (8)

The wage-earning man of the public sphere experienced privacy at home where he could retreat to his study or library, while his wife managed or performed the unpaid domestic labour. Privacy eluded middle-class women, a concept explored in Virginia Woolf's essay *A Room of One's Own.* Woolf not only had a room of her own, she had a separate building: for the last 20 years of her life, she worked in a wooden toolshed converted into a writing lodge, at Monk's House in East Sussex (fig. 5). Her seminal

essay references the working conditions of Jane Austen (fig. 7), who had very little privacy for writing:

> Jane Austen wrote like that to the end of her days. 'How she was able to effect all this', her nephew writes in his Memoir, 'is surprising, for she had no separate study to repair to, and most of the work must have been done in the general sitting-room, subject to all kinds of casual interruptions. She was careful that her occupation should not be suspected by servants or visitors or any persons beyond her own family party (*A Room* 100).

Figure 7   Austen's writing table (right), Chawton, Hampshire, UK, c. 1809.
Source: Retrieved from https://janeaustenshousemuseumblog.wordpress.com/2011/12/24/merry-christmas-from-jane-austens-house/.

Social and design reformers attempted to revolutionize housing, "campaigning for what they called a progressive approach to house design and upkeep" (Wright 161). Cluttered and overly-decorated by today's standards, the Victorian middle-class home resembled a dark warren of space divided into rooms that prescribed social behavior by gender. Woolf described her experience of the separate spheres in the Victorian drawing room, where, for Virginia and her sister Vanessa, "society began to exert its pressure at about half past four. In the first place, we must both be in; one certainly, preferably both. For at five, father must be given his tea. And we must be tidied and in our places" (Woolf, *Moments* 148).

The emergence of modern interiority brought "significant changes to privacy in residential architecture and design…with the trend towards specialized, separate rooms in the home" (Stewart-Pollock and Menconi 67). The closed-plan homes of the period provided rooms to experience solitude, although rarely for women. Victorian formality and convention relaxed as married middle-class women, now managing their households with little or no domestic help, joined the workforce in greater numbers. Social, technological, and architectural developments industrialized housing construction, accelerating the trend towards modern household efficiency. Modernism's *tabula rasa* approach to architecture and design took root in Europe, renouncing obsolete beliefs and traditions, and spreading reformatory ideals that revolutionized housing design around the world (fig. 8. and 9). Dwelling interiors slowly opened up as walls came down, starting in the home's social areas like the dining and living rooms. Paradoxically, the lack of privacy associated with open planning contradicted the modern penchant for reflection, in an example of what Victor Buchli called the "opposition between built form and lived experience" (120).

Figure 8   Schröder House, c 1924. Utrecht, the Netherlands. [13]
Photo: Stijn Poelstra. Retrieved from https://www.dezeen.com/2018/08/29/stijn-poelstra-photographs-mondrian-rietveld-schroder-house-architecture/

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[13] Gerrit Rietveld designed the house with Truus Schröder, a widow with three children who wanted a dwelling that could facilitate flexible and non-hierarchical living. The 1,200 square foot house "provided an entirely new kind of space in which individuals could make choices about how they wanted to live" (Friedman 80).

Figure 9   Schröder House. Child's bedroom with sliding partition
Photo: Stijn Poelstra. Retrieved from https://www.dezeen.com/2018/08/29/stijn-poelstra-photographs-mondrian-rietveld-schroder-house-architecture/

Cheaper to build, and spatially efficient, open-plan homes "spread quickly during the great building boom of the decade before the First World War, when Canada's population grew by a third," resulting in their current predominance (Ward 37). Decades of social and economic upheaval prior to 1945 had revealed possibilities for a structural reimagining of family life and the housing landscape, but the post-war construction boom primarily produced swaths of suburban owner-occupied houses that promoted the nuclear-family status quo. Detached single-family homes, constituting over two-thirds of Canadian dwellings built between 1951 and 1965, embodied a new flexible and informal lifestyle based on post-war consumer consumption and a revival of pre-war domestic values.

Paradoxically, the "familial ideology [emphasizing] the importance of doing things together" contradicted the "stronger emphasis on individual expressions and self-identity," noted Munro and Madigan, authors of "Negotiating Space in the Family Home" (108). As larger homes and smaller families became the middle-class norm, children could have their own bedrooms, and new room types such as the recreation room satisfied the younger generation's need for territory. Men escaped domesticity in the den, basement, or garage. The homemaker, however, had "kitchens, sewing rooms, and so-called master bedrooms to inhabit, [but] even in these spaces the homemaker's role is to service, not to claim autonomy and privacy" (Hayden 84). Front and center in the

open-plan kitchen, now the home's social heart, homemakers simultaneously viewed, and were viewed by, the family (fig. 10).

Figure 10   Formica plastic laminate ad, c. 1950.
Source: Retrieved from http://www.vintageinn.ca/tag/mid-century/

Even today, mothers who have the luxury of collaborating with architects on the design of their new homes, still "want to place their primary work area, be it kitchen or home office, at the center, so that they can always monitor, if not necessarily engage with, their children" (Schwarz). Open planning provided social, visual, and acoustic connection but "the physical design of contemporary mass housing creates a restrictive and somewhat inflexible locale" when it comes to accommodating women's privacy (Munro and Madigan 117). This case study illustrates how, for women living with other household members, the lack of privacy associated with workspaces in open-plan homes often exacerbated the tension between domesticity and paid labour during WFH.

Chapter 2.

Methodology

You can't study human behavior without studying the physical context. The role of the environment is a central feature in social behavior (Altman 195).

This chapter details the case study methodology chosen to focus on the experiences of women working from home in the urban region of Metro Vancouver, BC. The study took place in the natural setting created by COVID, and explores the real-time challenges faced by women as they created and merged new workspaces within their homes, between March 2020 and March 2022. In order to provide the phenomenon of pandemic-induced WFH with a comprehensive context, I researched related issues that could influence women's experiences working from home, such as employment, domesticity, and mental well-being.

2.1. Qualitative research/mixed methodology

The following section describes the data collection methods. The data collection took place in two stages (online survey and interviews) between January 2022 and March 2022.

This exploratory research used a mixed-methods approach to gather both quantitative and qualitative data, because the study couldn't be conducted using only one method of investigation. Quantitative research provided the descriptive overview of the study's population: I collected this data in an online survey. The qualitative methods provided detailed information on the nature of each participant's experience. The following example shows how the mixed-methods approach created a comprehensive response to one specific question - where did participants work in the home. Survey data indicated that women commonly chose to set up in the dining room, if they had no dedicated office. Later, interviewees explained the limitations of working in the dining room: some families continued to use it for dining, or the table's height, which is slightly higher than a desk, caused discomfort and work-related injuries. Several women used the dining room temporarily until they found a better location. Therefore, survey data

analysis raised another question - why did women choose to work in the dining room - that the interview data answered: the room tended to be under-utilized for dining (before and during COVID), and the table provided a convenient work surface.

Inductive content analysis of the qualitative data revealed the main categories of the participants' challenges – dwelling and home workspace; employment; domesticity; and mental well-being - that are synthesized in Chapter Three's observations.

2.1.1. Literature review

I gathered preliminary information through informal channels such as social media, the news, and talking with family, friends and colleagues in order to write the project proposal.[14] Once approved, I conducted a literature review of research on pandemic-induced disruption, using primary source data such as related studies (Asmundson et al. 2021, Kim and de Dear 2013, Sharmaa and Vaish 2020, and Shockley et al. 2021), and white papers (Defilippis et al. 2020, Lund et al. 2021). The review revealed the general concepts that would structure the study: innovation, women's paid and unpaid labour, privacy, the merging public and domestic spheres, and the evolution of residential design.

2.1.2. Case study

By using the case study research method, with its focus on qualitative experience, the Why questions could be resolved: "why particular people (or groups) feel particular ways, the processes by which these attitudes are constructed, and the role they play in dynamic processes within the group" (Given 697). My research could explore naturally-occurring relationships between the workspace, and work performance, domesticity, and mental well-being during COVID and WFH. The case study method was also flexible enough to accommodate collected data from the literature review, survey, and interviews. The unit of analysis was the home workspace during COVID-19. The population was defined as women, living in Metro Vancouver BC, who created workspaces at home in order to continue their paid employment when corporate offices suddenly closed at the start of the pandemic. The conditions of Metro Vancouver -

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[14] For an example of the early COVID gender-related news articles, see "Coronavirus and gender: More chores for women set back gains in equality." *BBC News,* 26 Nov. 2020, https://www.bbc.com/news/world-55016842

geography, climate, economy, housing - added layers of complexity to the study's questions, but the findings can still be applied to urban areas in western countries where space for the outward expansion of cities (urban sprawl) is limited.

This study acknowledges that COVID has impacted people around the world, but I chose to focus on women's experiences. In western societies, women are linked – ideologically and in practice - to the domestic sphere, and they are more likely than men to seek flexible employment due to their double day of wage and domestic labour. When I explained to one interviewee that the study is examining the WFH experiences of women, who have specific domestic challenges, she responded:

> This is a great topic, and I like how you specified that it's for women only, not for everybody. It will be nice to know what other women's situations are as they work from home; are they similar to mine? Are some having struggles that maybe I haven't? When I see the results, I might become more cautious about some things that are not top of mind right now. I would definitely be interested in reading it and seeing the results.

> *(Executive assistant; aged 41-50; Asian; married/cohabitating with children)*

2.2. Positionality

> Empathy is our ability to see the world through other people's eyes — to see what they see, feel what they feel, and experience things as they do. Of course, none of us can fully experience things the way someone else does, but we can attempt to get as close to this as possible. We achieve this empathic state as we put aside our own preconceived ideas about the world and choose to understand the ideas, thoughts and needs of others instead (Dam and Siang).

The ability to empathize with others was as central to this qualitative research as it has been to my work as an interior designer. The human-centered design process relies on empathy: during a project's initial information-gathering stage, interior designers seek to better understand the design problem by looking at it from the end-user's perspective. Similarly, when the qualitative researcher "develops empathy for the social and personal lives of research participants, [it] facilitates a deeper understanding of social life in general" (Given 252). My position, immersed within the study as a

researcher, a professional interior designer, and a woman who worked from home during the pandemic, provided a key vantage point.[15] I designed the study, and I identified with the study's population, a juxtaposition that presented benefits and limitations.

My position as a researcher was simultaneously as an insider, and an outsider. As an insider researcher, I shared the experiences of, and could empathize with, many of the participants' WFH challenges. This perspective helped me identify emerging themes from the participants' first-hand accounts of WFH, and then use them to develop theories (grounded theory method of inquiry). I also relied on skills I developed working as an interior designer: how to balance empathetic understanding with professional outsider objectivity. As an outsider researcher, I lacked personal experience with one very challenging element of WFH: I have no children, while 60% of the participants did. Therefore, I listened to the described experiences of mothers and other women whose experiences differed from mine, while reflecting on personal biases that could influence the study's results. There were times during interviews when I didn't dig deep enough into unfamiliar experiences (childcare, home-schooling), or topics that were emotionally uncomfortable (marital stress, mental illness). Sometimes the WFH experiences described by the interviewees didn't correspond to my own experience. Conversely, I tried to temper my enthusiastic responses to statements that I strongly agreed or empathized with, to appear neutral. I asked the participants if they would consent to a follow-up interview so I could later return to subjects that hadn't been fully explored if necessary. No follow-up interviews took place because I collected sufficient data during the initial interviews. To summarize, I recognized how the nature of the researcher-participant relationship could help and hinder the study: as interviewees shared their experiences with me, I remained cognizant of how my lack of objectivity could influence the study's outcomes.

2.3. Recruitment

The exploratory sampling strategy targeted a well-defined population: women living in Metro Vancouver BC with occupations that enabled them to work from home

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[15] Registered (professional) interior designers in BC belong to the Interior Designers Institute of BC (IDIBC).

during the pandemic. They would most likely be white-collar, professional, and knowledge workers who are highly educated and technologically skilled.

2.3.1. Survey

The study used non-probability sampling methods to gather information from participants who would most likely fit the population criteria above. I utilized my academic and professional contacts in relevant organizations and institutions to promote my research, since women sharing these connections would be more likely to participate. Simon Fraser University students, employees, and alumni received the survey information by email from the departments of Graduate Liberal Studies, and Gender, Sexuality and Women's Studies. The department of Graduate and Postdoctoral Studies at SFU posted it on their website. My employer, the British Columbia Institute of Technology (BCIT), published the link in their online employee newsletter.

Because I was concerned that mothers would be less likely to participate due to time constraints, resulting in under representation in the study, I utilized the non-random convenience sampling method by sending the survey link to friends and colleagues with children. I also emailed former interior design coworkers, and the interior design instructors at three local colleges. My professional organization, the Interior Designers Institute of British Columbia (IDIBC), emailed my survey link to over 700 members. I asked everyone to forward the survey link to other women who had worked from home (snowball sampling method). When I contacted women about participating, I deliberately emphasized that the research population included women with, and without, children. I wanted to counter a possible perception that this study targeted women with dependents. For example, when I contacted a divorced woman living alone for an interview, she'd initially thought that:

> I wouldn't be able to be of any use to give you any information because I'm sure there was a lot more that happened in households that had multiple people. So I'm just glad to share whatever my experience was, even though I live alone, and it didn't impact me as much as I know it did other people. Thank you for letting me share my experience.

(Administrative assistant; aged 51-60; Indo-Canadian; divorced)

Calculating the survey's rate of return was impossible since I didn't know how many women received the survey invitation, or if they'd read the email: this is a limitation of using social media to solicit survey participants. The survey collected 96 complete responses.

2.3.2. Interviews

Thirty-six survey participants agreed to be interviewed online, but the project proposal had indicated 15 interviews, so I created an initial interview short-list based on the following criteria: women who had either moved or renovated their homes during the pandemic[16], or who worked as interior designers or architects and could therefore provide expert insight into the pandemic's impact on housing design. This first group was also weighted heavily towards households with children, because I felt these women could need more time for interview coordination. I invited women from a demographic range – varying age, ethnicity, marital status, income, etc. - to generalize the study results over a wider population. Potential participants were emailed an interview request and an informed consent form. Scheduling was accomplished by using Doodle, a cloud-based scheduling tool: interviewees received a link to an online schedule where a wide range of time slots could be selected anonymously. I confirmed the time of each interview upon receiving a signed consent form. The first group of 17 women received an email request for an interview; I knew eight of them through my work as an interior designer or as a student at SFU. Seven women responded and were interviewed between February 14 and February 28 using videoconferencing (with the Zoom software program). I then emailed a second group of ten potential interviewees. Between March 1 and March 15, eight more interviews took place. To summarize, I invited 27 participants to be interviewed. I interviewed 15 women – seven of whom were colleagues or GLS classmates - and then transcribed the recordings.

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[16] The survey didn't define "home renovation" in terms of scope or cost. Participants were asked if they had benefitted from the pandemic by having the opportunity (more time and money) to renovate their homes (see fig. 21). No information regarding the scope/cost of home renovations was solicited in the survey in order to minimize its length. However, I interviewed some women who renovated, and they described the scope, process, and results.

2.4. Data collection

The widespread adoption of WFH is a recent phenomenon: because of the exploratory nature of this study, I chose data collection methods that would provide qualitative and quantitative data in an efficiently organized format. The process started with an online self-report questionnaire, then online interviews. Participation was voluntary and no financial incentives were offered. The first qualifying question on the survey was an informed consent question. The final question asked participants if they would agree to be contacted for an online follow-up interview. The survey was anonymous, except for those who provided their contact information for a future interview. Women who agreed to be interviewed had to return a signed informed consent form first.

I assumed that the study's population would be technologically skilled since they had worked remotely, so the data collection methods utilized email communication, plus web and cloud-based platforms such as Zoom, Doodle, and SurveyMonkey. Simon Fraser University Research Ethics Board approved this research study.

2.4.1. Survey

The online survey consisted of queries related to the following domains: demographics, domestic labour, dwelling, employment, household composition, and WFH-related challenges and solutions/innovations. The survey used both closed and open-ended questions. SurveyMonkey hosted the survey, and participants accessed it between January 10 and February 11, 2022. I chose the SurveyMonkey web survey tool for the questionnaire's design because it was familiar, the online format could be easily promoted, its convenience would be more likely to solicit responses, and the data could be exported as an Excel spreadsheet. Finally, pandemic-related public health measures mandated an online approach to data collection.

The lengthy questionnaire [see Appendix A] collected both qualitative and quantitative data. It opened with four qualifying questions. Overall, depending on whether the participant had children, there were either 59 or 68 questions (mothers answered nine additional questions on childcare). Several women tested the survey: those without children finished it in 10-12 minutes. But one tester with children needed 45 minutes, so I shortened the survey where possible. Minimizing the participants' time

commitment was important - the longer a survey is, the less likely it will be finished - but this had to be balanced against my desire to maximize the amount of data collected, since a survey would reach the most respondents. The text that accompanied the survey link in emails and on websites indicated that it could be completed in 15 to 30 minutes.

The survey design prioritized three categories of WFH-related challenges and solutions/innovations: physical workspace, domestic, and mental/emotional well-being. Six open-ended questions were designed to gather detailed experiential data, and I placed them near the start. Because they were critical to the study, these responses needed to be collected before participants experienced survey fatigue.

