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'A Slow Build-Up of a History of Kindness': Exploring the Potential of Community-Led Housing in Alleviating Loneliness

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Abstract: This article explores the potential of community-led housing (CLH) in combatting loneliness, and represents a mixed-methods research project carried out from just before the beginning of the pandemic, through 2020. Methods comprised a nationwide quantitative online survey of members of CLH groups (N = 221 respondents from England and Wales), followed by five case studies of communities representing a range of different CLH models. This qualitative element comprised participant observation, and semi-structured interviews at each group. The article also considers data from a smaller research project carried out by the same team in July 2020, that aimed to capture the experience of the pandemic for CLH groups, and comprising an online questionnaire followed by 18 semi-structured interviews. We conclude that members of CLH projects are measurably less lonely than those with comparable levels of social connection in wider society, and that such benefits are achieved through combinations of multiple different elements that include physical design, social design and through social processes. Notably, not all aspects of communities that contribute positively are a result of explicit intentionality, albeit the concept is considered key to at least one of the models.



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1. Introduction

Social isolation and loneliness across the life course are persistent social and public health problems that have come to public attention in a more dramatic fashion since COVID-19-related lockdowns began in 2020. While there is evidence that well-designed, specialist supportive housing environments can contribute to greater wellbeing and social connectivity for older people (see for example [1–3]), there has been less attention paid to the potential role of non-institutional housing innovations that can contribute to combating social isolation and loneliness, and that includes all age groups. Community-led housing (henceforth CLH)—an umbrella term that encompasses different approaches including community land trusts (CLTs), cohousing, cooperatives, self-help and self-build housing—brings together models that share an emphasis on resident autonomy, community collaboration and inclusion and may have the capacity to reduce social isolation across residents of all ages. Cohousing in particular has long been positioned as rooted in a response to a perceived lack of social interaction in neighbourhoods at a local level, and that such projects might support greater mental and physical wellbeing through mutual sociability [4–11], with Meadows [12] referring to cohousing's origins in Denmark as being 'a reaction to the loneliness and expense of unintentional communities'.

While there is a growing literature on the social dimensions and potential benefits of the cohousing model specifically, it mainly comprises small, qualitative, studies of single cases, which primarily examine the levels of social interaction and the supportive bonds that are formed within groups through the framing of social capital (see for example [13–24]). Two social studies that are rare in collecting quantitative data about cohousing [4,5] in which the authors surveyed and/or interviewed more than 700 members of groups in Denmark and Sweden, conclude that in comparison with the wider population there is a greater degree of socialising and time shared with neighbours, and that members enjoy good or at least better health into old age. In addition, members reported feeling that there was greater mutual support generally than in conventional housing (although this was not empirically measured). Markle et al. [18] in a study of members of multiple cohousing groups across the USA did compare experiences of social support between 60 members of groups and 65 individuals who expressed an interest but had not joined a group, finding ‘significantly more socially supportive behaviors than their non-cohousing peers’ [18] (p. 616).

The literature on other models that fall under the CLH umbrella, such as community land trusts and co-operatives, has predominantly framed these as a response to housing market failure or to lack of access to decent housing by certain social groups (see for instance [25]). While there are exceptions (for instance [17]) in which the authors find greater levels of social capital in community-led co-operatives in comparison with that found in housing developments created and managed by others,—a note of caution should be sounded on the definition of different models. In one scoping review, [26] the authors note that there remains no consensus on definitions, in part a reflection of the complexity of different models and terms in use across different countries. These definitional issues are discussed below. Notwithstanding this, the primary finding of both the research noted above [26] and another similar scoping review [27] was that there remains a dearth of empirical data beyond individual case studies, in particular those making comparisons with non-cohousing samples, or larger-scale quantitative studies.

This need for further research in the field chimes strongly with the UK government’s strategy for addressing loneliness and social disconnection [28]; this project was commissioned by the Ministry of Housing, Communities & Local Government (MHCLG) in 2019 to examine whether community-led housing (and cohousing in particular) has a positive impact on loneliness for its residents. This presented an opportunity to quantitatively measure the impact of CLH in the context of loneliness through a large-scale survey of CLH members in England and Wales. Although the primary lens was the concept of loneliness, the research also included a series of case studies through which we were also able to explore the various aspects of different CLH models that might underly the survey results.

In a systematic conceptual review of the literature [29], the authors note that loneliness is a subjective state, not automatically arising from physical or social isolation, but from a perceived deficit in comparison with an individual’s expectations. But it is also a highly complex—concept, increasingly understood as an outcome not just of household makeup or life stage (e.g., working or retired) but also as related to social class, gender, ethnicity, sexual orientation, physical environment and thus unlikely to respond to simplistic or single-approach interventions [29–32].

Defining Community-Led Housing

While in the case of cohousing, there have been attempts to reach a standardised definition (cf. [33]), as noted above there remains a lack of consensus on the exact models described by the various terms that fall under the CLH umbrella; it is our own experience as researchers that terms such as ‘cohousing’ or ‘co-operative housing’ might have quite different interpretations in different contexts, or even both be used to describe a single project. Our own definition of CLH was a broad one, which included cohousing, community land trusts (CLTs) and housing co-operatives, as well as other models of self-help and self-build housing. These are not mutually exclusive: a cohousing community may lease its housing from a CLT for instance, and there are as many different models as there are

projects in terms of built form, legal structures, approaches to shared decision-making etc. While CLH is best understood therefore as a broad spectrum or ‘ecology’ of different forms and approaches, it remains important in the UK context of this research to briefly define key features of the main different forms.

Cohousing comprises intentional, collaborative, resident-led, self-managed communities, having both private homes and shared spaces, with a commitment by its members to share resources and common activities. Cohousing is physically and socially designed to encourage interaction, neighbourly social contact and mutual support in everyday life [21,34].

