Longitudinal impact of household isolation and social distancing on older people in the Republic of Ireland during the COVID-19 pandemic.

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Abstract

Research aims: An exploration of the lived experience of cocooning and social distancing practices of older people in the Republic of Ireland during the COVID-19 pandemic.

Methods: Using a convenience sample of four participants from the Republic of Ireland, semi-structured interviews were audio-recorded over six sessions, two weeks apart, between the 6th of April 2020 and the 7th of July 2020. Transcripts were analysed using content analysis of longitudinal data for the recognition of themes.

Findings: Three themes were identified, including impact on health and mental wellbeing, commitment to restrictions, and concern for the nonadherence of others.

Conclusion: Participants committed fully to cocooning and other government restrictions, sometimes to the detriment of health. Healthcare professionals will need to be mindful of possible post-pandemic deconditioning resulting from adherence to government restrictions, including lingering anxieties regarding returning to normality after prolonged isolation.

Keywords: Republic of Ireland, COVID-19, older people, community care, phenomenology, qualitative methods.

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Background

On the 29th of February, the first case of COVID-19 in the Republic of Ireland was announced, and by the 26th of March 2020, there were 1,819 confirmed cases of COVID-19 and 19 deaths (Department of Health, 2020). In March 2020, people aged 70 and over were considered at higher risk of infection due to an increased susceptibility to COVID-19 (Jordan et al., 2020) and were more likely to have critical or fatal outcomes (Zhu et al., 2021). To protect older people, the Irish government enforced a national stay at home order on the 27th of March 2020 and introduced cocooning (remaining at home and restricting all outside contact to remote technology) for those over 70 years of age (Gov.IE, 2020b). Other recommended precautions included frequent hand washing, cleaning surfaces and objects others have touched, wearing a face mask outdoors in public spaces and

checking household visitors were asymptomatic and remained at least 2 metres away (outside through a door during lockdown) (Health Service Executive, 2020).

The cocooning of older people was essential to ensure the risk to the most vulnerable was reduced as the rates of infection increased to 3,235 confirmed cases and 71 deaths by the 31st March 2020 (Department of Health, 2020). The need for cocooning was essential, although older people's health can equally be vulnerable due to long-term changes in everyday life and delayed recovery from ill-health can occur due to the deconditioning effects of isolation (Steinman et al., 2020). The loss of usual activities and socialisation can also reduce cognitive stimulation, which over time reduces cognitive functioning in older people (Amoretti et al., 2021). Social isolation increases the likelihood of loneliness in older people, having negative implications for both mental and physical health (Courtin and Knapp, 2017). Household isolation limits physical activity levels and there is a negative correlation between number of days of sedentary behaviour and an older persons level of physical functioning (del Pozo-Cruz et al., 2017). Household isolation influences physical, mental and psychological health with implications for post-lockdown levels of dependency of older people (del Pozo-Cruz et al., 2017, Amoretti, 2021). However, to our knowledge, this is the first study of older peoples lived experience of cocooning during and after a lockdown in the Republic of Ireland.

Aim

This study aims to explore the impact of social isolation and social distancing on older people living in the Republic of Ireland during and following government enforced lockdown.

Methods

A qualitative longitudinal approach was taken in the design of this study to gain insight into the lived experience of older people during the COVID-19 pandemic.

Data Collection

Data were collected through audio-recorded telephone interviews, and later transcribed verbatim. The interviews were guided by semi-structured open questions developed to explore the impact of cocooning and social isolation during the COVID-19 pandemic. The first interview took place on the 6th of April 2020 and was repeated fortnightly with the sixth and final interview taking place on the 7th of July 2020.

Data Analysis

Data were analysed by the first author, with discussions with the second author, by using the three phases of content analysis (Immersion, data reduction, and interpretation) as described by Forman and Damschroder (2008). Data immersion was achieved through several readings of the transcripts

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until familiarity allowed for the identification of potential hidden meanings. To reduce the data, longer complex meanings were condensed, coded, and grouped into initial categories relevant to the research question. During interpretation, categories were reviewed for deeper meaning and organised into themes allowing for interpretation of results, on which conclusions could be drawn.

Sample

The participants within this study were amongst the 19 participants, including 15 from England and the four from the Republic of Ireland, who were recruited as part of a larger study (Brooke and Clark, 2020). Following preliminary data analysis, the four participants from the Republic of Ireland were withdrawn from the larger study, partly due to the way in which government restrictions and infections rates developed differently over time in England and the Republic of Ireland, affecting comparability. This separate analysis allowed for a more accurate representation of the lived experience of participants in response to the changing government restrictions and infection rates in the Republic of Ireland.