2.4.2. Interviews

Semi-structured interviews [see Appendix B] collected qualitative feedback that focused on the participants' home-based workspaces. I wrote an interview script to manage the discussion topics, and to ensure the interview's timely end. Using the same script for each participant made the task of pattern recognition between individuals easier during the data analysis phase. The 15 open-ended questions explored the following subjects: home workspace, videoconferencing from home, and a hypothetical situation that asked participants to imagine a scenario in which they'd had two years to prepare for WFH and the pandemic. Three additional question sets were asked, depending on whether the participants had: moved to a new home during the pandemic (two additional questions); renovated their home during the pandemic (seven additional questions); worked as interior designers or architects (one additional question).

Interviews were booked in one-hour time slots, but most took 45 minutes or less. The interview script was tested to get a sense of how to moderate the pace so it wouldn't feel rushed. Interview participants were first asked if they would consent to the interview being recorded for the purpose of transcription, and if they would like a copy of the recording. They were also asked if they would consent to a follow-up interview if needed: all participants consented. I emphasized that the interviewees should take their time, reflect, and try to verbalize everything they considered relevant.

The interview rapport was generally informal, friendly and spontaneous. Cats crossed in front of monitors, dogs barked, children and partners interrupted, cameras were moved to show personal objects. We frequently laughed, but I heard raw emotion too. I listened to each interview twice: once to transcribe, and again to capture emotional

nuances, emphasis, and interruptions. My supervisor didn't attend the interviews as she thought that her presence would add formality and discomfort, but she did review all of the recordings. I conducted the interviews from February 9 to March 15, 2022.

2.5. Measurement

2.5.1. Quantitative data analysis

By exporting the SurveyMonkey data as a Microsoft Excel spreadsheet, I could review it for incomplete responses, and then conduct a descriptive analysis. The study's independent variables included age, dwelling type, ethnicity, household composition, income, marital status, and occupation. Dependent variables included the home workspace, work performance, domestic labour, and mental well-being. By analyzing the answers to the closed-ended questions, relationships between demographics and WFH experiences emerged.

2.5.2. Qualitative data analysis

Using the Excel data from the open-ended survey questions and the transcribed interview recordings, I manually analyzed the qualitative content to code the data and perform a thematic analysis. This approach consisted of progressively refined inductive coding to uncover patterns in the data. I also used deductive coding for the quantitative survey data since the survey was designed to include preconceived themes distilled from my preliminary research. I initially performed a close reading to identify the different ideas and concepts, which I then categorized under themes. For example, an open-ended survey question asked, "What modifications, if any, did you make to overcome your physical workspace challenges at home". From the responses, I created codes such as: "modified the space"; "new furniture or equipment"; "changed locations"; or "wore headphones". I reviewed and edited the resulting codes, adding some new ones. The final codes were grouped under predominant themes: dwelling and home workspace; employment; domestic; and mental well-being. Their intersections became the outline of the study's final narrative.

2.6. Study strengths and limitations

This study provides a comprehensive synthesis of research within a definable framework: it investigated the experiences of a population of middle-class women, of which I am a member, living in Metro Vancouver BC while working from home during the pandemic. Here, I will discuss the study's strengths and limitations.

The case study approach enabled my detailed exploration of the WFH phenomenon as it was experienced by women in the context of the initial two years of COVID-19, a once-in-a-lifetime crisis with far-reaching social, health, and economic impacts. However, with its small sample size and specific geographic context, the study's generalizability is limited. The quality of generalizability or external validity, when applied to qualitative research, can be supplanted by asking "why will knowledge of a single or limited number of cases be useful to people who operate in other, potentially different situations?" (Givens 372). Reading other case studies that focus on varying aspects of women's WFH experiences, differentiated by culture, country, occupation, income, or time period, for example, "would allow for a kind of intellectual generalization even when settings are radically different" (Givens 372). In this study, because the participants were compelled to work from home, their experiences will differ from women who, in choosing to work remotely, had the time and means to prepare.

The time period in which the data collection occurred, between January and March 2022, was formative to the study. Now that Canadians are predominantly vaccinated, memories of the pandemic's traumatic first year – the year before vaccinations became available - are slowly fading. I spoke with a colleague who had participated in the survey, and she told me that until she answered all of the questions, the enormity of her experiences during COVID hadn't really sunk in: she had considered WFH and its associated difficulties as something she should just "get on with." Therefore, designing the study and then conducting the survey and interviews in the second year of the pandemic gave me access to relatively fresh experiential data. The survey responses indicated that the majority of the participants still worked from home in some capacity. Some had returned temporarily to the corporate office, then moved home again with the emergence of viral subvariants. Real-time qualitative data on the WFH phenomenon from the recent survey and interviews provided vividly detailed participant recollections. However, it is important to note that the study's focus on WFH *during the pandemic* means that participants were subjected to unique conditions such as mental

trauma, home-schooling, and supply-chain shortages and disruptions that have already ceased or will abate when COVID ends. Working from home, post-pandemic, will be a very different experience.

In terms of data collection, the length of the survey was a strength and a limitation. I deleted approximately 30 incomplete surveys: most had been abandoned right after the four qualifying questions (short, closed-ended), but before answering the longer open-ended questions. A survey of only short, closed-ended questions may have received more responses, but at the cost of essential "in your own words" experiential data. As a member of the case study population - an insider researcher - I designed the survey's questions based on primary source data and on my own experience of WFH. Regardless of positionality, in every study the personal views of the researcher "will enter a research agenda. The real imperative is for researchers to be aware of their values and predispositions and to acknowledge them as inseparable from the research process" (Givens 61). For example, I predicted that privacy would be paramount for women performing paid employment in the dwelling, as Woolf advocated in *A Room of One's Own.* It hadn't occurred to me, as a child-free woman, that some women with children at home would prefer to have visual and acoustic access to the household while working. By using a semi-structured interview format, I could easily organize the data as I transcribed it, and coding the data was easier. Since I coded it myself, how it was coded may have been subject to personal bias. After my supervisor reviewed each recorded interview, we compared the specific details that had stood out for each of us.

The online survey's widespread distribution benefitted the study: I attribute this to my position as an insider researcher with personal and professional connections that enabled me to reach many eligible women. I also invited personal contacts, who were more likely to participate because they knew me. Since I recognized only half of the names of participants who volunteered on the survey to be interviewed, it is likely that interest in my research topic, rather than just a personal connection, motivated many women to participate in the study. While the case study's population was specific, it was not homogenous: the sample represented women in a diverse range of demographics.

My interior design knowledge and experience was another facet of the insider researcher status that enhanced my position in this study. It provided the architectural and historical context for some of the study's themes, such as privacy, well-being, and the built environment. I invited women from the architecture and interior design industries to provide details from their own WFH experiences, but also valuable insights

on the relationship between WFH and the future of residential design that are noted in the conclusion.

The convenience of using Zoom for the interviews – no travel or meeting space required - benefitted both the interviewees and me. Videoconferencing also provided me with a view into the participants' dwellings. Some women explained their home modifications while showing me what they had done by repositioning their webcams. One woman picked up her laptop and walked from the kitchen to her desk at the top of the stairs so I could see where she worked. Visual access of the private homes of individuals and families, and their personal belongings, is a rare opportunity. For this study, seeing the interviewees' homes or offices in the background was a great advantage afforded by videoconferencing. However, I occasionally experienced audio delay, a common videoconferencing glitch, and I had to ask some interviewees to repeat a few words. Another disturbance - construction outside my window - started during an interview, and was so loud that I was distracted even while wearing headphones. Finally, using Zoom for interviews can inhibit social engagement and interaction, especially, as one participant noted about her own WFH experience, when nonverbal cues are missed or misinterpreted. This may have been more of an issue when I interviewed the participants I didn't know. To summarize, interviewing as a method of qualitative data collection has strengths and limitations, whether they are conducted in-person, by phone, or with videoconferencing (Self). The pandemic safety measures implemented by SFU resulted in Zoom interviews for this study, and they were both efficient and effective.

Chapter 3.

Observations

Interviewer: What specific challenges did you encounter that related to your home workspace during the pandemic?

Participant: Kids needing things. Husband needing things. Doorbell ringing with Amazon packages. Dog needing things. Cats fighting underfoot. Cats walking through Zoom meetings. The rest of my family resenting me for taking over the dining room. Noise in the background due to cooking etc. when trying to hold client meetings.[17]

(Writer; aged 41-50; white; married/cohabitating with children)

This chapter presents the creative measures taken by the case study's participants to solve a fundamental design problem: creating and setting up a workspace inside the home to accommodate WFH, with no preparation time. Now that the pre-vaccination crisis period has passed, it could be suggested (with 20/20 hindsight), that women's solutions were commonsensical rather than creative. I would argue firstly that the pandemic complicated the problem-solving process by implementing unfamiliar physical and mental obstacles. Secondly, innovation is still significant even if it isn't new to the world. As Margaret Boden noted, creativity is "surprising, or perhaps even fundamentally novel, with respect to the individual mind that had the idea." New ideas, often combined in new ways, are creative "no matter how many people may have had the same idea already" (43).

The research data is organized into four thematic categories: dwelling and home workspace; employment; domesticity; and mental/emotional well-being. This chapter begins with general observations of the nature of the participants' solutions and modifications, then moves into specific observations related to the case study's unit of analysis, the home workspace, and its physical context within the dwelling. The following themes are directly or indirectly related to the home workspace and work performance: all are interconnected. The nature of employment informed the workspace's design, but

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[17] Quotations are taken from the open-ended survey responses and interview transcripts.

also impacted domesticity and mental well-being. Domesticity, when merged with the workplace in the WFH nexus, presented specific challenges for women at home, especially for those with children. Mental and emotional stressors, often linked to factors that affect environmental comfort (privacy, personal space, noise) negatively affected work performance, domesticity, and overall quality of life. Many of these issues, connected to pandemic trauma rather than WFH itself, waxed and waned but the constant underlying fear and anxiety amplified other difficulties.

3.1. Case study demographics

A detailed picture emerged from the data analysis, providing a descriptive overview of the participants' demographics. The majority (90%) of the women were between the ages of 31 and 60. Two-thirds identified as white, and one-third identified as Asian, Hispanic, Indigenous, Middle Eastern, South Asian, or mixed ethnicity. All the participants identified as women, lived in Metro Vancouver BC (almost half lived in the City of Vancouver), and had relocated to their homes to continue performing their paid employment during the pandemic.

The nuclear family predominated: over half of the respondents lived with a spouse/partner and children. Twenty percent lived only with a spouse/partner, and 15% lived alone. Women living only with children or other relations represented 10% of the participants. Almost half (47%) of the women lived in households with children under 18. Of these families, half consisted of two children, while one-third had one child.

The sample was highly educated: 46% had received a bachelor's degree, while over one-third (36%) had graduate or doctoral degrees. Occupations were selected from the categories of the Canadian *National Occupational Classification:* half of the respondents selected "Occupations in education, law and social, community and government services," while one-quarter identified as designers, interior designers, and architects. Of the families headed by couples, almost three-quarters had a gross annual income that exceeded $100,000 in 2020. Thirty-five percent of the single women earned over $100,000 annually, and almost half had a gross annual income of $50,000 to $100,000. In Vancouver, the median employment income for women in 2020 was $30,400. ("Distribution of employment income")

3.2. Overview: the nature of change

> I kept thinking it was temporary. A friend pointed out that I should now accept that it isn't temporary anymore.
>
> *(Political staff member; aged 41-50; white; separated with children)*

Necessity demands creativity and resourcefulness; otherwise, humans tend to resist the uncertainty and discomfort of change. Coming from a design background, I based this study on my experience with active problem-solving through innovation. I learned that while many participants did innovate to address their WFH difficulties, some responded passively, hoping COVID would end quickly: by accepting or adapting to their new circumstances, they would "just make the best of it". Others experienced financial, spatial, or other limitations that prevented them from making material changes. A satisfied minority had minor or no problems to solve.

Every woman in this study created a workspace (if one didn't already exist) in her home with varying degrees of success, demonstrating creativity, adaptability, and flexibility in the face of COVID-related difficulties such as supply-chain shortages, delivery delays, business closures, and home-schooling. The nature of the participants' innovations transcended materiality: sometimes the solution involved changing the behavior, attitude, and/or expectations of the individual, their household, or colleagues. Whether physical, behavioral, or psychological, the modifications often had repercussions that radiated beyond the participant, affecting others in the household, especially where shared domestic space was compromised by job-related activities.

The sudden relocation from the corporate office to the home resulted in a common scenario: many participants began WFH without adequate furniture and equipment, especially if they hadn't worked from home before. Not knowing how long the pandemic would last, the majority adopted a wait-and-see approach: quick DIY fixes generally solved the participants' initial problems. The creative process was trial and error, exemplified by women moving to different areas in the home, looking for the best location to work. Better solutions evolved over time as hopes faded for a pandemic end-date. Sometimes a fix was temporary or task-specific, such as setting up furniture for videoconferencing, then moving it back to its original position. When asked about the future of their home modifications, most interviewees confirmed that some or all of their changes would be permanent, regardless of whether their WFH would continue.

In the study's scale of home modifications, undertaking renovations or moving to a new dwelling, with the associated stress, labour and significant financial commitment, represented the apex. One-quarter of the study's participants had either moved or planned to move, corroborating the pandemic-inspired mobility that the Angus Reid Institute reported ("COVID at Two"); several women noted that they moved to gain more space for working. Three interviewees noted that disruption from the noise of nearby construction while occupying their original homes had also motivated them to move. One-fifth of the survey respondents affirmed that the pandemic had provided the opportunity (more time and money) to renovate.

3.3. The dwelling and home workspace

Interviewer: What modifications, if any, did you make to overcome your physical workspace challenges at home?

Participant: I added a lock to my door and bought a desk. I also checked my work schedule against my husband's to ensure there was not too much overlap, so someone could keep the kids quiet when the other was in meetings.
(Program assistant; aged 31-40; white; married/cohabitating with children)

Women working at home needed workspaces equipped with furniture and digital technology, or their paid labour could not take place. The nature of the workspace (size, location, configuration, privacy, etc.), and their work performance depended on variables related to the dwelling and household composition. These relationships were complicated and, from my perspective, sometimes surprising. For example, not every mother wanted a private place to work, as this participant confirmed:

I would love an extra office and in fact HAVE a spare room in the basement - but it felt too cut off, and I was constantly running up and down stairs to answer the door and respond to family members' needs. Overall, I found it more workable to be "in the thick of things" in the center of the house so as to be able to respond on all fronts (home and work) more efficiently.

(Writer; aged 41-50; white; married/cohabitating with children)

Multifamily housing predominated over single-family homes, reflecting the economic challenges of living in Metro Vancouver. Sixty percent of the participants occupied duplexes, row houses, townhouses, suites within a house, or apartment/condo buildings, and the remainder inhabited detached single-family houses. Over half (57%) of the participants lived in small homes, defined as under 1500 square feet depending on the household size ("What is small housing"), mostly (90%) in multifamily housing units. Of the women living in small homes, 38% were in nuclear families, one-quarter lived alone, one-quarter lived with a spouse/partner, and the rest lived with children or other relations. The majority (86%) of the participants lived in dwellings constructed after 1950, which would likely have open floor plans.

Three-quarters of the respondents owned homes, with households headed by couples representing three-quarters of this group. Almost 70% of the owners, and 65% of the renters, reported spending over 30% of the family's gross annual income on shelter costs.[18]

In households where participants lived with other people, one-third had a dedicated room for WFH, such as a den, home office, or spare bedroom. Two-thirds set up workstations in rooms or areas used for other purposes, such as the main bedroom, dining room, living room, and kitchen. I spoke with an acting instructor who took over her adult son's recently vacated bedroom for her work and personal relaxation, making the space her own:

> It was not just a place of work but also a place of rest. I put up my Dr. Bonnie Henry tea towel that says *Be Kind, Be Safe*, so I could always reference that, and my old theater posters and things like that. And a squashy old couch. And painting the walls purple. [*Interviewer: Did it matter to you that this place of rest was also where you were doing your work?*] No, because I had these rituals so when I was done teaching, I would change it back into my rest space.

> (Actor; aged 51-60; white; married/cohabiting with adult children)

Over one-third of the women worked in two or more temporary locations: some set up in an initial location, then after a period of time, found a better place. Utilizing a shared area such as the kitchen, dining or living room, especially in an open-plan home,

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[18] The Canada Mortgage and Housing Corporation (CMHC) recommends that households should spend less than 32% of their gross income on housing costs.

was particularly disruptive. Some women moved their workspace throughout the day to accommodate, or avoid, the activities of the household, such as an interior designer with two teenagers who "just continued to play musical chairs in my home since I had no other option to continue to work from home."

Women preferred to set up workspaces in rooms where possible, rather than open areas. The most frequently utilized rooms were the dining or living rooms, followed by the kitchen, main bedroom, home office, or spare bedroom. A few set up in a walk-in closet, a nook, or on the stair landing. The mild Vancouver climate made it possible to work outside at times. Single women experienced fewer household distractions, but they too tried different places and configurations to find the best location.

