



# Social Connections and Future Horizons: Socioemotional Selectivity Among Midlife and Older Adults in Aotearoa/New Zealand During COVID-19

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## Abstract

The current study uses socioemotional selectivity theory (SST; Carstensen in *Psychology and Aging*. 7(3):331–338, 1992, 10.1037/0882-7974.7.3.331) as a framework to examine the experiences of older adults during COVID-19 in Aotearoa/New Zealand. SST posits that when time horizons are perceived as limited—such as with increasing age, or during times of medical uncertainty—people selectively focus on spending time with emotionally close others and in personally fulfilling activities. This may be the case particularly when uncertainty is experienced by older people. Aotearoa/New Zealand instigated an elimination strategy early in the pandemic (prior to widespread vaccine availability), employing a series of lockdowns that further challenged older adults' perceptions of future horizons, their ability to maintain social connections with loved ones, and engagement in pleasurable activities. This study used thematic analysis to analyze existing qualitative COVID-19-related data drawn from the experiences of 510 older adults who participated in the 2021 Health, Work, and Retirement study (HWR). Participants ranged in age from 56 to 87 ( $M_{age} = 69.73$ ); 15.9% identified as Māori, and 76.2% identified as female. Two broad themes were revealed: Social Connection and Anticipating the Future. Although most participants expressed comparatively more positive than negative experiences, some also expressed frustration and anxiety about health directive-related divisions in relationships, and the inability to share in important life events (such as weddings, births, and funerals). Findings highlight the complex impact of COVID-19 on older adults' perceptions of time horizons, and the opportunities presented by the pandemic for reassessment of social relationships and activities.

**Keywords** Older adults · Aotearoa/New Zealand · Social connection · COVID-19 · Thematic analysis

## Introduction

During the early months of the COVID-19 pandemic, the government in Aotearoa/New Zealand—a small island nation of approximately 5.1 million people in the southwestern Pacific Ocean—instigated a 'go hard, go early'

elimination strategy. The country was in full lockdown from March to May, 2020, and again from August to September, 2021. At other times until September 2022, when vaccines were more widely available, social distancing and other COVID-19-related health and safety guidelines were enforced. The present study explores the impact of COVID-19 on midlife and older adults' perspectives on the future, their approaches to meaningful relationships, and engagement in social activities within the context of a full lockdown. Using socioemotional selectivity theory (SST; Carstensen, 1992) as a framework, our goal was to explore the ways in which meaningful social interactions and pleasurable activities were maintained or altered during a time when pandemic restrictions altered the availability of established social networks.

Socioemotional selectivity theory (SST; Carstensen, 1992) states that when time horizons are perceived as limited—which can happen with increased age, or

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during disaster events—people prioritize spending time with selected close others and in pastimes that provide meaningful and positive emotional experiences. The uncertainty of COVID-19 presented older people in many parts of the world with opportunities to assess and reassess their time horizons and the importance, maintenance, and changing nature of social relationships (Bardach et al., 2021; Losada-Baltar et al., 2022; Newton et al., 2022; Whitehead & Torossian, 2021). These two opportunities were sometimes at odds with each other: age-related realization of limited time horizons was potentially exacerbated by the onset of the pandemic, while the related need to spend time with close connections was stymied by safety guidelines stipulating social distancing and lockdown. Using SST as an analytic framework, the present study examined the experiences of older adults across Aotearoa/New Zealand during the second national COVID-19-related lockdown.

### Aotearoa/New Zealand and COVID-19

Government responses to the pandemic differed. In Aotearoa/New Zealand, an elimination strategy, which involved reducing the incidence of community-based transmission cases to zero (Baker et al., 2020) was adopted early in COVID-19's course. To achieve this, a full lockdown was instigated. It was preceded by a gradual restriction of international travelers entering the country, until borders were fully closed to all international travel with the advent of the first lockdown on March 26, 2020 (New Zealand Government, Te Kāwanatanga o Aotearoa, n.d.). Social activities were limited to one's immediate family and/or household 'bubble,' with non-essential travel prohibited. An Alert Level framework was instigated, which guided subsequent action at different levels of risk (Cumming, 2022); the initial lockdown, or level 4, was the highest level of restriction. This was lifted nationally on May 13, 2020 when the country went to level 2. However, Auckland and Northland regions were generally kept at higher levels of restriction due to increased risk of transmission, until the detection of the Delta variant led to a second national lockdown from August 17, 2021. The survey on which the current study is based was launched during this time (July/August, 2021).

### Socioemotional Selectivity Theory

SST recognizes the importance of time in motivating one's goals (Carstensen, 2021). When time horizons are perceived as long or time is viewed as expansive, people prioritize informational goals, such as the acquisition of knowledge and initiation of new friendships. Conversely, as perceived time horizons grow shorter—such as when people perceive death to be more proximate—emotional goals are prioritized (Carstensen, 2021), and older adults engage in “selectively

pruning and shaping their social networks to be more emotionally meaningful over time” (Carstensen, 2021, p. 1192). Thus, the focus is on engaging in positive experiences, such as indulging in pleasurable pastimes or maximizing social connections only with those with whom they already have close emotional bonds (Carstensen & Fredrickson, 1998; Carstensen et al., 1999; Fung & Carstensen, 2006). While perceptions of limited time left are often linked to age (Carstensen et al., 1999), sociocultural events and uncertain times (Morselli, 2013) can also prime the perception that life is fragile, and that one's future time is limited. For example, during the 2002–2003 outbreak of SARS-CoV in Hong Kong, Fung and Carstensen (2006) found that the prevalence and uncertainty regarding the course of the disease prompted people of all ages to rate their perceived time left as limited.

