

Coping With Covid-19: Older Europeans and the Challenges of Connectedness and Loneliness

König, Ronny; Isengard, Bettina

Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

König, R., & Isengard, B. (2023). Coping With Covid-19: Older Europeans and the Challenges of Connectedness and Loneliness. *Social Inclusion*, 11(1), 310-323. <https://doi.org/10.17645/si.v11i1.6072>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:

<https://creativecommons.org/licenses/by/4.0/deed.de>

Terms of use:

This document is made available under a CC BY Licence (Attribution). For more information see:

<https://creativecommons.org/licenses/by/4.0>

Article

Coping With Covid-19: Older Europeans and the Challenges of Connectedness and Loneliness

Ronny König * and Bettina Isengard

Department of Sociology, University of Zurich, Switzerland

* Corresponding author (koenig@soziologie.uzh.ch)

Submitted: 31 July 2022 | Accepted: 21 October 2022 | Published: 2 March 2023

Abstract

Social networks are important for well-being and healthy aging. However, older adults are more likely to have less social contact with others than their younger counterparts due to significant changes in their lives, such as retirement or age-related losses, along with declining health and mobility. Consequently, with increasing age, a growing proportion of people experience feelings of loneliness. This becomes even more important during pandemics when social contact should be minimized. Therefore, this article examines the extent and patterns of loneliness before and during the first two years of the Covid-19 pandemic and how social contact and the type of communication affected levels of loneliness during the pandemic. To investigate loneliness, social contact, and their association during the pandemic, this study uses representative data from 27 countries from SHARE (Survey of Health, Ageing, and Retirement in Europe). The analyses are based on a balanced panel covering three consecutive waves with 28,448 respondents aged 50 years or older. The results indicate that three out of ten Europeans face loneliness in later life. While loneliness has increased for a significant part of the elderly in the wake of the pandemic, there has also been a reverse trend in terms of a decrease in feelings of loneliness for an almost equal proportion of people. Additionally, multivariate analyses highlight that nonpersonal communication cannot substitute face-to-face interaction and can potentially increase feelings of loneliness.

Keywords

communication; Covid-19; Europe; healthy aging; loneliness; pandemic scenario; SHARE; social contact; social isolation; social networks; well-being

Issue

This article is part of the issue “Family Supportive Networks and Practices in Vulnerable Contexts” edited by Jacques-Antoine Gauthier (University of Lausanne) and Vida Česnūitytė (Mykolas Romeris University).

© 2023 by the author(s); licensee Cogitatio (Lisbon, Portugal). This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

1. Introduction

In response to the outbreak of Covid-19, many countries implemented temporary epidemic control measures, such as border and business closures, mask requirements, working from home, face-to-face contact limitations or even interdictions between different households, and the universal precept of social distancing in private and public. In general, these measures should help reduce or even stop the spread of severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2). Such recommendations were implemented to protect everyone, especially vulnerable parts of the population, from

infection. This has been particularly important for the elderly because they have a higher risk of serious illness and possible death directly or indirectly related to Covid-19 infection (Posch et al., 2020).

Although social distancing could slow or reduce the infection rate (Vokó & Pitter, 2020), its impact on individual well-being is less clear. Social distancing might directly harm personal well-being (Armitage & Nellums, 2020), especially the well-being of older individuals who increasingly live alone and commonly face age-related mental health issues, such as depression, anxiety, cognitive impairment, or dementia (Riedel-Heller et al., 2006). Although social isolation is not necessarily related to

loneliness and vice versa (Hawkley & Cacioppo, 2010), previous research has noted a greater risk of loneliness for societally isolated people (de Jong Gierveld et al., 2006; Santini et al., 2020). Given that social isolation can lead to feelings of loneliness, the ongoing pandemic can amplify this effect and adversely impact mental health and well-being (Banerjee & Rai, 2020).

Although previous research has shown that negative and stressful situations might intensify loneliness in older adults (Hensley et al., 2012), little is currently known about the Covid-19 pandemic's influence on loneliness (Vahia et al., 2020) and social isolation in later life. Recent studies on mental health affected by the Covid-19 pandemic have consistently found that older adults have shown higher levels of loneliness since the outbreak (Killgore et al., 2020; Krendl & Perry, 2021; van Tilburg et al., 2021; Wang et al., 2020) and that the situation varies depending on the general social network size (Macdonald & Hülür, 2021). Although social distancing might negatively affect mental well-being, especially that of older adults during the pandemic, modern forms of communication can help people maintain contact with family and friends despite geographical and social distances. However, previous research has emphasized an age-related digital gap in using information and communication technologies, suggesting that a significant proportion of older adults are unfamiliar with the potential of modern communication (König, Seifert, & Doh, 2018). This raises questions about the role of personal and electronic contact in later life and during the pandemic, as well as how the type, extent, and ratio of the communication might prevent or provoke loneliness, which this article aims to investigate.

The following section addresses the aspect of loneliness in later life, the role of social contact, and changes due to Covid-19, both theoretically and from a review of prior research. The subsequent section presents the data utilized, explains the operationalization of the observed variables, and outlines the methodological approach. The empirical—descriptive and multivariate—results are presented and discussed thereafter. This article concludes with a summary and discussion.

2. Loneliness, Social Contacts, and Covid-19

Loneliness, a complex psychological concept (Dykstra, 2009), can generally be described as a discrepancy between the desired and achieved amount of contact and emotions (Perlman & Peplau, 1981). It is further characterized by a perceived lack of control over one's social activities (Luhmann & Hawkley, 2016). Following Perlman and Peplau (1981, p. 31), loneliness can be defined as "the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or qualitatively." Weiss (1973) identified two forms of loneliness: social and emotional. While social loneliness derives from the lack of a broader social network or activities and tends to

affect younger people, emotional loneliness stems from a lack of emotional and close relations and increases later in life (Dykstra, 2009).

During pandemics such as Covid-19 we can adhere to social distancing, but long periods of isolation, quarantine, or even the uncertainty of what happens next and how long it will last affect mental well-being because individual control over social contact and activities is limited. Previous work has noted that long periods of isolation or quarantine have detrimental effects on well-being (Stickley & Koyanagi, 2016), and there is a general decline in the size of social networks and the number of daily social interactions with increasing age (Kalmijn, 2012; McDonald & Mair, 2010). Following Carstensen (1991), this might be due to individual adjustment to impending mortality and a refocusing to enrich and maintain existing relationships rather than to invest in forming new ones. Moreover, there is evidence that the age-related decline in social network activity is largely due to social structural factors, including the changing availability of potential alters (Cornwell, 2011; Marcum, 2013). In line with the convoy model of social relations, the shift from quantity to quality regarding individual social networks in later life is mainly explained by the reduction of contacts with acquaintances and friends, but less concerning the closest circle (Kahn & Antonucci, 1980). Hence, the value of such reduced contact becomes more important in later life (Zhaoyang et al., 2018), and social isolation can increase feelings of loneliness, especially during a pandemic.