A workstation with a surface to hold the laptop, a chair, and an internet connection comprised the basic material set-up for women working at home, but the data revealed a multitude of additional needs (fig. 11). These are discussed in the following section, organized in three subcategories: interior environmental quality and comfort; privacy; and technology and videoconferencing.
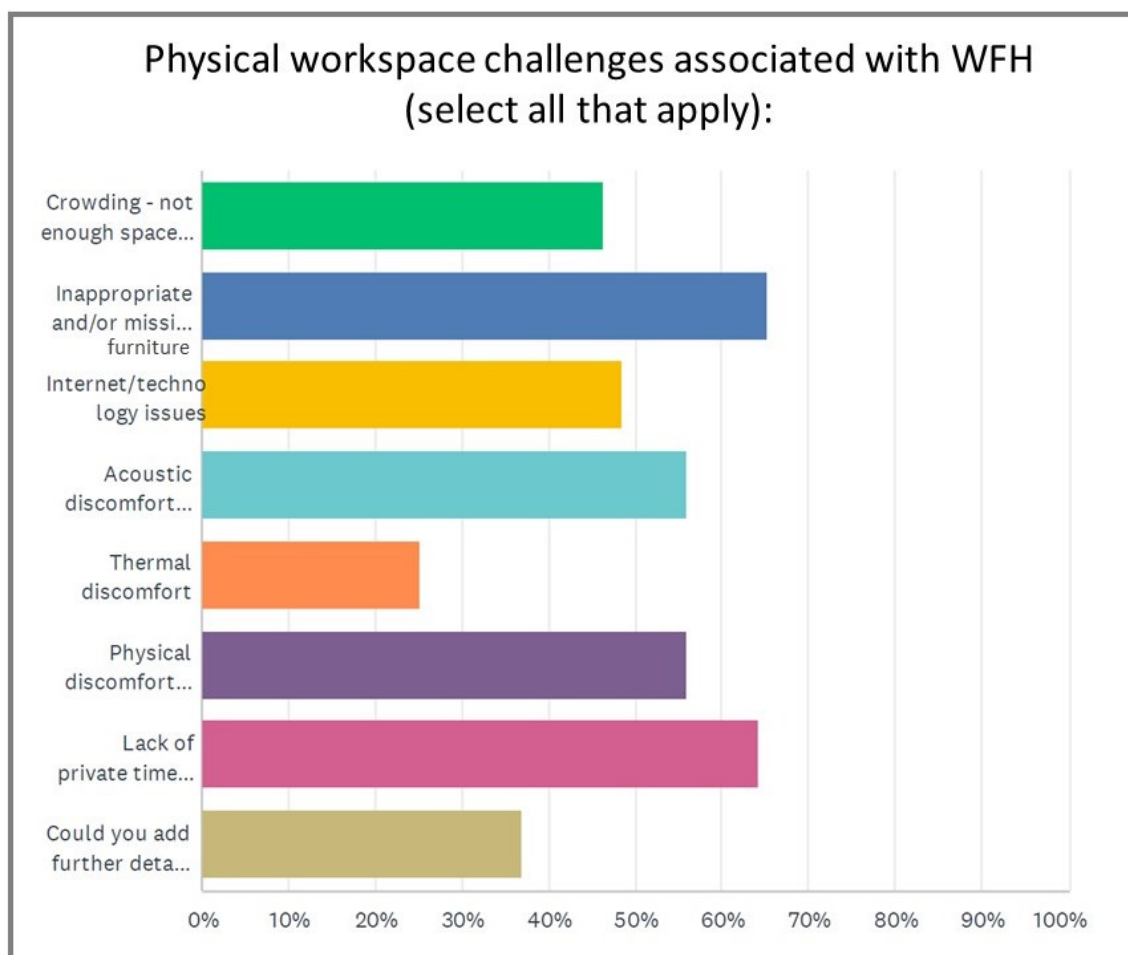
Figure 11 **"Physical workspace challenges" survey responses.**[19]

3.3.1. Interior environmental quality and comfort

Interior environmental quality (IEQ) refers to the quality of a building's indoor environment, and it significantly impacts occupant health and well-being. IEQ includes acoustics, lighting, air quality, temperature, and ventilation. In this case study, environmental stressors such as noise, heat, and glare - often unavoidable and uncontrollable - aggravated the majority of women working from home. Noise, the most common complaint, came from internal and external sources. In households where participants had no private room for working, the sounds of domestic life - television,

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[19] Over one-third of the respondents added further details that predominantly consisted of: not having enough spatial work- life separation, challenged by sharing space with other people, or having to deal with family needs and more mess.

kitchen appliances, kids playing, people talking – distracted working women, while the inability to control or avoid the noise increased their frustration. For one woman working late in the dining room, her partner caused the disruption by "turning on the TV or radio, not thinking I am here. It's very helpful to have my headphones; I couldn't do this without them." According to the World Health Organization, the health effects of noise pollution are second only to those of air pollution (Enright): the constant barrage of construction work, leaf blowers, and garbage pick-up annoyed those working within earshot. Outdoor noise was especially noxious in the summer when occupants opened windows and doors to the cooling breezes.

Solutions for blocking out external noise were limited to wearing noise-cancelling headphones, or moving to a quieter neighbourhood, as was the situation for Kate and her family.[20] Kate worked as a career educator, and the family gross annual income for 2020 was over $100,000. She was aged 31-40, and white. When the pandemic began, the family lived in a townhouse where Kate and her husband worked in the basement with one daughter:

> The youngest kept going to daycare, a huge blessing, but the older child [aged nine] lay on the bed as the room was also a guest bedroom, so there were three of us using the room. Bikes hanging on wall, weights, storage…we added a third desk in the middle of the room so our daughter could do schoolwork, but she was having massive meltdowns, losing her mind about having to do math or whatever, so the whole set-up was super crowded, with a lot of interruptions.

Noise from a massive construction project provoked them into leaving their townhouse during COVID: the rumble of "dump trucks going up the hill was even louder than normal. So we had continuous noise all day, from 5am until 6pm." Another source of disruption came from the neighbour's son, who "started to play loud music during COVID, and he and his friends smoked pot next door. We were being hotboxed in our basement, and we had no windows to open. My husband said, "We have to move", and I said, "I will divorce you if we don't move!" He was, like, "Ok." Once they moved to a quieter neighbourhood, Kate had her own home office, resolving her issues with

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[20] The participants' names have been changed.

environmental stress and crowding. She indicated in the survey that she would ideally like to work from home 31-60% of the time.

Quality interior lighting (including daylight) is critical to work performance and well-being. The lighting system needs to be flexible enough to accommodate varying functional and aesthetic needs, and respond to changing levels of natural light. If participants needed additional lighting, they either purchased new fixtures or repurposed existing lamps from around the home. New window coverings, or adjustments to window coverings, mediated overly-bright daylight and glare. This participant's desk looked out:

> The south-facing windows (which have a glorious view). I bought and installed a roller blind to block out the bright sunlight (it hangs on curtain hooks on a track so I can move it side to side as the sun moves across the sky).
>
> *(Systems analyst; aged 41-50; white; married/cohabitating with children)*

To take advantage of natural light during the day, one woman moved around the home with her laptop: "I find my place is quite dark, so mentally and emotionally it was nice to be working in the light" (fig. 12). On warm days, she worked from a hammock: "I can sit in it with cushions and get comfy and I can raise the computer. But I'd get all set up and then I'd need to get out to get the dictionary! It was a nice way to work."

Figure 12   Author's temporary workstation in her mother's home.

Physical discomfort and injuries, resulting from a lack of ergonomic furniture such as task chairs and sit-stand desks, impaired many participants. During WFH, women worked long hours sitting in front of screens, and exercised less, especially those who used to commute by cycling or walking. For some, work-related injuries were debilitating. One woman, living with her partner and children, described her "serious neck and back pain" from working at the kitchen table; she "came very close to taking work medical leave." Some participants bought second-hand furniture online, or they improvised, creating work furniture from household objects. One woman worked with her laptop on her ironing board, using it as a standing desk, and another used "our bar cart as a desk"; others used tables, bureaus, and beds. Stacked books became monitor stands and footrests. One woman mounted a keyboard tray to the underside of her dining table. Another built a makeshift standing desk comprised of a folded-up picnic table on top of a piano keyboard stand. She "needed something that could be easily dismantled and tucked away when the living room was needed for... well, living." Several women noted that their employers lent them furniture and equipment, or provided funds for purchasing new items.

Although workspace aesthetics ranked lower as a priority, several comments regarding the need or desire for tidiness, organization, and harmony emphasized the influence that aesthetics had on work performance and mental well-being. The visual distraction of household clutter irritated some women: untidiness disrupted one mother with a preschooler because she found it difficult "to work in the bedroom as I sit beside a pile of dirty laundry, and I was constantly cleaning so that while on video, people wouldn't be looking at a mess." For some women, the peace of mind that came from creating and maintaining their interior décor took precedence over comfort, as evidenced by an architect who never replaced her elegant but inflexible home-office chair: "It was horrible and uncomfortable. [When I bought the chair] it was all about the looks and not the function, but I'd never had to sit on it for an eight-hour day." A researcher, who described herself as "picky", considered putting up window coverings for more privacy, but she didn't "like it aesthetically, and aesthetics matter to me."

I interviewed Mirana, a woman whose aesthetically-pleasing interior space had benefitted her mental well-being. She lived alone in a studio apartment, and she felt strongly about her home interior because she spent so much time there during COVID. Mirana was aged 31-40, and white; she worked as a constituency assistant, and her

gross annual income for 2020 was between $50,000 and $100,000. When she worked from home, she repositioned the desk against the window wall so she could look out over a lovely view:

> There are a lot of beautiful trees on my street. In the winter they are bare, but as soon as spring starts, I can see the blossoms which are beautiful. From March to November, they are stunning, really stunning: it's a great view. I live a on a quiet street with a lot of cyclists so I can watch them go past, and people walking and chatting. I can hear snippets of conversations for maybe 30 seconds [*she laughs*]. I feel close to the street.

Mirana also enjoyed "fresh flowers, and little things that make [my home] nicer," for herself, but also for those who could see into her apartment during Zoom calls. She chose not to buy an ergonomic office chair, as its style would not work with her apartment's decor. Instead, she "used an armchair which was fine but a bit too low, so I'd prop it up with pillows. Over time the pillows would get squished so I'd add new pillows." Although she sometimes felt isolated from living and working alone, Mirana noted on the survey that she'd ideally spend 61-99% of her time working from home.

3.3.2. Privacy

> WFH was hard because everyone was at home. I tried [to work in] the kitchen but it was too busy. I moved into the living room but it was right beside the front door. Then I tried my bedroom, which was just sitting on the bed; it was not very comfortable. I tucked myself away [in the dining room] so people could still go on with their daily lives even though it was a bit distracting for me. We had to figure out the best place so it wasn't too restrictive for other people.

> *(Educator; aged 51-60; white; married/cohabitating with adult children)*

The issue of privacy in the home was as relevant to this case study as it was in Woolf's *A Room of One's Own.*[21] Over 70% of the survey participants indicated that a lack of private time and space presented challenges. Physical home alterations - installing doors, locks, or curtains – solved some women's personal space issues. Ten

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[21] Paul Krugman coined the phrase "the Virginia Woolf effect" in 2022 to explain the pandemic-inspired surge in real-estate activity as people sought greater personal space in their homes (Krugman).

percent of the participants (almost all with children under 18) made behavioral changes to achieve private time, instead of private space. Solutions included the coordination of their work schedules with partners and household activities (often working at night) or establishing behavioral rules for their families. A mother asked her "kids take the dog out during Zoom meetings," and a few found peace by going to bed early. A single woman worked in her boyfriend's home "on days when he'd be out at a job site".

The term "open plan" or "open concept" came up repeatedly when participants talked about their homes and workspaces: fewer interior walls multiplied the acoustic, visual, and social disruptions that affected women working in open areas. One participant complained about noise and the "lack of privacy, since my partner and I share an open-concept loft (difficult for both my partner and me to have meetings at the same time)." Having a designated work territory to house job-related items helped some women achieve more work-life separation, such as the participant who created "work-corners in the home so that work life was still contained and not spilling into every space."

Two interviewees talked about the lack of privacy they experienced in their open-plan homes, and its impact on their work performance. The first participant, Naomi, initially lived with her family on the penthouse floor of a condo tower, where she worked from home as a career educator: the family's gross annual income for 2020 was between $50,000 and $100,000. She was aged 41-50; Asian; and married, with a two-year old child. When the pandemic began, she set up in the open-plan dining room, since they couldn't use it for entertaining:

> The dining table was my office: one-third for me and two-thirds for us to eat at. I worked at the short end of the table with everything smushed into the corner. It felt claustrophobic. The condo was open-floor plan, and the dining area connected to the living room where the TV was. It was amazing space for a dining table but not practical for an office space.

After six months, they moved into a larger single-family house; during our interview, Naomi sat in her new home-office, visibly excited as she showed me how she'd arranged all her personal things. Her workspace had personal and professional benefits; it became her "haven to read and to think. It's my permanent space; I don't move around

now, and no one else uses it." Naomi's satisfaction with WFH was reflected in her desire to work from home most of the time (61-99%).

The second story involved Becky, her husband, and their two children, who lived at home during a major kitchen renovation they'd planned before COVID. Becky worked as an engineer, and the family's gross annual income for 2020 was over $100,000. She was aged 41-50; and white. During the pandemic, she worked in the dining room until the renovation forced her to move into her son's room. Becky noted that her WFH experience in the dining room "helped influence us to keep a more closed concept to the house" when they renovated. Interior designers had recommended opening the kitchen to the dining room by removing a wall: Becky declined, saying "I don't want to do that. If we had gone with the open plan, and then the pandemic had happened, I wouldn't have had a [quiet] place to work. The pandemic did influence our kitchen renovation being more closed than open." Becky noted in the survey that her ideal time working from home would be 61-99%.

3.3.3. Technology and videoconferencing

At beginning of the pandemic, our internet connection was terrible. When the kids are here using their devices and my husband too, it is slow. I had a really big [Zoom] meeting where I was supposed to present, and just as I was introduced, my connection dropped off. That was the low point of the whole COVID videoconferencing experience for me: it was stressful.

(Engineer; aged 41-50; white; married/cohabitating with children)

Communication technology connected the remote workforce to corporate offices before the pandemic, and WFH couldn't have succeeded without it. During COVID, participants and their household members relied on their digital devices (often simultaneously) for employment, school, shopping, entertainment, and socializing. Internet issues like slow speed, poor image quality, and audio lag required upgraded service or the use of an ethernet connection. Another challenge involved the lack of appropriate digital equipment: those who only used laptops complained about the small screen size and poor ergonomics. Women at home missed the equipment and tech support they'd utilized in the corporate office, like widescreen dual monitors, and printers. I interviewed an administrative assistant who borrowed a docking station from

work, and wisely photographed the connections "before I dismantled it so I could reconnect it when I got home. I couldn't have anyone to come over and help me." Printer usage declined since information sharing was mostly digital; those who needed to print went to a print shop or visited friends or family with printers.

The prevalence of work-related videoconferencing in the home introduced a plethora of multifaceted challenges. When conducted in the corporate workplace pre-COVID, videoconferencing took place in meeting rooms and private offices. During the pandemic, the frequency of Zoom calls increased, and they happened in personal domestic settings. Web cameras created portals through which colleagues and strangers looked into the private areas of the home. Opinions about this visual and acoustic intrusion varied widely. For some, videoconferencing infringed on their personal space, as confirmed by a post-secondary educator who initially taught online from her bedroom. She felt uncomfortable "when people saw my bed and bed sheets. It was organized, but that's my privacy. I don't want people to know the colour of my sheets." Other women, concerned about family privacy, utilized strategies to maintain visual separation, such as using a blurred or artificial background feature, turning off the camera, or positioning it away from personal objects and activities. Some household members, aware of the live-streaming camera, feared accidental exposure; this college instructor's partner "worried that my class might see him; he said, 'What if I walk into your class?' I turn my camera so it is looking into the corner." Some spouses had less concerns with privacy; I interviewed a researcher whose partner's behavior caused her anxiety: "Sometimes he just walks into my office, so I've got a blur [background] on; not because I care about my background but because he is walking in and out." There were accidental exposures: a participant's young son "streaked by in his underwear. Thankfully it was just a small meeting."

Several interviewees had no concerns about showing their personal space, and some even created engaging backgrounds with meaningful objects, images, and décor to welcome "visitors" and act as a conversation-starters (fig. 13). A career educator, considering the impression she wanted to make while videoconferencing with students, "shopped on Amazon to find wallpaper to make my Zoom background more interesting."
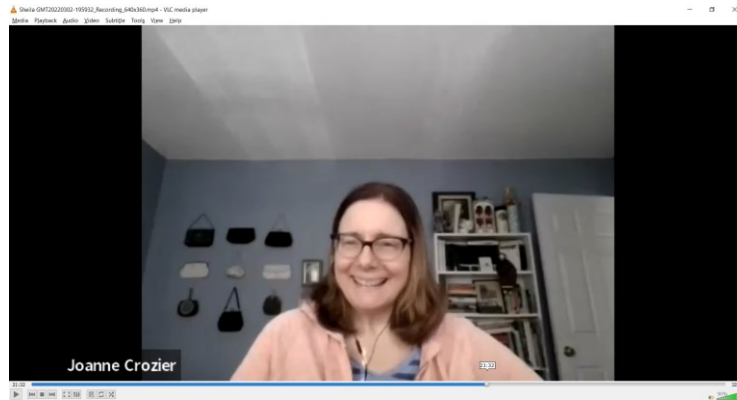
Figure 13   Zoom screen capture showing author's back wall.