Community land trusts are set up and run by ordinary people to develop and manage homes (or other assets) on behalf of that community [35]. The trust is a legal entity, and in the case of housing is usually a response to a lack of affordability in a particular area. While schemes are not necessarily designed for social interaction and residents are not required to commit to a set of shared values as in cohousing, the housing is generally of better quality than speculative housebuilding and has greater resident and local input into design [36].

Housing cooperatives are democratic, not-for-profit organisations run for and by their members, often with ownership or significant control over the co-operative’s housing. While the history of housing cooperatives in the UK stretches back 200 years, legislation and public funding in the late 1970s triggered a rapid growth in the sector. Despite a later decline in funding [36], there remain nearly 700 housing cooperatives across the UK, with a majority having been in existence for decades [37].

Not all types of CLH are as avowedly oriented to shared living, but they may nonetheless have a positive impact on loneliness and sociability. *Self-help and self-build housing*, for example, (the former comprising homes either physically built, or developed by, a community, the latter generally referring to groups bringing disused buildings back into use as homes) may reduce loneliness by enabling future residents to bond through mutual help and learning, although their occupancy models may not be designed to sustain ongoing resident interaction [38].

Some schemes were deliberately excluded from the study on the basis of scale and degree of participation, but which might be considered as CLH in contexts other than loneliness and social connection. Larger co-ops (which can have many thousands of homes) were excluded, limiting the scope to only those of a size able to support significant autonomy, collaboration and inclusion as a single neighbourhood (i.e. of a comparable scale to the cohousing model [8]). A small number of community land trusts were also excluded, where (as far as we were able to ascertain from initial online searches) residents had played no role in the development or management of the scheme, and had no participation beyond being recipients of affordable housing.

2. Research Methods and Approach

The research comprised a mixed-methods approach: first, an online survey to gather data on the impact of CLH on loneliness, using self-reported measures. It invited responses from residents either living in or participating in CLH (N = 221 respondents, across 93 communities in England and Wales) and ran from March–June 2020. Survey invitations were issued via all the CLH groups that could be identified, primarily through data held by key umbrella organisations, member networks and online searches. Responses were invited from individual members rather than as representations from groups.

The survey included free text response options but collected primarily quantitative data, including three questions drawn from the UCLA loneliness scale (a standard tool for assessing loneliness) and which allowed us to responses from CLH participants with those from the general public, by drawing on national surveys that included the same questions, both before and during the pandemic.

The second, qualitative element took the form of five case studies, designed to explore *why* and *how* involvement with CLH might impact loneliness. Qualitative data collection included semi-structured interviews, as well as site visits and participant observation. The case study fieldwork begun in March 2020, was halted due to pandemic restrictions, then resumed through the summer of 2020 primarily via video calls, but also incorporating other approaches such as video tours conducted by residents.

This paper also draws on data from a small follow-on study of 18 groups contacted via our main survey responses and carried out from March to July 2020 by the same research team, to capture the experience of the pandemic restrictions for different CLH communities [39,40]. The study was supported by the National Institute of Healthcare Research School of Social Care Research as independent research.

3. Results: Quantitative Data

Of the total respondents, some 54% were living in a CLH community; the remainder were members or supporters who were not currently living in CLH, as well as a very small number who lived in CLH in the past but no longer do. Most of those not living in CLH were working towards it. At an early stage of the research we did consider using the latter group as a control, but given that involvement in the group was likely to also correlate with reduced loneliness, we moved instead to compare with the wider public. Cohousing accounted for the largest proportion by far, with 61% of respondents saying their community or group was cohousing. Of those currently living in CLH, about three-fifths had been resident for ten years or less. Overall, respondents tended to be middle aged and older, with the highest number aged 60–69. About 31% were single. Most households consisted of single adults or couples; only 19% of respondents had resident minor children. Nearly two-thirds of respondents were women.

Respondents reported relatively modest incomes, with a median household income in the range of £ 20,001–£ 30,000 per annum. As a group they were well qualified: 72% had at least a university degree (vs 42% in the UK adult population as a whole), and of those most had graduate degrees. More than 80% were originally from the UK or Ireland, and 93% were white (including Irish).

In answering our central question of whether CLH has a positive impact on loneliness for its members, the inclusion of questions from the UK Government's Community Life Survey in our questionnaire enabled us to compare CLH participants' experience of loneliness, social interaction and participation with that of the wider population (It is possible that responses to some of the survey questions were conditioned by the restrictions on face-to-face contact during the first lockdown of the pandemic. For example, respondents might have reported less frequent meetings in person with families and friends, or a lower degree of agreement with 'Generally, I borrow things and exchange favours with my neighbours'. We do not believe this affects the conclusions of our survey analysis, as only a few questions were worded in terms of face-to-face contact. In any case, if some respondents would have answered differently in 'normal' times that would strengthen the association between CLH and loneliness reduction, rather than weaken it.) [41]. The quantitative analysis used a standard evaluation technique to compare the 'treatment' group (CLH participants, including both residents and participants) with the 'control' group from the Community Life Survey, but crucially we needed to take into account that CLH itself potentially represents a self-selecting process for those who tend to be more active, sociable people in general. With this in mind, we selected the treatment and control groups through a Propensity Score Matching (PSM) technique, with the propensity score expressing how likely a person is to take part in CLH based on observed socio-demographic characteristics and lifestyle. Our control group was selected based on similar levels of sociability to the treatment group, as measured by their participation in clubs and organised social activities.

