

EXPLORING THE EFFECTS OF COVID-19 ON COHOUSING COMMUNITIES IN CANADA:

A SOCIAL IMPACT ANALYSIS

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EXECUTIVE SUMMARY

On March 11th, 2020, Covid-19 was declared a global pandemic. One of the most utilized strategies in Canada to curb the rate of infection involved restricting socialization, including implementing social distancing protocols and limiting large indoor gatherings. This project studies the impact of Covid-19 restrictions on cohousing communities, focusing specifically on how common spaces were utilized by residents during the Covid-19 pandemic. Cohousing creates intentional communities that are dependent on the willingness of its members to share spaces, services, and activities in pursuit of developing deeper relationships. Community has become increasingly relevant in the wake of the pandemic, as people are more conscious of the importance of social connections. For this study a survey link was sent to 19 cohousing administrators in five Canadian provinces (British Columbia, Alberta, Saskatchewan, Manitoba, and Ontario) with a request to share it with their respective communities. A total of 15 responses were received from cohousing residents. Additionally, interviews were conducted with five residents who lived in cohousing between 2019 and 2022. Residents identified two main strategies used during the pandemic to build community: (1) common spaces, primarily outdoor common spaces, were identified as important spaces for residents to gather, while still maintaining health and safety protocols (2) Online methods of communication, such as Zoom was essential for maintaining community meetings and transitioning social activities to an online format. Similar to anti-vaccination movements occurring in urban areas, cohousing communities were also severely impacted by anti-vaccination sentiments, leading to profound divisions within the community. Overall, this study highlights the importance of outdoor common spaces in cohousing communities, particularly during times of social distancing and isolation. It also indicates that problems faced at a broader societal level, such as the anti-vaccination movement, were also evident within cohousing communities.

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1:0 INTRODUCTION

Shared housing is a well-established concept, particularly on college campuses where groups of people live together, typically in a house or an apartment, and share common areas such as the kitchen, living room, and bathroom. In these situations, shared housing is viewed as a cost-effective way to live, as the rent and utilities are typically split between roommates.

Alternatively, cohousing is a deliberate form of living that places strong emphasis on building social connections and developing deep community bonds (Giorgi et al., 2021; Canadian Cohousing Network, 2022).

Designing cities with community in mind has become increasingly relevant in the wake of Covid-19's impact on socialization and restrictions to opportunities for human interaction. The lockdown measures had a distinct impact on these communities compared to the wider population. As pointed out by Izuhara et al. (2022), the lockdown posed significant challenges not only to individuals, but also to the group practices and common spaces essential to maintaining everyday life in these communities (p.16). This paper found that, in cohousing communities, outdoor common spaces were helpful in building community during the Covid-19 pandemic, but these communities were also severely impacted by anti-vaccine sentiments. Despite the significant impact of the Covid-19 pandemic on various aspects of daily life, only a few studies have examined its effects on cohousing communities. This exploratory project aims to fill this research gap by investigating the social impacts of the Covid-19 pandemic on community building among cohousing residents.

1.1 BACKGROUND & RESEARCH QUESTIONS

On March 11th, 2020 The World Health Organization (WHO) declared the Covid-19 outbreak a global pandemic (Cucinotta & Vanelli, 2020). Concerns from health scientists about the rate of transmission sent countries into action trying to prevent the spread of disease and reduce mortality rates. It was determined that the Covid-19 pandemic was spreading through respiratory droplets and aerosols of infected individuals (Canada, 2020). People were advised to limit their

exposure to others especially in poor ventilated spaces. As a result, social distancing was found to be one of the most effective strategies at reducing infections and hospitalizations.

Undertaking social distancing protocols had a profound effect on people's lives, including their overall mental health (Giorgi et. al., 2021, p.1). According to a recent study, the effect of the Covid-19 pandemic may have varied based on peoples housing situations. In a 2022 study, Izuhara et. al argued that due to lockdowns and social distancing protocols, cohousing communities were particularly affected by the Covid-19 pandemic compared to those living in conventional single-family homes. The study found that due to cohousing communities' reliance on common spaces for social interaction, the Covid-19 pandemic's restrictions on communal activities had a significant impact on residents emotional and mental well-being. Cohousing's fundamental values, such as community building, were forced to adjust to provincial health guidelines which was challenging for cohousing residents who had chosen to live in cohousing for the primary purpose of fostering a sense of community.

This project aims to assess the impact of Covid-19 on community building amongst cohousing residents, specifically how common spaces were used and interacted with during the Covid-19 pandemic. More specifically, I aim to answer the following questions:

1. What is the importance of common spaces for community building in cohousing?
2. How was community building amongst cohousing residents affected by the COVID-19 pandemic?
3. What strategies have been used to build/ maintain community during the Covid-19 pandemic?

1.2 PROJECT SIGNIFICANCE

This project investigates the impact of “stay at home” orders and social distancing protocols on cohousing communities across Canada. From the research generated, the project has shed light on the unique experience of cohousing communities and highlights the significant impact community building can have in improving residents' overall well-being and quality of life.

The project also provides insights into the potential challenges for cohousing during emergencies and crises, emphasizing the need for effective communication and conflict resolution strategies to mitigate community issues. Additionally, the research identifies best practices for building and maintaining community connections in cohousing during times of isolation and distancing, offering valuable guidance for future pandemics or other emergency situations.

Overall, the research has advanced our understanding of the role of cohousing in community building and resilience during the Covid-19 pandemic and has provided valuable insights for planning and policy makers to support these communities.

1.3 DOCUMENT OVERVIEW

This report is divided into six main sections:

The first section introduces the topic of cohousing, highlights challenges faced by cohousing communities during the Covid-19 pandemic and outlines the research questions guiding the project.

The second section provides a comprehensive overview of the Covid-19 pandemic in Canada and its impacts on this research.

The third section describes the data collection methods (surveys and semi-structured interview), followed by the criteria implemented for selecting and recruiting cohousing communities.

The fourth section critically examines existing literature on cohousing and places the research project in the context of the broader field of knowledge. The summary is intended to provide a comprehensive understanding of the existing literature and to identify gaps that this research may fill.

The fifth section presents the findings collected from surveys and semi structured interviews conducted with cohousing residents from selected Canadian provinces.

The sixth section explores the relationship between the findings gathered from the surveys and interviews with the literature review.

The seventh section summarizes the results of the research and offers concluding remarks for the project.

2:0 CONTEXT

2.1 THE COVID-19 PANDEMIC: FIRST WAVE

The Coronavirus was first detected in Wuhan China, on December 31st, 2019 (Cyr et al., 2021). By April 2020, the number of identified Covid-19 cases worldwide had surpassed 1 million (Cyr et al., 2021). In response to the rapid spread of infection, the Canadian federal government took measures to identify and isolate international travelers who had been exposed to Covid-19 abroad. Unfortunately, due to the development of new Covid-19 variants, the transmission rates and number of cases continued to rise in Canada. This prompted the federal and provincial governments to implement a more aggressive public health strategy in efforts to curb the rate of infection (Cyr et al., 2021).

Accordingly, in addition to issuing public health directions, the federal government also expanded its efforts to include travel restrictions. This involved prohibiting all international travel along with closing the US and Canadian border. Provincial governments took on issues such as contact tracing, restricting indoor gatherings, and shutting down non-essential businesses (Cyr et al., 2021). Furthermore, during the first wave of the Covid-19 pandemic, stay-at-home measures were in effect. People were advised to limit their outings to essential activities only. If people were exposed to Covid-19, they were required to quarantine/ self-isolate from other individuals in their bubble (Polisena et al., 2021). While the Covid-19 pandemic had a significant impact on various aspects of life, some of the most affected areas included travel, school and business closures (Karaivanov et al., 2021).

By December 9th, 2020, the Pfizer-BioNTech Covid-19 vaccine was made available for people of 16 years of age and older (CIHI, 2023). With the vaccine rollout underway, provinces and territories started lifting restrictions on social gatherings, masks, and travel. However, decisions concerning public health were still made by respective provincial governments. Consequently, there was great variation in Covid-19 prevention strategies across the country. Eventually, by March 2022, lockdowns and restrictions were lifted by most Canadian provinces and territories (CIHI, 2023). See table 1 for a detailed summary of events.

2.2 ANTI-VACCINATION MOVEMENT

In Canada, the responsibility for administering the vaccine program rested with the provinces and territories. While most Canadians eagerly anticipated a return to normal life, others rejected any governmental vaccine mandates, arguing personal freedom of choice (Wawrzuta et al., 2022). As a result, governments were forced to impose restrictions on unvaccinated individuals' access to shared spaces including, bars, gyms and restaurants to name a few (Han et al., 2022). To boost confidence and support the safe reopening of businesses, schools, etc. while also reducing the spread of the virus, the provincial and territorial governments utilized “vaccine passports” (Han et al., 2022). The passports served as proof of an individual's vaccine status and enabled access into public spaces (Han et al., 2022). Mandatory vaccination policies were required in certain sectors of work such as healthcare, but again it was up to the discretion of the provinces and territories to establish their own policies concerning the matter. In some cases, individuals who declined the vaccine faced suspension, and in certain situations, the possibility of being fired permanently (Han et al., 2022).