The outbreak and spread of Covid-19 have affected all individuals, particularly the older population, in various ways. As the latter belong to a higher-risk group associated with more serious diseases in terms of Covid-19 infection, they were especially urged by many politicians and scientists to reduce their in-person contact with family, friends, and others, which might have led to a situation of being and feeling more socially isolated. Furthermore, being reminded of their belonging to a group of higher risk may induce negative self-perceptions, leading to isolation and loneliness (Hwang et al., 2020). Several studies have found an increase in loneliness in the first year of the Covid-19 pandemic (e.g., Gauthier et al., 2021; Killgore et al., 2020; Krendl & Perry, 2021; van Tilburg et al., 2021; Vlachantoni et al., 2022).

Even before the pandemic, some studies indicated that frequent and intense face-to-face interactions were associated with less loneliness (Lee & Ko, 2018; Robinson et al., 2016; Russell et al., 1980). Simultaneously, the ability to use and the effect of electronic communication on loneliness and its extent have been less explored and are thus less clear. In general, using modern communication channels, such as (smart)phones, emails, and video calls, may have the potential to overcome loneliness later in life (Fokkema & Knipscheer, 2007) and during periods of physical distancing. However, regarding the influence of social contact to avoid social isolation and

feelings of loneliness, recent findings have emphasized that in-person contact has benefits, such as direct interaction, handshakes, embracement, and physical closeness, which are not available from electronic contact (Fingerman et al., 2021).

Cohn-Schwartz et al. (2022) analyzed the direct and indirect associations between physical distancing, social interaction, and loneliness in various countries. Their empirical findings indicated that periods of physical distancing were directly associated with higher levels of loneliness in later life. Furthermore, it seems that face-to-face contact reduces the risk of a strong increase in loneliness during the pandemic, while non-personal communication is an ineffective substitute for face-to-face interaction (Kovacs et al., 2021; see also Atzendorf & Gruber, 2021). Being in contact electronically cannot offset older adults' loneliness but rather could potentially reinforce it (Krendl & Perry, 2021).

In addition to the influence of social networks and social contact, previous research indicated that women, the elderly living alone, individuals with restricted financial resources, and those with health limitations were particularly affected by increased loneliness during Covid-19 (see, e.g., Atzendorf & Gruber, 2021; Khan & Kadoya, 2021; Seifert & Hassler, 2020). Further findings suggested that employment situations and living areas seemed to affect patterns of loneliness during the pandemic (Khan & Kadoya, 2021). Moreover, the experience of personal Covid-19 infection or that of someone close, as well as the loss of a close person as a result of an infection, tends to be associated with a lower level of well-being, such as a higher prevalence of depression and loneliness (Atzendorf & Gruber, 2021).

Although a pandemic will have—by its name—a global impact, its extent and response will vary nationally or even locally. In this vein, a recent study by Atzendorf and Gruber (2021) on Europeans aged 60 and over found increased feelings of depression, but not loneliness, with an increased number of Covid-19-related deaths or days of stringent policy interventions, such as stay-at-home orders. Moreover, Kim and Jung (2021) found that the level of distress from the pandemic correlated with the stringency of policy implications and the number of deaths related to Covid-19. Recent findings showed that, despite more frequent contact, there was a higher prevalence of feelings of loneliness among older adults living in Southern Europe than among those living in other parts of Europe during the pandemic (Cohn-Schwartz et al., 2022). According to Cohn-Schwartz et al. (2022), this Southern European pattern could be due to pandemic-related physical distancing, which increased individual needs and expectations for social interaction, but ultimately could not be met to the desired extent.

We combined these different streams of research and examined how individuals in later life face loneliness and its variations over time. We did so by analyzing how social contact, the use of different communication types, and their quantitative and qualitative effects

increased but also decreased feelings of loneliness during the first two years of the pandemic. Thus, we contribute to research on the intersection of social contact and well-being in later life across Europe.

3. Data and Methods

3.1. Data

To answer our research questions, this study was based on SHARE (Survey of Health, Ageing, and Retirement in Europe), which provides standardized information on respondents aged 50 years or older in various European countries and in Israel. To investigate the influence of the Covid-19 pandemic on feelings of loneliness, we used a balanced three-wave panel design, considering the individual situation before and since the outbreak (for details on the data used see Börsch-Supan, 2022a, 2022b, 2022c). The first measurement point (T0) was based on the eighth regular SHARE wave, collected between October 2019 and March 2020—shortly before the outbreak of Covid-19. The second time point (T1) referred to the first Covid-19 survey as part of the eighth SHARE wave and was collected mainly between June and August 2020. Finally, the second Covid-19 survey, collected roughly one year after T1 (between June and August 2021), was used as the third-panel wave in our study (T2). Thus, our initial sample comprised only those respondents who participated at all three time points. The 27 countries that participated in all three time points were Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Israel, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, and Switzerland.

3.2. Dependent Variables

Our analyses were based on two measurements of loneliness. First, we included the general state of feeling lonely at each of the three survey times based on the following question: How much of the time do you feel lonely? All respondents were able to answer by choosing one of the following three categories: *often*, *some of the time*, or *hardly ever or never*. Second, we considered the possibility of changes in feeling lonely by comparing the answers of all respondents to the first dependent variable between T0 and T1, as well as between T1 and T2. An increase in loneliness was defined as a respondent rating their current feelings of loneliness as higher than in the previous wave (*often vs. some of the time/hardly ever or never*; *some of the time vs. hardly ever or never*). Decreased feelings of loneliness were measured in reverse logic and indicated that the respondents' current feelings of loneliness were lower than in the previous wave. Respondents who mentioned the same level of loneliness in two consecutive waves were grouped into the third category: no changes regarding

their feelings of loneliness over time. This procedure allowed us to identify variations in loneliness over time from a more objective perspective.

3.3. Individual-Level Variables

In our multivariate modeling, we tested for basic sociodemographic and economic variables, such as gender, age, health status, educational level, occupational status, and migration experience. While the respondents' gender was binary coded (male vs. female), we included age as a metric term. As physical health might be linked to psychological well-being, we considered the respondents' self-rated health conditions, ranging from *excellent* and *very good* to *good*, *fair*, or even *poor*. Education was measured based on the respondents' level of education according to the International Standard Classification of Education (ISCED) as low (ISCED 0–2: (pre)primary and lower secondary), medium (ISCED 3–4: upper and post-secondary), or high (ISCED 5–8: tertiary) education. Given that employment can affect the size of individuals' social networks, we determined their employment status (employed or unemployed/inactive) at the time of the interviews. Moreover, we considered cultural differences caused by migration and covered whether respondents were born in their country of residence (yes or no).

3.4. Social Networks and Social Contacts

Regarding the influence of respondents' social network size, composition, and interaction, we captured respondents' household size, differentiating between whether they lived alone, in a two-person household, or in a household with at least two other people. Additionally, to consider the presence of an intimate relationship within the respondents' household, we determined whether the respondents lived with a partner or not. We further included whether the respondents had at least one living parent and child residing outside their own household as potential social network members at T1 and T2.