Women noted the difficulty in achieving a uniform level of light on their faces, and illuminating the dark corners of the room, as they tried to convey a professional (and flattering) self-image during Zoom calls. Participants often supplemented natural light by adding artificial light around the desk. Several women mentioned ring lights, such as the mother who borrowed her daughter's Tik Tok lamp. When I asked her what a Tik Tok lamp was, she said "It's a ring with a light around it; my daughter uses it for Tik Tokking and whatever, and sometimes she gets mad at me using it!"

Videoconferencing could create family tension, especially if the call took place in a shared or open space: it generated noise that disrupted the household. Participants also became more sensitive to household noise during Zoom calls. Several interviewees without dedicated offices had trouble finding a location for videoconfererncing that suited their needs and those of the family. For example, a mother working in the dining room explained to her family "about how to tell if I was on a Zoom call or just working on my own. If on a call -- I asked them to be respectful. But they for sure resented it." Couples who worked from home together, sharing an office or work area, often negotiated for Zoom sound space, a stressful process. Sharing workspaces sometimes led to conflict regarding the values of their individual labour contributions during WFH. One woman confirmed that taking Zoom meetings and phone calls "required negotiating sound space with my husband. This often became a debate about whose work was more important, and thus got priority." An interview at 7:30pm with a mother of two illuminated the difficulties of sharing an office and working in the evening:

Interviewer: Did you make any changes to this room's décor, lighting, or furniture to better suit videoconferencing?

Participant: Not really. [*We hear sounds of a child in the background, then a man's voice, and a door opens*]. I can only move my orientation. Everything in the room belongs to the kids; the stickers, décor, etc. [*Dog walks up to the webcam. We laugh.*] Hi Max! [*Child asks who she is talking to; she says - I'm in a meeting. Asks husband to close the door*] (Fig. 14).
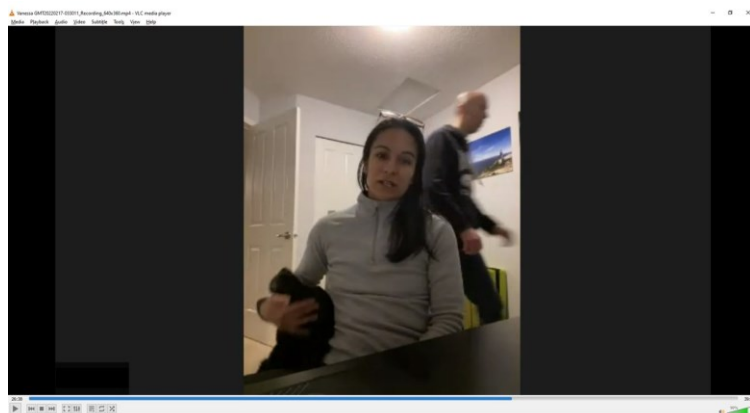
Figure 14   Zoom screen capture of interviewee in shared office.
Note: Image used with permission.

I spoke with Leah, who was separated and living with two adult children. Leah worked as a senior editor and her gross annual income for 2020 was under $50,000. She was aged 51-60, and white. The only private room where she could videoconference was her bedroom, which, she felt, looked unprofessional. Whenever she took part in a call, she'd set up her laptop and angle the camera away from the bed. She described the room as:

> Very small, with no room for a desk, just enough for the bed. I have a chair, and a chest of drawers that the computer sits on. The bed is behind me. I can't pull up to the chest of drawers, as there is no knee space. It works for videoconferencing but not for typing on the computer. I set up for each call, like with you now. I need an extension cord, because my laptop is old, and the battery drains quickly. I have to fix the lights, move the chair. If it's a quick call I might not [do the set up], but if I'm meeting with an author, I set it up. I didn't want to face the other way with my laptop on the bed, with my clothes here and jewelry

there, in the scene: it isn't a great look. Some one might think, Oh you're in your bedroom?

Leah's workspace challenges partly explain why she returned to the corporate office as soon as she could: at the time of our interview, she had already gone back. In the survey, she noted that her ideal work-from-home time would be 1-33%

3.4. Employment

Work itself was less stressful for the most part [during] work from home, once I got anxiety under control, and a lot of my duties were even easier.

(Technical advisor; aged 41-50; white; married/cohabitating with children)

As mentioned in Chapter One, women are more likely than men to seek flexible work arrangements, and in this case study, 80% of the participants had varying degrees of pre-pandemic employment flexibility. Taking additional vacation and sick days (paid or unpaid) was the most common (60%), while 40% could take paid or unpaid personal days. Less common were the ability to work a compressed week (30%), take an extended leave (20%), or job-share (7%). A hybrid WFH model - time split between the home and the office - was already available to 22% of the women pre-COVID, and during the pandemic, every participant worked fully or partially from home. At the time of the survey in February 2022, approximately three-quarters still worked fully or partially from home; the remaining one-quarter had returned to the office full-time. A few women made comments reflecting the COVID-related uncertainty around return-to-office dates, such as "I returned to in-person meetings in September 2021, but I am now 100% at home again." The study illuminated a meteoric rise in the number of women who will, or would like to, work from home in the future. Only three percent of the participants chose to return full-time to the corporate office. This finding corroborates the results of a 2021 Canadian study asking male and female employees, who were new to WFH when the pandemic began, to what degree they would like to work from home post-COVID. Nine percent chose to work full-time in the corporate office (Mehdi and Morissette 2021).

Full-time employment with one employer was the most common work scenario, applicable to about two-thirds of the respondents: those who had never worked from home before the pandemic came almost exclusively from this group. The nature of

employment for the remaining one-third was inherently flexible: they worked part-time, on contract, a combination of part-time and on contract, or they were self-employed or business owners. Three-quarters of this group didn't receive any flexibility benefits beyond the provincially mandated minimum. Forty percent of the participants belonged to a union.

According to the survey results, almost half of the participants believed that their work performance improved during WFH, especially their productivity (fig. 15): this was the case for almost every woman who lived alone.[22]
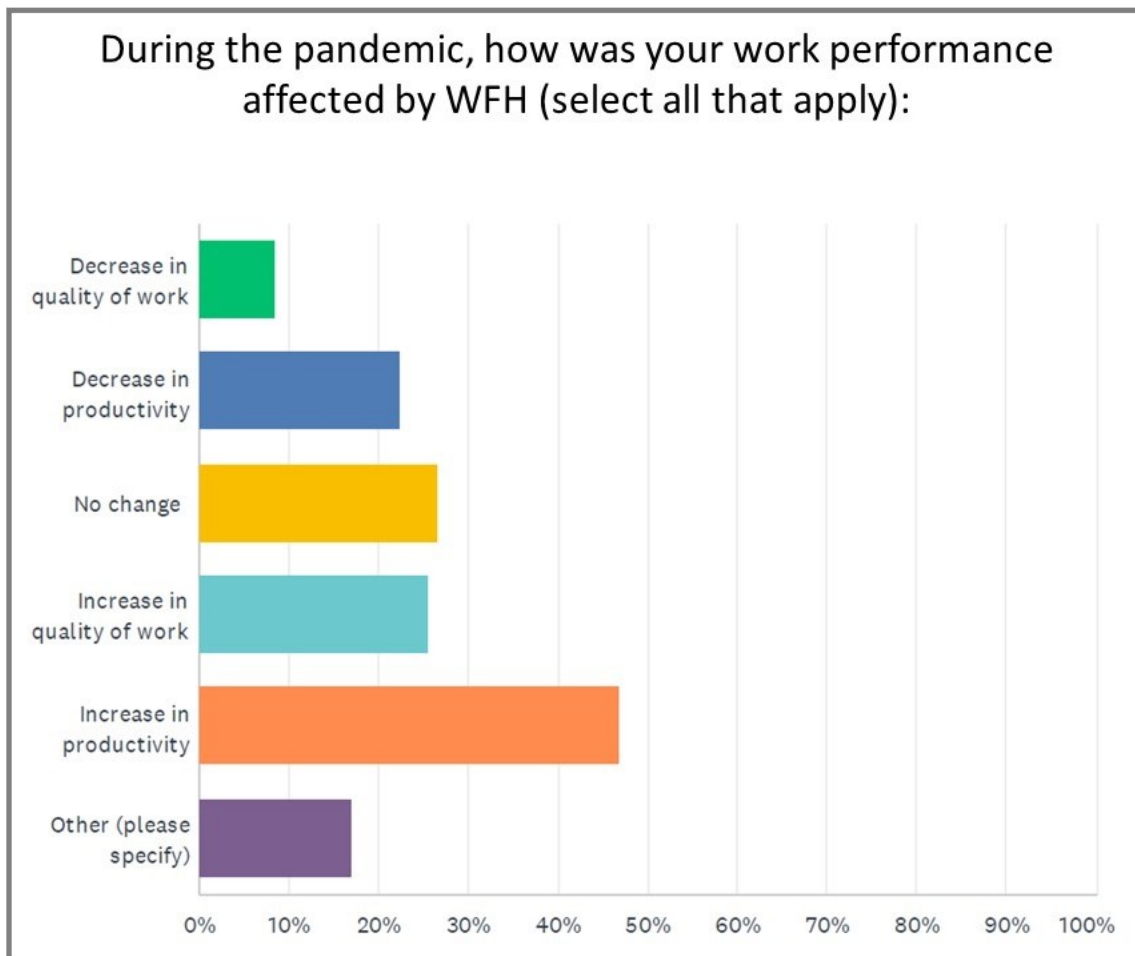

Figure 15 **"How was work performance affected by WFH" survey responses.**

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[22] Respondents weren't asked to quantify changes in their work performance with performance reviews, salary increases, etc.

However, if WFH did optimize work performance, the relationship had nuances beyond simple cause and effect. When I asked a single woman if her productivity had improved while she worked from home, she said, "Yes I think it has ultimately, but there are other factors that affect my productivity that are related to WFH but not directly caused by it." She valued the inherent flexibility of working from home "in terms of how I manage my life. Having at least a few days at home is beneficial" because she could incorporate chores into the weekdays, and then enjoy more free time on the weekends. "It makes the functioning of my work week better and ultimately makes me more productive at work because my time is more evenly balanced." Work performance did not change during WFH for one-quarter of the participants. But of the women who reported a decline in work performance, most had children under the age of 18. I interviewed a self-employed engineering consultant who was separated and living with her young daughter: she confirmed that childcare duties during the school lockdown affected her productivity more than she realized. In the spring of 2020, she "hardly got any work done, it was…impossible. Not because of workspace but because I had to wear many hats. I was a friend, teacher, mom." Initially she believed she could care for her daughter and "get things done [at night], and I couldn't. It took me awhile to recognize that this [work] is not happening."

The pandemic altered employment conditions: the workday expanded or contracted, duties and methods evolved, routines shifted, and some women found new employment. Taking care of domestic duties, including home-schooling while schools were closed, resulted in one-quarter of the women reducing their hours, quitting, or changing jobs. This finding supports recent insights into pandemic-related job losses: women aren't opting out of the labour market, according to Eden King, a professor of psychology at Rice University: "women are being pushed out" by social expectations, and "the impact of this workforce exodus will be long-lasting" (Clay). Forty percent confirmed that their job duties changed, mainly because paper-based and in-person tasks became digital tasks. This affected almost every aspect of the participants' jobs - the format of meetings and classes, methods of collaboration and training, the sudden curtailing of business travel - and increased their workload: over 60% confirmed that they worked longer hours. Some employers expected more from their employees working at home, and their duties increased. A single woman working in human resources commented that her work computer at home was "always out and accessible.

It felt like I had to overcompensate for working from home; I had to be more available because I couldn't meet people in the office."

The nature of communication with clients, customers, and colleagues deteriorated when formerly face-to-face interactions moved online. The camaraderie and the energy of the workplace could not be replicated at home, according to an editor who noted that "There's a level of discourse that happens when you work in an office with people. Once I didn't have it, I realized it is very productive, and you can't replicate it." A manager of an IT department witnessed the disintegrating connection between her work colleagues, saying, "There were more arguments and disrespectful interactions, negatively impacting my mental health. As soon as my office re-opened, I jumped at the chance to return, despite the hour-long commute." For a partner in an architecture firm, simple tasks took longer when she was physically separated from her team:

> Running the firm was hell. Things that would normally be easy became much harder. If I was trying to answer a question, the employee would send an email with drawings and text, but I'd still have to phone them and respond, and maybe need another sketch. So something that would have taken five minutes in the office turned into half an hour of back and forth. So that was super painful.

(Architect; aged 51-60; white; divorced)

While the pandemic decimated some industries, others boomed, leading to stress for some participants such as one mother's "podcasting business [that] exploded as everyone suddenly wanted a podcast." The demanding workload of another woman, living with her partner and a preschooler, left her feeling "overwhelmed. The demands were increased ten-fold, and it was so hard to say no to anything when everyone was working above and beyond and super stressed."

I interviewed Paula, the only participant working as an actor. She lived in a detached single-family house with her partner and one adult child. Paula also worked as a drama instructor, and her family gross income for 2020 was between $50,000 and $100,000. She was aged 51-60, and white. As an actor, Paula's occupation was unique, but some of her WFH difficulties were shared by other participants. She experienced significant stress when she started teaching online classes:

Communication is incredibly difficult. There have been hurt feelings and emotional miscommunications if something was misheard, or if [the students] saw facial gestures like frowns. It would be so easily resolved if we were in the same space. This has been incredibly anxiety-producing, to the point where I can't teach on Zoom any more. It caused me too much anxiety.

When theaters closed during the pandemic, her auditions moved into her home; she rearranged the furniture in order to make the video recordings. However, the recording equipment disrupted the household by spilling into the living room. She would "love to have our living room back; it is our one communal space besides the kitchen. But now it really feels like a space just to pass through." Paula indicated in the survey that she would still like to work from home, between 31-60% of the time.

3.5. Domesticity

Where to start? Dealing with emotional and physical tantrums and outbursts from a ten-year-old and seven-year-old. Being an only parent, there was no relief from everyone in the house, and from each other. I was constantly doing dishes, preparing meals, doing dishes, attending to injuries, the front door constant opening and closing, doing dishes, trying to fit in meetings, calls, or emails. Having to simultaneously be the Mother, the Teacher, the Cook, the Maid, the Nurturer, while trying to work & provide for my family.

(Interior designer; aged 41-50; Indigenous; divorced with children)

Out of the three challenge categories quantified in the survey – physical workspace, domesticity, mental/emotional well-being – women reported the least number of difficulties in the domestic category. Twenty percent of the participants said they experienced no domestic challenges: 40% were single, one-quarter lived with a spouse/partner, and one-quarter had nuclear families. As one participant noted, "It's nice to see my kids throughout the day. Overall, it has given us more quality time together. The house gets messier with everyone home all the time, but we can clean throughout the day." The majority (85%) of households without domestic issues had high incomes (over $100,000 annually for couples, and over $50,000 for single women), but almost none paid for housecleaning services. The participants who did report significant

domestic challenges predominantly cited their lack of privacy, and additional housework (fig. 16). Other issues included a lack of work-life separation, childcare/home-school issues, and being "on call" to support the family's needs. The observations that follow illustrate the directly proportional relationship between personal space, domestic issues, and mental well-being, in particular the frustration experienced when participants couldn't overcome, or escape from, their stressful situations.

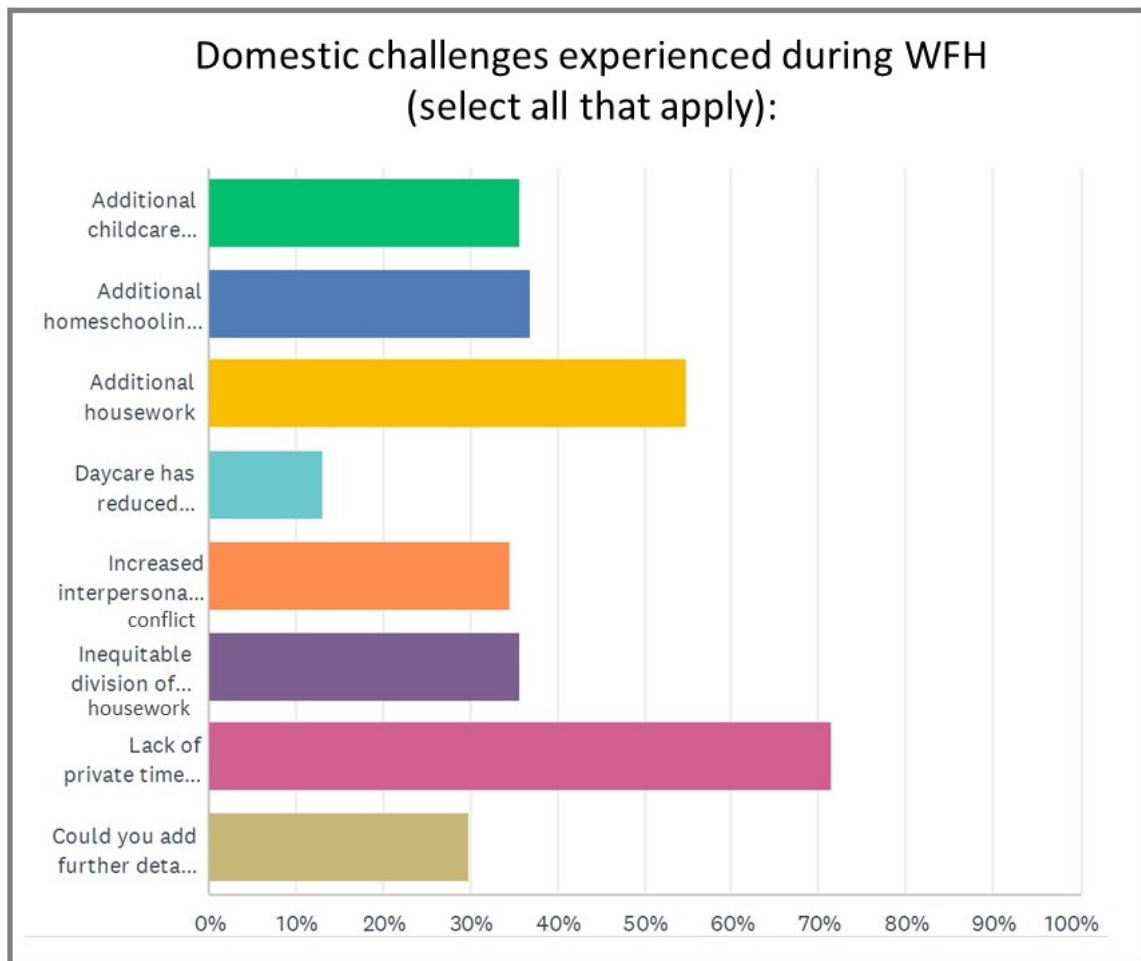**Figure 16** **"Domestic challenges experienced" survey responses."** [23]

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[23] Thirty percent of the respondents added further details that predominantly consisted of: doing more housework, the housecleaner quit, less work-life separation, too much screen time.