2.3 IMPLICATIONS FOR THIS PROJECT

Participants for this project were contacted in December 2022, therefore, there were no provincial or territorial guidelines in place during recruitment that could have shaped a participants' cohousing experiences differently based on which province or territory they lived in. Nonetheless, the Covid-19 pandemic deepened divisions between vaccinated and unvaccinated individuals resulting in strained relationships, particularly among members living together. These sentiments are reflected in the data. A complete summary of survey data and interview findings are provided in section 5.

Table 1: Covid-19 timeline in Canada (Government of Canada, 2021, 2022; CIHI, 2023)

A BRIEF HISTORY OF THE COVID-19 PANDEMIC



3:0 METHODOLOGY

The empirical research methods used in this project include a combination of surveys and semi structured interviews. The following section provides a rationale for selecting these methods, their relevance for addressing the research questions, and the participant selection and recruitment criteria.

3.1 DATA COLLECTION METHODS

3.1.1 SURVEYS

This research project used surveys to gather data from residents in cohousing communities from across Canada. A mix of multiple choice and open-ended questions helped gain insight into how common spaces were utilized by residents during the Covid-19 pandemic. Refer to appendix B for survey questionnaire.

The survey was formatted using Qualtrics and an anonymous link was sent to 19 cohousing communities across Canada. This research method was selected because it allows large populations to be accessed with relative ease. Wright (2005) asserts that “one advantage of online survey research is that it takes advantage of the ability of the Internet to provide access to groups and individuals who would be difficult, if not impossible, to reach through other channels” (para. 6). Furthermore, online surveys are an efficient use of time and money as they eliminate the need for printing and mailing survey materials (Wright, 2005).

3.1.1.1 ANALYSIS

Due to the structured format of the questions and answers, analyzing survey data was quite straightforward. The quantification of multiple-choice questions and coding of the open-ended questions highlighted unique insights. These included residents’ attraction to cohousing, common space usage prior to and after the Covid-19 pandemic and the correlation between the utilization of common spaces and the development of a sense of community among residents.

From this information a comprehensive analysis of the residents' perceptions and behaviours related to cohousing and community building was analyzed in section 6.0.

3.1.2 SEMI-STRUCTURED INTERVIEWS

Along with surveys, this research project also used semi-structured interviews. In comparison to other research methods, semi structured interviews are inherently designed to produce rich, detailed data (Adams, 2015). Semi structured interviews are also a more versatile means of collecting data. It presents the researcher with an opportunity to delve deeper into the topic by exploring interviewee responses with follow up questions and exploring any contradictions within the participants accounts (Adams, 2015).

Additionally, semi-structured interviews are a more appropriate method to discuss sensitive topics. As the Covid-19 pandemic was, and still is a traumatic time for many, recounting memories from this period may be triggering. With semi-structured interviews, there is the ability to talk through the topic with the interviewee and debrief with them afterwards. With the interviewer present, they can remind the participants of the purpose of the project and ultimately the interview can be stopped at any point to ensure that the interviewee is not being traumatized.

3.1.2.1 ANALYSIS

The Zoom transcription feature was enabled during the interviews, to allow for an easier time coding. The coding process aimed at identifying similarities and/or differences among interviewees' responses to help uncover any trends or patterns, which were then compared to the existing literature. A combination of inductive and deductive coding was performed on the transcripts to identify emerging themes. *Deductive coding* "refers to the coding process aimed to test whether data is consistent with prior assumptions, theories, or hypothesis" (Chandra & Shang, 2019, p. 92). On the other hand, *inductive coding* is an approach whereby the researcher reads through the data and creates codes as they emerge (Chandra & Shang, 2019).

3.2 PARTICIPANT SELECTION & RECRUITMENT

For this project cohousing communities were selected from the publicly available Canadian Cohousing Network (CCN) website. The CCN website identifies cohousing communities that are amid forming, in development and completed. As a result, completed cohousing communities were selected from British Columbia, Alberta, Ontario, Saskatchewan, and Manitoba. All cohousing communities were identified as new builds and included strata and co-op ownership styles. For participation in the project, respondents had to be over the age of 18, had lived in a cohousing community before and during the Covid-19 pandemic stages (2019-2022) and be able to communicate in English.

In December 2022, housing administrators from 19 cohousing communities were contacted via email and invited to share the survey link with their residents. An information sheet accompanied the email specifying the purpose of this project along with explaining the survey and interview process, consent, withdrawal, duration, and eligibility criteria. At the end of the data collection, 15 cohousing residents participated in the survey. Eight participants were 65 years and older, four were in the 55 to 64 age bracket and three were between the ages of 45 to 54. The respondents were distributed by provinces as follows: Eight from British Columbia, three from Alberta, and four from Ontario.

At the end of the survey, participants interested in a 1-hour interview to discuss the topic further were asked to contact the researcher directly. This was to ensure that interview responses remained separate from the survey. Moreover, interview respondents were sourced through email. Two recruitment emails sent in December 2019 and January 2023 were sent to cohousing administrators seeking their aid in distributing the recruitment email to other members of the community.

From the recruitment emails, a total of five agreed to an interview. I conducted interviews with three cohousing residents from British Columbia, one resident from Alberta, and one resident from Ontario. There was no response from cohousing communities located in Saskatchewan. Additionally, the only cohousing community contacted in Manitoba did not meet the eligibility criteria and could therefore not participate in the project.

The interview consisted of 20 questions (refer to appendix A) and lasted on average 45 minutes over a licensed version of Zoom.

3.3 PROJECT LIMITATIONS

This study has potential limitations. Of the 19 cohousing communities sent the survey link, residents from only five cohousing communities responded. Two didn't fit the eligibility criteria, and others simply never responded. Therefore, the sample size is quite small, making the generalizations of the results difficult. Additionally, external time constraints and deadlines limited the recruitment period for this project which may have impacted participation numbers.

Another potential limitation of this study is that it only examined the experiences of cohousing residents, without incorporating the viewpoints of individuals living in non-cohousing environments. As a result, the analysis may not accurately reflect the challenges and strategies used by non-cohousing residents in responding to the Covid-19 pandemic. It would be beneficial to conduct a comparative analysis of co-housing and non-cohousing living arrangements to gather a more complete understanding of how different forms of housing may have influenced the ability to cope with the Covid-19 pandemic. Lastly, due to a lack of age diversity in both the surveys and interview responses, the experiences documented in this project may not be fully representative of a more diverse age range.

4:0 LITERATURE REVIEW

The literature review provides a critical evaluation of the cohousing literature along with providing context for the project within the larger body of knowledge to date. This project examines how common spaces, which act as an integral place for community building, were used by residents during the Covid-19 pandemic. Since there is limited literature on Covid-19 and cohousing in Canada themes were drawn from the literature in order to identify major gaps.

This literature review is divided in two sections. The first section focuses on key elements related to cohousing more generally. As such, this review first defines the concept of cohousing. It is important to clarify how this document interprets the term cohousing as scholars such as Bas Hoppenbrouwer (2019) remark how inconsistently the terminology is used throughout the literature. From here, a historical background analysis of cohousing is conducted. The purpose is to identify key characteristics of cohousing that have emerged over time.

The second part of the literature review is tailored to the research questions, specifically focusing on the concept of community. It seeks to understand the importance of community for cohousing communities and the impact of the Covid-19 pandemic on community development. Exploring the effects of community development in residential environments can better inform planning practitioners in the development of planning goals.

4.1 WHAT IS COHOUSING?

Co-housing is part of a collaborative housing trend that includes a range of community led housing initiatives such as co-living, cooperatives, eco-villages, and community land trusts (Fromm, 2012; Izuhara et al., 2022; Thankamoniyan & Jagadisan, 2021). Each model varies in their ownership models; thus, as Tummers (2016) states “the classifications are generally made according to the intensity of interaction and collaboration between residents (p. 2035). The abbreviation "co" in cohousing represents a combination of the words "collaborative," "communal," and "collective." (Tummers, 2016; Vestbro, 2000). Collaboration implies that there is a level of participation from residents. Communal implies the development of strong social

connections and community building between members, and the collective implies the use of common spaces as a central gathering place for all residents (Hoppenbrouwer, 2019).

Cohousing is a grass roots movement that aims at rebuilding social connections and community to escape the loneliness of urban life (Tummers, 2017; Williams, 2005). Individuals manage and operate homeownership as a collective unit. There is a range of collective involvement residents can choose in cohousing to help build a sense of community. Structured community engagement can be found in activities such as communal dinners, and community meetings where a significant number of residents gather. Unstructured social time may include utilizing the common spaces for personal purposes such as relaxing in the lounge or gardening, offering opportunities to interact with other residents who are also using the space. Both type of social engagements provide residents with an opportunity to strengthen their connections with other members of the cohousing community (Tummers, 2015; Williams, 2005).