Using the matching technique described above, we paired 160 participants (of which 84 were residents) with matching individuals from the Community Life Survey, then compared the treatment and control groups econometrically. These figures differ slightly from the numbers reported earlier, and may vary across the items compared, as exclusion or imputation of missing values affected the sample sizes. We conducted one set of tests comparing all CLH participants (160 individuals) to the control group, and another set of tests comparing the subset of CLH residents (84 people) to the control group. Two kinds of econometric tests were undertaken—a chi-square test and a McNemar test. The chi-square test is especially appropriate for looking at distributional differences across categorical variables, for example, where there are several possible responses to a question (e.g., agree, tend to agree, tend to disagree, disagree), and for situations where the treatment and control groups are independent of each other. It is often used for PSM comparisons. If the values in the two sets were equal (unlikely in practice), then chi-square would be zero and the test would indicate that there was no difference between the two groups in terms of the distribution of that variable. The higher the value of the chi-square test statistic, the greater the difference between the two groups, both of which look for correlations between two sets of data. The chi-square and McNemar analyses gave almost same conclusions with regard to statistical significance.

Table 1 summarises the results of the 48 statistical tests conducted. Each coloured cell summarises the results of both chi-square and McNemar tests. Green cells indicate that CLH performed better on these variables: participants reported less loneliness/more communication and trust than the control group. Amber cells indicate that there was no significant difference in loneliness, communication or trust between CLH and control. Red cells indicate that CLH participants reported significantly lower communication and trust for these variables than the control group.

The results strongly indicated that people involved in CLH, whether residents of CLH communities or not, were significantly less likely to feel lonely than similar members of the general public, but also that they enjoyed more social interaction (mainly within their groups) and were more mutually supportive, than the wider public generally.

It is perhaps more surprising that survey participants had *less* contact with family and friends than the wider public, especially after moving in. Further, while it seems that CLH members had significantly more trust in their neighbours and immediate neighbourhood than the wider public, those members currently living in schemes said they engaged less with neighbours beyond their CLH community than the wider population. In part these results may reflect the phrasing of the questions against an implicit displacement effect, i.e., that some family members, friends and those considered to be neighbours may also be a part of the CLH community, but is considered further, below.

Exploring further the interaction within groups, 83% of respondents said that decision-making in their community or group was 'very participative' or 'participative', and the survey showed strikingly high levels of participation in almost all types of group activity listed. Meetings were the most important activities during the period before moving into a scheme; when residents were living in a scheme they generally continued to take part in meetings but less frequently, replaced in part by the more practical requirements of running their communities, including cleaning, group meals and gardening.

Table 1. Summary of test results comparing CLH participants (participants and residents) to control group.

Key:	Significantly Less Loneliness/More Communication and Trust in CLH Group Than Control	No Significant Difference in Loneliness, Communication or Trust between CLH and Control	Communication and Trust Significantly Less in CLH than Control	Statistical Significance of Diffs ++ or – Strongly Significant + or - Significant ± not Significant
Category	Specific Questions Compared *			All CLH Participants Of which Residents
A Loneliness and socialising	How much of the time during the last week did you feel lonely?			++ ++
	To what extent do you agree or disagree with the following statement?	If I wanted company or to socialise, there are people I can call on		± +
		If I needed help, there are people who would be there for me		± ±
B Communication with family and friends: 'On average, how often do you ... ?'	Meet up in person with family members or friends			± –
	Speak on the phone or video or audio call via the Internet with family members or friends			– –
	Email or write to family members or friends			+ +
	Exchange text messages or instant messages with family members or friends			± ±
C Neighbours and the neighbourhood *	How strongly do you feel you belong to your immediate neighbourhood?			± ++
	How often do you chat to your neighbours, more than just to say hello?			± ++
	How strongly do you agree or disagree with the following statement? Generally, I borrow things and exchange favours with my neighbours.			– ++
	How comfortable would you be asking a neighbour to keep a set of keys to your home for emergencies, for example if you were locked out?			– ++
	If you were ill and at home on your own, and needed someone to collect a few shopping essentials, how comfortable would you feel asking a neighbour to do this for you?			± ++

* Wording of questions taken from Community Life Survey.

4. Results: Qualitative Data

Drawing on the qualitative data from both the survey, case studies and the additional COVID-specific research, we were able to explore a number of physical and organisational characteristics of CLH that seemed to support a strong level of social connection and which militated against social loneliness for members.

Our five case studies allowed us to further explore the underlying themes beneath these overall positive results, to better understand what factors contributed to these but also the challenges inherent in maintaining such communities. The case studies were selected to reflect (as far as possible for a small selection) the wide variation in community-led housing models, with groups of differing age profiles, years established, level of intentionality, design and housing arrangement, forms of ownership and tenure and geographical location. Table 2 summarises the five case study communities.

A number of key themes emerged from our data in terms of the different aspects of communities and members' shared lives that directly or indirectly impacted on loneliness, and are set out below. Few of these themes or community attributes were regarded by residents as distinct from each other, but rather coalesced to different degrees within each community in ways that reflected an underlying sense of belonging, of being part of a supportive group.

4.1. Organised Social Activity, and Community Building as Shared Project

Many of the groups actively managed aspects of the community's social life and well-being, with working groups dedicated to health and wellbeing, or to communal activities such as regular common meals, culture and exercise (e.g., walking, wild swimming, yoga, tai chi). Such activity was by no means limited to the cohousing groups, whose ethos is based around a formal commitment; both Community 3 and other housing co-operatives included in our COVID research took similar approaches, having groups dealing with issues of equality, diversity and inclusion, and taking issues of wellbeing even as far as financial support for members struggling during the first pandemic lockdown. Further, to different extents all of the groups require members to come together periodically due to legal commitments around self-management, e.g., the formal constitution of a co-operative and its responsibility to its members and property upkeep, or of shared assets such as land freehold or joint ownership of shared elements.