With more people spending longer periods of time at home during the pandemic, housework increased. Almost two-thirds of the women - regardless of household composition – did more chores, and 70% shared these duties with their partners (for some, their "spouse and child helped minimally"). One-third were unsatisfied with the amount of housework they performed: they disliked the additional domestic labour, and also the expectation that they take care of the home, as this mother noted: "When people are home all the time, the house gets really dirty really fast. That tends to fall to me." Some women cleaned because they "don't like mess, and don't like to see it when I'm working". But others did less housework due to time constraints, or because they felt tired, unmotivated or hopeless.

The pandemic spiked a significant upsurge in childcare duties for women, especially when schools and some daycares closed. For those with young children, childcare was as essential to their work performance at home as it was in the corporate office, because childcare was their responsibility. I spoke to one interviewee with a two-year-old: when their daycare periodically closed for COVID-related reasons, her child would be at home and then she said she couldn't work, despite the fact that her husband also worked from home. When one mother canceled her kids' after-school care, she had "the flexibility to have the kids come home after school, but that meant I was working, and providing childcare, from 3-5pm." Three-quarters of the mothers reported spending more time on childcare, and when asked who shared the childcare duties, three-quarters said their spouses or partners did. However, one-third of the mothers felt they were doing too much childcare, citing reasons such as partners not doing enough, the expectation for the mother to be "on-call to take on childcare duties", getting "no extra help," or "my own unrealistic expectations". Half of this group reported decreased work performance (productivity and/or quality). One woman with a teenager noted that during WFH, the "hours of work are extended -- and bleed into weekends and dinnertime. This creates a lot of resentment and accusations of being a bad mother." To work productively while having children at home, some women alternated childcare duties with their partner so one person could work while the other tended the children. This often resulted in working longer hours or changing their schedules. A few women returned to the corporate office as soon as they could.

Home-schooling during the period of school closures burdened working mothers further as they tried to manage work, home, and education duties.[24] For many women, supervising their children's online learning competed with their employment, as one mother noted: "My son required much more assistance during the day with his learning; this took time away from my work and then I had to work later." Another participant was "actively engaged with the issues of my daughter who needed so much attention while I was trying to work. It evened out once schools reopened. I was like, you are going back!" Women dealing with home-schooling often coped by "multitasking and using flex-work time to accommodate our need to home-school" or they "set up a schedule for kids to follow, keeping them on task. I worked in breaks into my day to check in on them and support where needed." Some women tried to share home-schooling duties with their partners, asked family members for help, or hired private tutors. But it wasn't always possible to overcome the challenges as this couple experienced: they tried to "tag-team homework and teaching over our lunch hours and between meetings. After awhile we just gave up". A single mother with two children described online learning when schools were closed as "one of the most difficult times of my life…and I've been through a lot of shit. After 14 weeks of home-schooling my children, I emailed their teachers to tell them I was no longer doing this, and I surrender." Another woman, living with her partner and teenager, said that although she spent more time at home:

> I was also stressed and permanently preoccupied with work, so I was not being fully present as a mom. Sure, I was around to be sure nobody burned the house down -- or to answer the odd homework question -- but I did not have the flexibility or time to get into many in-depth conversations, or the ability to plan or go on any family outings. So, I think this is not good.
>
> *(Writer; aged 41-50; white; married/cohabitating with children)*

After schools reopened, only one participant continued home-schooling.

The increase in housework and childcare duties impacted women's work performance and mental well-being, with many feeling stretched in too many directions to perform all of their roles adequately. One mother, challenged by her children's

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[24] In BC, K-12 schools closed on March 17, 2020. Students returned to a blended (in-person and online) model on June 1, 2020.

illnesses, and their daycare/school schedules, concluded by saying she was "no longer taking sick days to care for the family, just doing it all (badly)." The most common modification that women made was to negotiate with their partner and/or family for help with the domestic duties. A few women outsourced the extra work by hiring cleaners, tutors, and ordering more take-out meals. Some relaxed their expectations, such as a mother with a partner and teenagers who noted that "No matter how much cleaning I did, the house got instantly dirty. I eventually sort of gave up. We live in a higher amount of clutter than I would like."

With household members spending more time at home, some mothers felt anxiety caused by too much family togetherness, such as the woman whose at-home situation sometimes "felt like a lot, and I needed some 'me' time." This was corroborated by a mother who noted that "At the beginning, it was hard to see everyone all the time. It was difficult. People kept asking me, Mom what are we having for dinner?" The adult children of a lawyer, who had previously flown the nest, returned to the family home during COVID and resurrected "the old patterns and roles concerning cooking, cleaning, laundry."

Whether married or cohabiting, the intimate relationships between partners either helped or hindered participants overcome their domestic and emotional challenges, indirectly influencing work performance. One woman said she benefitted from the emotional support of her partner when they "talked to each other about how we were feeling when anxious and stressed, or feeling lonely missing social interactions." Another woman described how she and her husband "had a lot of fun. We get along very well so we never really had any conflict. Marry your best friend and you will almost never be sad or lonely." When I interviewed a married mother of two, she emphasized their equitable domestic labour arrangement:

> My husband and I are very fortunate that we have a good system. He does a lot of the cooking and I do more of the cleaning. We work well together, sharing kids drop offs, depending on our schedules. At the beginning, he was doing all of it because his work completely shut down. He did more of the "housewife" role [*she laughs*], with pickups and drop offs for the kids' extra-curricular activities.
>
> *(Interior designer; aged 31-40; Hispanic; married/cohabitating with children)*

But many participants sounded ambivalent, or irritated, about spending so much time at home with their partners, such as a mother of two who said, "I am lucky that I like being around my husband (for the most part)." Sharing space created complications for women like this participant who shared an office with her partner: she wore "headphones so that my partner (who was also home, all the time, in the same room) wouldn't bother me with whatever noise he was making or asking me questions." When I asked a mother who worked in the dining room if she could have shared her husband's home office, she confirmed that it would have been difficult "for him and for me. I have some coworkers who shared with significant others, and they get frustrated being able to hear their spouse in the background."

Traumatic events such as lay-offs and unemployment also added stress. In this family, the participant struggled to work, parent, and support her partner who lost his job a few weeks into the pandemic, "which added financial and relationship strain. It was literally as though my brain couldn't shut off, and I felt responsible for everything and everyone, without much opportunity for my own mental and physical health." I interviewed a mother who separated during the pandemic. We didn't discuss the causes, but she did comment on her ex-partner's decision to continue working in the corporate office before they split:

Interviewer: Was it easier for him to work outside the house?

Participant: It was easier for him and he wasn't responsible for what happened at home, for the childcare part.

That women shouldered the burden of domestic duties during WFH is supported by other surveys reporting that at the height of the pandemic, fewer Canadian men than women worked from home: 30% of fathers compared with 39% of mothers ("Working from Home").

Humans were not the only household members who needed accommodation and care. The stories I heard about pets during WFH shed a new light on the sometimes-difficult relationships between animals and their humans (this was personally corroborated). Pets relieved our stress: holding a warm, furry friend calmed frayed nerves, and they gave us a reason to go outside for walks. Their occasional presence

enlivened videoconferencing, when "The odd time my cat would walk by the camera, but everyone had that, and it was actually kind of fun" (fig. 17).
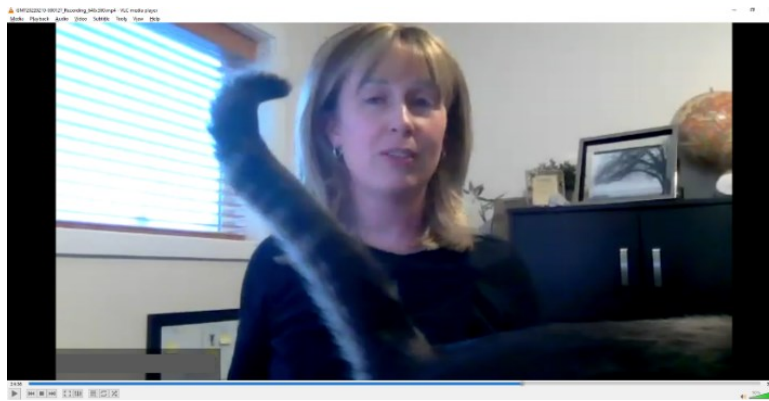
Figure 17   Zoom screen capture of interviewee's cat.
Note: Image used with permission.

In one household, a mother prioritized her "cat's comfort over my own privacy: I can't close my Venetian blinds because of my cat's perch." The study showed that pets didn't just passively receive affection; they also had needs which became more pronounced the longer we stayed at home with them. Women commented that keeping the dog quiet, or out of the room, challenged them during work and especially for Zoom meetings. My interview with Yasmin experienced frequent interruptions in the form of high-pitched yelps from her puppy. A single mother, Yasmin fostered the puppy to befriend her only child when schools closed. Yasmin's workspace in the bedroom moved onto the stair landing because the puppy "didn't like to be contained in that [bedroom];" now the dog sits beside her on the landing.

Despite their additional domestic duties, many women found silver linings at home during the pandemic that benefitted their mental well-being, such as a mother who noted that: "a part of me was happy that I got to spend all that time with family as I never did before". They appreciated the opportunity presented by WFH to spend more time with their families, consistent with the results of earlier studies reporting a pandemic-related shift in personal values.

3.6. Mental well-being

Oh shit, there's not enough space to describe this…Stress. Not having the emotional space to deal with the issues my children had, to accommodate them, support them, console them, challenge them, inspire them…All because I was the sole provider: financially, physically, emotionally and mentally.

(Interior designer; aged 41-50; Indigenous; divorced with children)

For over two years now, but especially in the pre-vaccination period, the stresses of employment, domesticity and pandemic-induced trauma, combined with the loss of in-person social contact, exacted a terrible toll on women's mental well-being. Feelings of isolation and loneliness are common among remote workers, but the pandemic added layers of fear, anxiety, and depression. As one participant noted, her emotional state was "very up and down - and I would say this wasn't a result of WFH per se but likely more a result of the fact we were dealing with a pandemic." Only ten percent of the participants reported no mental health challenges, and they lived in high-income households. The remaining participants experienced at least one mental health issue (fig. 18). The majority (72%) spent too much time at home while two-thirds suffered from social isolation, loneliness, anxiety, stress and depression, and job creep or working an extended workday. A mother suffered debilitating anxiety at the start of the pandemic:

I was fearful of going anywhere or seeing anyone. I became more withdrawn and had panic attacks, depression and anxiety. Stressed that I couldn't allow kids to see anyone in case they were somehow sick and got someone else sick; same with myself, and stress made me sick. I tried to talk to more people and get more exercise/fresh air, but the main thing I did was to go on anti-anxiety and depression meds for the first time in my life, as it was not only affecting me but my entire family and my ability to work effectively.

(Technical advisor; aged 41-50; white; married/cohabitating with children)
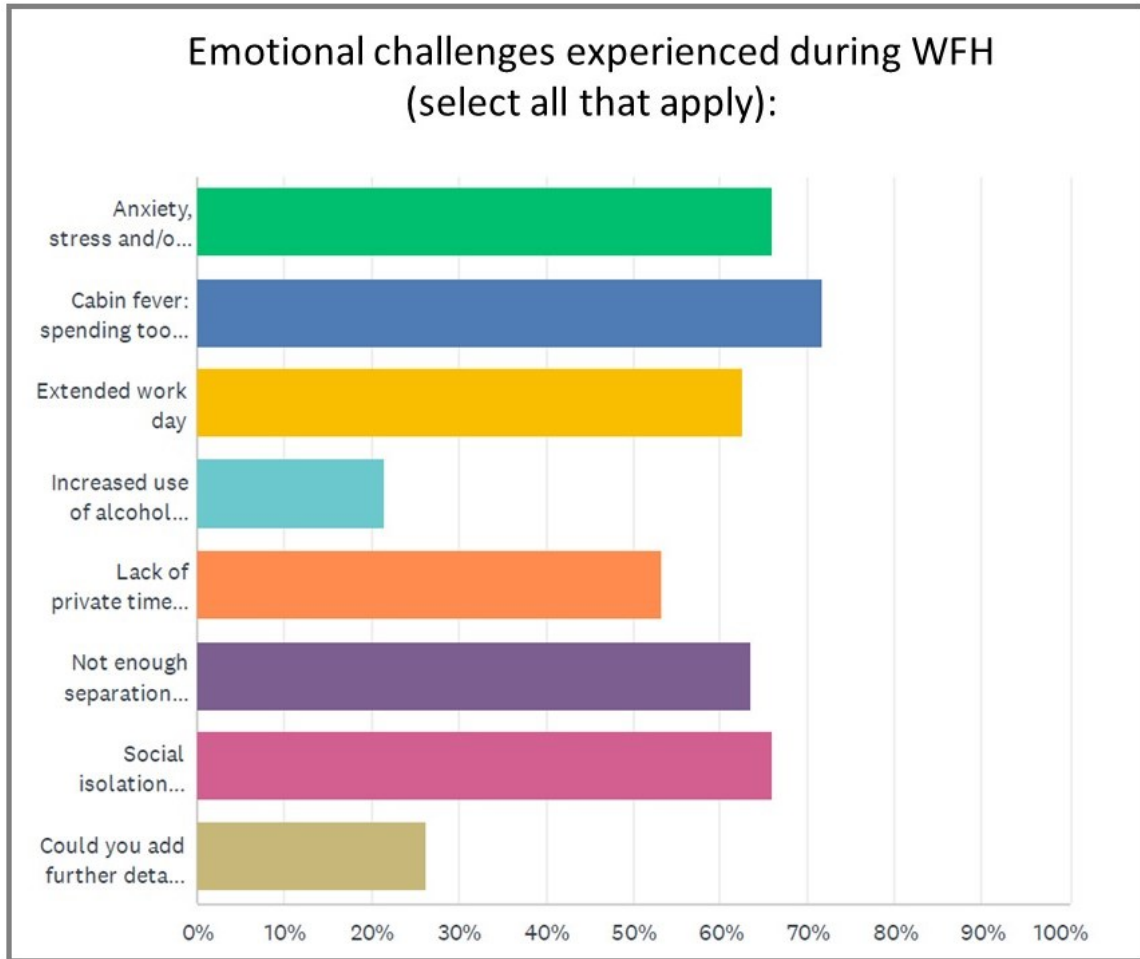
Figure 18 **"Emotional challenges experienced" survey responses.**[25]

        The strategies that women employed to manage mental and emotional issues included maintaining work-life balance, relying on social connections, modifying expectations, and creating an aesthetically pleasing, orderly home workspace. Two factors were instrumental to the state of women's mental well-being: the availability of personal space, and the ability to control their environment. With autonomy, and a place to go, women could remove themselves from the source of stress – the messy house, kids, job, noise, digital device - by retreating into a private room or going outside. However, for mothers of young children, achieving solitude was only possible if they had access to childcare. A mother of two children did "way more [domestic] work related to

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[25] Over one-quarter of the respondents added further details that included of: fear, frustration at having to learn new technologies, lack of self-care such as getting outside, working all the time, not seeing people," feelings of 'stuckness' due to lack of travel and mobility.

being home, including more childcare, meal prep, etc.," and coped with her anxiety by "walking alone or with friends". Since gyms, cafes and other social venues had closed, women physically and mentally recharged outdoors, appreciating the peacefulness of nature in parks and green spaces. Couples also needed time apart. In one marriage, the woman tried to "stay positive when it all seemed so terrifying", and "took time to be by myself and supported my husband's desire to exercise outside of the home (to give us both space)". Participants missed their pre-pandemic physical routines: a single woman noted that "before the pandemic, I worked within a fifteen-minute walk from my house so that commute contributed to my well-being." Another interviewee tried to mentally transition between home and work in the morning, by walking "to the only café that was open to at least have a walk out of my house, and then start my day. That was super important."