In addition, we considered the frequency and type of interaction with the respondent's social network during the pandemic. Here, SHARE Covid-19 surveys included separate questions on personal and nonpersonal contact with social network members outside their own homes. The personal contact question was: How often did you have personal contact, that is, face-to-face, with people from outside your home? The question on nonpersonal interaction was: How often did you have contact by phone, email, or any other electronic means with people from outside your home?

For both types of communication and each group of network members (parents, children, other relatives, and nonrelatives), respondents could choose one of five frequencies: *daily*, *several times a week*, *about once a week*, *less often*, and *never*. As the interviews in T1 and T2 were conducted at different stages of the pandemic, the

wording of the questions referred to different reference periods. While the first Covid-19 survey (T1) referred to the time since the pandemic outbreak, the follow-up survey (T2) asked about contact frequencies over the previous three months. Since not all potential network members were available for every respondent (i.e., parents and children), we computed three contact variables measuring the overall, personal, and electronic contact based on the most frequent contact information of all available network members. Furthermore, we measured the contact ratio by comparing respondents' personal and nonpersonal contact with the social network living outside their own household. Hence, we could differentiate whether respondents used both types of communication (personal and electronic) equally or one more frequently than the other.

3.5. Covid-19 Circumstances

In addition to the influence of social contact on the extent of loneliness, we considered specific circumstances that resulted from the Covid-19 pandemic. This included, for example, situations of extensive social distancing, meaning that respondents had never left their home (yes or no) since the outbreak of Covid-19 for T1 or during the last three months of the interview done at T2. We also considered whether respondents or anyone close to them had tested positive for the coronavirus, had been hospitalized due to the infection, and/or had died due to the infection. Each of these items was binary coded (yes or no) and referred to the period from the previous (T0 or T1) to the current (T1 or T2) wave.

In addition to the respondents' own experiences with the coronavirus, we also considered the general and contextual circumstances of the pandemic. This included the stage of the pandemic indicated by the specific SHARE wave. Moreover, we considered structural and pandemic-related differences at the country level, which might affect the extent of social isolation and, thus, levels of loneliness. Structural differences between countries and time referred to the GDP per capita (controlled for purchasing power parity) and the national-specific life expectancy at birth. All of these indicators referred to the year preceding each wave and were drawn from World Bank (2022) data. Considering the spread of the virus and containment measures of the respective governments, we further included the number of new Covid-19-related infections (seven-day average, per million), which were drawn from the Johns Hopkins University dashboard and dataset (for details see Dong et al., 2020). Based on the Oxford Covid-19 Government Response Tracker (Hale et al., 2021), we included the stringency index—rescaled to a value from 0 to 100 (strictest)—covering government policies as a reaction to contain the spread of the virus. Both indicators were entered as their average, meaning since the outbreak of SARS-CoV-2 for T1 and the last three months for T2.

3.6. Analytical Strategy

For the purpose of this study, the respondents were selected in a two-stage process. The initial balanced panel included 30,248 respondents who participated in all three waves (T0, T1, and T2), representing—under the exclusion of deceased participants between T0 and T2—almost 70% of the respondents surveyed at T0. We had to exclude respondents younger than 50 years at T0 ($n = 148$), those living in nursing homes during at least one wave ($n = 298$), and those with a missing value in one of the dependent ($n = 485$) or explanatory variables ($n = 869$). Considering these exclusions, the first sample included 85,344 observations from 28,448 respondents investigating the general state of loneliness across Europe. From this sample, we excluded all 28,448 observations referring to T0 to examine loneliness and changed loneliness since the outbreak of Covid-19 (for a descriptive overview see Table S1 in the Supplementary File). Given the hierarchical structure of the data, our multivariate analyses were based on three-level, mixed-effect ordered, and multinomial regressions (observations nested in respondents nested in countries).

4. Results

4.1. Loneliness Before and During the Pandemic

As shown in Figure 1, most Europeans in later life did not face feelings of loneliness at either time point (before or during the pandemic). Roughly 70% reported that

they had hardly ever or never experienced feelings of loneliness. However, at least 20% mentioned that they sometimes felt lonely, and 6–7% mentioned that they felt lonely often. Regarding changes since the outbreak of Covid-19, the results showed a slight but significant increase in loneliness over time (Friedman test with $p = .000$). Additionally, 20% of the respondents mentioned sometimes experiencing loneliness before the outbreak of Covid-19, which increased to 21–24% in 2021, while the share representing near absence of loneliness declined from 73% to 69% between T0 and T1.

Based on the longitudinal setting, the descriptive results in Figure 2 indicate that almost three-fourths of Europeans in later life reported no change in their level of loneliness in 2020 (T1) and 2021 (T2) compared with the previous year. However, the results also show that 13% rated their feelings of loneliness at T1 and T2 one level higher than at the previous time point (from *hardly ever or never* to *sometimes* or from *sometimes* to *often*). An even stronger increase—from *hardly ever or never* to *often*—was seen in 2% of the respondents in 2020 and 2021. Notably, nearly an equal proportion of older adults had the opposite experience, showing a decline (11%) or a strong decline (1%) in loneliness over the studied timeframe. In this case, there were similar proportions for both comparison times (T1 vs. T0 and T2 vs. T0), although the differences over time were statistically significant (Wilcoxon Test with $p = .000$). A similar picture emerged when excluding respondents who experienced hardly ever or never feelings of loneliness in either the current or previous waves. Here, the findings prove that roughly every third person was either less or more lonely