But for nearly all groups, it was clear that the shared project of *creating* the community had also built strong social bonds. In the case of Community 2 (senior cohousing), the struggle to create the scheme lasted almost two decades, with members working together to secure funding, find (and lose) sites, development partners and more, creating a very close-knit community that was notable for acts of mutual support among members long before finally moving in together. For Community 5, the original sense of community was generated through the shared experience of planning and self-building. Even for the residents of the CLT (despite having a much shorter history together and not being the project instigators) working together to self-finish the properties played a strong role in shared identity and social connection.

In all the schemes there were degrees of common history, as each had some members who had moved in relatively recently, but at the other end of the 'scale' to the newer groups, one member at the housing co-op (Community 3) noted how:

We have people who've been living here since the 80s, people whose families have grown up here, people who've lived here in the 80s, moved away and then have moved back, we've got families, three generations who've grown up here or people who live here and their children still live in the area, so we've got that kind of a core of continuity.

Table 2. Five case study communities.

Project	Location	Model	Description
Community 1	North-west England, rural	Cohousing	A purpose-built rural eco cohousing community completed in 2012, with approximately 65 adults and 15 children living in 41 terraced houses which mainly front onto a single pedestrianised street. In addition to shared elements often found in cohousing (a common house with a dining room and kitchen, shared office, laundry and guest bedroom), the scheme also has a two-storey co-working, studio and event space.
Community 2	London, urban	Cohousing	The UK's first senior cohousing development, completed in 2016, and very much an intentional community, with 26 residents sharing a strong commitment to agency, self-determination and mutual support in older age. The scheme comprises 25 flats that enclose a communal garden, in turn connected to a second garden area for vegetable growing.
Community 3	North-east England, urban	Housing co-op	A fully mutual co-operative in which all members are tenants (and vice versa). Founded in 1977, it consists of 28 refurbished properties, mostly terraced housing on three street in an inner-city location. There are about 45 residents, in a mix of family houses, studio apartment conversions and shared houses for single adults. There is a common garden and two shared spaces—a meeting room with kitchen and a small office).
Community 4	South-west, suburban	Community land trust	Completed in 2016, the development is the first project by a local CLT. It comprises six new-build family houses and six one-bed 'duplex' flats in a converted school building. The housing is arranged communally with all units facing onto a central shared garden, maintained by the residents. The CLT is a membership organisation enabling people who struggle to access the traditional housing market obtain good quality sustainable homes with secure tenure: five flats are for social rent, the remaining homes were sold as shared-equity leaseholds. All residents contributed 'sweat equity', self-finishing their homes to offset some of the cost of buying or renting.
Community 5	South-west, urban	Self-build, owner-occupied	The project began as an alternative, self-build, response to a proposal by a volume housebuilder, in competition for a two-acre site in a central city location. The site was bought jointly by the whole group, with individuals building their own home, 39 in total (a mixture of flats, bungalows and family houses). Most have a small garden, with all the homes sharing a central common garden maintained by residents. The development is managed according to a set of shared values centred on environmental sustainability, cooperation and collective decision-making. While incoming residents tend to share those values, there are no formal eligibility criteria for owners or renters.

The quote hints at another commonality that strengthened group identity—that of specific generations, and in particular young families raising children together. At the CLT-led Community 4, which in some ways might be regarded as a much less socially close community than some others in our study, children played a very strong role (the residents overall are relatively young, with fourteen children across twelve households), with one resident noting that:

Four (children have been) born, including mine, since we all moved in. For them, it's like a gang, they've all grown up together and they all look out for each other, including [resident's own toddler]—he toddles out to join them too. It's an idyll really, they just roam freely around the garden here, they make camps, and the park, that's their territory, we know they're all fine. I wish I could've had a childhood like that.

As importantly, the same resident described how much she had benefited from her immediate neighbours support as 'kindred spirits' through what she felt had been her own potentially very isolating time as a young mother.

Thus, it was clear that time and a shared focus or project are two intrinsically entwined aspects that underpinned the social bonds within each community. It was perhaps unsurprising that many interviewees emphasised that supportive relationships do not spring up spontaneously; according to a resident of Community 1, they are the result of 'a slow build-up of a history of kindness.'

It is also important to acknowledge that—especially where social connection is rooted in 'generational' experiences such as a cohort of young parents, levels of enthusiasm and commitment can wane over time, given the amounts of energy, time and willingness to compromise that were evidently demanded by CLH membership. In some groups—particularly those on the less 'intentional' end of the spectrum—tensions could arise because not all residents valued community to the same degree:

Many of us living here definitely value community, some of us had done community stuff before, and it felt like a conscious thing, like this is what I'm stepping into. Whereas (for) some people it was affordable housing and that's it, and that makes a bit of a dance to navigate. [Resident, Community 4]

Yet a similar concern was expressed by cohousing residents: that new recruits might be attracted by the quality or affordability of the housing but less committed to the founding ideals of the group might dilute the strength of community and risk undermining the ethos of mutual support in later life.

The finding also hints at broader underlying questions of commitment, participation and even exclusion. If we assume that participation in the activity described in this section plays an important role in alleviating loneliness for group members, is the benefit therefore less available to those who are unwilling or unable to participate to the same extent, or are even rejected by other groups members? Data were lacking from those who participated less in groups—perhaps in part due to the self-selective nature of participation in the research. However, an issue around security of tenure for some groups reminds us that there is not always equality of access to participation in some settings. While the senior cohousing project, the housing co-op and the CLT offer security of tenure for renters (usually on the basis of secured social tenancies), residents of the other two schemes included private renters, often younger people who were not project founders. At Community 5, where the original motivation was self-build rather than pursuing an egalitarian ownership model, some of the original owners had moved on and rented out their homes privately; one renter noting how:

You can't commit too much to an area or a community or anything because you know that it's not a permanent thing because you're renting. I wouldn't plant any vegetables in the garden because I know that I'm not going to be here in a year.