Cohousing communities are present in both urban and rural locations and can either consist of retrofitted buildings or newly constructed ones (Tummers, 2015). Although cohousing is a decision driven by personal values and concerns there are common themes in the literature discussing individual motivations for cohousing including housing affordability, increased social interaction and living more sustainably (Bamford, n.d.; Cho et al., 2019). Moreover, there is a growing interest in alternative housing solutions from aging populations who believe that living in a socially active environment can help mitigate the isolation and loneliness that often accompanies old age (Giorgi et al. 2021). By sharing spaces and activities, they can establish a sense of community and support, which is particularly valuable as they face the challenges of aging in place. This notion is supported by Giorgi et al. (2021), who suggest that alternative housing solutions that prioritize social engagement can enhance the overall well-being of elderly individuals.

4.2 HISTORY OF COHOUSING

The majority of the literature suggests that cohousing was introduced as a housing typology in Denmark around the 1960s (Weeks et al., 2022). However, Lubik & Kosatsky (2019) argue that

cohousing first began with First Nations in the form of longhouses before the arrival of Europeans to Canada. Longhouses are not a part of all First Nations' traditions but have been used by Nations including the Iroquois League, Huron, Petun, Neutral, Erie and Susquehannock (Lubik & Kosatsky, 2019). Longhouse designs vary, but an essential component for most communities include a common space. Rows of housing are constructed to surround the common space for collective use (Lubik & Kosatsky, 2019). This design model allows for multiple families and people to live in proximity to one another, thus deepening social bonds with one another.

Subsequently, in the 19th and 20th century cohousing appears in northern Europe, specifically Denmark, Sweden and the Netherlands (Izuhara et al., 2022; Williams, 2005). Williams (2005) connects the rise of cohousing in Denmark and the Netherlands to communitarianism motivations. Communitarianism is a “social and political philosophy that emphasizes the importance of community in the functioning of political life... and in understanding human identity and well-being”(Bell, 2022). In other words, cohousing was developed to build strong social support systems thus increasing a person's sense of community. On the other hand, cohousing in Sweden was connected to feminism and egalitarianism. The cohousing typology confronted gender inequality as labour was divided evenly amongst the cohousing community, lessening the household burden from women (Williams, 2005).

The second wave of cohousing took place in the United States between 1980 and 1990 (Williams, 2005). A cohousing movement was created focusing on addressing social and environmental concerns. In addition, new development approaches were adopted including developer led, partnership, resident-led, new, and retrofitted (Williams, 2005). Williams (2005) briefly mentions a third wave of cohousing that started in Australasia and South-east Asia in the 1990s, however, studies of cohousing are limited and largely exclude Australasia and South-east Asia.

4.3 COHOUSING CHARACTERISTICS

Various research studies have identified the following four characteristics as essential to the cohousing model: (1) Participatory process; (2) Intentional cohousing design; (3) Resident management; (4). Separate income resources (Lubik & Kosatsky, 2019; Sargisson, 2012; Torres-Antonini, n.d.). On their own, none of these aspects are unique; it's the combination of these characteristics that helps define cohousing. For the purpose of this project, this section focuses specifically on intentional cohousing design.

The intentional design strategies incorporated by cohousing communities can directly influence opportunities for social interaction. For example, in figure 2, the cohousing building plan highlights how individual dwelling units are smaller, allocating more square footage for common spaces (Bamford, 2001; Jarvis, 2011). By supplementing private individual space residents share in daily life activities in closer proximity. The

literature indicates that frequent daily interactions aid residents to form stronger social relationships, thus deepening their sense of community (Bresson & Labit, 2020; Markle et al., 2015; Williams, 2005). According to Williams (2005) this intentional design model follows a set of social contact design principles. The cohousing literature identifies six social contact design features found to impact social interaction, resident participation, and community development. They include shared common spaces; grouped structures; peripheral parking; pedestrian circulation; extensive common facilities; and the centrality of the common house (Torres-Antonini, 2001; Williams, 2005).

Figure 1: Apartment cohousing concept plan (Little Mountain Cohousing, n.d.)



Figure 2: Cohousing neighborhood plan (Tree House Village, n.d.)



As Williams (2005) writes “cohousing strategies are based on social contact design principles, i.e., they aim for higher densities, mixed use and the creation of convivial public spaces and pedestrian-friendly environments... Furthermore, both approaches evidence a marked parallelism in their specific prescriptions for design that enhances community” (p. 202). Figure 2 illustrates the cohousing layout of Eco Village that follows these design principles, with shared spaces scattered throughout the vicinity.

The concept of “convivial public spaces” which will be referred to as common spaces in this research project, is a fundamental characteristic in cohousing that uses social contact design to improve the lives of residents through the “physical construction of space” (Williams, 2005). The number of common spaces varies depending on the community but can include a kitchen, dining room, playroom, lounge, gym, laundry, guest room, storage space, garden, workshop, and garages. See figures, 3 for examples (Bamford, 2001; Williams, 2005). The literature emphasizes the importance of common spaces to embrace maximum potential for social interactions (Williams, 2005). It’s important to mention the challenges the literature addresses in relation to common spaces. There is a balance that social contact design must achieve between private space (e.g., bedroom) versus public space (e.g., common rooms). Too much socialization

can have an opposite effect on cohousing residents. If they feel they are losing control over their social environment residents may begin to withdraw (William, 2005).

4.4 IMPORTANCE OF COMMUNITY FOR COHOUSING

The connection between cohousing and community is related to the idea of restoring relationships within our neighborhoods and creating intentional community to escape the alienation and disconnected social life of city living (Ruiu, 2014; Young, n.d.). Hoppenbrouwer (2019) acknowledges the struggle of defining a broad concept such as community but reinforces the fact that it is a huge reason why people chose to live in cohousing. McMillan (1996) breaks down the concept of community to include four essential features: sense of belonging, truth telling, emotional safety, trust in an authority structure and an awareness that mutual benefit comes from being together.

A study conducted by Jolanki & Vikko (2015) provides support for using these characteristics to broadly define community. Cohousing residents in Finland were asked to describe what they thought community meant. Residents responded that for them that community meant sharing knowledge and experiences, a sense of security, trust in the collective unit, and a sense of belonging (Jolanki & Vilkkö, 2015). To this point, Thankamoniyan & Jagadisan (2011) discuss the concept of 'growing a community' as one of three main principles in cohousing. The broader goal in this collective lifestyle is to build a stronger sense of community. The specific actions to achieve this goal are what Lubik & Kosatsky (2019) and Torres- Antonnini (2001) identify as social contact designs and common spaces. Developing a sense of community is an ongoing process that evolves over time as new residents arrive and others leave the cohousing community (Jolanki & Vilkkö, 2015).

Figure 3: Common spaces (Cranberry Commons, n.d.; Creekside Commons, n.d.; Driftwood Village, n.d.)



Community workshop (Driftwood village, n.d.)



Common house kitchen (Cranberry Commons, n.d.)



Courtyard (Cranberry Commons, n.d.)



Community Garden (Creekside Commons, n.d.)

4.5 STRATEGIES IMPLEMENTED BY COHOUSING COMMUNITIES DURING THE COVID-19 PANDEMIC

As this project has established, the design function of cohousing communities depends on their established practises of social interaction and mutual support. Izuhara et al. (2022) argue that with lockdowns and social distancing protocols in place cohousing communities experienced a significant impact by the Covid-19 pandemic, more so than those in ordinary single-family dwellings. In response to social distancing protocols, the literature addresses strategies employed by cohousing residents to preserve their sense of community (Giorgi et al., 2021; Izuhara et al.,

2022; Weeks et al., 2022). One study by Giorgi et al., (2021) state that the vast majority of cohousing residents indicated that simply being a part of a cohousing community helped make the Covid-19 pandemic emergency less difficult. More specifically Weeks et al., (2022) determined that participation in social activities increased prior to the Covid-19 pandemic. Single residents were able to form social bubbles with cohousing residents and measures were taken to address meal sharing. Sharing food is another strategy cohousing uses to strengthen community bond (Weeks et al., 2022). When the Covid-19 pandemic began communities had to stop potlucks and initiate a different way of connecting.

The literature found that cohousing communities followed restrictions for restaurants in the area. Therefore, depending on public health guidelines for indoor gatherings communities were able to proceed with shared meals in the common room by limiting seating. Although sharing spaces and activities among the members of the cohousing community were affected in some ways due to the Covid-19 pandemic situation, it did not necessarily result in the community feeling a lack of connection as some may have expected (Giorgi et al., 2021). Results from one study by Schetsche et al., (2020) found that residents from 34 cohousing communities in Germany indicated lower levels of depressive, anxiety, compulsive and eating disorders than residents in traditional neighborhoods during the Covid-19 pandemic (Schetsche et al., 2020).