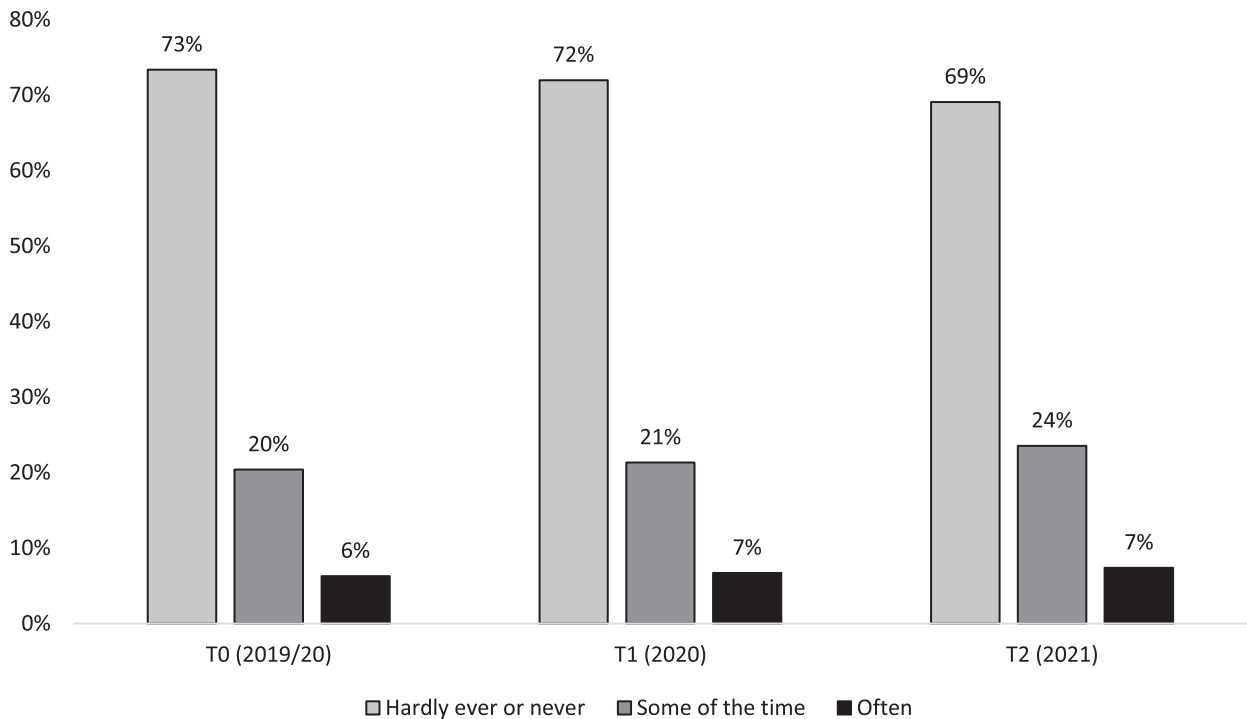


Figure 1. Feelings of loneliness before and during the pandemic. Note: $N = 85,344$ observations (28,448 respondents). Source: Based on SHARE waves 8 and 9, release 8.0.0.

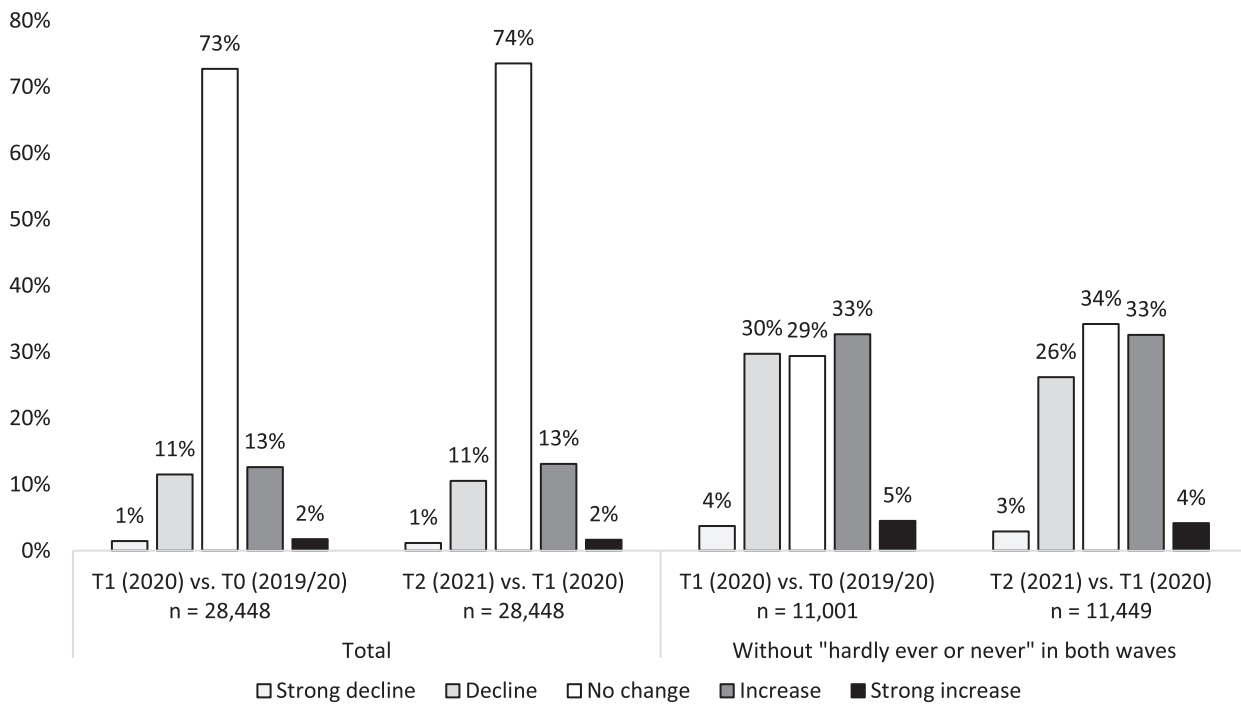


Figure 2. Changes in loneliness during the pandemic. Source: Based on SHARE waves 8 and 9, release 8.0.0.

than or just as lonely as one year before. However, the comparison also indicates that the proportion of respondents who experienced a decline in loneliness was significantly lower at T2 compared with T1 (Wilcoxon test with $p = .000$).

4.2. Patterns of Loneliness

To analyze the determinants of loneliness due to the outbreak of Covid-19, several models were estimated considering individual characteristics, indicators referring to social contact, and pandemic-related circumstances. Table 1 focused on the general extent of loneliness in later life based on multilevel ordered regressions, differentiating three distinctive responses (*hardly ever or never*, *some of the time*, and *often*) and the stepwise inclusion of different contact measures.

In general, the comparison between the two samples (M0 and M1) confirmed previous findings, according to which women, the less healthy, the less educated, the unemployed (mainly pensioners), migrants, and those who live alone and especially without a partner are particularly affected by loneliness. Furthermore, the inclusion of pandemic-related events at the individual level only indirectly affected loneliness. While experiencing a Covid-19-related infection, hospitalization, or even death in one’s living environment did not seem to affect loneliness, being isolated at home significantly increased feelings of loneliness. Furthermore, the availability of close family members (parents and children) did not directly affect the level of loneliness during the pandemic.

However, when patterns of social interaction were considered, specific influences on loneliness were

observed. In general, frequent and especially daily contact with social network members, such as parents, children, other relatives, and nonrelatives, outside of one’s own household significantly reduced the risk of feeling lonely. Only those with no contact faced a higher risk of loneliness (M2). A similar picture emerged when considering the frequency of personal and electronic contact separately (M3 and M4). Moreover, the simultaneous consideration of both forms of communication (M5) showed the best model fit (characterized by the lowest values regarding the used information criteria), that loneliness primarily depended on the frequency of personal contact, and that electronic forms of communication were no substitute for personal exchanges. This was confirmed when the ratio of the two forms of contact was considered (M6). Therefore, it can be said that older adults who are in more electronic contact with their social network than in person or equally are likelier to experience feelings of loneliness.