4.2. Physical Design for Interaction and Use of Shared Space

A key characteristic of many (though not all) CLH communities is the purposeful design of environments that support social interaction—both casual everyday interactions and more formal socialising—while maintaining privacy. Of the case studies, the cohousing communities in particular featured common spaces designed for community use, as well as design features intended to increase social interaction. Some other case-study groups had similar facilities (e.g., Community 3's common room).

In communities where residents worked with architects in the co-design process, one of the main aims was often to achieve a balance between communal and individual spaces. At Community 1 (cohousing), for example, the kitchens all look out onto the narrow pedestrian street, where children play and residents chat. The public/private split is often not ready-made but achieved over time, as residents learn what works best for their everyday environments and enact informal DIY tweaks as a response. Two quotes from different members of Community 1 illustrate both the more formal and less formal possibilities of social design:

We don't have washing machines in our house and the post boxes are all in the store in the common house, so for those kind of essential services you have to leave your house and all come to the same place. That's a way to see people from the rest of the project [. . .] and it's nice just to bump into people, to have that everyday contact.

Since I retired, I've decided I would go and read a book for an hour outside the common house every day, just so that I would get some random connections.

Although residents at the CLT (Community 4) lamented the lack of an indoor shared space, the scheme, with its housing facing inwards to the shared garden and a single point of entry for all residents, clearly supported collaborative social activity. It was also notable that residents felt possessive of the garden space as clearly belonging to the community, in part as a shared 'territory' for their children (see above). Community 5's distinctive architecture and tight around a single site similarly created a sense of a defined community, but also like Community 4, a shared central garden space similarly provided a focus for shared activity.

The importance of physical design was further emphasised by a scheme from our additional COVID research project. Built in the late 1960s in the physical form of cohousing in a garden suburb location north of London, the scheme has extensive shared spaces (even originally including a nursery) and a distinctive style and physical boundaries that mark it as separate from the surrounding suburbia. This small defined neighbourhood produced a tight-knit organised community response to the pandemic but also a broader sense of community, despite there being no other attributes that might define the project as CLH. Indeed, one obvious but easily overlooked aspect of CLH schemes is the simple fact of living in close proximity in a neighbourhood whose residents recognise it as such. Many residents from our surveys and case studies moved to CLH in search of close community—in some cases of a kind they had never experienced before. Some interviewees told us they had previously lived in places where they were physically or geographically isolated, or had no close connections and felt socially alone.

By contrast with these findings, while members of the housing co-op (Community 3) made good use of their common room for informal and formal events, they were notable as being the scheme whose boundaries were the least physically defined: the co-op's accommodation is largely formed of existing terraced housing, thus largely invisible and interspersed with other non-co-op housing. While members often noted social ties with other residents in the immediate neighbourhood who were not part of the co-op, it was clear that they also had strong ties with their fellow members that were not predicated on being physically neighbours. Members of one housing co-operative (included in interviews for the COVID study survey) described close continuing links through the first pandemic lockdown with a household within the co-op but that was 'a twenty minute walk away'.

4.3. The COVID Pandemic, and Mutual Support

With the first COVID-19 lockdown beginning a few weeks into our fieldwork, we were unexpectedly faced with the opportunity to explore how CLH communities, with their emphasis on social connection, fared socially during a period of enforced apartness. We hypothesised that with their shared values and well-developed self-management systems, they might be more resilient than most residential environments. We explored this working hypothesis with three qualitative, open-ended questions added to the survey on 24 March (the day after lockdown was imposed), as well as with questions and discussion during the case-study interviews.

The nature of CLH—with its broad emphasis on shared activity and use of shared spaces and resources—meant a significant impact to the way of life of groups, including the suspension of social activity at least indoors. Government rules on social distancing were sometimes difficult to interpret for groups, especially where there was housing in multiple occupation, and in some cases led to conflicts or anxieties about how the community should respond. But there was a strong sense overall that living in a CLH community made the conditions of the first pandemic lockdown more bearable, especially for those who lived alone. Respondents also said that, because of the existing infrastructure of CLH communities they were better able to source food and other help, and that it made it easier for them to support other members who were self-isolating; the benefits flowed from communities' collective ability to self-organise and set up effective mutual aid networks, and which in many cases already existed in some form.

Three of the case study communities adopted formal responses to COVID. At Community 1 for instance, they adapted an existing system of support that grouped adjacent houses in a cluster to look out for each other, while a few members of Community 3 set up a COVID mutual aid group for the wider neighbourhood. Community 2 formed a COVID group to guard against social isolation for members who were shielding or otherwise alone.

One of the ideas (was to) form almost internal bubbles which we would call health buddies, so each of us opted to choose two or three people to literally keep an eye open for you. Where you are in the building might have an impact on that, for example I'm with Carol and Luna and I can see both of their flats from where I live, so if the blind isn't up I know something's wrong. [Community 2, senior cohousing]

But it was also clear that the mutual support between members predated, and went beyond, the experience of the pandemic. Moreover, while much of the day-to-day social support that we collected data on reflected the 'little connections' previously noted, there was also support in groups of members facing far greater challenges, and even supporting members in their final days:

(The group has) had the experience of somebody getting cancer and dying, that's the first one, and they did it really well. They formed a little working group around this person and supported him and they kept him in his own flat till about ten days before he died, and he transferred to a hospice and the people at the hospice said, 'How on earth have you managed this up till now? He's so ill.' We're learning all the time. [Group name withheld, non-case study resident]

This last quote, while perhaps informative as an example of how far mutual support within groups might extend in some cases, also belies the smaller scale of the 'everyday' practical but also emotional support that existed among members of groups. Indeed, a strong theme from both many survey respondents and case study interviewees was the importance of knowing that others were around if needed, for a chat, a coffee, or just to say hello to. As one resident put it, in discussing how they felt less lonely through a sense of belonging within their community:

[It's] those little connections, especially a shared project, doing something together, it feels very different from a kind of classic middle-class street with

hedges and fences and front doors where you mark the separation. [Resident, Community 1]

5. Discussion and Conclusions

The survey quantitative results indicated that membership of community-led housing projects (whether residents of CLH communities or those involved in other ways) had a significant positive impact on levels of loneliness. Our evaluation method controlled for the possibility that members of CLH projects might be more socially engaged than average by comparing them to members of the general public from a comparable demographic, and who were equally involved in social and community activities.