4.6 GAPS IN THE LITERATURE

The cohousing literature covers a wide range of topics including cohousing's history and evolution, benefits and challenges, designs and planning, and its social dynamics. Previous research has also shown that cohousing can have a positive impact on residents' social and emotional well-being. However, it is not clear how community building has been directly impacted by the Covid-19 pandemic. Since Covid-19 is a relatively recent and ongoing global crisis there is limited data available assessing its impact on cohousing, specifically community development. Moreover, existing studies on cohousing and the Covid-19 pandemic largely exclude Canada, and the effectiveness of health and safety measures adopted by cohousing communities during the Covid-19 pandemic requires further research.

4.7 CONCLUSION

The literature emphasizes the use of social design elements to promote social interaction and community development in cohousing. The deliberate inclusion of features such as larger common rooms and smaller individual dwelling units are aimed at fostering deeper relationships among community members. The research has established that building a sense of community is a primary, if not the most important objective for cohousing projects. Despite the limited studies, the literature suggests that cohousing residents developed creative strategies such as social bubbles, coffee/teatime outside or shared meals with limited seating to maintain cohousing's core value of community. These themes and framework will serve as a crucial foundation for the upcoming analysis of data obtained from key informant interviews and surveys. By utilizing these established themes and framework, I will be able to evaluate and interpret the data collected, drawing meaningful insights and conclusions.

5:0 FINDINGS

This section presents the results of the data collected through surveys and semi-structured interviews. After analyzing the data generated from the surveys and interviews, I have identified seven main themes that emerged from the coding process. The survey and interview data yielded similar themes since they were both designed and conducted with similar questions in mind. As a result, these themes represent the most significant and commonly occurring patterns, trends, and insights found in the data. Further analysis of these themes will be carried out in section 6.

5.1 BENEFIT OF COHOUSING

5.1.1 ACCESS TO COMMUNITY

In all the interviews, the aspect of having a built-in community with people looking out for you was one of the major reasons interviewees chose to live in an alternative housing tenure, such as cohousing. Residents reflected on the advantages of having a support group close by helping to foster a deeper sense of community:

I think just generally living in community is helpful. Living with other people and having people around to support you, people that you can be involved in their lives. There's lots of research around how this is healthier (Interviewee 2).

This sentiment was also reflected in the survey responses in which 14 out of 15 respondents listed sense of community and more opportunity for social interaction as one of the reasons that attracted them to cohousing.

5.1.2 CORRESPONDS WITH INDIVIDUAL BELIEFS & VALUES

Another theme drawn from the interview data was how living in cohousing aligned with people's values and enabled them to live a more fulfilling and sustainable lifestyle. This was reflected in responses from two interviewees:

I particularly liked that as well as the community aspect most of the people involved were environmentalists, and that was important to me. I'm really concerned about recycling, growing our own food, limiting the use of cars, alternative methods of transportation, developing a circular economy. All those things are reinforced within this particular community. It aligns with my values; I feel like I'm living the way I should be, and I'm not having to compromise on those (Interviewee 4).

Benefits are having community and having a smaller footprint. Our units are smaller, we have shared resources, we try to live more sustainably. So, for example, we have a solar thermal array that harvests solar energy to heat water that doesn't produce electricity and we make decisions together about ways that we can have a smaller environmental footprint (Interviewee 5).

5.1.3 CONNECTION FOR AGING POPULATION

One interviewee highlighted the opportunity cohousing provides aging populations to remain connected to community. As they explained “we recognized this was a more sustainable way for seniors to live, and throughout my work I had seen the research about seniors in isolation and how a healthy social life really does improve the physical health of seniors” (Interviewee 3). This remains relatively important given that the demographics of cohousing communities often skews toward an older age group. The survey results indicated that 20% of the respondents were of ages 45 to 54, 27% were between the ages of 55 and 64, and 53% were 65 years and older.

The results of both interviews and surveys suggest that respondents selected cohousing as their preferred living option for two main reasons. First, cohousing offers a way of life that prioritizes community and social connections. Secondly, residing in a cohousing community aligns with the personal values of the respondents, resulting in a shared sense of purpose among residents. These findings demonstrate the importance of community and shared values in the decision-making process of those who choose to live in cohousing communities.

5.2 COMMON SPACES: A SOCIAL CONTACT DESIGN PRINCIPLE

Common spaces serve as a platform for community building as residents, if they so choose, can engage in daily interactions with one another. As such an integral aspect of cohousing, interviewees were asked to list the common spaces available in their respective communities to gather a better understanding of how cohousing communities design their physical environments to foster social interaction between residents. Table 2 provides a visual representation of the different common spaces interviewees listed. Additionally, survey respondents all reported having access to a dining room, living room, and outdoor garden space. The communal kitchen was also listed by 93% of the survey participants.

Table 2: Compilation of common spaces derived from interviewees

	Interviewee1	Interviewee2	Interviewee3	Interviewee4	Interviewee5
Kitchen					
Dining room					
Meeting room					
Lounging areas					
Playroom					
Laundry facilities					
Quiet room					
Office room					
Guest room(s)					
Recreational room					
Studio room					
Workshop/woodworking room					
Greenhouse					

Courtyard/ fire pit gathering area					
Amphitheatre					
Multipurpose room					
Gym					
Garden					
Craft/ art room					
Music room					
Conversation lounge					
Backyard					

5.2.1 FORMAL AND INFORMAL OPPORTUNITIES FOR ENGAGEMENT

Interviewees stressed the importance of the common house in cohousing communities, serving as both a social and functional center for its residents. A common house usually comprises a range of communal facilities such as a kitchen, dining room, living room and recreational room which are shared and used by the residents.

The dining room was described by two residents as having a crucial role strengthening community, resolving conflicts, and enhancing interpersonal relationships. They emphasized that communal mealtimes serve as an essential opportunity for residents to come together. Spaces such as the dining room provide structured opportunities for socialization, as residents can engage with one another over a meal. This type of setting can facilitate conversations and help foster connections between individuals who may not have otherwise had a chance to connect. Additionally, common spaces such as lounges and recreation rooms offer opportunities for more informal socializing, as residents can come together to participate in activities, watch movies, or simply relax and chat:

Consensus begins with breaking bread together. The meals are the most important. There are a lot of other activities in the common house, but ones where everybody comes together, not even the strata meetings once a month would bring out as many people as a meal. So small conflicts could get easily managed in that environment where people are eating together and sitting together before they become larger conflicts. They can often be resolved in that way, and so just the bond of working together to make the meal, to eat together and clean up. Those bonds are really important. (Interviewee 3)

Our major common space is the common house and it's our heart if you know what I mean (Interviewee 1).

Overall, interviewees and survey respondents emphasized the importance of these common spaces in promoting socialization and connection among residents and acknowledged the role they play in establishing a sense of belonging and community within the living environment.

5.3 COMMON SPACE USAGE PRIOR TO THE COVID-19 PANDEMIC

5.3.1 FREQUENT UTILIZATION OF COMMON SPACES

Interviewees and survey respondents were asked to describe how frequently common spaces were used in 2019 prior to the Covid-19 pandemic to compare how the Covid-19 pandemic may have impacted common space usage. The surveys showed that 20 % of respondents *always* used the common spaces, 73% used them *often*, and 7% used them *rarely*.

Interviews with cohousing residents confirmed that before the Covid-19 pandemic outbreak, all the common spaces were extensively used. According to interviewees the common house was fully operational, hosting communal meals once or twice a week. Laundry facilities were open, there was active use of the gym, and concerts and events were regularly held. Large group activities were planned and organized, but residents also used the common spaces for their individual needs. As one interviewee explained:

We all use them differently, but we would have a common meal once a week. So, either a prepared common meal or potluck for the community and it varied how many came, but usually 20 to 40 people... the guest room got lots of usage, the lounge would be used to go watch movies or watch election results or sporting events. I used it for my book club, my Jane Austin Society dance group practiced in the dining room. Different people hosted meetings and we've had lots of house parties. I'll have a games night occasionally for the community. So, there's social events for the community and then people use them on a first come first serve basis. (Interviewee 2)

5.4 RELATIONSHIP BETWEEN COMMON SPACES AND COMMUNITY BUILDING

Survey respondents were asked to indicate to what extent they believed common spaces helped with building a sense of community prior to the Covid-19 pandemic. From the data, 27% of survey respondents *agreed* that the common spaces helped with building a sense of community and 73% *strongly agreed* with the statement.

To gain further insight into the topic, interview respondents were asked to reflect and share how common spaces contributed to their sense of community prior to the Covid-19 pandemic. The purpose of these interviews was to explore the significance of these spaces in creating a sense of connection and belonging among residents, and to identify the specific factors that contributed to this feeling.