Finally, it appears that contextual patterns also influence loneliness among the elderly. The findings showed that loneliness occurred significantly more frequently at the onset of the pandemic than before, but there was no difference between the two pandemic years (2020 and 2021). Considering national circumstances, the results also indicate that loneliness among the elderly generally occurs more often in countries with weaker economies (measured by GDP per capita). Regarding the average life expectancy as a proxy for the general national health system and population structure, changing effects were found. While both basic models (M0 and M1) showed a positive effect, according to which people in countries with a longer life expectancy were also more frequently

exposed to feelings of loneliness, the opposite was true when communication patterns were included: longer life expectancy accompanied less loneliness (M7), suggesting that living longer also increases the likelihood of experiencing the loss of important people and thus contact partners. Similar to personal experiences with Covid-19, national circumstances in terms of incidence and political response did not have a direct impact on the general state of loneliness (M8).

4.3. Patterns of Changes in Loneliness During the Covid-19 Pandemic

In addition to the main patterns of loneliness, we further analyzed—based on the findings in Table 1—the determinants that might have affected changes in feelings of loneliness during the first two years of the pandemic. Therefore, we deployed a multivariate setting based on multilevel multinomial regressions, whereby we investigated the influences of increased and decreased feelings of loneliness compared with respondents whose level of loneliness remained constant over time (Table 2).

While age did not directly affect changes in loneliness, the results highlighted the familiar picture, in which women, respondents with health restrictions, the less educated, and the non-employed were likelier to feel lonelier but also less lonely during the different stages of the pandemic. In addition, the findings showed that people with migration experience became less lonely during the pandemic. This phenomenon can be attributed to the fact that migrants live more often in multigenerational households (König, Isengard, & Szydlik, 2018) and are therefore less often physically alone. In addition, they are more often connected with non-co-residing family members than natives, even though they often live farther apart (König et al., 2021), meaning that they were able to establish appropriate strategies for bridging distances and maintaining contact even before the pandemic. Regarding respondents' living situations, we found that living alone could increase but also reduce feelings of loneliness in later life. A similar picture emerged for those who had isolated themselves at home.

Regarding the experience of pandemic-related events in the respondents' lives, we found that those who were infected or had someone close to them infected were less likely to show a decrease in loneliness over time. However, hospitalization or death in connection with Covid-19 showed no effects on changed levels of loneliness. The results showed that the availability of parents and children could lead to changed feelings. While having children away from home could reduce and increase feelings of loneliness, the latter was evident for those with living parents. This may have been because some parents needed special protection during the pandemic, and personal contact, informal help, and care services were not available as usual.

Regarding the role of social interactions in changed feelings of loneliness, our results showed that nondaily

overall contact (M1) increased the risk of feeling lonelier. Simultaneously, respondents who were less often in contact with their social network had reduced feelings of loneliness. However, the inclusion of the contact ratio (M2) points to the importance of electronic contact for increased feelings of loneliness. In line with the findings on the general level of loneliness (see Table 1), respondents who were in contact with their social networks more often electronically rather than personally were also likelier to experience an increase in loneliness.

With the final inclusion of contextual circumstances (M3 and M4), the analyses reached the best model fit and showed that a decrease in loneliness became less likely the longer the pandemic lasted. However, the pandemic year had no direct impact on increased feelings of loneliness. According to the findings, alternating feelings of loneliness (decrease and increase) occurred significantly more often in countries with comparatively low economic power. Regarding the inclusion of the indicators for life expectancy and Covid-19-specific parameters, no substantial effects on changed levels of loneliness were found.

5. Conclusion

Loneliness—a phenomenon experienced by all age groups—can have different causes and manifestations. However, the probability of developing feelings of loneliness increases with age when one's social network size decreases and the qualitative aspects of social relationships increase in importance (Lansford et al., 1998). In this context, a pandemic could act as a catalyst for increased feelings of loneliness, as insecurities, fear, social and physical isolation due to the outbreak, and the persistence of an infectious disease can arouse or even exacerbate such feelings. As physical distancing is crucial for preventing the spread of Covid-19, many politicians and scientists have urged the population to minimize close personal contact. Hence, many Europeans began maintaining social distancing by substituting personal contact with electronic communication to have at least some contact with family and friends.

This study investigated social contact, loneliness, and their linkage during the Covid-19 pandemic using representative data from 27 European countries and Israel. The analyses indicated that most Europeans in later life did not feel lonely before or during the pandemic. However, three out of ten people, a non-negligible number of older people, were affected by loneliness. While the level of loneliness remained constant or even increased for the majority during the first two years of the pandemic, some older people were characterized by a decrease in feelings of loneliness. In general, feelings of loneliness were more pronounced among women, the less educated, the unemployed, those living alone, and those isolated at home. A similar picture emerged for a change in these feelings regarding increases and decreases in loneliness. It seems that tense or unstable

Table 1. Patterns of loneliness before and during the pandemic.

	T0-1-2				T1-2					
	M0	M1	M2	M3	M4	M5	M6	M7	M8	
Men	-.291***	-.348***	-.363***	-.344***	-.357***	-.353***	-.350***	-.344***	-.349***	
Age	.039*	.027	.026	.025	.027	.025	.027	.008	.024	
Health (<i>Excellent</i>)										
Very good	.165**	.157*	.165*	.158	.160*	.159*	.166*	.166*	.160	
Good	.411***	.433***	.429***	.441***	.440***	.436***	.434***	.439***	.430***	
Fair	.716***	.780***	.796***	.807***	.785***	.802***	.789***	.794***	.775***	
Poor	1.169***	1.345***	1.356***	1.374***	1.34***	1.366***	1.357***	1.352***	1.333***	
Education (<i>Low</i>)										
Medium	-.134***	-.150***	-.117***	-.111**	-.120**	-.112**	-.126***	-.138***	-.131**	
High	-.204***	-.220***	-.169***	-.187***	-.189***	-.183***	-.198***	-.190***	-.202***	
Employed	-.070**	-.122***	-.080**	-.069*	-.110**	-.065*	-.093**	-.084**	-.093**	
Migrant	.138**	.104*	.123**	.110*	.076	.106*	.099*	.075	.095*	
Household size (<i>Alone</i>)										
2 persons	-.375***	-.440***	-.456***	-.429***	-.446***	-.437***	-.427***	-.430***	-.427***	
3 and more persons	-.497***	-.549***	-.567***	-.505***	-.559***	-.519***	-.511***	-.510***	-.509***	
Lives with partner	-.894***	-.899***	-.900***	-.932***	-.894***	-.926***	-.923***	-.930***	-.924***	
Never left home			.142***	.138***	.121***	.137***	.125***	.152***	.140***	
COVID-19 (Infection)			.013	.029	.013	.028	.025	-.010	-.003	
COVID-19 (Hospitalization)			.063	.057	.058	.059	.058	.061	.056	
COVID-19 (Death)			.045	.058	.064	.057	.052	.053	.049	
Parent(s)			.041	.046	.037	.047	.042	.050	.055	
Child(ren)			.049	.041	.026	.055	.053	.044	.049	
Contact: Overall (<i>Daily</i>)										
Several times a week			.138***				.127***	.136***	.127***	
About once a week			.195***				.188***	.201***	.188***	
Less often			.223***				.248***	.273***	.252***	
Never			.296				.339	.336	.343	
Contact: Personal (<i>Daily</i>)										
Several times a week				.123***		.122***				
About once a week				.248***		.243***				
Less often				.265***		.258***				
Never				.236***		.230***				

Table 1. (Cont.) Patterns of loneliness before and during the pandemic.