### Socioemotional Selectivity Theory and COVID-19

Similar to the outbreak of SARS-CoV in Hong Kong, the COVID-19 pandemic provided a context to examine how SST can be used to interpret people's behavior and preferences in times of uncertainty. In a theoretical review by scholars from Britain, Europe, and the United States, Settersten et al. (2020) outlined the pandemic's implications across six domains—personal control and planning, social relationships and family, health, education, work and careers, and migration and mobility. They argued that the impacts of the pandemic were best interpreted from a life course perspective; how and to what extent people's lives were altered would depend on their life experiences, life stage, and social and political circumstances. Of the six domains they outlined, the two most pertinent to the current study are personal control and planning, and social relationships and family: domains that share a conceptual foundation with SST-based future time perspective and maximization of time left.

For example, Settersten and colleagues (2020) stated that pandemic-related uncertainty could manifest for older adults as a focus more on the present than the future, with optimization of positive affective experiences and concomitant minimization of negative ones: “Their shrinking time horizon leads them to place a greater premium on goals and experiences that bring meaning” (Settersten et al., 2020, p. 4). The authors speculated that the inability to share in transitions (births, birthdays, graduations, engagements, marriages, new jobs, retirements, deaths) could lead to changing long-term timelines. Older adults who live alone might experience changing relationships among family members in terms of both emotional and instrumental support, often through increased use of communication technologies. In multigenerational family groups or households, older family members may be expected to share child-care duties, whether the expectation is welcome or not.

COVID-19-related research from Europe and North America, while not always specifically grounded in SST, supports these observations. Both SST and SST-related findings include the relationship between awareness of limited time and well-being during COVID-19 (Hytman et al., 2023; Newton et al., 2022; Whitehead & Torossian, 2021); importance of close others and favored activities that provide positive emotional experiences (Gökalp et al., 2022; Losada-Baltar et al., 2022); decreased well-being due to social isolation (Best et al., 2021); and increased use of technologies to stay in touch (Bardach et al., 2021; Gonçalves et al., 2022; Seckman, 2023; Whitehead & Torossian, 2021). For example, among older adults in Spain and the United States, the presence of family and being socially connected were associated with less loneliness and lower stress, depression, and anxiety in the early months of the pandemic (Crandall et al., 2022; Goveas et al., 2022; Losada-Baltar et al., 2022). Early health directives to remain socially distanced were associated with psychological distress for Canadian adults of all ages (Best et al., 2021); similarly, Seckman (2023) found that diminished contact with family and friends was related to higher stress and anxiety levels. In a qualitative study of older adults in Brazil, Italy, Portugal, and the United States, Gonçalves et al. (2022) reported themes of adapting to constraints on socializing and activities through technology, thus highlighting the important role of family and friends to ameliorate feelings of emotional instability.

In the Aotearoa/New Zealand context, studies have highlighted the importance of SST-related constructs during the pandemic, such as the maintenance of social connections and community support (Jenkins et al., 2021; Stephens & Breheny, 2022). Participants in Jenkins and colleagues' (2021) study appreciated increased time spent with family, friends, and communicating with neighbors during lockdown, as well as the use of technology to enable social connection. In a qualitative study conducted at the time of the first lockdown restrictions in 2020, older adults from the Aotearoa/New Zealand Health, Work, and Retirement study (HWR) expressed COVID-related anxiety and worry; however, community support (emotional and instrumental support from family, friends, and community organizations) helped facilitate enjoyment (Stephens & Breheny, 2022).

Although associations between COVID-19 and prioritizing meaningful social connections and activities are similar in different countries, results might vary depending on the different strategies (e.g., mitigation, suppression, elimination) used to contain COVID-19 both pre- and post-vaccine (Ingram et al., 2022). For example, a mitigation approach involving physical distancing and wearing face masks was initially followed by many European and North American countries (Baker et al., 2020). However, its lack of success led some countries to adopt a suppression strategy, which added further health directives (restricted travel, limiting

the number of people in any gathering). Elimination was the most challenging strategy to implement, involving a full lockdown, no travel or gatherings allowed, and only essential businesses remained open (New Zealand Government, Te Kāwanatanga o Aotearoa, n.d.). The elimination strategy employed in Aotearoa/New Zealand may have been particularly difficult for older adults whose loved ones lived elsewhere, and for whom opportunities to maximize emotionally meaningful experiences were jeopardized. This strategy provided a unique opportunity to examine the impact of enforced restriction on midlife-to-older adults' social relationships and anticipated futures.

## The Current Study

Grounded in socioemotional selectivity theory (SST; Carstensen, 1992), the present study used a thematic analysis approach (Boyatzis, 1998; Braun & Clarke, 2006, 2021) to organize qualitative responses to a broad, open-ended question from the 2021 wave of the Health, Work and Retirement study (HWR) about experiences of COVID-19 among midlife and older adults from all regions of Aotearoa/New Zealand. We examined responses for SST-related themes such as focusing selectively on meaningful social experiences and evidence for altered perceptions of future time, given that sociocultural events and concomitant uncertainty can remind people that life is fragile and that the future is limited (Fung & Carstensen, 2006; Morselli, 2013; Settersten et al., 2020). We were also interested in how midlife-to-older adults in Aotearoa/New Zealand accommodated changes in access to meaningful activities and social connections. Additionally, we examined potential differences in theme expression by age, given the wide age range in the sample.