Participants were recruited using a nonprobability convenience approach, using a recruitment flyer emailed to the researcher's university faculty (Faculty of Health, Education and Life Sciences). Staff were asked to share the flyer via social media, including WhatsApp, Nextdoor and Twitter, and some staff advised they autonomously shared the recruitment flyer with older relatives. As recommended on the flyer, potential participants contacted the second author for more information by email or phone, for which a mobile phone was specifically designated. The four participants in this study were from the Republic of Ireland and were aged between 74 and 83, with a mean age of 78.

Ethical Considerations

Ethical approval was obtained from the University Research Ethics Committee at Birmingham City University (6290/Am/2020/Apr/HELS FAEC). All participants were contacted by the second author before receiving a participant information sheet through email. Participants willing to take part contacted the second author by telephone to discuss taking part, giving participants the opportunity to ask questions and be advised of their freedom to withdraw at any time, without reason and provide informed consent. All elements of the consent form were read aloud and agreement from the participant on each point was audio-recorded.

Findings

Analysis of longitudinal data from 23 interviews, with four participants taken at six time-points (one unanswered telephone interview), is discussed in depth. Three themes were identified in the analysis: impact on health and mental wellbeing, commitment to restrictions, and concern for the nonadherence of others. Pseudonyms were used for all participants (Table 1).

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Pseudonym and Age	Living Situation	Pre-pandemic habits
Nicholas 83	Living with his wife Has a garden	Music and singing Enjoyed socialising in a local coffee shop.
Geraldine 74	Lives alone in a house with a garden, attached to her wider family	Daily mass Ballroom dancing Visit's sisters
Deborah 76	Lives alone in a house with a garden close to her family	Daily mass and coffee afterwards Twice weekly bridge club Art club
Angela 78	Lives alone in a house with a garden, attached to her wider family	Attended daily morning mass with coffee and a chat afterwards

Impact on health and mental wellbeing

All participants described ways in which their health or wellbeing was affected by the pandemic. Physical health impacts reported and discussed included a reduction in mobility during social isolation and concern for the changes to healthcare provision. Impact on mental wellbeing included the loss of social connections and independence.

Participants noted a marked reduction in mobility from walking shorter distances around the home and garden, described here by Deborah:

"The first day I didn't get very far, because the old legs… it is amazing how a few weeks restrictions have impacted, even though I was active in doing other things, but I wasn't physically walking, and the muscles have all tightened up… they ache so much, the next day I went a bit further, and I got severe pains… and I was nearly unable to walk" (Deborah)

For Nicholas, the physical reduction in mobility further influenced the way he felt about himself, *"for the first time in my life I felt feeble… all my bones and muscles objected to even my short walk…. I found after seven weeks of being cocooned, my lower limbs didn't want me to take on too many yards outside of the door, that was a big shock"* (Nicholas). Two weeks later both Deborah and Nicholas discuss their ongoing issues with mobility. Deborah found she can no longer walk with her dog due to balance issues *"I can't bring my dog with me anymore as he is pulling me off balance, but I struggle to do that little bit and it is not far and then I struggle to get back"* (Deborah), and Nicholas was now walking with a stick he found in his house. While Deborah felt physiotherapy may help,

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neither Deborah nor Nicholas mentioned seeking support from health services. This effect was reported seven weeks into isolation, as the allowed travel distance from home was increased to five kilometres and participants attempted to return to previous walking habits.

Changes to the provision of health services were noted by Angela and Nicholas, who were receiving injections for macular degeneration prior to the pandemic which ceased during the lockdown *"Well I have skipped a few of them [injections] already, the hospital just didn't do them, you know"* (Nicholas). Nicholas's injections began again in July after the lockdown period. However, Angela had a deterioration of vision from a bleed in her eye and her injections were restarted during the lockdown. Neither participant complained at treatments being postponed, though both were relieved when treatments recommenced, as they feared without them their vision would deteriorate further *"they give me the injections and I am thankful for that, as if I didn't have them, I would probably be worse off you know"* (Angela).

Commitment to restrictions

All participants showed commitment to adhering to government restrictions to keep themselves and others safe through different approaches, including the commitment to hand washing, surface cleaning, use of masks and social distancing and perceptions of isolating.