	T0–1–2		T1–2						
	M0	M1	M2	M3	M4	M5	M6	M7	M8
Contact: Electronic (<i>Daily</i>)									
Several times a week					.065**	.039			
About once a week					.096***	.057			
Less often					.133***	.093*			
Never					.100	.085			
Contact ratio (<i>Same</i>)									
More personal							–.019	–.022	–.019
More electronic							.114***	.136***	.128***
Wave (<i>T0—2019/2020</i>)									
T1—2020	.084**								
T2—2021	.177***	.025						–.056	.063
GDP per capita	–.085***	–.289***						–.534***	
Life expectancy	.136***	.076***						–.264***	
New infections									–.017
Stringency index									–.029
Observations	85,344	56,896							
Respondents	28,448	28,448							
Countries	27	27							
–2LL (Intercept only)	111,568	78,483							
AIC (Intercept only)	111,576	78,491							
BIC (Intercept only)	111,613	78,527							
–2LL	103,655	71,536	71,414	71,322	71,466	71,338	71,368	71,422	71,345
AIC	103,697	71,576	71,468	71,376	71,520	71,400	71,426	71,486	71,409
BIC	103,894	71,755	71,709	71,618	71,761	71,678	71,685	71,772	71,695

Notes: Multilevel ordered regressions and regression coefficients displayed; robust standard errors; –2LL stands for –2 log-likelihood; AIC stands for Akaike information criterion; BIC stands for Bayesian information criterion; significance levels: *** $p \leq .001$, ** $p \leq .010$, * $p \leq .050$. Source: Based on SHARE waves 8 and 9, release 8.0.0.

Table 2. Patterns of changed loneliness since the outbreak of Covid-19.

	M1		M2		M3		M4	
	Decline	Increase	Decline	Increase	Decline	Increase	Decline	Increase
Base category	No change							
Men	.746***	.679***	.747***	.691***	.746***	.690***	.744***	.690***
Age	1.002	1.005	1.008	1.013	1.011	1.011	1.014	1.016
Health (<i>Excellent</i>)								
Very good	1.233*	1.385**	1.237*	1.390**	1.253*	1.394**	1.254*	1.401**
Good	1.717***	2.054***	1.691***	2.032***	1.696***	2.029***	1.708***	2.042***
Fair	2.250***	3.120***	2.238***	3.110***	2.203***	3.036***	2.305***	3.157***
Poor	2.537***	4.738***	2.521***	4.759***	2.521***	4.686***	2.655***	4.868***
Education (<i>Low</i>)								
Medium	.848***	.886**	.833***	.866***	.836***	.882**	.840***	.865***
High	.749***	.846**	.766***	.858**	.748***	.847*	.774***	.858**
Employed	.761***	.823***	.770***	.843**	.748***	.823***	.763***	.837***
Migrant	1.331***	1.111	1.363***	1.126	1.326***	1.102	1.375***	1.126
Household size (<i>Alone</i>)								
2 persons	.884	.784**	.865	.778**	.866	.780***	.863	.778***
3 and more persons	.756***	.710***	.719***	.697***	.719***	.698***	.716***	.699***
Lives with partner	.339***	.391***	.344***	.389***	.346***	.387***	.345**	.390***
Never left home	1.28***	1.276***	1.262***	1.255***	1.217***	1.229***	1.218**	1.237***
Covid-19 (Infection)	.806***	.867**	.806***	.872**	.877**	.912	.866**	.896
Covid-19 (Hospitalization)	1.058	1.122	1.071	1.131	1.075	1.134	1.074	1.135
Covid-19 (Death)	.925	1.029	.926	1.031	.944	1.043	.932	1.035
Parent(s)	1.188**	1.151*	1.186**	1.155*	.993	1.151*	.995	1.141*
Child(ren)	1.015	1.169**	1.004	1.152*	1.177**	1.152*	1.169*	1.149*
Contact: Overall (<i>Daily</i>)								
Several times a week	1.036	1.100*	1.036	1.085	1.048	1.106*	1.037	1.081
About once a week	1.132	1.159*	1.128	1.147*	1.153	1.182*	1.129	1.139*
Less often	1.483***	1.305**	1.480***	1.331**	1.484***	1.356**	1.463***	1.316**
Never	1.110	.872	1.036	.901	1.115	.902	1.114	.896
Contact ratio (<i>Same</i>)								
More personal			1.014	.931	1.032	.954	1.017	.930
More electronic			1.020	1.133***	.987	1.118**	.986	1.115**
Wave (<i>T1—2020</i>)								
T2—2021					.829***	.925	.768**	.834
GDP per capita					.911**	.885***		
Life expectancy					.932	.965		
New infections							1.071	1.072
Stringency index							1.014	.986
Observations	56,896							
Respondents	28,448							
Countries	27							
–2LL (Intercept only)	83,201							
AIC (Intercept only)	83,209							
BIC (Intercept only)	83,245							
–2LL	80,741		80,711		80,660		80,677	
AIC	80,841		80,819		80,780		80,797	
BIC	81,288		81,302		81,317		81,334	

Notes: Multilevel multinomial regressions and relative risk ratios displayed; robust standard errors; –2LL stands for –2 log-likelihood; AIC stands for Akaike information criterion; BIC stands for Bayesian information criterion; significance levels: *** $p \leq .001$, ** $p \leq .010$, * $p \leq .050$. Source: Based on SHARE waves 8 and 9, release 8.0.0.

equipment or resources (e.g., economically, in terms of health, but also socially) are associated with more instability. Conversely, men, the more educated, the healthier, the employed, and those who did not live alone had fewer fluctuations regarding feelings of loneliness.

While pandemic-related events at both the individual and national levels had less of a direct impact on the extent and changes in loneliness, the form and intensity of social contact had a direct impact. This was reflected in the fact that social distancing, and thus the “waiving” of frequent personal contact, was associated with increased loneliness. At the same time, more electronic contact was clearly no substitute for face-to-face interactions in overcoming loneliness later in life; loneliness increased, particularly in those who had a potential social network (e.g., parents and children) but with whom there was less personal contact and more often a physical, and therefore emotional, distance.

However, some limitations should be considered when interpreting this study. Although the dataset was based on a longitudinal design, the respective points in time of the two Covid-19 surveys could also have affected the response behavior and thus the extent of loneliness reported. In addition, the measurement of loneliness was based on a single question and limited to three response options. Here, a differentiated measurement of loneliness, such as the UCLA Loneliness Scale (see Russell et al., 1980), would be more appropriate for addressing the complexity of loneliness. Although the two SHARE Covid-19 surveys specifically asked about individual changes concerning loneliness during the pandemic, we used an indirect comparison based on the current level of loneliness. This was mainly because the questionnaire directly asked for changed feelings of loneliness due to Covid-19, which might have influenced possible response behavior, and the corresponding question was not answered by the same target group due to different routing procedures between the surveys.