## Method

### Participants and Measure

The Health, Work and Retirement (HWR) study is a nationwide longitudinal biennial survey that examines factors associated with the health and well-being of middle-aged and older people in Aotearoa/New Zealand. The study was initiated in 2006; participants aged 55 years and over are randomly recruited from the New Zealand electoral roll, mailed a letter telling them of their selection to participate and that the survey will arrive soon, and then mailed the survey. At each data collection, successive cohorts of adults are added from the electoral roll as they become age eligible. Those who had participated in surveys administered between 2006 and 2020 were sent a postal survey in July/August 2021 that focused on experiences of COVID-19. The

project was reviewed and approved by the Massey University Human Ethics Committee (SOB 21/28).

In the survey, participants were asked questions concerning whether they had been diagnosed with COVID-19, their COVID vaccine uptake, perceptions of the impact of COVID-19 on health, whanau (i.e., family) health, volunteering activities, caring obligations, and perceptions of information received from official sources. At three points throughout the survey—after closed-ended questions in sections concerning general health, financial well-being, and basic demographics—the following statement appeared: “We are interested in hearing about your experiences of the COVID-19 pandemic. There is more space on the back page of the survey to write about these experiences if you wish.” Participants also used the space on the back page to write comments about other questions and aspects of the survey.

Survey participants in 2021 ranged in age from 56 to 93 years, of whom 1525 (37.42%) identified as Māori (the indigenous people of Aotearoa); 2317 participants (56.86%) were women and 1757 (43.12%) were men. Of the 4075 survey responses, 1465 (36%) contained qualitative responses on the back page that included comments clarifying responses to closed-ended COVID-19 questions, other comments (e.g., important events such as retirement or the general experience of being an older person), and comments about the quality of the survey itself, to more targeted responses regarding COVID-19 experiences. Participants who left responses on the back page ranged in age from 56 to 93 ( $M_{age} = 69.23$ ). Of the 1,021 participants (69.7%) who provided their ethnicity, 237 (23.2%) identified as Māori. The sample that wrote responses was predominantly female (62.3%); 61.5% were retired; 23.5% lived alone; 69.7% were married or in a partnered relationship. Additionally, whereas the majority of those who wrote responses were located in the more populous North Island (73.3%), the number of participants from all regions (both North and South Islands) was representative of the population of midlife and older adults.

Non-COVID-19-related responses written in the space on the back page of the survey were excluded from coding. These included suggestions for improving the survey, or comments on the general experience of aging. This left 510 codable responses, or 34.8% of the total 1465 responses: a relatively large percentage, given that the suggestion to leave comments concerning COVID-19 was not specifically tied to other COVID-19 questions. The current study's final sample had an age range of 56–87 ( $M_{age} = 69.73$ ), with 15.9% identifying as Māori; 76.2% were female, 63.5% were retired, 23.9% lived alone, and 60.9% were married. Statistical analyses confirmed that, compared to the total qualitative sample, the final sample did not significantly differ in age,  $t(1460) = 1.91, p = 0.06$ , but it contained a significantly higher proportion of participants identifying as women,  $X^2(2, N = 1449) = 63.54, p < 0.01$ .

## Procedure

Based on a thorough reading of theory and research pertaining to SST (Carstensen, 1992), a coding scheme was iteratively and inductively developed by the first two authors, both of whom are experienced qualitative analysts and have extensive experience in the field of adult development and aging research. Both authors read all responses, and identified frequently occurring expressions. Related expressions were grouped together as codes. Codes were then grouped into subthemes, and eventually the subthemes were also grouped into two superordinate SST-related themes. The first two authors individually coded a random subsample of 10% of participants for the presence or absence of each code, and entered the data into IBM SPSS Statistics (Version 29). Cohen's Kappa interrater agreement was calculated. Across the codes, interrater agreement ranged from 0.64 to 1.00, with a mean interrater agreement of 0.79, indicating substantial agreement (McHugh, 2012). Any differences in this initial coding were discussed, and the final coding scheme agreed to by both coders. The first author then used the finalized coding scheme to code the remaining responses, with a final check of a random 10% of the first author's coding by the second author, resulting in the same level of interrater agreement as the initial coding. The few remaining discrepancies were resolved through further discussion, and resulted in the final expert data file.

The first superordinate theme was the importance of social, emotional, or instrumental support from others as well as the experience of lack of connection with others. This theme included subthemes of the importance of family and friends; changed relationships with family, friends, neighbors, colleagues, and strangers; experiences of changing orientations to social activities; and loved ones in managed care situations. The second superordinate theme was anticipation of the future, particularly concern for proximal and distal futures, both personally and for communities or society in general, and included subthemes regarding uncertainty about returning to ‘normal’ as a society and integrating COVID-19 into future daily life (future of communities), as well as issues around timing of events such as retirement, being an older person with limited time left, and living in the moment (personal future). Each of these subthemes comprised further separate codes. A broad range of responses were also coded as ‘other’ when they represented COVID-related themes that fell outside these subthemes, for example, comments regarding vaccination status. Eighty-four responses (16.5%) were coded as ‘other’ COVID-related responses outside of the two main themes outlined above. Individual responses could be coded for more than one subtheme, and often responses demonstrated complexity through apparent contradictions in people's preferences for

social connection. Please see the Appendix for the full coding scheme in order of frequency, with themes, subthemes, and codes, as well as code descriptions and examples, and age and gender of respondent for each quotation. Identifying information has been redacted in some responses to ensure anonymity. Illustrative extracts are reproduced with spelling and grammatical constructions as written by participants.