5.4.1 COLLECTIVE RESPONSABILITY

The first major theme identified in the interviews was the sense of responsibility and collaboration residents engage in to maintain common spaces. During the interviews, two residents shared their perspective on how common spaces represent a collective responsibility for all residents to share and maintain. Common spaces are conducive to bringing people together through collaboration, as they provide a shared purpose and sense of pride. By working together to maintain these spaces, residents can establish a sense of ownership and connection to their

living environment, ultimately fostering a stronger sense of community. As one resident explained:

I think part of the way the common house and the common grounds help communities is you've got something to care for and that you have to share. I think that's helpful. I think it brings out the differences for sure, and so it gives us a real focal point for working through the differences. So, I think that helps with community, and it gives us something to feel proud of. (Interviewee 2)

5.4.2 COMMON SPACES AS AN EXTENSION OF PERSONAL LIVING SPACES

During the interviews, one resident highlighted that the various common spaces in cohousing such as the shared kitchen, lounge and other facilities serve as an extension of the residents' home, allowing them to enjoy amenities that they might not have space for in their private spaces. As a result, the common spaces help enhance the living experience in cohousing communities and are strategically designed to create larger common areas for residents to socialize. An interviewee mentioned that a potential drawback of prioritizing common spaces in cohousing is that it results in less private space, which can be challenging for families with children. While this theme did not emerge as a significant topic among all interviewees, it is consistent with similar findings presented in the literature review. See analysis in section 6.

5.5 COMMON SPACE USAGE DURING THE COVID-19 PANDEMIC

5.5.1 REDUCTION IN USAGE OF INDOOR COMMON SPACES

During the first wave of the Covid-19 pandemic, survey respondents reported that the common spaces were not frequently utilized. As the survey results indicate, 13% of respondents *never* made use of the common spaces, 27% *rarely* used them, 40% used them *sometimes*, and only 7% reported *always* using the common spaces.

Consequently, 33% of survey respondents *strongly disagreed* that the common spaces contributed to their sense of community during the Covid-19 pandemic, another 27% *disagreed*,

while 27% *agreed*. Furthermore, 13% of respondents *strongly agreed* that the common spaces helped in building a sense of community during the Covid-19 pandemic. This data shows the varied range of opinions on the impact of common spaces for community during Covid-19, which impacted people's feelings of connectedness to their community.

Interviewees indicated that as a response to the Covid-19 pandemic, all indoor common spaces in these communities were forced to shut down for health and safety reasons, affecting opportunities for residents to engage with one another. Four of the interviewees reported that indoor common spaces closed for large community gatherings, including weekly communal meals.

In contrast, a respondent in one of the interviews expressed that they believed the indoor common spaces were not used less due to the Covid-19 pandemic. Instead, they were utilized in a manner that adapted to the circumstances. For example, in their respective cohousing community, certain indoor common spaces were converted into offices, allowing residents to work from home in a communal setting:

We set up a scheme whereby residents were able to use the common spaces for their offices, and it was a dedicated space for them. One mom used the children's room for her office space, another used the multi-purpose room, someone else used the conversation lounge. The various places that could be sort of made into an office were made into an office for those people. (Interviewee 4)

5.5.2 INCREASED UTILIZATION OF OUTDOOR COMMONS SPACES

Four of the interviewees indicated that cohousing residents adapted to the new normal by making use of outdoor common spaces for their social and recreational activities, such as dinners, meetings, and events. When the weather was nice enough, residents relocated outdoors. As one interviewee reflected, during the late winter/ early spring season, residents would gather in the courtyard at 11 in the morning with their travel mugs to have coffee/tea and enjoy each other's company. The interviewee discussed the measures that the cohousing community undertook during the Covid-19 pandemic to create moments of happiness for its residents. This included

various outdoor events, like an outdoor garden party and several courtyard concerts. Another interviewee highlighted how their cohousing community utilized the patio during the summer to socially engage with one another and continued to utilize outdoor spaces such as the garden and greenhouses. Two interviewees mentioned how their cohousing communities purchased additional equipment such as outdoor fire pits, and large canopies to create a more enjoyable outdoor experience.

The key element raised in this section of the interview is the importance of outdoor common spaces for cohousing communities to maintain social connection during the Covid-19 pandemic.¹

5.6 SENSE OF BELONGING DURING THE COVID-19 PANDEMIC

5.6.1 HEIGHTENED COMMUNITY CONNECTION

When interview respondents were asked to describe their sense of belonging during the height of the outbreak, they provided mixed responses.

The first major theme identified from the interviews, was the way the Covid-19 pandemic heightened residents' sense of community. Two interviewees reported experiencing a stronger sense of community among residents during the Covid-19 pandemic. According to one resident, this was due to the continual communication between residents to navigate the challenges posed by Covid-19. As the interviewee explained:

This may seem strange, but I think in some way the pandemic brought us closer together because we had to come up with solutions as to how we were going to deal with it, and we had to deal with a whole spectrum of emotional responses to the pandemic. Of course, now that there aren't any restrictions everyone is just so happy to be back together. I think

¹ There were some difficulties with question six of the survey asking residents to indicate how often they used the common spaces during the first wave of the Covid-19 pandemic (from March 2020 to June 2020). Respondents expressed that the question did not properly distinguish between indoor and outdoor common spaces. Although indoor common space usage may have decreased, outdoor common space usage increased for some cohousing communities since outdoor gatherings were one of the only ways for individuals to safely gather. Therefore, survey responses in this section may not properly reflect common space usage during the Covid-19 pandemic.

they're willing to put the effort into community projects and community events.
(Interviewee 4).

Another interviewee agreed that the pandemic contributed to an increased sense of community among residents, and for certain individuals, a greater sense of connection to the community because they were "...like a ship in the ocean, all in this together" (Interviewee 2). Nonetheless, the resident did not perceive the pandemic to be an event that formed or damaged residents' sense of community since it was already well established prior to the pandemic.

5.6.2 VACCINE HESITANCY AND COMMUNITY DIVISION

Another theme found in the interviews and survey responses was the impact of vaccine mandates on cohousing communities. Four out of five interviewees mentioned that there was some conflict in their communities from implementing Covid-19 control and prevention methods such as wearing face masks indoors, and/ or vaccination policies. Two interviewees described the conflict as an isolated experience with one person/ family that did not cause huge disruptions to the community

For one resident the pandemic presented significant difficulties. The challenges they encountered during the pandemic were largely associated with conflicting personal beliefs about the scientific basis of health and safety protocols implemented during the pandemic. Over the course of the two-year pandemic, the division between those who supported and those who opposed the vaccines became more pronounced, leading to lingering resentment within the community:

The patterns of behaviour I saw during the pandemic years mirrored the wider community, I saw that we were experiencing some of the same behaviours and conflicts. The illusion we/I had that our community had more than the normal level of care/consideration for our neighbours was challenged. And, in fact, living so closely and having to make community decisions for the benefit of all may have made things more challenging. In traditional neighbourhoods there would be no expectation that if you ran into your neighbour you would engage in a conversation that could lead to the sharing of

feelings and beliefs. It was hard to reconcile some of these beliefs and actions with the need for solidarity in tackling a pandemic. (Interviewee 3)

The interviewee expressed how the division between vaccinated and non-vaccinated residents “eroded” their own sense of community. As a result, they describe how they began to withdraw their efforts to connect and create meaningful connections with residents and started avoiding cohousing members all together. In one case, the divide between community members became so hostile, that one family sold and left the community.

Two survey respondents mentioned the impact of vaccines and the division that arose between vaccinated and non-vaccinated residents. One survey respondent explained that when Covid first appeared in the summer of 2020, their cohousing community addressed the issue as a unified group. Meetings were held outdoors to brainstorm ways to use indoor spaces and work as a community through these unknown and challenging times. The discord happened with the advent of the vaccines. The polarization around safety and vaccinations put a split in the respondent’s community. One survey respondent indicated considerable damage was done from mandates that were imposed and enforced by community members to the extreme, resulting in community division.

5.7 STRATEGIES TO MAINTAIN COMMUNITY DURING THE PANDEMIC

Survey respondents provided varying responses when asked to indicate what they felt their sense of belonging to their community was, after the height of the pandemic. According to the result 26.67% of respondents said they had a *very strong* sense of belonging, 33.33% reported having a *strong* sense of belonging, while 20% indicated a *moderate* sense of belonging. Roughly 13.33% reported a *weak* sense of belonging and only 6.67% said they had a *very weak* sense of belonging. Survey respondents and interviewees listed different strategies their cohousing communities used to try and maintain a sense of community during the pandemic.

5.7.1 TECHNOLOGY

One theme that reappeared in survey responses and was mentioned in all the interviews was how communities learned to embrace technology such as Zoom as a platform to host community

meetings and events (zoom dances, trivia night, dining via zoom, New Year's Eve zoom party, etc.). As one survey respondents said:

We put our business meetings on Zoom, so we didn't have disruptions in fulfilling community tasks and connection. We experimented with dining via Zoom from our homes, Zoom trivia, dances, and such - something special about once a month.

In addition to Zoom, one interviewee mentioned how the community incorporated Slack to separate anti-vaccine rhetoric from the rest of email communications. By using Slack channels to contain discussions related to anti-vaccine views, community members could avoid triggering emails that may have been disruptive or emotionally harmful. Despite this measure being implemented, the interviewee reported that they still had a difficult time in cohousing during the pandemic.