Self-care rituals supplemented the outdoor activities: women worked out at home, took hot baths, talked with online therapists, and "tried to take time for myself." A few participants said their diet improved because they could integrate meal preparation and cooking with their work duties. Mentally-gratifying hobbies, puzzles, meditation, yoga, and other enjoyable indoor past-times also distracted women from the constant stress, especially during the initial COVID lockdown period. Videoconferencing made it possible to expand one's horizons without leaving home, as exemplified by one woman who took "online classes (Pilates, Ballet, American Sign Language)" while others tried to reduce their screen time by participating in "activities that didn't involve the computer". Maintaining social connection with family, friends, and to a lesser extent, work colleagues, provided essential mental support. One woman noted how she "tried to maintain contact as best I could. I walked and swam outdoors with friends as much as possible. I have initiated weekly check-in video calls with workmates." Another participant used her garage to create a safe "outdoor" social space by:

> Decorating one wall, set up a little buffet in the corner (with an electric kettle and drink options). I bought an infrared heater so that we could have friends over and hang out socially distanced while technically outdoors (the garage doors open), without having to just stand around in the rain.
>
> *(Systems analyst; aged 41-50; white; separated with children)*

When work and domesticity merged during WFH, participants found it difficult to achieve a physical separation between employment and personal life, especially if they had no dedicated office: rooms that were once places to "relax, listen to music, read, write, etc. - now it feels like a workplace." Women set boundaries around their employment by picking a time to stop working, and "put the computer away, [and] not work on weekends". A mother at home with her family worked more hours at home than she had in the workplace, saying "It was very hard sometimes to separate home and work life. You might take more breaks, but it seemed to extend the day. I had to really focus on just working during work hours. I did work at night, but I have better boundaries now." For some, it was a case of out of sight, out of mind by storing or removing the evidence of paid labour, or changing the décor or lighting as this woman did when she hung a string of LED lights for use in the evening to give her space a more relaxed ambience.

I interviewed two women, each living alone, who struggled to separate work from home. Their stories exemplified the interconnection between domestic space and some of this study's themes, such as pandemic-induced stress, employment, and privacy. Daria lived alone in a one-bedroom apartment, and she worked as a post-secondary instructor. Her gross annual income was over $100,000. She was aged 41-50, and Middle Eastern. Before the pandemic, Daria had taught courses only on the campus, where her students participated in mandatory hands-on lab work. When COVID closed the school, she "was overwhelmed by the amount of work I had to do [to teach online]. I was so stressed because I didn't have any resources or my colleagues." In the past Daria had only worked on the campus and she disliked using her home as a workplace. By sleeping in the living room, she could use her bedroom as an office, but this resulted in less work-life separation. When Daria removed the bed, she convinced herself that it was no longer the bedroom; it was "a different room. I made it an office, and I gave it the title of office. The problem was that after awhile, I asked myself, 'Where is my home?' When I come into this room, it is about work; when I leave, it is about work." Changing her attitude and her routine helped to separate the two spheres. She wore a special cardigan for work only, and she brought coffee and cookies into the home office every day "to make it feel different. One is the work environment, and the other is the relaxing environment (if you can relax at all during the pandemic)." Daria's dissatisfaction with

WFH was reflected in how much time she thought she'd work from home in the future: one to thirty-three percent.

The second story is about Aarini, an Asian Ph.D. student working as a research assistant, earned under $50,000 in 2020. She had rented a room in a shared house, but when the pandemic began, she could only work in her bedroom, sitting on the bed. Aarini had never worked from home before COVID, and she "really struggled in the summer of 2020; I was depressed and demotivated and anxious about everything because I just couldn't function in my bedroom. It was meant for relaxing, and I had to work in it." Eventually she moved into her own studio apartment and arranged the furniture to separate the desk area from her personal space. Now she visits her campus office weekly instead of daily, preferring to work from home: her ideal WFH time was 61-99%.

My research proved that issues related to the home workspace, such as privacy, personal space, aesthetics, and work-life separation could positively or negatively impact women's mental well-being. Mental health was the linchpin upon which every aspect of the participants' WFH experiences revolved, from work performance to social relationships, and even physical health. Fortunately, as COVID subsides the unique mental challenges induced by the pandemic will also dissipate, resulting in a less-stressful WFH experience.

Chapter 4.

Conclusion – Domesticating WFH

How much better is silence; the coffee cup, the table. How much better to sit by myself like the solitary sea-bird that opens its wings on the stake. Let me sit here for ever with bare things, this coffee cup, this knife, this fork, things in themselves, myself being myself (Woolf, *The Waves* 210).

The real story of women during the pandemic is that they remained in the labour force. They stayed on their jobs, as much as they could, and persevered. Still, they were stretched thin - and many still are. There's the expectation that things should just go back to normal, that *I can work at full capacity, I can focus on professional development, the kids will be fine*. And that's not necessarily true (Miller, "The Pandemic").

4.1. Discussion

This study explored how women created workspaces in their homes during the pandemic, focusing on the relationship between the workspace, and employment, domesticity, and mental well-being. The research questioned how these interconnected variables directly or indirectly influenced women's WFH experiences. The ability to effectively perform their job duties at home, for most women, meant overcoming a wide range of challenges with solutions that ranged from material modifications (rearranging furniture, repurposing household objects into office equipment) to behavioral adjustments (working at night, lowering housework expectations). However, not every participant wanted to, needed to, or could, make any changes. The documented efforts of those who did innovate demonstrated the resilience and creative thinking that made WFH not only possible, but successful as an alternative labour strategy. My observations of their experiences in the WFH nexus - positive and negative – are extrapolated here to answer wider questions about the implications of work-from-home after the pandemic: how can women's challenges be addressed to optimize their WFH experiences, considering the reciprocal impact of working from home on the domestic environment? From the study's results arose a paradox: working in the home workspace during COVID

presented difficulties but the percentage of participants who want to work remotely in the future increased dramatically compared to the number who did so before the pandemic (fig. 19). The benefits afforded by WFH far outweighed the limitations, for the majority.
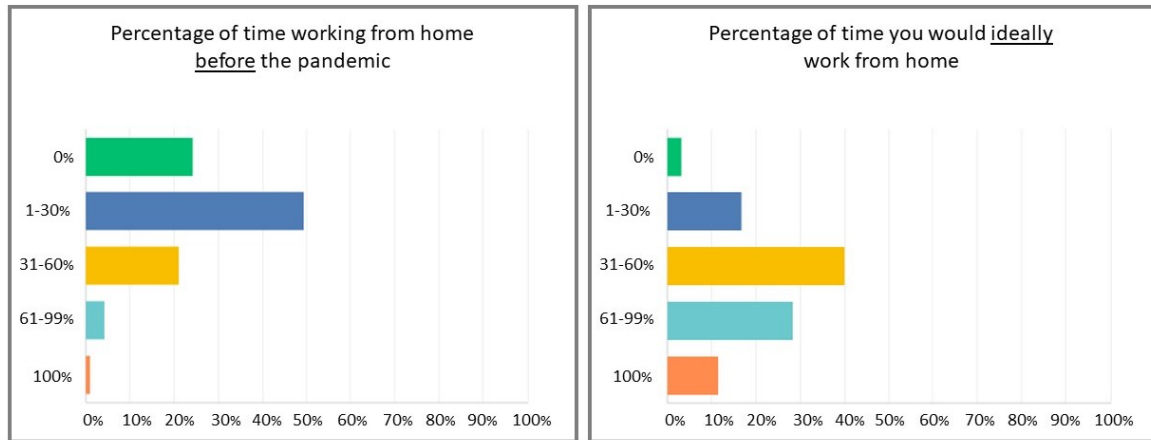
Figure 19 **"WFH time before pandemic" and "Ideal WFH time" survey responses.**

The primary factors influencing women's WFH success were household composition, family income, and whether a participant had access to privacy for working. Single women encountered difficulties that varied greatly from those living with household members. The challenges of mothers working from home differed from those of women without children. While the pandemic has exposed widespread social inequities linked to gender, income, and affluence (Lytle, "More exposed"), this study identified disparities among women within the middle-class: those with higher family incomes noted less domestic and mental challenges. Notably, no participants reported a problem-free existence, with almost everyone facing the same fundamental dilemma of integrating a functional workspace into their dwelling where, in many cases, one hadn't previously existed, or it wasn't suited to full-time employment. Ultimately, women at home during COVID simply had to make WFH work. Quick DIY modifications, with varying degrees of success, often evolved and improved over time. New workstations sprung up in almost every interior space. Comfort mattered as women converted household objects into office furniture: for some, sitting on beds or dining chairs led to debilitating pain. Participants created makeshift ergonomic solutions, like an ironing board used as a sit-stand desk, book-stacking to raise a monitor, or a keyboard tray installed to the underside of a dining table. The fact that the pandemic lockdown also

caught employers off-guard had repercussions for WFH staff: while some companies responded quickly by providing ergonomic furniture, computer equipment and/or funding to purchase them, others waited or did nothing, leaving their employees to fend for themselves. For WFH to become a viable and safe labour model, corporate leaders will need to take responsibility for employee well-being by ensuring that remote workers have the required digital skills, and "proper accommodations with respect to ergonomics; otherwise the widespread discomfort will progress into more detrimental conditions such as musculoskeletal disorders" (Davis 9).

The research showed that for women working in the dwelling, fulfilling the programmatic needs of the home workspace - functional, spatial, environmental, aesthetic – was just as important as in the corporate office. The principles "that apply to designing office spaces for optimizing integrative health and wellbeing, [should also] apply to home workspaces" (Engineer et al 10). The attributes of an ideal home-office - location, size, furniture, lighting, acoustics - eluded many women due to the dwelling's floor area and configuration, household composition, pandemic-induced shortages and other reasons described in Chapter Three. This study collected descriptions of diversely dysfunctional home-workspaces. One of the greatest environmental challenges – finding privacy to work – affected the majority of participants since they shared their homes with others. Without a dedicated office, women experienced issues such as a lack of personal space, work-life imbalance, noise, and visual distractions that infiltrated the workspace, especially in open-plan homes. The prevalence of work-related videoconferencing introduced new conflicts in the home that further impacted employment, domesticity, and mental well-being. Yet, a home office wasn't necessarily coveted by mothers: some who had access to a dedicated room chose not to use it, citing their need to supervise household activities. Having private time, in some situations, was more viable than having private space. Achieving work-life separation in the WFH nexus frustrated women in every household type, especially those who couldn't isolate their employment in one dedicated room or area. Storing or relocating job-related objects temporarily created a work-free living environment. If this wasn't possible, the ambience of the space could be changed when work activities ended – the "take-down", as one interviewee put it - by tidying, using special lighting, and engaging in other end-of-workday rituals. Leaving the work site to spend time outdoors – sometimes alone,

sometimes with others – was an important self-care practice utilized by participants to bolster their mental well-being.

Like straws settling on the camel's back, additional domestic challenges experienced during WFH slowly but surely exacerbated an already-fraught situation. Women continued to experience the expectation, and the reality, that they take responsibility for the unpaid domestic labour, and/or be the default "on call" parent. Not only did this adversely impact their work performance, but it also caused anxiety and strife. The study found that behavioral/psychological responses were better suited than material or spatial modifications for solving domestic issues involving housework, childcare, and homeschooling. Solutions included family negotiations, rescheduling job duties, and lowered expectations for tidiness, meals, etc. While every participant noted that they had benefitted from WFH in some capacity, one important caveat was the experience of mothers with young or school-aged children who often reported work-performance issues at home. The following story illustrates the struggle of a mother working from home when daycares closed. Tara, a married mother of a two-year old, was one of only three participants who chose post-COVID full-time employment in the corporate office. The couple owned a small two-bedroom condo (under 1,000 square feet) that required 50-59% of their 2020 income for housing-related expenses: their joint income was between $50,000 and $100,000. During the pandemic, Tara had no dedicated office, so she used the dining table and sometimes sat on their bed. She often worked at night, caring for their child with her husband during the day: her work productivity dropped, a contributing factor to higher stress levels. Tara returned to the corporate office as soon as she could, even though she had worked mostly from home before the pandemic. While her experience illustrates that WFH will not be the right fit for every working woman, the study found that it is a viable employment model for women who are merging paid and unpaid labour in the dwelling, with material or behavioral modifications necessary in some situations.

According to my research, almost every participant (97%) will, or would like to, work from home to some degree. The greatest advantages were increased personal time (many women gained this by not commuting), autonomy, and flexibility (fig. 20).
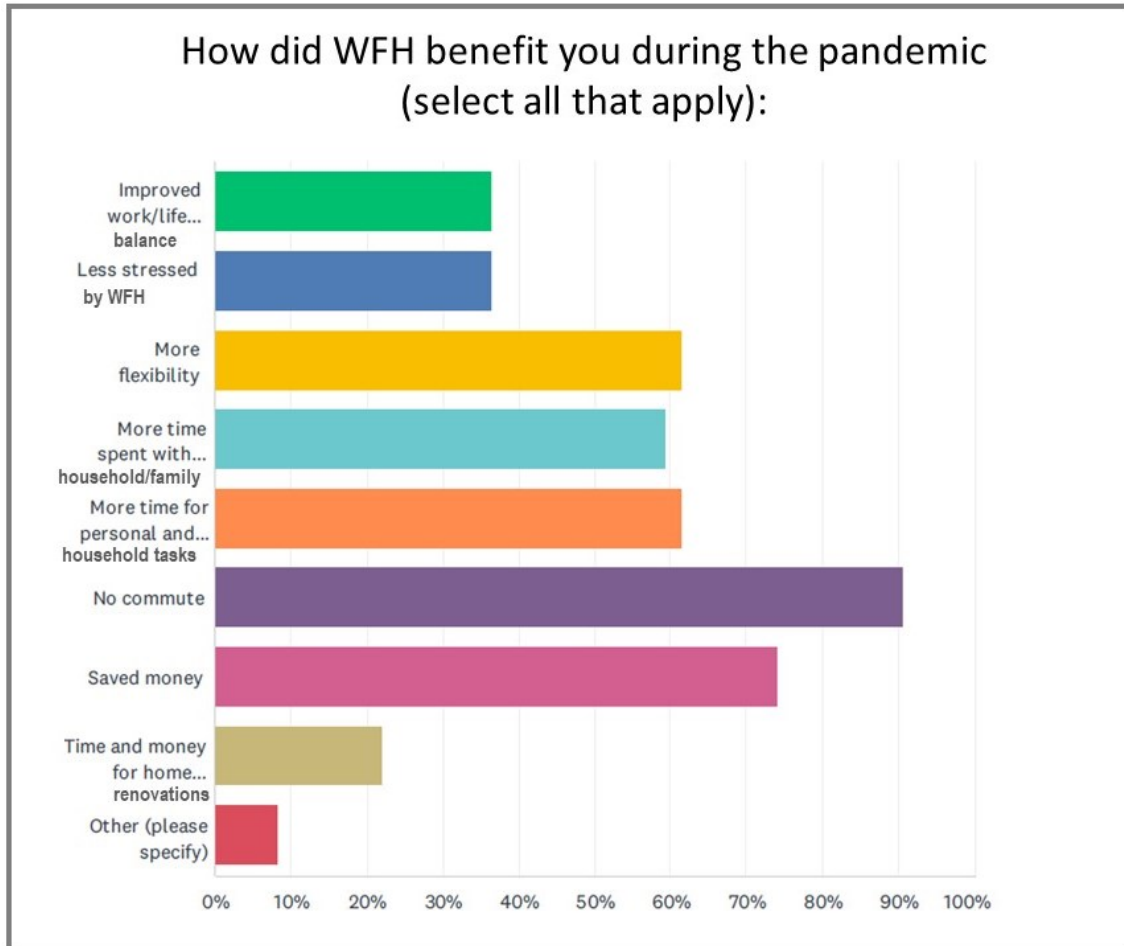
Figure 20 **"How WFH benefitted you during pandemic" survey responses.**

Flexibility benefitted every woman, not just mothers and caretakers. I interviewed a divorced woman whose adult children had already left home: when she was diagnosed with breast cancer in 2021, she noted that "It was good we were working from home because I could still work, and when I had the surgery, I took time off work. Building up to [the surgery], I had so many appointments to go to; in a way I'm glad it happened at that time." Almost two-thirds of this study's participants reported having more time for their families, household tasks, and personal endeavors. Over one-third experienced less stress and better work-life balance while working from home: three-quarters saved money. Several women noted that their physical well-being improved since they could sleep longer and cook their own meals at home. The majority (90%) noted that they benefitted by not commuting (even though half of the participants lived in the same

municipality as their workplace), and some welcomed the cessation of business travel. A mother with two children reported that:

> Overall, working from home has been a rewarding experience. I spend more time with my family, and I've gotten lots of time back without having to commute. My health improved with no business travel and more time to rest. I can be more productive than I was in the office as there are not as many interruptions (our office space is open concept so there would often be conversations or people popping by to discuss items).

> *(Engineer; aged 41-50; white; married/cohabiting with children)*

Some participants took advantage of their increased time at home and financial savings during the pandemic by proceeding with home renovations, although these changes were, for the most part, anticipated before COVID and didn't directly influence their workspaces. For a lucky few with the financial means and opportunity, moving to larger dwellings solved their workspace difficulties.