This study included both midlife and older adults. Whereas SST-related issues have been associated with adults of all ages (Fung & Carstensen, 2006), it is possible that fundamental perceptions of time horizons or ways of experiencing meaningful relationships could differ for midlife participants and older adults, i.e., different SST-related themes might be more prevalent in different age groups, depending on age and stage in life. Thus, we also explored differences in subtheme frequency between midlife (56–65), young–old (66–75), and old–old (76–87) adults, using chi-square analyses.

## Results

The first superordinate theme—social connection—was expressed in 401 (78.6%) of the responses examined, and divided into five subthemes. The second superordinate theme—anticipating the future—was expressed in 169 (33.1%) of responses, and divided into two subthemes.

### Social Connection Subthemes

#### The Importance of Family and Friends

The importance of family and friends was the largest and most frequent of the five social subthemes (249 responses or 48.8%), exemplified by six codes. Most prevalent were expressions of *not being able to visit friends and family or have them visit* (125 responses, 24.5%), providing examples of how the lockdown constrained in-person contact. However, *keeping in touch more regularly in whatever way possible (new technologies)* was also frequently expressed (109 responses, 21.4%). Often, these two codes were present in the same responses, showing disappointment in visiting constraints but adaptability in order to maintain social connection, for example, “Have not seen Aussie grandchildren since 2018 so difficult—Skype helps” or “We missed visiting our families but kept in touch with them via phone/Zoom.” *Missing crucial events* in both their own lives and the lives of friends and family was also expressed (26 responses, 5.1%). Examples included “The worst thing was not being able to attend tangihanga [funeral rituals],” or in combination with not being able to visit and keeping in touch, “We keep in touch, but I would rather see them in person and be able to attend special celebrations.” *Missing personal physical*

*contact* with close others (23 responses, 4.5%) was often mentioned in combination with one or both codes, such as “Our normal lives included travel to visit family, now nothing. Messenger and video are good, but you cannot cuddle an Ipad.”

Two less-frequent codes in this subtheme included *generic support or importance of family and friends* (18 responses, 3.5%), “COVID-19 has helped me appreciate the important things in life—family, friends and health,” and *changes in plans based on relationships* (5 responses, 1%), “I had always intended retiring at 65 and COVID-19 just reinforced the need to make the most of the time we have with children and grandchildren.”

#### Changed Relationships: Community Members

Many responses referenced changes in relationships with community members (122 responses, 23.9%), such as neighbors, colleagues, or even relative strangers, often in the absence of family contacts. The most frequent code of the three in this group or subtheme referenced *belonging: feeling part of a neighborhood or community* (56 responses, 10.9%). Participants found that lockdown “Brought neighbours closer and improved relationships with those around us and community assistance for the elderly in our apartments was awesome.” Another code indexed community members *as social contacts in the absence of family, friends, and work colleagues* (53 responses, 10.4%); for example, “People out walking through the local reserves have been particularly friendly and chatty which has lift everyone’s mood” or “Lockdown enabled us and many others in our neighbourhood to slow down and appreciate each other.” The third and final code referenced *community members as providing instrumental help* with tasks: doing grocery shopping, providing health resources, and connecting communities (27 responses, 5.3%).

#### Changed Relationships: Family and Friends

Changed relationships with family and friends were also frequently mentioned (105 responses, 20.6%) and were mainly to do with positive changes in close relationships. Some participants described negative changes concerning enforced proximity with others, and relationship divisions based on differences in responses to health directives during the pandemic. The predominant code of the four in this subtheme concerned *family and friends as instrumental help*, mainly help with grocery shopping (61 responses, 12%). Two codes encompassed changes in emotional closeness, both *positive* (31 responses, 6.1%) and *negative* (10 responses, 2%). For example, “Without distractions we fell in love again” and “feeling...removed from a lot of what my foreign friends have experienced—to the point where I do not want to visit

them or have them visit me for a time.” The last code in this group concerned *divisions among families and friends based on non/compliance with health directives* that ultimately influenced social connection (eight responses, 1.6%): “I grieve for some of my relatives in America who are refusing the vaccine.”

### Change in Social Interaction Activities

Participants mentioned changes to normal activities due to pandemic restrictions (80 responses, 15.7%). Two separate codes captured this subtheme. *New orientations to activities* (64 responses, 12.5%) represented perceiving disruption to normal activities as an opportunity to re-evaluate negative aspects of current activities; for example, “Lockdown proved a great opportunity to complete house and garden projects” or “less pressure to entertain.” However, *missing regular face-to-face activities*, particularly where social connections were forged, was also expressed (22 responses, 4.3%): “I like to play table tennis once a week and Covid lockdowns stop this. Means I cannot socialise with friends there at the club.”