Angela, Deborah and Geraldine reported excessively washing their hands. Geraldine described how handwashing was one of her main precautions to remain safe "*my hands are raw from washing them all the time, I don't think I need to wash them as much as I do, I do it just in case… so there is nobody contaminating me, there is not a time when my hands aren't scrubbed"* (Geraldine). Excessive handwashing was reported in the first two interviews, causing dryness and skin irritation, *"they are still very sore, I had to get antiseptic cream to put on them, as they were that bad"* (Deborah). Alternatives such as hand sanitiser were out of stock and while handwashing advice was plentiful, Deborah felt advice on hand drying and aftercare were overlooked.

Nicholas reported a preference for cocooning rather than constant handwashing, where no one entered his house and those providing assistance such as shopping did so from a distance, which provided him with the feeling of safety *"the people that bring our groceries leave them at the door and step back two or three paces… I think we are reasonably safe in this situation. I am not sure about opening the doors and letting life resume and I am worried about that"* (Nicholas). Angela, Deborah, and Geraldine allowed their children to bring their shopping into their homes.

Angela and Geraldine live next door to young grandchildren, who occasionally visit. When these visits occur Angela, Deborah, and Geraldine describe using social distancing and regimentally wiping

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all surfaces, a task taken seriously, *"the only people allowed to come in now are my son and daughter-in-law, and I would wipe the door handles with the wipes and the disinfectant, after they have gone, and I would wipe all the handles that they have touched*" (Deborah).

After the 18th of May when restrictions began to ease and participants began to venture out, participants felt masks were essential to their safety when around other people "*I wouldn't go out and into a shop without my mask, I would be afraid to, especially if somebody started talking to me, I would have to have it"* (Geraldine). Nicholas continued to prefer isolation over alternative precautions *"I did get a present of a facemask, I might use it if I had to, such as getting on public transport, but I don't think that is going to happen for a while as I don't have an appetite for going out"* (Nicholas).

All participants were content to remain isolated, expecting the lockdown to be extended and reporting if that happened, they were committed to staying within their house and garden, feeling this, as a government restriction would keep them safe *"I don't go outside of my gates…I want to live, so I will do what they ask me to do"* (Deborah). Most of the participants did not find this part of the pandemic challenging and instead showed gratitude for having family and friends around, feeling supported or grateful for having a spacious house or garden. All participants took advantage of the warm weather and gardening *"I have edged the lawn, normally I tell someone else to do that for me, but I am getting a new lease of life"* (Deborah). Participants described feeling lucky and that others may have been more appropriate for the study as the participants felt they were not "*missing out that much compared to some people"* (Geraldine). Participants felt they had experienced harder times in the past and by comparison, the lockdown was manageable, described here by Geraldine and Nicholas:

"this is the way we lived in my childhood, we didn't go anywhere, we didn't have playdates or things like that, we played with each other, we lived in the country, we had all the usual hens and pigs and all of that sort of thing, and this is what life was like when I was born in 1945, so for me it is not a great hardship" (Geraldine)

"I was much worse off when I started work you know, with no television, no central heating and no telephone and that was deprivation, but nowadays we all have telephones and mobile phones, and have a computer and I have a tablet, the internet and professor google, and I can play YouTube" (Nicholas)

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Concern for the nonadherence of others

Participants became increasingly concerned other people were not adhering to government restrictions and recommended precautions as the lockdown progressed. Participant's feelings and anxieties on the nonadherence of others impacted their perception of when and how life would return to some form of normality.

Geraldine described her unease and anxiety when she observed the behaviour of younger people, which she felt could increase infection rates: *"I noticed when I was out…, maybe six younger people walking, chatting and that is not supposed to be, they are not keeping their distance you know. If that continues that could spark it off again"*. At this point, groups of four people could visit a different household, while keeping a two-metre social distance (O'Carroll, 2020). Participants were particularly concerned that people were becoming complacent and not social distancing or wearing masks *"because people are now relaxing and going out, they are no longer keeping their distance, and I think that is where the problem will come from. It is a bit of a concern. some people are being too lax, and a lot of people now don't wear masks … and the fear is there now"* (Deborah).

When discussing the non-adherence of restrictions by others, both Deborah and Geraldine questioned the speed of the reduction of restrictions *"People can now go up to 20 kilometres or anywhere in their county, which I think is ridiculous. 20 kilometres is a big jump in difference, hopefully, it is not too soon"* (Geraldine). As the media televised a gathering of protesters, participants had similar worries about the consequences of so many people not adhering to social distancing *"they are congregating too close together…5000* [people] *in Dublin on the streets, that is worrying, but it's serious, the impact is concerning"* (Angela). Optimism displayed by participants for the reducing number of deaths in the Republic of Ireland was consistently followed by fears that the complacency of the public may extend the pandemic.