It is clear from the research that even though adapting to WFH was often difficult, women do want to work from home and they are digging in their heels as employers try to lure them back to the corporate office. Women have "seen real benefits [from WFH] - reclaiming time from commutes, flexibility for family responsibilities, freedom from perpetual distractions and restrictive dress codes - and now they can't unsee them" (Spiers). The old 9-5 workday plus commute, in retrospect, didn't really work for them. Going forward, the percentage of remote workers will fluctuate alongside corporate, government, and socioeconomic drivers, but the results of this study and others (Chow et al 2022) indicate a socioeconomic shift underway that could transform how, when, and where the postindustrial labour force performs its job duties. When I asked Cary, a project leader working in her own home office, if she wanted to return to the corporate workplace, she demurred:

> I'm not going back. I'm really lucky because I have an incredibly understanding +-boss. Because I'm on the phone so much, and there is such an incredible space crunch there, they are thrilled that I don't want to come back [*she laughs*]. After two years of working at home, I am getting used to being at home; it was horrendous for the first 20 months; honest to god I'm just getting used to it now. I

really value the flexibility. If my job changes, I might have to make some accommodations, but I will work hard to not have to go back at all.

Despite the hardships of WFH, the study documented comments of gratitude from participants like Cary, who acknowledged their good fortune for being able to work remotely during the pandemic. One interviewee minimized her workspace challenges by calling them "whiny First World problems." Other comments included: "I have this one little [private] space, which I realize is privilege, absolutely privilege"; "I felt really lucky to have still been able to have work and that my child care remained open"; "I am privileged and it makes me a bit uncomfortable, because I have my own room and there are people [on Zoom] with little kids running around behind them." The middle-class office employees in this study didn't share the health risks that threatened female frontline workers, or the precarious incomes of working-class women ("COVID-19 cost women"): several participants, recognizing their privilege, voiced appreciation.

By revealing the scope of women's challenges resulting from WFH, this research may guide workplace policy-making so employers and employees can both reap the benefits of remote work, whatever the reason for its implementation. Given the North American trend towards declining labour force participation, attracting and keeping women employed is critical, regardless of the workplace location ("Declining labour"). Going forward, it will be intriguing to observe the extents to which different organizations adopt WFH, the demographics of future remote workers, and whether this sociocultural shift will permanently alter the design of our homes and workplaces.

4.2. Design implications

Working from home (and hybrid labour models) expanded from the exception to the mainstream in just two years, a momentous outcome of the pandemic. However, COVID-19 will likely not be the last disruptive event necessitating a major labour decentralization. This study demonstrated that working from home at a makeshift desk or on the dining table had significant limitations, and it revealed new environmental demands on the dwelling interior and the home workspace. To architecturally synthesize the factors and conditions discussed here - WFH, open planning, smaller homes, privacy

needs – into new dwelling typologies is the next challenge for the residential design industry as it reimagines the future of housing (fig. 21). Home designers can bring the WFH issues identified in this study to their clients' attention and implement design strategies, like space planning according to the intimacy gradient, or selecting finishes and insulation for optimal acoustic performance. Interior environmental quality, work-life separation, privacy, biophilia, and other sustainability measures related to well-being, can be spatially and materially addressed.
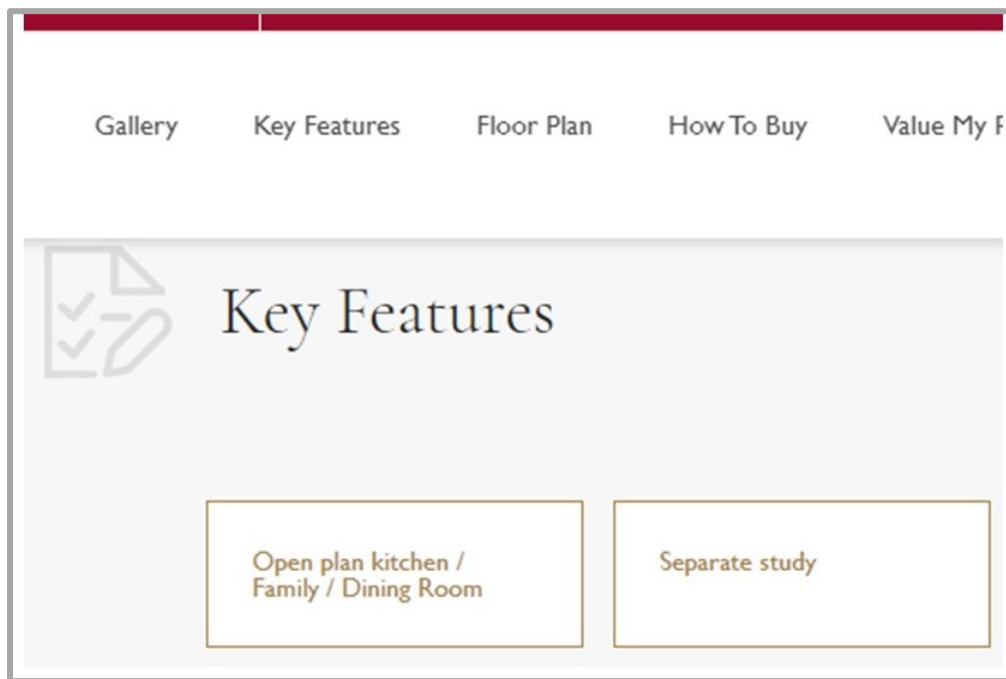
Figure 21   Marketing material for new housing with separate study.[26]

A domestic interior is essentially a volume of space that people curate with their objects – personal and utilitarian - to suit lifestyles they either have, or want. How spaces are used changes over time, sometimes in reaction to external factors as the COVID crisis demonstrated. Privacy needs in particular are shifting and dynamic, as Altman noted: building flexibility into homes could help to manage the disruptions inherent to open-plan homes. Sliding doors or dividers between two open rooms, for example,

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[26] The key to solving the housing crisis in south-east England, according to developer Nigel Hugill, "the man building houses for the work-from-home revolution", is the creation of "large new settlements" within 150 km of London, "in key commuter locations" (Partridge).

would allow occupants to control their environment by adjusting the level of openness. Reducing the amount of furniture in a room by integrating storage as millwork or closets can create clear areas suitable for a range of activities. Greater flexibility will be key, a finding corroborated by the American Institute of Architects "Home Design Trends Survey" that identified the emerging desire for multifunctional space as a new trend in 2020 (AIA "Home Design").

As Chapter One noted, the efficient open-concept home - a product of early 20th century architectural, ideological, and social revolutions – is still the status quo for new Canadian housing. Considering the entrenchment of open planning in western residential architecture, a significant retooling of this plan type may not be viable, desirable, or even possible. Before the pandemic, people favoured open-concept dwellings for, among other reasons, the illusion of spaciousness they afforded, an important consideration as urban homes shrink. But the acoustic and visual interconnection of open planning became a liability once COVID lockdowns forced people inside. To glimpse into the future of residential housing design, I asked two registered interior designers working in Metro Vancouver for their insights. Sophia's firm specializes in residential renovations and new construction. She predicted that interior designers will be challenged to create WFH solutions in small homes that don't have a dedicated office:

> It's going to mean getting creative with hybrid spaces or making them do double duty to be used effectively. We've always had the Murphy beds [that fold down from a wall], desks that can be put away, and things built into cabinetry that can disappear. Right now I am working to help my sister: she and her husband have a two-bedroom condo, and they are both hybrid working from home, and it is likely going to continue. But they are planning to have a family; they will need one bedroom to be dedicated to the child. They have a very large balcony, so my sister will build a pseudo-shed structure there, about the size of a yoga mat [*she laughs*]. If she is working from home and needs a change of scenery or needs a place to work, she can work there. Not everyone is going to have that luxury, however, with a large balcony.

The second interviewee, Olivia, works as an interior design educator at one of the three CIDA-accredited postsecondary institutions in BC. [27] I asked how she foresees WFH and the pandemic influencing residential design:

> It will definitely impact the home. People will look for a small space or a room where they can work from home, and it will be more isolated so noise and visual distraction can be shut off, even if it means working in a little closet. I know from talking to people [during the pandemic] that they didn't travel, and they had more money, and they put the money into their homes in case we have another pandemic.
>
> In our students' third-year studio project [a seniors' residential community living project, not single-family housing], we changed some of the criteria to accommodate spaces where residents can have visitors during an outbreak of a contagious respiratory illness like COVID. We did this project in 2020, and again in 2021 as we learned more about COVID. The students designed a place where visitors entered [the suites] directly from the exterior, not through the main lobby. The students also considered how to modify the support spaces, so they could be expanded to have more distance between people. For example, the shared dining room could have an adjacent flex space so it could be expanded if necessary.

These stories illustrate a range of home innovations that may enter the lexicon of interior design planning strategies over time. However, COVID has also influenced the design of corporate workplaces as employees choose to spend less time in the central office. The stakes are high, according to global design and architecture firm Gensler: if traveling to the corporate environment doesn't provide value for remote workers, "if we don't give them a reason to commute in, they'll return to their basement to do their work" (Levere).[28]

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[27] Council for Interior Design Accreditation

[28] According to Levere's article, workplace design trends include: open-plan areas that offer a variety of spaces to work in; hot-desking and spaces for collaborative work replacing individually assigned work stations; more unique spaces for employees to meet or socialize such as cafes and lounges; spaces that facilitate exercise and wellness; office greening (plants, green walls, views of nature); and access to outdoor spaces.

The potential changes instigated by WFH are not limited to interior design: its mainstream implementation could have large-scale impacts on the cityscape. Whether the urban labour-decentralization caused by knowledge workers moving to suburbs will continue and permanently impact land use remains to be seen: the trend does contradict decades of urban-planning best practices promoting densification around city cores. However, as this study noted, moving to a larger home solved the spatial and environmental WFH challenges of several participants.

Two negative attributes related to the urban dwellings studied here – external noise and lack of personal space within the home - generated other issues related to the WFH nexus that are mentioned here and warrant further study. "Class or economics play a part in WFH," according to one of the study's participants, "because if you have money, you can get a better set-up and have more room." That the women in this study benefitted from class privilege and affluence is significant. Women in higher income households did report less challenges. Almost all of the participants had postsecondary educations and mid to high annual household incomes. Everyone possessed the technological skills and digital devices necessary to work in jobs or professions that allowed them to work from home. An interviewee who moved into a larger home recognized her privilege, saying she didn't "know how many folks moved during pandemic but it does feel like there is a delineation between people who moved or not." The participants' experiences with noise pollution raised affiliated issues such as good neighbour practices and the right to quiet enjoyment. Canadians are free to use their homes and outdoor spaces as they see fit, but there is a fine line between exercising one's personal freedoms and infringing on other people's sound space. Municipal noise-control bylaws prescribe the daytime hours for some sources of noise like construction, leaf blowers, and garbage collection, but other sources – traffic, air travel, external building equipment such as HVAC - are not regulated. If women are working at home, daytime noise causes inescapable disruption. Should cities condone noise pollution if the activity generating it benefits the greater good, and who should decide what is for the greater good? Finally, when COVID lockdowns closed shared spaces like shops, gyms, and cafes, spending time outdoors was one of the few alternatives. So many of the study's participants (myself included) benefitted from the restorative solitude and sounds of nature, demonstrating the importance of parks and green spaces in urban areas. Fortunately, Vancouver is one of Canada's greenest cities, with over two-thirds of its

total land area classified as parks and greenspace ("Study: Urban greenness"), and a mild climate conducive to year-round outdoor activities.

Now that the flexibility and autonomy inherent to remote work are becoming recognized as standard operating procedure by progressive Canadian employers, the once-distant dream of working from home is being realized for many women. It is my hope that the WFH revolution taking place in homes and workplaces is just the next step towards a customization of work-life balance that best accommodates every individual, in domestic environments designed to enhance the work-from-home experience.

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Appendix A.

Online Survey

Survey - Women Working From Home During COVID-19

Consent for participation

Principal Investigator: Kathy Mezei
Student Lead: Joanne Crozier
Graduate Liberal Studies

I am a graduate student at Simon Fraser University and a registered (professional) interior designer in Vancouver: please consider volunteering to take part in this study entitled "How Women Working from Home during the COVID-19 Pandemic are Reshaping the Domestic Environment".

This study will explore the experiences of women who had to work from their homes during the pandemic, and how this experience has or will impact residential interior design. It is open to women in Metro Vancouver who moved into their homes in order to continue performing paid employment during the COVID-19 pandemic. It is our hope that this research will contribute to academic studies of the intersection between gender, market labour, domesticity, and the design of the home environment.

The online survey includes questions on women's experiences during COVID-19 with childcare, dwellings, employment, housework, and working-from-home. Some demographic questions will also be asked. The survey will take 15 to 30 minutes to complete.

You can decline to answer any question you do not wish to answer, or you may withdraw from participation at any time by exiting out of your browser prior to clicking the 'submit' button at the end of the survey. If you choose to withdraw prior to submitting your responses, the information that you provided will not be used in this study. However, once you click 'submit', you can't withdraw from this study since the surveys are anonymous. If you wish to save a copy of this consent form, please save this webpage or take a screenshot.

You should feel in no way obligated or pressured to participate due to an existing or prior relationship with me or the University. If you do feel a sense of obligation or pressure, you should decline to participate.

We are using SurveyMonkey to collect the online survey responses. The SurveyMonkey application and data are hosted in Canada by a commercial provider external to SFU. Any data you provide may be transmitted and stored in countries outside of Canada, as well as in Canada. It is important to remember that privacy laws vary in different countries and may not be the same as in Canada. The parent company SurveyMonkey, Inc. is owned and registered as an American company. Note that due to the special circumstances and requirements of BC's Freedom of Information and Protection of

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Privacy Act (FIPPA), the contract with SurveyMonkey LLC for their survey software makes a specific exemption to their standard policy. That exemption provides for extraordinary cases where staff in the USA would access surveys and survey data hosted in Canada.

All survey data will be deleted from SurveyMonkey's servers within one year after completion of data collection, approximately January 1st, 2023. All data will be retained for future research use by the principle investigator and supervisor. All data will be kept strictly confidential and will be stored electronically on a password-protected drive

Qualifying questions

* 1. I consent to participate in this research in accordance with the conditions described above:

◯ Yes

◯ No

* 2. I identify as a woman:

◯ Yes

◯ No

* 3. In order to continue my paid employment during the pandemic, I moved home to work (either permanently or temporarily) because my workplace was closed due to COVID-19:

◯ Yes

◯ No

* 4. During the pandemic, I lived in this Metro Vancouver municipality while performing paid employment at home:

○ Anmore or Belcarra

○ Burnaby

○ Delta or White Rock

○ Maple Ridge or Pitt Meadows

○ New Westminster

○ North Vancouver

○ Surrey or Langley

○ Tri-Cities (Coquitlam, Port Coquitlam, Port Moody)

○ Vancouver

○ West Vancouver

○ Other (please specify)

[   ]

Survey - Women Working From Home During COVID-19

Work From Home (WFH)

5. Profession and/or job title(s):

6. Brief description of job duties before the pandemic:

7. Did your job duties change when you worked from home during the pandemic:

☐ No change

☐ Yes (please describe briefly)

8. When you relocated to your home for work, what rooms, areas or spaces did you occupy:

9. Please describe any specific challenges you encountered that relate to your physical workspace at home during the pandemic:

4

10. Physical workspace challenges associated with WFH (select all that apply):

- [ ] Crowding - not enough space to work
- [ ] Inappropriate and/or missing furniture, lighting and/or equipment
- [ ] Internet/technology issues
- [ ] Acoustic discomfort (noise)
- [ ] Thermal discomfort
- [ ] Physical discomfort (ergonomics)
- [ ] Lack of private time and/or space
- [ ] Could you add further details regarding any of your choices above:

11. What modifications, if any, did you make to overcome your physical workspace challenges at home:

12. Please describe any specific challenges you encountered that relate to your domestic situation (home and family) when you worked from home during the pandemic:

13. Domestic challenges experienced during WFH (select all that apply):

- [ ] Additional childcare duties
- [ ] Additional homeschooling duties
- [ ] Additional housework
- [ ] Daycare has reduced availability
- [ ] Increased interpersonal conflict
- [ ] Inequitable division of housework and/or childcare duties with spouse/partner
- [ ] Lack of private time and/or space
- [ ] Could you add further details regarding any of your choices above:

5

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14. What modifications, if any, did you make to overcome your domestic challenges:

15. Please describe any specific challenges you encountered that relate to your emotional state working from home during the pandemic:

16. Emotional challenges experienced during WFH (select all that apply):

☐ Anxiety, stress and/or depression

☐ Cabin fever: spending too much time at home

☐ Extended work day

☐ Increased use of alcohol and/or other substances

☐ Lack of private time and/or space

☐ Not enough separation between home and work

☐ Social isolation and/or loneliness

☐ Could you add further details regarding any of your choices above:

17. What modifications, if any, did you make to overcome your emotional challenges:

18. Did you reduce your work hours, quit your job or change jobs during the pandemic:

◯ Yes

◯ No

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19. If yes, please specify the reasons (select all that apply):

- [ ] Not applicable
- [ ] Employer did not offer adequate WFH option
- [ ] Health reasons related to COVID-19
- [ ] Additional childcare duties
- [ ] Additional caregiving duties
- [ ] Additional homeschooling duties
- [ ] Additional household duties
- [ ] Other (please specify)

[   ]

20. Did you increase your work hours <u>during</u> the pandemic:

- ( ) Yes
- ( ) No

21. If yes, please specify the reason for the increase:

- ( ) Not applicable
- ( ) Yes (please specify reason):

[   ]

22. <u>Before</u> the pandemic, what flexibility benefits did your employer offer (select as many as apply):

- [ ] Flexible schedule or compressed work week
- [ ] Hybrid model of working in office and at home (or other location)
- [ ] Job sharing
- [ ] Sick days (paid or unpaid) beyond provincial gov't minimum
- [ ] Vacation days (paid or unpaid) beyond provincial gov't minimum
- [ ] Personal days (paid or unpaid)
- [ ] Sabbatical or extended leave (paid or unpaid)
- [ ] None
- [ ] Other (please specify)

[   ]

23. How did WFH benefit you <u>during</u> the pandemic (select all that apply):

- [ ] Improved work/life balance
- [ ] Less stressed by working from home
- [ ] More flexibility
- [ ] More time spent with household/family
- [ ] More time for personal and/or household tasks
- [ ] No commute
- [ ] Saved money
- [ ] Time and money for home renovations
- [ ] Other (please specify)

```

```

Your survey is **50%** complete!