5.7.2 UTILIZING OUTDOOR COMMON SPACES

Another theme was the shift from indoor common spaces to utilizing outdoor common spaces during peak covid times. Survey respondents and interviewees listed the intentional outdoor social events that were held during Covid-19 including, outdoor concerts, transformation of the parkade for winter events, outdoor meals, BBQs, and coffee in the courtyard. Overall, outdoor spaces were used as a space to hang out with members both formally and informally. Refer to section 5.8 for detailed description of how outdoor common spaces were utilized.

5.7.3 COVID-19 TEAM

Two interviewees mentioned that their communities set up a Covid-19 team which kept up to date on provincial and federal health and safety mandates. One respondent mentioned that the team would submit health and safety recommendations to the cohousing residents, and during council meetings they would vote on whether to implement these new strategies. This helped to keep community members informed and on the same page.

5.7.4 SOCIAL BUBBLES

Another theme was the use of social bubbles. In total, 12 survey respondent and one interviewee mentioned the use of “social bubbles” as a way of maintaining connection during the pandemic. For residents living alone, or households who wanted to maintain social connections in a safe way they would create a “bubble” with on other group of close friends/ contacts.

5.7.5 PROFESSIONAL FASCILITATOR

The last theme was not found to be consistent across the data but was an intriguing strategy worth exploring as it provided a solution to the division caused by differing opinions on vaccines. As one survey respondent and one interviewee explained, when restrictions began to lift, their community arranged a facilitated dialogue session for its members. The purpose of this session was to prompt residents to voice any emotions that may have been unresolved due to the pandemic, as mentioned by the interviewee:

We certainly had the whole spectrum of beliefs about covid. There are some people who still haven't come out of their unit to interact with people in the same way as they did before. They're always wearing masks and they still don't feel comfortable. Whereas there's other people who only wore a mask when they had to, and actually felt resentful that they were being asked to wear a mask when other concerns that they had, say about their kids were not being met. So, that meeting was really useful at getting that out into the open, and sort of pointing out that you can't ask people to make these kind of adjustments if you aren't willing to make an adjustment on the other side of the equation. you know, and I think that was a growing up process for us (Interviewee 4).

6:0 ANALYSIS

As mentioned in section 4.0 of the literature review, there is limited discussion on how cohousing communities in Canada have been directly impacted by the Covid-19 pandemic. However, the significance of community for this housing tenure has been raised in numerous studies. This research delves into the concept of community within the context of cohousing and investigates the effects of the pandemic on community building through the analysis of surveys and interview responses. The subsequent section will assess these findings in relation to the literature review.

6.1 PROMOTING COMMUNITY WITH SOCIAL CONTACT DESIGN PRINCIPLES

Why do certain individuals gravitate towards community living? According to the literature “cohousing is a successful solution for people who are looking for a lifestyle focused on enhancing the social environment” (Giorgi et al. 2021, p. 4). Upon analyzing the data collected from surveys and semi structured interviews, both group of respondents expressed a positive outlook on social interaction. Of the 15 survey respondents, 14 cited a greater sense of community and increased opportunities for social interaction as one of the primary reasons for their interest in cohousing.

Cohousing can attract people from diverse backgrounds in terms of age, sex, religion, education, interests, etc. Despite the differences that may exist within cohousing communities, its success can be attributed to the commitment and effort of the residents in building a deep sense of community. As the literature highlights, cohousing residents are motivated to participate in activities that foster interaction and encourage social bonds with their neighbors (Bamford, n.d.; Cho et al., 2019). The interviews supported the crucial role of community connection in cohousing, as all participants unanimously agreed that a strong sense of community was one of the primary benefits of living in cohousing. The absence of community relations in conventional single-family dwellings is a significant impetus for the creation of new and innovative housing alternatives, such as cohousing that caters to human social needs. Cohousing emphasizes the

importance of community, which is one of its three main principles. To foster a sense of community, cohousing communities employ design principles that encourage social interaction. (Thankamoniyan & Jagadisan, 2011).

According to the literature, there are six key social contact design features that are particularly influential in creating strong community networks (William, 2005). As mentioned in section 4.3 these design features include:

- a. shared open spaces, which provide opportunities for communal activities that promotes social interaction among residents.
- b. peripheral parking, which helps to keep central areas free for communal activities and promotes pedestrian circulation.
- c. extensive common spaces, such as community gardens and communal kitchens, providing opportunities for shared activities and fostering a sense of community ownership.
- d. the centrality of the common house which helps to facilitate social interaction and community development.

To focus the scope of this project, I decided to center my research on the role of common spaces and how they contribute to building a sense of community in cohousing. This decision was made because of how critical common spaces are perceived in establishing and maintaining strong relationships and social bonds among residents. Throughout this project, I aimed to gain insight into how common areas contributed to developing community relations, taking into consideration the significant impact that the COVID-19 pandemic had on people's daily lives. My objective was to assess how the pandemic changed the way residents used common spaces, documenting any changes in design or use that was implemented in response to the pandemic. Furthermore, I was curious if changes to common spaces positively or negatively influenced the sense of community within cohousing communities.

6.1.1 IMPACT OF DESIGNING COMMON SPACES IN COHOUSING

The literature discusses the importance that the design and layout of common spaces play in promoting social relations. These spaces are designed to encourage frequent and meaningful

interaction between residents. One notable aspect of cohousing is the intentional design strategy of individual units (Bamford, 2001; Jarvis, 2011). As one interviewee articulated, the individual units in cohousing are typically constructed with smaller living space to allocate more room for common areas to cultivate a stronger living experience in cohousing. The extensive number of common areas is what differentiates cohousing from other co-living models. When survey respondents were asked if common spaces aided with building a sense of community, an overwhelming majority (73%) thought the spaces definitely helped. The feeling that common spaces helped in building a sense of community may be correlated to how frequent residents used the spaces. As it turns out, there was an identical percentage (73%) of residents that indicated using the common space *often*, prior to the Covid-19 outbreak. As a result, the frequent use of common spaces helped residents develop a strong sense of community which was then found to impact residents' sense of belonging. According to the survey, 60% of respondents reported having a very strong sense of belonging to their community.

A strong sense of belonging is connected to the common spaces and the opportunities created for social interaction and shared responsibilities. Based on the interview findings in section 5.5.1 the use of common spaces in cohousing communities promote a collaborative environment where residents share a sense of responsibility for the community's maintenance and management. This shared responsibility fosters a sense of ownership among residents, which further strengthens their connection to the community and their fellow residents. By recognizing the importance of common spaces in cohousing communities, planners, architects, and policymakers could start to incorporate similar elements into new housing developments. For example, multi-family developments could include common spaces for recreational activities, communal dining areas, rooftop gardens, etc. Such initiatives could be particularly beneficial in the issue of social isolation and loneliness that was prevalent in many urban environments prior to the Covid-19 pandemic and continues to be an issue.

6.1.2 CHALLENGES OF COMMON SPACES

A challenge one of the interviewees mentioned with cohousing and common spaces is the difficulty communities face in attracting a diverse range of ages. For example, families may be hesitant to live in cohousing because of the perceived lack of private space for children. This was

affirmed by one of the interviewees that mentioned there were noticeably fewer younger individuals in their community because the private homes are so much smaller in order to accommodate more common spaces. This is also found to be true in the cohousing literature, as it mentions that cohousing is predominantly being supported by groups of elderly people, who see living in a socially active environment as a solution to the isolation and loneliness that often accompanies old age (Giorgi et al. 2021).

As a result, cohousing communities may be skewed towards an older demographic, which can present challenges in maintaining common spaces, especially in more rural communities with larger areas of land. This was evident in this project, as the youngest age group of survey respondents ranged from 45 to 54 years old. Furthermore, all the interviewees were in an older age range, with one individual disclosing that they were nearly 84 years old. The success of a cohousing community is dependent on the willingness of all residents to contribute to the upkeep of common spaces. This can include tasks such as cleaning, cooking, gardening, among others which can be particularly challenging in communities with a higher proportion of older residents who may have physical limitations.

Although common spaces are an essential component of cohousing communities, it is important to recognize that this type of housing may not be an appropriate fit for everyone. Some individuals or families may prioritize having more private space and may not be interested in living in close proximity to others. For others, age and physical limitations can present as a barrier when partaking in a lifestyle that requires constant effort, physically, mentally, and emotionally. Nonetheless, the interviews conducted for this project have shown that cohousing is a lifestyle that aligns with the values of those who are interested in it.

6.2 INCREASE USAGE OF OUTDOOR COMMON SPACES DURING THE COVID-19 PANDEMIC

Prior to the Covid-19 pandemic, the literature placed less emphasis on differentiating between indoor and outdoor common spaces as both were considered essential when building community connections. In cohousing communities, the boundaries between indoor and outdoor spaces are

intentionally blurred, with the main focus on building relationships. However, in the wake of the pandemic, there is a growing need to pay more attention to outdoor common spaces. For many cohousing communities, outdoor spaces proved a lifeline when forced to shut down indoor common areas due to health and safety concerns related to the virus.