Given the level of collaborative time and commitment required in creating CLH schemes, it is perhaps unsurprising that being a member of a project at an early stage might be as effective against loneliness as living in CLH later on. At the same time, it should be acknowledged that the effect of such formative stages [42] are by their nature not sustainable, as groups cannot remain in formation indefinitely.

Also notable was that although survey participants appeared to have below-average contact with family and friends, they felt less lonely. In part this might be a matter of definition: some family members and friends might also be members of the same group. But it is also possible that the self-selecting aspect of group membership reflects either fewer or remote familial or friendship connections (with CLH perceived as a remedy) or even a preference for the different kind of relationships that CLH provides (especially in later life, cf [43,44]), and which is further discussed below.

Beyond the specific theme of loneliness, one key finding from both the survey and the case studies was that CLH members had more trust in their neighbours and immediate neighbourhood, sometimes expressed as a greater sense of belonging. One possible exception was the finding that there is *less* social engagement and trust in neighbours who are not part of the CLH group itself. We were unable to draw a clear conclusion on this point, but there might be a discrepancy inherent in the wording of the research questions necessitated by national comparison: on the one hand there is a displacement factor that—especially for rural CLH groups—the most immediate neighbours *are also* group members, displacing those who might otherwise be close neighbours.

In terms of the importance of physical design, Communities 3 and 4 appear to present a contradiction: on the one hand that design is not necessarily so significant for sustaining a community, with members having stronger connections within the co-op than to other neighbours. On the other, Community 4's experience seems to suggest that scale and design *are* important factors, with the project very distinctly defined against its surroundings, and with members knowing all their neighbours even when intention is (largely) absent. The situation perhaps resonates with Chiodelli's critique of cohousing as a form of gated community [45] (albeit Community 4's model is a community land trust, in this context the comparison of the two models can be considered valid), with cohesion developed at the expense of integration into the wider neighbourhood. Although the quantitative data hints at this in terms of social connection with neighbours, the limitation noted previously would suggest the benefit of further research on this theme.

An acknowledgement should also be made regarding the diversity of CLH membership. It is true that respondents were predominantly older, white and well educated, and which may to some degree reflect the strongest response from members of cohousing groups; housing co-operatives in particular might be expected to have the most diverse membership of the models in terms of income at least, whereas without government support in England and Wales, cohousing as a model remains difficult to access for many, especially social renters. Yet overall, our findings—which included drawing on the many responses beyond the core case studies—indicated supportive communities that were more diverse than might be assumed. More than one scheme exhibited a high degree of flexibility and understanding for members experiencing periods of mental ill health or drug misuse, offering the kind of informal support that is rarely a feature of mainstream housing. CLH

communities have also been notable as a particularly supportive environment for groups such as LGBTQ people who are often marginalised, —especially in accessing suitable housing in later life [46].

Our case studies identified that there are many ways in which a sense of belonging and strong community is created or arises, and which in turn help to alleviate loneliness for their members—through physical design, through social design (explicit values enshrined in formal policies and governance arrangements) and through social processes (housing activism and self-building, but also exercising, eating and playing together). It is tempting to frame these different physical and organisational characteristics of the case studies (as well as the wider surveyed groups in both projects) as reflecting the degree of *intentionality*. For cohousing at least, this aspect is key: members explicitly commit to working together beyond the initial development stages to actively maintain a sociable neighbourhood. But it seems for some groups there was value in other aspects; that in some situations this intentionality is not a prerequisite to forming a strong community. For some, such as housing co-operatives, community building was an outcome but not the principle aim; for others, especially the housing scheme built by the community land trust, the community that existed seemed to have grown out of other ‘less intentional’ factors; a shared community around raising children, the work of self-building or self-finishing, and, most the community design that in fact was largely done by others, albeit at a grass-root local level. We also found that the COVID pandemic further highlighted just how significant a role acts of mutual support played both as an outcome of the strength of social resources already built up in CLH groups, but which also underpinned the continuation of those groups.

Notwithstanding degree of intentionality, it is clear that it is the act of participation and high level of social interaction—whether planned or otherwise—that play a key role in the alleviation of loneliness in CLH. In noting this, it must also be acknowledged that there exists a risk of less active members of the community benefitting less, or even that the power dynamics of small communities might lead to *greater* social isolation for some individuals—as for instance posited by Young in her critique of concepts of community [47] and more specifically by Arbell in the case of community-led housing [48]. As noted above, with the exception of issues around security of tenure, such situations were not a significant finding from our qualitative data. However, given the self-selection of participants, the issue would doubtless benefit from further enquiry.

Yet there was evidence that many of the beneficial effects of social connection within long-established groups rarely came from being close friends. Rather, the social networks that existed took the form of supportive frameworks, rather than close friendship groups or ersatz family, neatly summarised by a resident at Community 4:

There’s a sense of security here, just knowing that you can just literally put your message on WhatsApp or just knock on somebody’s door if you’re struggling with something. It’s knowing things are there even if you don’t use them but just if you needed it.