As restrictions eased further and restaurants and retail opened on the 29th of June, the media reported a reduction in infection rates (O'Carroll, 2020). However, participants continued to fear that the public reaction to the reopening of restaurants and retail may mean an increase of infection rates *"at the same rate we are improving, our fears are growing that it is going to come back and hit us bigger than ever before, as there is quite a degree of carelessness creeping in. I think we are all going to be in the same boat so to speak"* (Nicholas). As restrictions reduced, anxieties regarding returning to society were discussed *"We are loosening the restrictions a little bit, but umm… there is still a great concern out there, about…But I don't think we are as good as they would like us to believe"* (Nicholas). While most of the participants were pleased the country may be getting back to

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normal, they felt the behaviour of others meant a resurgence was inevitable *"I don't know, somethings you see going on you think oh god we will be back in lockdown in a week"* (Geraldine).

Discussion

Findings from this longitudinal study suggest older people in the Republic of Ireland may have experienced impacts to physical health, mental wellbeing, or both, at any point during the first lockdown while adhering to cocooning, social distancing, and handwashing. Despite the risks from isolation participants were committed to maintaining protective precautions as recommended by the government, displaying anxiety when observing nonadherence by others and the consequences for returning to normality.

Impact on health and mental wellbeing

Due to the stay-at-home order of anyone aged 70 and over on the 27th of March 2020, participants self-isolated in their homes and gardens for 33 days until the 28th of April when a five-kilometre distance from home for exercise was allowed (Kelleher, 2020), although some participants chose to isolate for longer. The stay-at-home order reduced participants physical activity, identified in other studies where approximately 83.8% of older people self-reported a reduction in their daily physical activity and 73.9% reported sitting for longer periods (Lage et al., 2021). Lack of physical activity can cause muscle loss through the suppression of muscle protein synthesis and cause detectable muscle loss within two days of reduced activity (Narici et al., 2021), especially in older people.

For older people, adverse health risks include physical deconditioning from reduced physical activity (Steinman et al., 2020). The sedentariness of older people during COVID-19 can be addressed through physical exercise such as walking or low load resistance, within the home environment, to protect muscle mass. This is essential as older people may have difficulty in returning to previous levels of mobility following the loss of muscle mass (Moro and Paoli, 2020). This study supports the results of Moro et al (2020), with participants reporting no improvement in mobility two weeks after attempting to return to previous physical activity levels. Instead, one participant reports a worsening of mobility in that time, finding attempts to rehabilitate too painful and one participant accepted his reduction in mobility and the need for a walking aid as his new normal.

As services were adapted to reduce the risk of COVID-19 infection, some services were switched to phone-based or digital service delivery, and services considered non-essential were suspended (Hrynick et al., 2021). The provision of Intravitreal anti-vascular endothelial growth factor (anti-VEGF) services was disrupted, with 1025 out of 2738 treatments for people with macular degeneration being postponed (Stone et al., 2020). Participants in our study received injections for macular degeneration prior to the pandemic, which was postponed for the duration of the lockdown

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between March and July of 2020. Omitting two or more months of anti-VEGF treatments can cause a significant loss in visual acuity, which may persist 12 months later despite restarting treatments (Stattin et al., 2021). Participants in our study understood the need to suspend treatments but were simultaneously concerned about what this may mean for their vision. These findings concur with O'Connor et al, (2021) who reported participants worried that missing hospital appointments might mean a deterioration in their vision, while also being apprehensive about visiting a hospital for treatments. Although participants across both studies that did visit a hospital appointment reported positive experiences in the convenience of timed appointments and professional and friendly staff.

Commitment to restrictions

Participants were committed to maintaining lockdown restrictions to keep themselves and others safe across all six interviews. The longitudinal data collection showed the restrictions and precautions used by participants during this time and highlighted a change in preference that corresponded with the timeline of changing government restrictions in the Republic of Ireland.

All participants discussed the importance and their commitment to handwashing, which is consistent with those from a similar study in the UK (Sadang et al., 2021) and in the US, where older adults were more committed to handwashing than younger adults and adolescents (Haston et al., 2020). Handwashing was also found to be a coping mechanism to help manage stress, occupy time and limit fears of infection in (Sadang et al., 2021). In contrast, participants in our study discussed handwashing and other precautions as a minor inconvenience but were essential to keeping them safe.