### Family Members in Residential Care Situations

The final subtheme within the Social Connection theme reflected having a family member in residential care. Fewer participants made comments concerning family and friends in care situations (15 responses, 2.9%), but they represent the difficulties presented by the pandemic for communication and visits. *Death of a family member in care* was mentioned by seven respondents (1.4%), for example “I lost my mum in the Lockdown in April 2020...It was a very stressful time not being able to see her.” The code *others taking care of family members* (five responses, 1%) is exemplified by “mother has dementia and is...in a care facility...The only person she will see is the nurse and cleaner.” *Disappointment in level of care provided* was mentioned by four responses (0.8%), for example “my partner in the dementia ward...became seriously ill because he could not understand why I had stopped visiting. I had to threaten to bring him home before he got the appropriate medical intervention.” Conversely, one person (0.2%) mentioned *appreciation of level of care provided*: “The care home where I visit and feed my wife daily, were extremely vigilant.”

### Anticipating the Future Subthemes

#### Uncertainty Regarding Personal Future

Altered perceptions of future time horizons can act as preconditions to maximize meaningful and pleasurable relationships and pastimes. Many participants expressed uncertainty about their own futures, with five separate codes assigned to

this subtheme. The first two codes in this group—thoughts concerning *financial instability* (42 responses, 8.2%), and *retirement issues affected by COVID-19* (39 responses, 7.6%)—were often mentioned together. As one participant commented: “I’m going to retire...as the numbers for Covid are too high...I am a bit worried about the loss of this income, because the super [pension] is not that much.” *When ability to travel safely will be reinstated* was also mentioned (35 responses, 6/9%), as was the intention to *live for now* and enjoy life to the fullest (22 responses, 4.3%), e.g., “[Friend’s death from COVID-19] has made me appreciate each day” and “Covid 19 was a great opportunity to take stock and focus on what was really important for me.” The final code regarding personal future was *as an older person with limited time left* (14 responses, 2.7%), e.g., “Lockdown means a lot of dead time gone to waste as our years pass by.”

#### Uncertainty Regarding the Future of Communities

The final subtheme concerned the future of the wider community and society in general (55 responses, 10.8%) and comprised two codes. The first included expressions of *return to normality* (39 responses, 7.6%); both a desire to, e.g., “I am very worried about the continuation of the COVID-19 pandemic...this lockdown could go on for some time,” and a hope not to return to pre-pandemic normality: “At first, I thought it all would be a great wake up call for us all re: caring for the planet, connectivity with others etc. Disappointed it doesn’t seem to be that way.” The second code focused on expressions of *integrating COVID-19 into daily life* (17 responses, 3.3%), both in the short-term, “I anticipate we will do the same [i.e., shopping online; only keeping essential medical appointments] when the delta lockdown occurs in NZ in the near future,” and in the long-term “C19 is here to stay like the flu therefore we need to live with it and move on.”

#### Subtheme Differences by Age Group

We found some evidence of age group differences in the prevalence of certain subthemes. Compared to both midlife (56–65) and young-old (66–75) adults, old-old adults (76–87) expressed comparatively more themes concerning *changed relationships with family and friends*,  $\chi^2(2, N=2) = 13.23, p < 0.01$ , and *changed relationships with community members*,  $\chi^2(2, N=2) = 15.21, p < 0.01$ , as well as relatively fewer themes concerning *uncertainty regarding personal future*  $\chi^2(2, N=2) = 20.74, p < 0.01$ .

Additionally, although the upper North Island residents experienced heavier restrictions, post hoc Fisher’s exact tests showed no regional differences in subtheme prevalence. Fisher’s exact tests also found no differences in subtheme prevalence by ethnicity.

## Discussion

Drawing on socioemotional selectivity theory (SST), this thematic analysis of qualitative responses to an open-ended question concerning experiences of COVID-19 among older adults from the Health, Work and Retirement study (HWR) of Aotearoa/New Zealand identified two superordinate themes: Social Connection and Anticipating the Future, each with several subthemes. Given that participants were provided no specific guidance or framing regarding what to write, expressions of SST-related themes were relatively prevalent (i.e., almost 35% of all responses). For many participants, the pandemic and subsequent lockdowns brought greater focus to the importance of relationships and activities, and to thoughts of the future.

Subthemes differed in the extent to which they captured SST. The most prevalent of the social connection subthemes, *the importance of family and friends*, related directly to SST and demonstrated maximizing positive social connections with close others during the uncertainty of the pandemic. However, codes representing the subtheme of *changed relationships with the community* embodied the importance of social connections with the wider community for well-being, particularly for older adults, when family and friends might have been inaccessible. This finding suggests that the context matters for how people respond when time horizons are perceived as limited. In the context of social restrictions, positive social interactions with less familiar people attained new meaning. Rather than necessarily valuing established relationships, the restrictions appeared to highlight the importance of belonging to a supportive network. The frequency of mainly positive codes for *changed relationships with family and friends* again showed how existing relationships can be strengthened during a time of uncertainty, whereas in *change in social interaction activities*, participants described both missing regular activities and appreciation for the chance to reassess the activities important to them. Less prevalent, but generally more negative, was the subtheme of *family members in residential care situations*, poignantly reflecting many of the issues publicly expressed about care facilities during COVID-19 and COVID-19's role in preventing attempts to focus on emotionally significant relationships.

Anticipating the future was altered by COVID-imposed constraints. *Uncertainty regarding personal future* captured the perception of limited future time, and the frustration of squandering precious time left. Less related to SST, but still an acknowledgement of impending future change in the broader sense, was *uncertainty regarding future of communities*. Finally, the finding that the old-old (76+) were more focused on social relationships and not so concerned about the future compared to the midlife (56–65) or young-old

(66–75) is consistent with Settersten et al.'s (2020) observation that uncertainty during the pandemic manifests as a focus on the present, particularly for the oldest-old. Additionally, those past traditional retirement age might be less concerned that post-retirement plans were thwarted, or perhaps earlier life experiences of disasters gave rise to recognition that the current situation would pass (Tuohy & Stephens, 2012).