Finally, our results showed that most adults in later life are not affected by loneliness. Nonetheless, a significant proportion of the elderly population face loneliness, which has been increased by the pandemic. In this context, our findings show that the importance of social contact for loneliness is determined by the frequency and type of communication. While social distancing can protect physical health during a pandemic, it can also harm mental health. It is therefore important to consider and protect health in all its facets—in a pandemic, but also beyond.

Acknowledgments

This article uses data from SHARE Waves 8 and 9 (DOIs: 10.6103/SHARE.w8.800, 10.6103/SHARE.w8ca.800, 10.6103/SHARE.w9ca800), see Börsch-Supan et al. (2013) for methodological details. The SHARE data collection has been funded by the European Commission, DG RTD through FP5 (QLK6-CT-2001-00360), FP6

(SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812), FP7 (SHARE-PREP: GA N°211909, SHARE-LEAP: GA N°227822, SHARE M4: GA N°261982, DASISH: GA N°283646) and Horizon 2020 (SHARE-DEV3: GA N°676536, SHARE-COHESION: GA N°870628, SERISS: GA N°654221, SSHOC: GA N°823782, SHARE-COVID19: GA N°101015924) and by DG Employment, Social Affairs & Inclusion through VS 2015/0195, VS 2016/0135, VS 2018/0285, VS 2019/0332, and VS 2020/0313. Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01_AG09740-13S2, P01_AG005842, P01_AG08291, P30_AG12815, R21_AG025169, Y1-AG-4553-01, IAG_BSR06-11, OGHA_04-064, HHSN271201300071C, RAG052527A) and from various national funding sources is gratefully acknowledged (see www.share-project.org).

Conflict of Interests

The authors declare no conflict of interest.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

References

- Armitage, R., & Nellums, L. B. (2020). Covid-19 and the consequences of isolating the elderly. *The Lancet Public Health*, 5(5). [https://doi.org/10.1016/S2468-2667\(20\)30061-X](https://doi.org/10.1016/S2468-2667(20)30061-X)
- Atzendorf, J., & Gruber, S. (2021). Depression and loneliness of older adults in Europe and Israel after the first wave of Covid-19. *European Journal of Ageing*. Advance online publication. <https://doi.org/10.1007/s10433-021-00640-8>
- Banerjee, D., & Rai, M. (2020). Social isolation in Covid-19: The impact of loneliness. *International Journal of Social Psychiatry*, 66(6), 525–527. <https://doi.org/10.1177/0020764020922269>
- Börsch-Supan, A. (2022a). *Survey of health, ageing and retirement in Europe (SHARE) wave 8: Covid-19 survey 1* [Data set]. SHARE Project. <https://doi.org/10.6103/SHARE.W8CA.800>
- Börsch-Supan, A. (2022b). *Survey of health, ageing and retirement in Europe (SHARE) wave 8. Release version: 8.0.0. Share-ERIC* [Data set]. SHARE Project. <https://doi.org/10.6103/SHARE.w8.800>
- Börsch-Supan, A. (2022c). *Survey of health, ageing and retirement in Europe (SHARE) wave 9: Covid-19 Survey 2* [Data set]. SHARE Project. <https://doi.org/10.6103/SHARE.W9CA.800>
- Börsch-Supan, A., Brandt, M., Hunkler, C., Kneip, T., Korbmayer, J., Malter, F., Schaaf, B., Stuck, S., & Zuber, S. (2013). Data resource profile: The survey of health,

- ageing and retirement in Europe (SHARE). *International Journal of Epidemiology*, 42(4), 992–1001. <https://doi.org/10.1093/ije/dyt088>
- Carstensen, L. L. (1991). Socioemotional and selectivity theory: Social activity in life-span context. *Annual Review of Gerontology and Geriatrics*, 11, 195–217.
- Cohn-Schwartz, E., Vitman-Schorr, A., & Khalaila, R. (2022). Physical distancing is related to fewer electronic and in-person contacts and to increased loneliness during the Covid-19 pandemic among older Europeans. *Quality of Life Research*, 31, 1033–1042. <https://doi.org/10.1007/s11136-021-02949-4>
- Cornwell, B. (2011). Age trends in daily social contact patterns. *Research on Aging*, 33(5), 598–631. <https://doi.org/10.1177/0164027511409442>
- de Jong Gierveld, J., van Tilburg, T. G., & Dykstra, P. A. (2006). Loneliness and social isolation. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 485–500). Cambridge University Press.
- Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track Covid-19 in real time. *The Lancet Infectious Diseases*, 20(5), 533–534. [https://doi.org/10.1016/S1473-3099\(20\)30120-1](https://doi.org/10.1016/S1473-3099(20)30120-1)
- Dykstra, P. A. (2009). Older adult loneliness: Myths and realities. *European Journal of Ageing*, 6(2), 91–100. <https://doi.org/10.1007/s10433-009-0110-3>
- Fingerman, K. L., Ng, Y. T., Zhang, S., Britt, K., Colera, G., Birditt, K. S., & Charles, S. T. (2021). Living alone during Covid-19: Social contact and emotional well-being among older adults. *The Journals of Gerontology: Series B*, 76(3). <https://doi.org/10.1093/geronb/gbaa200>
- Fokkema, T., & Knipscheer, K. (2007). Escape loneliness by going digital: A quantitative and qualitative evaluation of a Dutch experiment in using ECT to overcome loneliness among older adults. *Ageing & Mental Health*, 11(5), 496–504. <https://doi.org/10.1080/13607860701366129>
- Gauthier, G. R., Smith, J. A., García, C., Garcia, M. A., & Thomas, P. A. (2021). Exacerbating inequalities: Social networks, racial/ethnic disparities, and the Covid-19 pandemic in the United States. *The Journals of Gerontology: Series B*, 76(3). <https://doi.org/10.1093/geronb/gbaa117>
- Hale, T., Angrist, N., Goldszmidt, R., Kira, B., Petherick, A., Phillips, T., Webster, S., Cameron-Blake, E., Hallas, L., Majumdar, S., & Tatlow, H. (2021). A global panel database of pandemic policies (Oxford Covid-19 government response tracker). *Nature Human Behaviour*, 5(4), 529–538. <https://doi.org/10.1038/s41562-021-01079-8>
- Hawkey, L. C., & Cacioppo, J. T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, 40(2), 218–227. <https://doi.org/10.1007/s12160-010-9210-8>
- Hensley, B., Martin, P., Margrett, J. A., MacDonald, M., Siegler, I. C., Poon, L. W., Jazwinski, S. M., Green, R. C., Gearing, M., Woodard, J. L., Johnson, M. A., Tenover, J. S., Rodgers, W. L., Hausman, D. B., Rott, C., Davey, A., & Arnold, J. (2012). Life events and personality predicting loneliness among centenarians: Findings from the Georgia centenarian study. *The Journal of Psychology*, 146(1/2), 173–188. <https://doi.org/10.1080/00223980.2011.613874>
- Hwang, T.-J., Rabheru, K., Peisah, C., Reichman, W., & Ikeda, M. (2020). Loneliness and social isolation during the Covid-19 pandemic. *International Psychogeriatrics*, 32(10), 1217–1220. <https://doi.org/10.1017/S1041610220000988>
- Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the life course: Attachment, roles, and social support. In P. B. Baltes & O. G. Brim (Eds.), *Life-span development and behavior* (pp. 253–286). Academic Press.
- Kalmijn, M. (2012). Longitudinal analyses of the effects of age, marriage, and parenthood on social contacts and support. *Advances in Life Course Research*, 17(4), 177–190. <https://doi.org/10.1016/j.alcr.2012.08.002>
- Khan, M. S. R., & Kadoya, Y. (2021). Loneliness during the Covid-19 pandemic: A comparison between older and younger people. *International Journal of Environmental Research and Public Health*, 18(15). <https://doi.org/10.3390/ijerph18157871>
- Killgore, W. D. S., Cloonan, S. A., Taylor, E. C., & Dailley, N. S. (2020). Loneliness: A signature mental health concern in the era of Covid-19. *Psychiatry Research*, 290. <https://doi.org/10.1016/j.psychres.2020.113117>
- Kim, H. H.-S., & Jung, J. H. (2021). Social isolation and psychological distress during the Covid-19 pandemic: A cross-national analysis. *Gerontologist*, 61(1), 103–113. <https://doi.org/10.1093/geront/gnaa168>
- König, R., Isengard, B., & Szydlik, M. (2018). Migration matters: Insights into intergenerational solidarity patterns in Europe. In I. Crespi, S. G. Meda, & L. Merla (Eds.), *Palgrave Macmillan studies in family and intimate life. Making multicultural families in Europe: Gender and intergenerational relations* (pp. 233–253). Palgrave Macmillan.
- König, R., Isengard, B., & Szydlik, M. (2021). Despite the distance? Intergenerational contact in times of migration. In A.-M. Castrén, V. Cesnūityte, I. Crespi, J.-A. Gauthier, R. Gouveia, C. Martin, A. Moreno Mínguez, & K. Suwada (Eds.), *The Palgrave handbook of family sociology in Europe* (pp. 513–535). Palgrave Macmillan.
- König, R., Seifert, A., & Doh, M. (2018). Internet use among older Europeans: An analysis based on SHARE data. *Universal Access in the Information Society*, 17(3), 621–633. <https://doi.org/10.1007/s10209-018-0609-5>
- Kovacs, B., Caplan, N., Grob, S., & King, M. (2021). Social networks and loneliness during the Covid-19 pan-