Few studies have discussed sore hands among the public resulting from increased handwashing as a preventative measure during a pandemic, although commonly mentioned in studies of health and care workers where the effects of frequent handwashing were high (Kiely et al., 2021). The NHS website includes advice on drying hands completely with a disposable towel (NHS, 2020), although few public campaigns refer to the importance of thorough hand drying and aftercare (Gov.IE, 2020a). Prevention advice for health professionals included avoidance of using overly hot water, drying thoroughly, avoiding air drying, using a paper towel and using an ointment-based emollient for aftercare, avoiding water-based moisturisers which can enhance transdermal water loss (Abtahi-Naeini, 2020). Older people are more vulnerable to dermatologic consequences associated with handwashing as ageing predisposes older people to dry skin and irritation (Golpanian and Yosipovitch, 2020), therefore public handwashing is an essential element of the pandemic that needs addressing.

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As the pandemic progressed and restrictions changed, participants took advantage of the five-kilometre travel allowance, which reinforced their need to adhere to social distancing and wear masks. Participants within this study predicted restrictions would be long-term and were prepared to commit to the restrictions long-haul, a finding which corresponds to a study involving Japanese older people who reported a "readiness to endure a restricted life" perceiving that restrictions would be necessary for a long time and were committed to precautions such as handwashing, surface cleaning, social distancing and isolation for as long as required (Takashima et al., 2020). Participants in both studies stayed updated on the current guidelines and were committed to adhering to the recommended government restrictions, believing this gave them the greatest chance of staying safe.

Concern for the nonadherence of others

Participants reported observing nonadherence to restrictions in members of the public through all interviews, which they found concerning and anxiety provoking. Participants witnessed adolescents and young adults not adhering to precautions and feared this would increase infections rates and extend the pandemic, making them feel anxious about the impending return to normality. Our findings are similar to Williams et al (2020) where participants were concerned that the nonadherence of others may increase the duration of the lockdown, causing worry about their ability to cope with a lockdown extension. Participants concerns across both studies were not unfounded as studies in both England (Eraso and Hills, 2021) and the US (Haischer et al., 2020) found adolescents and younger adults were less likely to adhere to restrictions and returned to normality faster than older people. In our study, concern for the nonadherence of others appeared to influence the participant's views on the likelihood and safety of returning to normality. Other studies of the post-lockdown period have noted unexplained psychological effects or anxieties about the unpredictability and uncertainty surrounding the transition to normality (Gullo et al., 2020, Marzana et al., 2021).

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Limitations

The sample size was determined by the withdrawal of participants from a larger study in England, avoiding incomparable population sizes, infection rates and government restriction timelines. Therefore, a limitation of this study included the generalisability of a sample of four participants to the experiences of other older people in the Republic of Ireland, especially those that do not have the support of their family, or who may have poorer health. However, the separate analysis of participants from the Republic of Ireland allowed for a more accurate representation of lived experiences in context with the events of the country.

Conclusion

This study had several unique findings of how older people experienced isolation during the COVID-19 pandemic. Participants remained committed to the current recommended safety precautions as they changed throughout and after lockdown. Adverse effects from handwashing, reduced physical activity, and loss of socialisation were accepted as natural side effects of essential isolation and attempts to rehabilitate were painful or abandoned. It may be beneficial to older people for healthcare professionals to enquire if isolation has impacted mobility and offer available support for physical rehabilitation, which older people may find harder to achieve independently. Participants were eager to return to normal, for themselves and for the benefit of society, although anxious that the nonadherence of others may compromise the safety of returning to normality, suggesting participants may benefit from physical and psychological support to return to their previous quality of life post-pandemic.

Recommendations

Participants in this study found isolation and adherence of restrictions tolerable in comparison to past hardships and were accepting of the side effects of adherence. However, older people have increased vulnerability to deconditioning from prolonged periods of reduced activity and cognitive stimulation. This study offers insight into the considerations required for future cessation of services in the event of a pandemic and whether the consequences of complete cessation is than attending appointments. Health practitioners involved in the care of older people should be aware of the possibility of deconditioning post-pandemic, and opportunistically inform patients of available support with rehabilitation. This is helpful for primary care health professionals who are more likely to be familiar with repeat patients and may be more likely to recognise reduced cognitive or physical abilities, or to have the opportunity to enquire of perceived changes in physical or cognitive health.

Conflicts of Interest

The authors declare they have no conflicts of interest

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