These themes are consistent with the SST tenets that age and other prompts concerning life's finitude result in the perception of limited time horizons, motivating goals to spend time with emotionally close others and in personally fulfilling activities. However, the findings also extend our understanding of SST, given participants' increased communication with previously unknown people (and their enjoyment of it), particularly in terms of feeling part of a community. While the importance of increased interactions with community members has also been observed in other Aotearoa/New Zealand-based studies (Jenkins et al., 2021; Stephens & Breheny, 2022), the current study interprets this alteration in light of SST. In the context of restrictions to social movement, local communities potentially take on new meanings and functions. Friendly interactions within local communities may engender a sense of safety and connection (Breheny & Stephens, 2023), aspects that may be typically provided by emotionally close connections when social restrictions are absent. This points to the function of selectivity, which may be achieved differently depending on the context in which time horizons are altered. While the onset of the pandemic denied older adults their familiar and comfortable social activities, it also offered them an opportunity to re-evaluate priorities and relationships. Some participants found that they missed habitual activities or friends and family; others found they did not miss them as much as anticipated.

The finding that comparatively positive themes dominated responses is consistent with previous international scholarship examining SST during COVID-19. Adults in the United States reported more positive than negative emotions during the early months of the pandemic, with older adults reporting greater well-being than their younger counterparts, despite perceiving less time left to live (Carstensen et al., 2020). Additionally, older adults in the present study experienced changing relationships with family and friends in terms of both emotional and instrumental support, and acknowledged limited time left to enjoy meaningful experiences (Settersten et al., 2020). Expressions of maintaining social connections and supporting emotionally meaningful goals using technology as well as the need to stay in touch with their communities are also consistent with international scholarship (Bardach et al., 2021; Newton et al., 2022; Seckman, 2023; Settersten et al., 2020). Although less prevalent, the expression of negative themes by participants in

the current study is also consistent with the previous findings. For example, expressions of sadness and anxiety due to diminished in-person contact with others are consistent with Seckman's (2023) literature review findings, and expressions of the inability to share in crucial events also supports Settersten et al.'s (2020) predictions. These results suggest some of the ways in which both age-related and pandemic-related perceptions of the future, and their concomitant need to maximize meaningful social relationships, may have been affected by lockdown.

The effects of both age and COVID-19 constraints on perceived time horizons were also evident in the current study. Feelings of wasting precious time in lockdown reflect Fung and Carstensen's (2006) findings that during the 2002–2003 outbreak of SARS-CoV in Hong Kong, people of all ages rated their perceived time left as limited and chose to spend time with familiar others, although post-outbreak, time horizons remained limited only for older adults in their study. Similarly, the older adults in our study may have had limited age-related time horizons prior to COVID-19 but the subsequent need to maximize their limited time with familiar others was then stymied by pandemic health directives.

The context of the pandemic produced many kinds of relationship losses, some of which present a challenge to the SST framework (Seckman, 2023). Grief can be mitigated by contact with family and friends, but loss of in-person contact at such a time may have been experienced differently in countries where mitigation or suppression strategies were employed. Divisions in relationships over disagreements concerning health guidelines were also experienced as loss. During the COVID-19 pandemic, older adults who experienced loss in their networks could have been at greater risk of isolation, particularly if they lived alone (Settersten et al., 2020). In such circumstances, a feeling of belonging to a community can alleviate perceptions of isolation or loneliness and satisfy needs for social connection. Newly forged relationships in the face of a heightened need for connection may not align with current conceptions of SST, which propose selective focus on emotionally salient relationships. Examining the ways that both new relationships develop, and existing relationships alter in response to pandemic restrictions, has the potential to deepen our understanding of meaningful interactions in later life.

## Limitations and Future Directions

The experiences of men and Māori participants were underrepresented in the qualitative responses to the open-ended question about COVID-19 experiences. Additionally, although findings in this study are similar to those of other

countries in terms of SST-related themes during COVID-19, there is some evidence that results might vary with different containment strategies. The elimination strategy employed by the Aotearoa/NZ government shaped experiences of the pandemic. In countries where alternative strategies—such as suppression or mitigation—or different methods of enforcement were used, social connection and restriction will have been experienced differently. For example, in Ingram et al.'s (2022) study, the outcomes of Scotland and Japan's containment strategies were compared. Scotland implemented a highly restricted lockdown that was legally enforced, while Japan employed a less forceful approach, with restrictions requested and no penalties for violations (Ingram et al., 2022). Participants in Scotland exhibited greater negative changes in health behaviors (increased alcohol consumption, poor sleep quality, less physical activity) and associated poorer mood compared to their Japanese counterparts, although perceived isolation did not differ between countries. While comparison studies of SST-related outcomes by country response to COVID-19 could shed light on the relationship, such studies are complicated by many factors—e.g., timing, location, culture, vaccine availability—that can shape people's experiences of the pandemic.