Survey - Women Working From Home During COVID-19

Employment

24. Municipality of place of employment <u>before</u> the pandemic:

☐ Burnaby

☐ Delta or White Rock

☐ Maple Ridge or Pitt Meadows

☐ New Westminster

☐ North Vancouver

☐ Surrey or Langley

☐ Tri-Cities (Coquitlam, Port Coquitlam, Port Moody)

☐ Vancouver

☐ West Vancouver

☐ Other (please specify)

[_____]

25. When I relocated to my home for work <u>during</u> the pandemic, I was employed (select all that apply):

☐ Full-time

☐ Part-time

☐ On contract

26. When I relocated to my home for work <u>during</u> the pandemic, I was employed by:

○ One employer

○ More than one employer

27. <u>During</u> the pandemic, I worked for an employer(s) and I was also self-employed:

○ Yes

○ No

28. <u>During</u> the pandemic, I was a business owner:

○ Yes

○ No

29. If you were self-employed or a business owner, was your workplace in your home <u>before</u> the pandemic:

○ Yes

○ No

○ Not applicable

30. Occupation categories from the <u>National Occupational Classification</u> system (select as many as apply):

☐ Management

☐ Business, finance and administration

☐ Natural and applied sciences and related occupations

☐ Health

☐ Education, law and social, community and gov't services

☐ Art, culture, recreation and sports

☐ Sales and service

☐ Other (please specify)

31. Do you belong to a union:

○ Yes

○ No

32. Percentage of time performing job duties at home - <u>before</u> the pandemic:

○ 0%

○ 1-30%

○ 31-60%

○ 61-99%

○ 100%

10

33. Percentage of time performing job duties at home - <u>during</u> the pandemic:

- ◯ 0%
- ◯ 1-30%
- ◯ 31-60%
- ◯ 61-99%
- ◯ 100%

34. Percentage of time performing job duties at home - <u>as of January 1, 2022</u>:

- ◯ 0%
- ◯ 1-30%
- ◯ 31-60%
- ◯ 61-99%
- ◯ 100%

35. When did you return to your office workplace:

- ◯ Before May 25, 2021 (before BC Government Restart plan Step 1 began)
- ◯ May 25 to June 30, 2021 (after BC Government Restart plan Steps 1 and 2 completed - May 25 to June 30, 2021)
- ◯ July 1 to December 31, 2021
- ◯ I am still working remotely from home only
- ◯ I am working both remotely from home and in my workplace
- ◯ Other (please specify)

[ ]

36. What percentage of time would you <u>ideally</u> work from home:

- ◯ 0%
- ◯ 1-30%
- ◯ 31-60%
- ◯ 61-99%
- ◯ 100%

11

37. Duriṇg the pandemic, how was your work performance affected by WFH (select all that apply):

☐ Decrease in quality of work

☐ Decrease in productivity

☐ No change

☐ Increase in quality of work

☐ Increase in productivity

☐ Other (please specify)

[   ]

Survey - Women Working From Home During COVID-19

Dwelling

38. Did you move to another home <u>during</u> the pandemic, or are you planning to move:

○ Yes

○ No

39. Was the reason for moving related to pandemic, and/or your employment or your partner's employment:

○ No or not applicable

○ Yes - please provide further detail:

[   ]

40. Dwelling tenure:

○ Own

○ Rent

○ Other (please specify)

[   ]

41. Approximately how much of the family <u>gross</u> annual income in 2020 was spent on housing costs (mortgage, rent, insurance, taxes, utilities, etc.):

○ Under 30%

○ 30-39%

○ 40-49%

○ 50-59%

○ Over 60%

13

42. Dwelling type:

- ( ) Apartment in building less than five storeys
- ( ) Apartment in high-rise building (five or more storeys)
- ( ) Duplex - one side
- ( ) Row house, townhouse, or semi-detached house
- ( ) Single-detached house
- ( ) Suite in a house
- ( ) Other (please specify)

[   ]

43. Year that the dwelling or building was built:

- ( ) Before 1930
- ( ) 1930-1950
- ( ) 1951-1970
- ( ) 1971-1990
- ( ) After 1990
- ( ) Not sure

44. Living space (livable area heated year-round) in square feet, occupied by your household:

- ( ) Under 500 sf
- ( ) 500-999 sf
- ( ) 1000-1499 sf
- ( ) 1500-1999 sf
- ( ) 2000-2499 sf
- ( ) Over 2500 sf

45. Number of bedrooms (for the purpose of this research, a bedroom has a door and an exterior window):

- ( ) None
- ( ) One
- ( ) Two
- ( ) Three
- ( ) Four or more

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Your survey is **75%** complete!

Survey - Women Working From Home During COVID-19

Housework

46. During the pandemic, were there changes in the amount of housework (not including childcare) you performed:

○ Less housework

○ No change

○ More housework

○ Not applicable

47. During the pandemic, who shared the housework duties (select all that apply):

☐ Spouse/partner

☐ Children under 18

☐ Adult children or relatives

☐ House-cleaning service

☐ No one

☐ Not applicable

☐ Other (please specify)

[   ]

48. During the pandemic, were you satisfied with the amount of time you spent on housework:

○ Not applicable

○ Yes

○ No (please give reason):

[   ]

Survey - Women Working From Home During COVID-19

Household

49. During the pandemic, did your household include temporary, unrelated members such as roommates or international residents with work or study permits:

○ Yes

○ No

50. During the pandemic, how many temporary, unrelated members lived with you:

○ One

○ Two or more

○ Not applicable

51. Family composition in household:

○ I live alone

○ I live with a spouse/partner

○ I live with a spouse/partner and children/relations

○ I live with children/relations

○ Other (please specify)

---

52. During the pandemic, these **full-time** family members lived with you (select all that apply):

☐ Not applicable

☐ Spouse/partner

☐ Children under 18

☐ Adult children and/or other relations

☐ Elderly dependents

☐ Other (please specify)

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53. <u>During</u> the pandemic, these **part-time** family members lived with you (select all that apply):

☐ Not applicable

☐ Spouse/partner

☐ Children under 18

☐ Adult children and/or other relations

☐ Elderly dependents

☐ Other (please specify)

_____

Survey - Women Working From Home During COVID-19

Childcare

54. During the pandemic, how many children under 18 lived with you **full-time**:

○ None

○ One

○ Two

○ Three or more

55. List ages of **full-time** children here:

56. During the pandemic, how many children under 18 lived with you **part-time**:

○ None

○ One

○ Two

○ Three or more

57. List ages of **part-time** children here:

58. What modifications, if any, did you make to overcome the challenges of homeschooling during the pandemic:

59. Did you continue to homeschool your children after the schools reopened during the pandemic:

○ Yes

○ No

○ Not applicable

19

60. <u>During</u> the pandemic, were there changes in the amount of time you spent on childcare:

( ) Less time

( ) No change

( ) More time

( ) Not applicable

61. <u>During</u> the pandemic, who shared the childcare duties (select all that apply):

[ ] Spouse/partner

[ ] Children under 18

[ ] Adult children or relatives

[ ] In-house childcare service

[ ] Daycare

[ ] No one

[ ] Not applicable

[ ] Other (please specify)

_____

62. <u>During</u> the pandemic, were you satisfied with the amount of time you spent on childcare:

( ) Not applicable

( ) Yes

( ) No (please give reason):

_____

Survey - Women Working From Home During COVID-19

Demographics

63. Age:

- ○ 18-30
- ○ 31-40
- ○ 41-50
- ○ 51-60
- ○ 61-70
- ○ Over 70

64. Ethnicity:

- ○ Asian
- ○ Black
- ○ Hispanic
- ○ Indigenous
- ○ White
- ○ Other (please specify)

    [   ]

65. Highest level of school completed or the highest degree received:

- ○ High school graduate
- ○ Some college credit
- ○ Trade/technical/vocational training
- ○ Diploma
- ○ Bachelor degree
- ○ Graduate or doctoral degree
- ○ Other (please specify)

    [   ]

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66. Marital status:

○ Single

○ Married/cohabitating

○ Divorced

○ Separated

○ Widowed

67. Family gross annual income in 2020:

○ Under $50,000

○ $50,000 - $100,000

○ Over $100,000

Survey - Women Working From Home During COVID-19

Conclusion

68. Would you agree to be contacted for an online interview using videoconferencing:

○ No

○ Yes (please provide name and contact email address and phone number. This information will remain confidential.)

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┌─────────────────────────────────────────────┐
│                                             │
└─────────────────────────────────────────────┘
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Thank you for your participation!

Appendix B.

Interview Consent and Script

SFU SIMON FRASER UNIVERSITY

CONSENT FOR PARTICIPATION IN INTERVIEWS

"How Women Working at Home during the COVID-19 Pandemic are

Reshaping the Domestic Environment"

Study Team:

Principal Investigator: Kathy Mezei
Student Lead: Joanne Crozier
Graduate Liberal Studies

Study Purpose:

Thank you for agreeing to participate in this interview. The surveys and interviews are part of my thesis project in Graduate Liberal Studies at Simon Fraser University, entitled "How Women Working from Home During the COVID-19 Pandemic are Reshaping the Domestic Environment". This study will explore the experiences of women who had to work from their homes during the pandemic, and how this experience has or will impact residential interior design.

Your participation is voluntary:

You have the right to refuse to participate in this study. If you decide to participate, you may still choose to withdraw from the study at any time. You can decline to answer any question you do not wish to answer.

How will the interview process work, and duration:

If you agree to participate, we will organize an online interview using Zoom at a convenient time: Kathy and Joanne will be the only other participants. The interview will take about one hour, but we may want to do an online follow-up interview if you agree.

We would like to record this interview in order to facilitate transcribing the notes. The recording will be deleted once the transcribing is complete. However, if you prefer, we can write notes by hand instead of recording. We can also provide you with a copy of the recording.

The interview questions will focus primarily on your home and workspace, and any modifications you may have made in order to overcome challenges during WFH that were impacting your well-being and productivity.

Confidentiality:
Your confidentiality will be respected. Information that discloses your identity will not be released without your consent.

Data use:

The results of this study will be reported in a graduate thesis and may also be published in journal articles, books and presented at academic conferences.

Study results:

When the project is complete and available online, we will email you with a website link.

Contact for information about the study:

Contact for complaints:

PARTICIPANT CONSENT AND SIGNATURE

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason.

Your signature below indicates that you have received a copy of this consent form for your own records and that you consent to participate in this study. You do not waive any of your legal rights by participating in this study.

_____
Participant name

_____   _____
Participant signature   Date (yyyy/mm/dd)

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"How Women Working at Home during the COVID-19 Pandemic

are Reshaping the Domestic Environment"

Interview script – 5 pages

Version 1.0

Submitted by Joanne Crozier

Supervisor: Kathy Mezei

Graduate Liberal Studies

January 31, 2022

A. **INTRODUCTION**
Thank you for agreeing to participate in this interview. The surveys and interviews are part of my thesis project in Graduate Liberal Studies at Simon Fraser University, entitled "How Women Working from Home During the COVID-19 Pandemic are Reshaping the Domestic Environment".

I am Joanne Crozier, the student lead for the study, and this is my supervisor Kathy Mezei. In this study we are investigating the domestic and labour challenges experienced by women working from home, and the modifications that were made in order to overcome the challenges. In this interview, we will focus on the physical environment.

B. **INTERVIEW FORMAT**
The interview will take about one hour, but we may want to do an online follow-up interview if you agree.

Do you consent to being contacted for an online follow-up interview? [Yes/no]

C. **RECORDING**
We would like to record this interview in order to facilitate transcribing the notes. The recording will be deleted once the transcribing is complete. However, if you prefer, we can write notes by hand instead of recording.

Do you consent to having the interview recorded? [Yes/no]
If so, would you like a copy of the recording? [Yes/no]

D. **INTERVIEW TOPIC– Improving the home workspace during the pandemic.**

In the survey you noted that:
- Your workspace at home consisted of, or was located in: [interviewer provides list] and it provided these challenges: [interviewer lists specific challenges]
- You made modifications in your home and your workspace to overcome these challenges, such as: [interviewer lists specific modifications]

1. **Workspace:**
   a. Please describe the room/area where you first worked from home after the pandemic began, and the initial challenges with each:
      i. Where is the room/area in the dwelling (what floor, what rooms is it adjacent to, facing street or backyard)
      ii. Could you permanently occupy this room/area while working at home
      iii. Was there a door, how many doors, could doors be locked
      iv. What other people used this room/area while you were there, and for what purpose and duration
      v. Describe the furniture pieces used, and how they were arranged
      vi. Describe the available technology and equipment such as computer, printer, phone, etc.
      vii. Describe the light fixtures, where they were located, adequacy of lighting

    viii.   Was there a window to the outdoors; describe the view, and window coverings

    ix.   Were there intrusive sources of noise; describe

b. Can you give more detail on which physical and behavioral challenges had the greatest impact on your work experience, productivity and well-being

c. Thinking back to if and how you tried to resolve the challenges in your home and workspace:

    i.   What were the most effective physical and behavioral modifications you made

    ii.   How did the modifications improve your workspace and work experience

    iii.   Please describe the physical modifications and their level of success

d. If you made physical modifications, did you do them yourself, or hire a designer, tradesperson or other third party

e. How did you come up with your ideas for making the physical modifications

f. Do you think that you will be working from home at least some of the time, after the pandemic ends

g. Do you think that the physical modifications you made will remain in place after the pandemic ends

2. Moving:

In the survey you noted that you moved, or are planning to move, to another dwelling for these Covid-related reasons: [interviewer lists specific reasons]

a. If you have already moved, how did moving resolve your workspace challenges

b. Please describe the room/area where you are now working:

    i.   Where is the room/area in the dwelling (what floor, what rooms is it adjacent to, facing street or backyard)

    ii.   Can you permanently occupy this room/area while working at home

    iii.   Is there a door, how many doors, can doors be locked

    iv.   What other people use this room/area while you are there, and for what purpose and duration

    v.   Describe the furniture pieces used, and how they are arranged

    vi.   Describe the available technology and equipment such as computer, printer, phone, etc.

    vii.   Describe the light fixtures, where they are located, adequacy of lighting

    viii.   Is there a window to the outdoors; describe the view, and window coverings

    ix.   Are there intrusive sources of noise; describe

c. If you haven't moved yet, how do you anticipate that moving will resolve your workspace challenges

3. Renovations:

In the survey you noted that WFH benefitted you during the pandemic because you had time and money for renovations.

a. Did you go ahead with planning and/or completing any renovations?

b. Was the reason for the renovations inspired or influenced by Covid?

c. If the renovations were inspired or influenced by Covid, can you describe the scope of the renovations

d. What end results were you hoping to achieve

e. If you completed the renovations, to what degree were they successful in meeting your expectations

f. Did you, or will you, do the renovation yourself, or hire a designer, contractor, tradesperson or other third party?

g. Can you provide any detail on the challenges you experienced related to renovating, ie. scheduling, costs, delivery dates, labour, etc.

4. **Videoconferencing from home:**
Did you take part in videoconferencing as part of your work? If so:
a. In what room/area did the videoconferencing take place

b. Did you share this space or experience other interruptions during videoconferencing: if so, how did you resolve the issue and was the solution effective?

c. How did you feel about having colleagues and/or strangers see inside your room/home while videoconferencing

d. Did you use an artificial background to hide your actual background: if so, why

e. Did you make any changes to the room's décor, lighting, furniture, etc. to better suit videoconferencing: if yes, what changes did you make and why did you make them

f. Were you satisfied with your self-image and room interior as it was seen by others

5. **Imagine this hypothetical situation:**
Imagine that you (and the rest of the world) had known in 2018 exactly how the pandemic would unfold between March 2020 and today. What home modifications and other actions would you have taken to be better prepared for the start of the pandemic in March 2020?

6. **If your occupation is interior designer or architect:**
From a professional perspective, how do you see WFH affecting or influencing the future of home design for your clients

7. **FINAL QUESTION** - Thank you for your valuable information; is there anything else you'd like to add before we end? [Yes/no]
Please feel free to contact us if you have any further thoughts or comments.