Surveyed and interviewed residents indicated that outdoor common spaces not only provide a safe alternative for socializing, but also helped maintain the well-being and mental health of community members.² Areas such as the gardens, greenhouses, courtyards, and terraces remained open for various activities, including gardening, outdoor dining, and birthday celebrations. As one of the interviewees explained, the community tried to spark a little bit of joy by utilizing outdoor spaces to bring residents together during a difficult time. Unlike people living in a multi-family developments, or even a single-family dwellings with access to potentially only 1 or 2 outdoor areas (backyard, park), cohousing residents had the advantage of safely sharing a variety of spaces with their neighbors. The benefits include a more dynamic community living experience, particularly during the pandemic, as residents were able to mitigate the feelings of isolation and loneliness by going outside to socialize and connect with their neighbors while maintaining physical distancing protocols.

6.3 THE IMPACT OF THE COVID-19 PANDEMIC ON COMMUNITY AND BELONGING

When survey respondents were asked to rate to what extent they believed common spaces played a role in fostering a sense of community during the pandemic, over half the responses suggested common spaces were unhelpful in that regard. The data revealed that 33% strongly disagreed and 27% disagreed that common spaces helped create a sense of community during the pandemic. There are several factors that may have contributed to the perception that common spaces were unhelpful in maintaining a sense of community during the pandemic. For example,

² Regrettably, the survey initially failed to differentiate between indoor and outdoor common spaces and used the general term “common spaces” for both type of areas. Interviewees were able to offer insights into the distinctions between indoor and outdoor common spaces. However, the survey questions did not explicitly distinguish between indoor and outdoor usage patterns. An open-ended question at the end of the survey allowed respondents to comment on how outdoor common spaces were utilized during the pandemic, with a few participants noting these differences.

shifting online and social distancing measures may have made it more difficult for people to feel engaged with their community. Additionally, the stress and uncertainty of the pandemic may have caused some community members to prioritize their own needs over those of the community further reducing the perceived importance of common spaces. Also, as mentioned in section 6.3.2 the anti-vaccine movement that arose in certain cohousing communities negated the importance of common spaces, as residents secluded themselves from others to avoid rising tensions.

6.3.1 STRENGTHENING COMMUNITY BONDS

When interview respondents were asked to describe their sense of community during the peak of the pandemic responses were diverse and varied. The variation in responses to this question is quite interesting. During the interviews two residents reported that the pandemic strengthened their sense of connection with their community, which is consistent with the findings from the existing literature. According to the research conducted by Giorgi et al. (2021), although the pandemic did affect common spaces and communal activities it did not necessarily lead to a decreased sense of connection among residents.

Potential reasons why include, first, the pandemic was a shared experience that affected everyone in the community. The experience brought people closer together and created a sense of solidarity. Additionally, Covid-19 also gave residents a sense of purpose and shared responsibility to keep the community safe and healthy. Second, cohousing communities often have a culture of mutual aid. This means that residents support each other during times of need. In the interviews, respondents mentioned that residents would organize to buy groceries for people in the community who were immune compromised, or for elderly residents who had mobility challenges. Third, the pandemic created new challenges that required collaborative problem-solving skills. Cohousing communities were able to work together to find solutions to problems like how to safely share common spaces, how to stay connected while physically distancing, and how to manage potential exposure to the virus. Fourth, the pandemic required constant communication between residents to keep people safe and informed. Cohousing communities started using technology and other tools to improve communication and stay connected, which helped maintain relationships and ensure people felt connected.

The pandemic served as a catalyst for strengthening community bonds, as it provided an opportunity for residents to collaborate and work together, which is a fundamental aspect of cohousing. Although the pandemic was still an extremely difficult time to navigate, cohousing communities may have been better equipped at handling challenges such as social distancing, isolation, and loneliness because of their fundamental principles.

6.3.2 POTENTIAL FOR DISUNITY WITH VACCINATED AND NON-VACCINATED RESIDENTS

The second theme that arose from the interviews was the challenges faced by certain communities due to the pandemic and the ensuing vaccine mandate. A few individuals in cohousing communities resisted complying with mandatory vaccination. These concerns may have stemmed from a variety of factors, including a certain level of distrust in government institutions, misinformation about the vaccine, or religious/cultural beliefs. However, since cohousing is built on the principles of shared responsibility, mutual support, and collective decision making, refusing the vaccination could have been perceived by fellow cohousing members as a failure to take responsibility for the health and well-being of the community. As one resident expressed, the anti-vaccination movement that occurred in their community eroded their sense of trust, cooperation, and support.

The pandemic literature did not discuss vaccination implications for cohousing communities. This could be attributed to several factors. First, cohousing is still a relatively uncommon housing tenure, and while it has been gaining popularity in recent years, it is still not as widespread as other forms of housing. Therefore, there may be fewer opportunities for researchers to study cohousing and its relationship to the anti-vaccination movement. Secondly, the anti-vaccination movement is a recent issue that has impacted Canadian society. Given the complexity of cohousing, researchers may still be trying to understand how the anti-vaccination movement impacted different elements of cohousing.

6.4 STRATEGIES TO MAINTAIN COMMUNITY

Similar to section 4.5 in the literature review, residents surveyed and interviewed for this project found innovative ways to remain connected throughout the worst of the pandemic. Many turned to technology as a means of connecting while also keeping everyone safe. With in-person meetings no longer an option, all of the interviewees stated that their communities turned to video conferencing platforms like Zoom to hold virtual meetings. This provided residents the opportunity to stay connected, and to continue making decisions together. Cohousing communities also began to hold social events virtually, using Zoom for game nights, movies nights, and other activities that would normally be held in person. As mentioned in section 6.3 residents were also heavily dependent on their outdoor commons spaces to continue safely socializing.

Another strategy mentioned in the literature, as well as the surveys and interviews was the use of social bubbles, sometimes referred to as pandemic pod, quarantine pod, or Covid bubble. This strategy allows small groups of people, usually single individuals to socialize while avoiding contact with people outside of their bubble to minimize the risk of exposure. The last strategy mentioned by one interview respondent was the use of a facilitator to help moderate the communities' feelings after lifting most of the safety precautions implemented during the height of the pandemic. With the division caused by the vaccine mandate, certain communities faced deep emotional wounds. The facilitator was a chance for residents to express their feelings in a safe environment in hopes of moving forward as a community. The interviewee emphasized how it was an important step in the healing process for the community to air everything out. They had faced the whole spectrum of emotions, especially in relation to the vaccination and masks mandates.

Cohousing communities were uniquely positioned during the pandemic to implement multiple strategies to help preserve their sense of community. In contrast, those living in housing tenures that did not prioritize social connections may have had limited access to support systems and community resources, which may have exacerbated feelings of loneliness. Schetsche et al. (2020) conducted a study that revealed residents of 34 cohousing communities in Germany

reported lower levels of depression and anxiety compared to residents in traditional neighborhoods during the Covid-19 pandemic. Prioritizing social connections in cohousing is shown to positively impact residents as it provides them with a sense of support and belonging.

7:0 CONCLUSION AND FINAL REMARKS

The aim of this section is to present a summary of the study's findings and to link these conclusions back to the original research questions. Moreover, this section will offer insight for potential avenues of future research that could build upon findings generated from this project. Finally, the section will conclude with a thoughtful assessment and final reflections.

7.1 ADDRESSING THE RESEARCH QUESTIONS

Q1. WHAT IS THE IMPORTANCE OF COMMON SPACES FOR COMMUNITY BUILDING IN COHOUSING?

Prior to the pandemic, common spaces were an integral part of creating and preserving the close-knit relationships that develop among residents living in intentional communities. Common spaces are hubs for socialization, creating opportunities for residents to bond and connect throughout the day. In addition to fostering a sense of community, common spaces also promote inclusivity. From group meals to game nights, common spaces facilitate a wide range of social interactions, helping strengthen the social fabric of the community.

Furthermore, common spaces were found to provide residents with a shared sense of purpose. Through joint efforts to maintain common spaces, residents experience a greater sense of ownership and responsibility for their community as they work to create a welcoming and enjoyable living environment outside of their personal spaces. The collective attitude of residents towards common spaces helps increase the community's sense of satisfaction and pride in their shared living spaces. Overall, the pre-pandemic era saw the importance of common spaces in nurturing social connections and relationships within intentional communities.

During the pandemic, utilizing outdoor common spaces was an essential strategy to preserving community connections. These outdoor areas afforded residents an opportunity to engage with one another, much like how they did before the pandemic. Common spaces were found to play

an important role prior to the pandemic in promoting social connections, building inclusive communities, and creating a shared sense of purpose among residence. Although the pandemic has altered in person interactions, alternative and creative methods of maintaining human contact have highlighted the importance of common spaces, specifically outdoor common areas as a safe and accessible way for people to come together.

Q2. HOW WAS COMMUNITY BUILDING AMONGST COHOUSING RESIDENTS AFFECTED BY THE COVID-19 PANDEMIC?