There are complexities and nuances in how midlife-to-older adults understand, grapple with, and incorporate anticipated futures into their plans in later life. Rohr and colleagues (2017) identified three factors which underpin future time perspectives in SST (Carstensen & Lang, 1996): constraint (barriers to or narrowing of future time), opportunity (remaining possibilities), and extension (subjective sense of time left in one's lifetime). Constraint was captured across both main themes in our study, in that COVID-19 provided a global barrier to planning and execution of meaningful social activities and events. Opportunity was reflected in 'live for now' or 'new orientations to activities.' Extension was represented in the subtheme *uncertainly regarding personal future*. A targeted examination of perceptions of time in terms of lived experiences of constraint, opportunity, and extension could reveal the complexities of anticipated futures in the context of personal, local, and global uncertainties.

## Conclusion

Using socioemotional selectivity theory as the framework, we examined qualitative responses to an open-ended question about older adults' experiences of COVID-19 during the second national lockdown in Aotearoa/New Zealand. Over a third of participants' responses contained expressions of the importance of relationships, including the importance

of maintaining valued connections and reflections on relationship changes. Participants also anticipated what the future might hold, in terms of both uncertainty regarding the future, and hopes that the future might be different, given such a societal shift. Older people in the study prioritized the pursuit of positive emotional experiences by spending time with family, friends, neighbors, colleagues, and sometimes strangers, and in pastimes that provided meaning. In sum, responses from participants in the Aotearoa/New Zealand Health, Work and Retirement study represent some of

the diversity and complexity of being middle-aged or older during a global pandemic but also support, extend, and challenge the tenets of SST for understanding experiences of aging.

## Appendix

Socioemotional Selectivity Theory Themes, Subthemes, and Codes with Frequencies and Examples.

### Theme 1: Social connection (78.6%)

| Subtheme   | Code description   | Example (gender, age)   |
|--|--|---|
| 1. Importance of family and friends (249 responses or 48.8%) | Not being able to visit family or friends, or having them visit; includes family/friends overseas or in care/hospital (125 responses, 24.5%) | “I miss being able to visit (or have visit) our daughter who lives in Melbourne during border closures. I miss seeing my friends regularly during lockdown.” (Female, 64)<br>“I would always regularly visit Mum at the [] rest home in Queenstown...at the present time, NO VISITORS are allowed, has been very, very hard.” (Female, 62)  |
|  | Keeping in touch more regularly and in whatever way possible, e.g., learning new technologies (109 responses, 21.4%)                         | “Through social media and telecomms keep in touch with my friends and family.” (Female, 60)<br>“Keep in touch with brothers in Oz by Skype more regularly than before COVID-19.” (Female, 76)   |
|  | Missing crucial events, e.g., family members'/ friends' milestones (26 responses, 5.1%)  | “My brother-in-law had aggressive brain tumour and I was not able to visit him in the home. He died on Christmas Day...We also lost our dear mother Dec 20 she was 92. My sister could not be with us for her funeral... Just so tough to miss our twins' 1st birthday and now we will miss their 2nd birthday. Family were not able to come to celebrate my 70th birthday.” (Female, 70) |
|  | Missing personal physical contact, e.g., hugging (23 responses, 4.5%)  | “Hated it when I could not mix with my children and mokopuna [grandchildren]...have to stand at a distance, and I could not even touch or hug them.” (Female, 75)   |
|  | Generic support or importance of family and friends during COVID-19 (18 responses, 3.5%)   | “We were OK emotionally with good support from family and friends.” (Male, 76)  |
|  | Changes in plans based on relationship as a consequence of COVID-19 or COVID-19 in combo with something else (5 responses, 1.0%)             | “I decided that as I was so close to retiring as of 29.7.21 that unless the perfect job was offered, I wouldn't go back to work. Then in July, my very healthy husband had a stroke and (thank God) he has recovered amazingly, I have declined the perfect contract in the last 7 days to enjoy retirement with him. Life and priorities.” (Female, 65)                                  |
|  |  |   |

## Theme 1: Social connection (78.6%)

| Subtheme   | Code description  | Example (gender, age)   |
|--|---|---|
| 2. Changed relationships: community members (122 responses or 23.9%) | Belonging: feeling part of a neighborhood or community (56 responses, 10.9%)  | “At home we felt closer to our wider neighbourhood than ever...people, children, dogs walking past waving. I pulled up my sheer curtains and left blinds open and lights on, so that passersby could see in as trust friendly neighbours.” (Female, 77)   |
|  | As social contacts in the absence of family, friends, work colleagues, e.g., in queues (53 responses, 10.4%)  | “The supermarket...queues weren't too long, and people complete strangers would strike up conversations with one another.” (Female, 59)<br>“On a personal note, I felt that people you see on a morning walk (strangers) were more friendly with a wave or help.” (Male, 76)  |
|  | As instrumental help, e.g., shopping, checking in (27 responses, 5.3%)  | “I am on a community board, so I was heavily involved in helping streets get connected and supporting each other—set up private FB groups for each street, identified coordinators etc.” (Male, 71)<br>“A neighbour did our click and collect for us, then delivered our shopping to the door.” (Female, 71)  |
| 3. Changed relationships: family/friends (105 responses or 20.6%)    | Family and friends as instrumental help (61 responses, 12%)   | “Had to get daughter to give injections.” (Female, 78)<br>“Very fortunate—I had younger friends who delivered food.” (Female, 72)   |
|  | Changes in emotional closeness: positive (31 responses, 6.1%)   | “As a couple we enjoyed lockdown just spending time with each other...Cemented our relationship.” (Female, 65)<br>“Lockdown was a good chance to become closer to my granddaughter and mum and partner and wife all became more understanding of each other as a family unit.” (Male, 67)   |
|  | Changes in emotional closeness: negative (10 responses, 2%)   | “Unfortunately, I was sharing a house with someone who had to work from home and was extremely unhappy about it, so it has a very stressful time on the home front.” (Female, 59)   |
|  | Divisions among family and/or friends in terms of following health directives, particularly around getting vaccinated, that impact social connection and communication including via social media (8 responses, 1.6%) | “I have a [] daughter...who strongly advised me against having the vaccination. I tried to follow up on her reading sources to check out the reasoning behind her stance but found it very difficult to unearth the negative points of view that were substantiated by reputable sources.” (Female, 70)<br>“...even if we do have to 'unfollow' some friends/family on social media who have become antivaxers and conspiracy theory addicts!” (Female, 66) |
| 4. Change in social interaction activities (80 responses or 15.7%)   | New orientations to activities, e.g., disruption as opportunity for other activities or realization of negative experience of existing activities (64 responses, 12.5%)   | “Missed going to the usual groups I attend but that left me time to immerse myself in a few hobbies that I had been neglecting.” (Female, 71)<br>“Peace from forced schedules” (Female, 68)   |
|  | Missing regular face-to-face activities where social connections are forged (22 responses, 4.3%)  | “I very much miss the gym not just for the physical activity but the social.” (Female, 77)  |