The quote also hints at a further important aspect easy to overlook in our case studies, as true of all five: each comprised private homes as well as shared space, which allowed for a degree of privacy, as distinct from a level of communal living where more facilities might be shared. But as the quote also suggests, this ‘potential for privacy’ is also critical in extending to the social realm. Given the degree of intentionality expressed through planned social activity and purposeful design by CLH groups, there is an understandable assumption that those who choose to live in CLH communities are naturally sociable people, but many of our data refuted this. Some residents characterised themselves as introverted, and said they valued CLH because it offered occasions for spontaneous social interactions and support. Some said they occasionally preferred not to interact with fellow residents and valued their private space and the choice to disengage periodically.

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References

- Holland, C.; Boukouvalas, A.; Wallis, S.; Clarkesmith, D.; Cooke, R.; Liddell, L.; Kay, A. Transition from community dwelling to retirement village in older adults: Cognitive functioning and psychological health outcomes. *Ageing Soc.* **2017**, *37*, 1499–1526. [CrossRef]
- West, K.; Shaw, R.; Hagger, B.; Holland, C. Enjoying the third age! Discourse, identity and liminality in extra-care communities. *Ageing Soc.* **2017**, *37*, 1874–1897. [CrossRef]
- Bazalgette, S.; Louise, S.; Jo, S. *Sociable Housing in Later Life*; Hanover Housing Association/Demos: London, UK; Available online: <https://homeshare.org/wp-content/uploads/2012/04/Sociable-Housing-in-Later-Life-May13.pdf> (accessed on 21 December 2019).
- Choi, J.S. Evaluation of community planning and life of senior cohousing projects in northern European countries. *Eur. Plan. Stud.* **2004**, *12*, 1189–1216. [CrossRef]
- Choi, J.-S.; Paulsson, J. Evaluation of Common Activity and Life in Swedish Cohousing Units. *Int. J. Hum. Ecol.* **2011**, *12*, 133–146. [CrossRef]
- Fernández Arrigoitia, M.; West, K. Interdependence, commitment, learning and love. The case of the UK’s first older women’s cohousing community. *Ageing Soc.* **2021**, *41*, 1673–1696. [CrossRef]
- Field, M.A. *Thinking about Cohousing: The Creation of Intentional Neighbourhoods*; Diggers & Dreamers: London, UK, 2004.
- Fromm, D. *Collaborative Communities: CoHousing, Central Living and Other Forms of New Housing with Shared Facilities*; Van Nostrand Reinhold: New York, NY, USA, 1991.
- Heath, S.; Davies, K.; Edwards, G.; Scicluna, R. *Shared Housing, Shared Lives*; Routledge: Oxford, UK, 2018.
- McCamant, K.; Durrett, C. *Creating Cohousing: Building Sustainable Communities*; New Society Publishers: Gabriola Island, BC, Canada, 2011.
- Taylor, M.; Co-Living the Common Good. Introduction. Available online: <https://medium.com/co-living-and-the-common-good/introduction-4f8a59defc43> (accessed on 10 April 2018).
- Meadows, D. Co-Housing—Somewhere between Neighborhood and Commune. 1997. Available online: <http://donellameadows.org/archives/co-housing-somewhere-between-neighborhood-and-commune/> (accessed on 29 November 2019).
- Bouma, J.; Voorbij, L. Factors in Social Interaction in Cohousing Communities. 2009. Available online: <https://research.hanze.nl/nl/publications/factors-in-social-interaction-in-cohousing-communities> (accessed on 27 November 2019).
- Donatella, B. *Dalle Comunità di Famiglie al ‘Cohousing’: La Morfogenesi del Vicinato Elettivo*; IRIS PubliCatt (Institutional Repository of the Università Cattolica del Sacro Cuore): Milan, Italy, 2012; pp. 141–166.
- Brenton, M. *The Cohousing Approach to ‘Lifetime Neighbourhoods’ (No. 29)*; Housing LIN: London, UK, 2008.
- Jarvis, H. Towards a deeper understanding of the social architecture of co-housing: Evidence from the UK, USA and Australia. *Urban Res. Pract.* **2015**, *8*, 93–105. [CrossRef]
- Lang, R.; Novy, A. Cooperative Housing and Social Cohesion: The Role of Linking Social Capital. *Eur. Plan. Stud.* **2014**, *22*, 1744–1764. [CrossRef]