The pandemic shifted many aspects of life, including opportunities for socialization. Accordingly, cohousing communities were forced to react and adapt to changing provincial health and safety guidelines whilst also finding opportunities for connection to maintain community bonds. In brief, this research indicates that the pandemic did not necessarily negatively impact community building amongst all cohousing residents.

As the interviews and surveys highlight, the concept of community is one of the most important factors behind residents' decisions to live in cohousing. As a result, intentional communities such as cohousing have well established social networks. For certain individuals who took part in this project, the pandemic helped strengthen these bonds. According to interview data, four essential components helped strengthen cohousing residents' sense of community during the pandemic. They included:

1. A shared experience giving residence a sense of purpose
2. Culture of mutual aid in cohousing
3. Collaborative problem-solving skills against Covid-19
4. Constant communication to address everyday challenges posed by the pandemic

Every resident was affected by the pandemic in some aspect, creating a shared experience that in some communities brought the residents closer together. The collective experience required ongoing community dialogues to adjust to the evolving pandemic pressures. Not to mention, cohousing members swiftly developed appropriate strategies to protect residence, while also still ensuring that the core values of cohousing such as community building was still upheld.

Unfortunately, community building was not unharmed for all cohousing complexes during Covid-19. Several participants noted the severe damage that the pandemic, and more specifically, the vaccine mandate had on their communities. Personal beliefs in support of, or against the vaccine were circulated and shared amongst residents. The combination of proximity to one another and the social expectations of cohousing, lead to numerous conversations at involved the sharing of feelings and beliefs. As one interviewee highlighted, this challenge wouldn't necessarily be an issue in "traditional" neighborhoods, since there wouldn't be the same expectation to stop and socialize with your neighbors, the same way cohousing does. As a result, residents removed themselves from community events, and limited socializing with residents outside of their private space.

Q3. WHAT STRATEGIES HAVE BEEN USED TO BUILD COMMUNITY DURING THE PANDEMIC?

This question was addressed after conducting a thorough review of the literature and analyzing data obtained from survey respondents and interviewees. Weeks et al. (2022) reported that social engagement rose during the pandemic, as individuals formed social bubbles with cohousing residents and measures were implemented to facilitate shared meals, especially for single residents.

As described in section 6.5 of this research project, interviewees and survey respondents identified the following community building strategies:

- Pivoting to online methods of communication, such as Zoom, Slack, and Microsoft teams
- Creating activities through zoom (dance parties, movie night, dinner parties, etc.)
- Increase use of outdoor common spaces
- Creating social bubbles for families with children or single residents
- Addressing community feelings with the help of a moderator

The findings suggest strategies were developed to help cohousing communities navigate the ongoing effects of the pandemic and continue to foster a sense of community and connection among members.

7.2 FUTURE RESEARCH

There is minimal research on the Covid-19 pandemic and cohousing in Canada, leaving plenty of opportunities for additional research relating to the pandemic's social effects on community development. Future research could explore how provincial health and safety regulations affected cohousing developments, specifically looking at social isolation, loneliness, and mental health. Understanding how cohousing communities adapt in the face of such crises can highlight effective strategies and interventions that can be utilized to support the overall wellbeing of cohousing residents. Moreover, identifying individual and collective challenges, such as the impact of vaccine mandates on community cohesion can help inform targeted interventions that may better support cohousing communities.

Additionally, interviewees and survey respondents in this project emphasized the importance of technology, such as Zoom as a crucial platform for hosting online activities, meetings, etc. Additional research could provide a more detailed analysis of the role of technology and virtual communication tools in facilitating community building. There is also a lack of research on the experiences of vulnerable groups in cohousing, such as older adults, low-income households, and individuals with disabilities, who may be more susceptible to the social and economic impacts of the Covid-19 pandemic. There is a need for more comparative research to better understand how the Covid-19 pandemic has affected cohousing communities across different countries and cultural contexts.

Overall, more research is needed to understand the unique challenges and opportunities that the Covid-19 pandemic presents for cohousing communities in Canada. Further research could help communities create informed policies and practises that supports community connections and addresses other challenges identified from the Covid-19 pandemic.

7.3 CONCLUDING REMARKS

During the peak of the Covid-19 pandemic, people experienced prolonged periods of isolation. Alternatively, cohousing communities with their established community networks were able to provide residents with a sense of social connection and support. The findings of this study have important implications for city planners and policy makers to evaluate how designing for social interaction can positively impact the overall mental and emotional well-being of people.

Reimagining spaces to include social connection as a central component of urban design could help mitigate feelings of urban loneliness that have been prevalent even prior the Covid-19 pandemic. This study reinforces the need for common spaces in future developments and neighborhood plans as people navigate the long-term impacts of the Covid-19 pandemic on social connection and community building. By recognizing the value of shared spaces and prioritizing their inclusion in urban design, planners can start to approach planning in a way that not only considers the physical aspects of a community but also the social and emotional needs of its residents.

However, it's important to recognize the challenges associated with common spaces and that the relationships established in cohousing are not immune to conflicts and challenges.

This research revealed how the pandemic played a significant role in dismantling cohousing connections based off conflicting beliefs. Members used their cohousing platform to spread polarizing information amongst the community, creating deep divisions in the group. The unwillingness of some members to take appropriate measures to protect themselves and others from the Covid-19 pandemic severely impacted cohousing communities. The sense of trust and mutual support essential to the functioning of these communities was compromised.

Overall, this study has advanced our understanding of how cohousing communities coped during the Covid-19 pandemic. Hopefully, the data generated from this study can help planners and policy makers work towards creating inclusive and supportive communities through the use of common spaces to promote the well-being of all residents.

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Figure 1: Little Mountain Cohousing. (n.d.). Design [Photograph]. Retrieved March 28, 2023,

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Figure 2: Treehouse Village Ecohousing. (n.d.). Cohousing communities in NS.

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Figure 3: Cohousing Association of BC. (n.d.). Cranberry Commons. Retrieved March 28, 2023,

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Figure 3: Figure Treehouse Village Ecohousing. (n.d.). Cohousing communities in NS.

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APPENDIX A: INTERVIEW QUESTIONS

Introduction of the interviewee

Do you feel comfortable if I record this interview?

Can you please state your name, and where you live?

How long have you lived in your current cohousing community?

Co-living

Can you explain why you chose to live in cohousing?

What do you consider the advantages/ disadvantages of living in cohousing?

What are the common spaces that are available there?

Do you make use of them? If so, what facilities?

Can you describe how common spaces were used in 2019 and prior to the pandemic?

Can you describe how common spaces were used during the height of the pandemic in 2020?

Sense of Community

How do common spaces contribute to the sense of community here?

In 2019 and prior to the pandemic how would you describe your sense of belonging to your cohousing community?

How frequently would you socialize with your cohousing community members in 2019 and prior to the pandemic?

In 2020 and during the height of the pandemic how would you describe your sense of belonging to your cohousing community?

How frequently did you socialize with your cohousing community members during the height of the pandemic in 2020?

What impact has COVID-19 had on community building and social interactions in your cohousing community?

Did the pandemic affect this sense of community? How so?

What strategies have been used to build/ maintain community during the pandemic?

In facing the pandemic, how do you think co-housing compared with traditional housing?

If you were considered a front-line worker, did this impact how you used the common spaces?

APPENDIX B: SURVEY QUESTIONNAIRE

1. Province cohousing is located
2. Number of residents in your cohousing community, including yourself:
3. What attracted you to cohousing? Select all that apply.
 - a. Low cost/ affordability
 - b. Location
 - c. Sense of community
 - d. More opportunity for social interaction
 - e. Other:
4. What are the common spaces available at your cohousing community? Select all that apply.
 - a. Kitchen
 - b. Dining room
 - c. Living room
 - d. Gym
 - e. Outdoor garden space
 - f. Other:
5. In 2019 and prior to the COVID-19 pandemic, how often did you use the common spaces (kitchen, dining room, living room, gym, outdoor garden space, etc.)?
6. During the first wave of the pandemic from March 2020 to June 2020 how often did you use the common spaces (kitchen, dining room, living room, laundry room, gym, outdoor garden space, etc.)?
7. With less severe Covid restrictions in Canada, how often do you use the common spaces now?
8. Please indicate to what extent you agree with the following statement: Prior to the beginning of the COVID-19 pandemic (March 2020) the common spaces helped with building a sense of community.
9. Please indicate to what extent you agree with the following statement: During the first wave of the COVID-19 pandemic from March 2020 to June 2020 the common spaces helped with building a sense of community.
10. During the first wave of the COVID-19 pandemic from March 2020 to June 2020 did your cohousing community implement any control and prevention measures?
11. Please describe if any strategies were used to build/ maintain community during the pandemic?
12. How would you describe your sense of belonging to your cohousing community before the pandemic in 2019 and prior?
13. How would you describe your sense of belonging to your cohousing community now?

14. Please indicate to what extent you agree with the following statement. Living in co-housing has made it easier to face the pandemic compared to people living in traditional housing.

15. If you were considered a front-line worker, did this impact how you used the common spaces?