## Theme 1: Social connection (78.6%)

| Subtheme  | Code description   | Example (gender, age)   |
|---|--|---|
| 5. Family members in residential care situations (15 responses or 2.9%) | Death of family member in care, and not being with them (7 responses, 1.4%)  | "My 90-year-old mother was in a rest home care during Covid lockdown and her physical, mental, and emotional well-being deteriorated noticeably during the time family were unable to visit her. She died in August 2020." (Female, 69) |
|   | Others taking care of family members (5 responses, 1%)   | "My 93-year-old mother has dementia and is now confined to her room in a care facility because Covid is now in Wgtn. The only person she will see is the nurse and cleaner." (Female, 64)   |
|   | Disappointment in level of care provided in care situations when unable to provide themselves or visit (4 responses, 0.8%) | "The no visiting for 4 weeks proved a real hurdle in adapting along with ineffective communication and staffing difficulties." (Female, 71)   |
|   | Appreciation of level of care provided in care situations when unable to provide themselves or visit (1 response, 0.2%)    | "The care home where I visit and feed my wife daily, were extremely vigilant during and between lockdowns which was very reassuring to concerned families." (Male, 85)  |

## Theme 2: anticipating the future (33.1%)

| Subtheme  | Code description   | Example   |
|---|--|---|
| 6. Uncertainty regarding personal future (128 responses or 25.1%) | Financial in/stability, redundancy (42 responses, 8.2%)  | "The lockdown made us realize how important hard work, savings and forward planning our lives can be!" (Male, 70)<br>"Just two days prior to this pandemic lockdown I was about to reinvest a significant amount of money...the uncertainty of the future of this money...sat dormant for 12 months...This is part for my future." (Male, 69) |
|   | Retirement issues affected by COVID-19: early or late, or a taste of what retirement will be like (39 responses, 7.6%) | "Has made me think more seriously about retirement." (Female, 66)<br>"Lockdown for my wife and I was peaceful and although we missed family and friends gave us a look at what we could do in retirement." (Male, 64)   |
|   | When ability to travel safely will be reinstated (35 responses, 6.7%)  | "I'm hoping to travel in the future as long as it is safe from the pandemic." (Male, 71)  |
|   | Live for now (22 responses, 4.3%)  | "One thing COVID-19 has taught me, don't wait for retirement, get out and do what you want to do right now. You might not make it, enjoy life to the fullest while you still can." (Female, 62)   |
|   | As an older person with limited time left (14 responses, 2.7%)   | "One comment from my neighbour which I would like to also share. They are 79 and 80 and are probably looking at maybe having another 4 years of living left (he has had two strokes). Having to spend these last years in lockdown and fear of COVID-19 is a very depressing thought for them." (Female, 65)                                  |

## Theme 2: anticipating the future (33.1%)

| Subtheme   | Code description  | Example  |
|--|---|--|
| 7. Uncertainty regarding future of communities (55 responses or 10.8%) | Return to normality: both desire to and hope not to (39 responses, 7.6%)  | “I fear for the safety of the world, and it is hard to imagine life ever returning to how it was.” (Female, 69)<br>“Since the pandemic was declared I feel sadness mainly for my grandchildren. The world I knew will not return.” (Female, 70)  |
|  | Integrating COVID-19 into daily life in both short- and long-term, including health care (17 responses, 3.3%)                           | “I do however feel a little fearful of the spread of future Covid mutations.” (unavailable)<br>“Elimination is not a viable goal with delta... financial management and inability to implement [management of COVID-19] will bring a major burden to future generations.” (Male, 61)   |
| <hr/>  |   |  |
| Responses Coded as Other (17.6%)                                       | Code description  | Example  |
| COVID-19-related ‘Other’   | Mention of COVID-19 experiences that do not directly relate to SST themes of social connection or anticipating the future (84 or 16.5%) | “We do not feel much trouble with the C19 pandemic, and we are both fully vaccinated against it.” (Female, 79)<br>“Living in a rural area with 50 acres and animals around the house to look after qualifies us as essential workers. So, there is always plenty to do, and we are able to go into town for essential supplies.” (Male, 77)<br>“The C19 pandemic has not really affected me as the [Christchurch] earthquakes were much worse.” (Female, 70) |

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