18. Markle, E.A.; Rodgers, R.; Sanchez, W.; Ballou, M. Social support in the cohousing model of community: A mixed-methods analysis. *Community Dev.* **2015**, *46*, 616–631. [CrossRef]
19. Poley, L.D. Community and the Habits of Democratic Citizenship: An Investigation into Civic Engagement, Social Capital and Democratic Capacity-Building in U.S. Cohousing Neighborhoods. Ph.D. Thesis, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, 2007. Available online: <http://search.proquest.com/docview/1030290495/abstract/C819431832E6474EPQ/1> (accessed on 21 January 2020).
20. Poley, L.; Stephenson, M. Community, Trust and the Habits of Democracy: An Investigation into Social Capital and Civic Engagement in US Cohousing Neighborhoods. 2007. Available online: http://citation.allacademic.com/meta/p_mla_apa_research_citation/2/0/9/9/8/p209987_index.html (accessed on 21 December 2019).
21. Ruiu, M.L. The Social Capital of Cohousing Communities. *Sociology* **2015**, *50*, 400–415. [CrossRef]
22. Sargisson, L. Cohousing: A Utopian Property Alternative? *Nottingham*. 2010. Available online: http://www.psa.ac.uk/journals/pdf/5/2010/1225_1085.pdf (accessed on 20 April 2018).
23. Williams, J. Designing Neighbourhoods for Social Interaction: The Case of Cohousing. *J. Urban Des.* **2005**, *10*, 195–227. [CrossRef]
24. Williams, J. Predicting an American future for cohousing. *Future* **2008**, *40*, 268–286. [CrossRef]
25. Moore, T. Affordable Homes for Local Communities: The Effects and Prospects of Community Land Trusts in England. 2014. Available online: http://library.uniteddiversity.coop/Community_Land_Trusts/Affordable_Homes_for_Local_Communities-The_Effects_and_Prospects_of_Community_Land_Trusts_in_England.pdf (accessed on 11 April 2018).
26. Carrere, J.; Reyes, A.; Oliveras, L.; Fernández, A.; Peralta, A.; Novoa, A.M.; Pérez, K.; Borrell, C. The effects of cohousing model on people's health and wellbeing: A scoping review. *Public Health Rev.* **2020**, *41*, 22. [CrossRef]
27. Warner, E.; Sutton, E.; Andrews, F. Cohousing as a model for social health: A scoping review. *Cities Health* **2020**, 1–13. [CrossRef]
28. HM Government. A Connected Society A Strategy for Tackling Loneliness—Laying the Foundations for Change. In *London: Department for Digital, Culture, Media and Sport*; 2018. Available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/750909/6.4882_DCMS_Loneliness_Strategy_web_Update.pdf (accessed on 9 June 2020).
29. Daykin, N.; Meads, C.; Tomlinson, A.; Gray, K.; Lane, J.; Victor, C.; Mansfield, L. A Conceptual Review of Loneliness across the Adult Life Course (16+ Years). 2019. Available online: <https://whatworkswellbeing.org/product/loneliness-conceptual-review/> (accessed on 15 December 2019).
30. Kantar Public. *Trapped in a Bubble: An Investigation into Triggers for Loneliness in the UK*; Co-operative Group/British Red Cross Society: Manchester, UK, 2016.
31. Victor, C.R.; Pikhartova, J. Lonely places or lonely people? Investigating the relationship between loneliness and place of residence. *BMC Public Health* **2020**, *20*, 778. [CrossRef]
32. Victor, C.R.; Yang, K. The Prevalence of Loneliness Among Adults: A Case Study of the United Kingdom. *J. Psychol.* **2012**, *146*, 85–104. [CrossRef]
33. Vestbro, D.U. Living Together—Cohousing Ideas and Realities Around the World. In Proceedings of the International Collaborative Housing Conference, Stockholm, Sweden, 5–9 May 2010; Royal Institute of Technology: Stockholm, Sweden, 2010.
34. Jarvis, H. Saving Space, Sharing Time: Integrated Infrastructures of Daily Life in Cohousing. *Environ. Plan. A Econ. Space* **2011**, *43*, 560–577. [CrossRef]
35. UKCLTN. 2021. Available online: <http://www.communitylandtrusts.org.uk/article/2021/1/30/government-announced-4-million-for-a-renewed-community-housing-fund> (accessed on 15 January 2021).
36. Thompson, M. From Co-Ops to Community Land Trusts: Tracing the Historical Evolution and Policy Mobilities of Collaborative Housing Movements. *Hous. Theory Soc.* **2018**, *37*, 82–100. [CrossRef]
37. Community Led Homes. Website Data. 2021. Available online: <https://www.communityledhomes.org.uk/join-movement> (accessed on 15 January 2021).
38. Benson, M.; Hamiduddin, I. Self-build homes: Social values and the lived experience of housing in practice. In *Self-Build Homes: Social Discourse, Experiences and Directions*; UCL Press: London, UK, 2017; pp. 1–14.
39. Hudson, J.; Fernandez Arrigoitia, M.; Ferreri, M.; Izuhara, M.; Scanlon, K.; West, K. What Collaborative Housing Offers in a Pandemic: Evidence from 18 Communities in England and Wales. Housing LIN. 2021. Available online: <https://www.housinglin.org.uk/Topics/type/What-collaborative-housing-offers-in-a-pandemic-Evidence-from-18-communities-in-England-and-Wales/> (accessed on 12 October 2021).
40. Izuhara, M.; Hudson, J.; Fernandez Arrigoitia, M.; Ferreri, M.; Scanlon, K.; West, K. Collaborative housing communities through the COVID-19 pandemic: Adaptability and local social capital. *Hous. Stud.* **2021**, in press.
41. Department for Digital, Culture, Media & Sport. Community Life Survey: 2017–2018. 2019. Available online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/734726/Community_Life_Survey_2017-18_statistical_bulletin.pdf (accessed on 18 December 2019).
42. Tuckman, B.R. Developmental sequence in small group. *Psychol. Bull.* **1965**, *63*, 384–399. [CrossRef]
43. Hudson, J. “Not Alone and Not in a Home!”: The Negotiation of Later Life as a Cohousing Group in Berlin. Ph.D. Thesis, University College London, London, UK, 2019.
44. Jones, A. Housing Choices in Later Life as Unclaimed Forms of Housing Activism. *Contemp. Soc. Sci.* **2017**, *12*, 138–152. [CrossRef]
45. Chiodelli, F. What is really different between cohousing and gated communities? *Eur. Plan. Stud.* **2015**, *23*, 2566–2581. [CrossRef]

46. Westwood, S. LGBT* ageing in the UK: Spatial inequalities in older age housing/care provision. *J. Poverty Soc. Justice* **2016**, *24*, 63–76. [[CrossRef](#)]
47. Young, I.M. The Ideal of Community and the Politics of Difference. *Soc. Theory Pract.* **1986**, *12*, 1–26. [[CrossRef](#)]
48. Arbell, Y. “A Place That is Different from the Usual Capitalist World”: The Potential of Community-Led Housing as Safe and Just Spaces. *Justice Spatiale/Spatial Justice*, No.16. 2021. Available online: <http://www.jssj.org/article/un-lieu-different-du-monde-capitaliste-habituel-le-potentiel-de-l-habitat-participatif-en-tant-que-safe-space-et-espace-de-justicesociale> (accessed on 6 September 2021).