- demic. *Socius*, 7. <https://doi.org/10.1177/2378023120985254>
- Krendl, A. C., & Perry, B. L. (2021). The impact of sheltering in place during the Covid-19 pandemic on older adults' social and mental well-being. *The Journals of Gerontology: Series B*, 76(2). <https://doi.org/10.1093/geronb/gbaa110>
- Lansford, J. E., Sherman, A. M., & Antonucci, T. C. (1998). Satisfaction with social networks: An examination of socioemotional selectivity theory across cohorts. *Psychology and Aging*, 13(4), 544–552. <https://doi.org/10.1037//0882-7974.13.4.544>
- Lee, Y., & Ko, Y. (2018). Feeling lonely when not socially isolated. *Journal of Social and Personal Relationships*, 35(10), 1340–1355. <https://doi.org/10.1177/0265407517712902>
- Luhmann, M., & Hawkley, L. C. (2016). Age differences in loneliness from late adolescence to oldest old age. *Developmental Psychology*, 52(6), 943–959. <https://doi.org/10.1037/dev0000117>
- Macdonald, B., & Hülür, G. (2021). Well-being and loneliness in Swiss older adults during the Covid-19 pandemic: The role of social relationships. *Gerontologist*, 61(2), 240–250. <https://doi.org/10.1093/geront/gnaa194>
- Marcum, C. S. (2013). Age differences in daily social activities. *Research on Aging*, 35(5), 612–640. <https://doi.org/10.1177/0164027512453468>
- McDonald, S., & Mair, C. A. (2010). Social capital across the life course: Age and gendered patterns of network resources. *Sociological Forum*, 25(2), 335–359. <https://doi.org/10.1111/j.1573-7861.2010.01179.x>
- Perlman, D., & Peplau, L. A. (1981). Toward a social psychology of loneliness. In S. Duck & R. Gilmour (Eds.), *Personal relationships 3: Personal relationships in disorder* (pp. 31–56). Academic Press.
- Posch, M., Bauer, P., Posch, A., & König, F. (2020). Analysis of Austrian Covid-19 deaths by age and sex. *Wiener Klinische Wochenschrift*, 132(21/22), 685–689. <https://doi.org/10.1007/s00508-020-01707-9>
- Riedel-Heller, S. G., Busse, A., & Angermeyer, M. C. (2006). The state of mental health in old-age across the “old” European Union—A systematic review. *Acta Psychiatrica Scandinavica*, 113(5), 388–401. <https://doi.org/10.1111/j.1600-0447.2005.00632.x>
- Robinson, A. I., Carnes, F., & Oreskovic, N. M. (2016). Spatial analysis of crime incidence and adolescent physical activity. *Preventive Medicine*, 85, 74–77. <https://doi.org/10.1016/j.ypmed.2016.01.012>
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39(3), 472–480. <https://doi.org/10.1037//0022-3514.39.3.472>
- Santini, Z. I., Jose, P. E., York Cornwell, E., Koyanagi, A., Nielsen, L., Hinrichsen, C., Meilstrup, C., Madsen, K. R., & Koushede, V. (2020). Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): A longitudinal mediation analysis. *The Lancet Public Health*, 5(1). [https://doi.org/10.1016/s2468-2667\(19\)30230-0](https://doi.org/10.1016/s2468-2667(19)30230-0)
- Seifert, A., & Hassler, B. (2020). Impact of the Covid-19 pandemic on loneliness among older adults. *Frontiers in Sociology*, 5. <https://doi.org/10.3389/fsoc.2020.590935>
- Stickley, A., & Koyanagi, A. (2016). Loneliness, common mental disorders and suicidal behavior: Findings from a general population survey. *Journal of Affective Disorders*, 197, 81–87. <https://doi.org/10.1016/j.jad.2016.02.054>
- Vahia, I. V., Blazer, D. G., Smith, G. S., Karp, J. F., Stephens, D. C., Forester, B. P., Tampi, R., Agronin, M., Jeste, D. V., & Reynolds, C. F. (2020). Covid-19, mental health and aging: A need for new knowledge to bridge science and service. *The American Journal of Geriatric Psychiatry*, 28(7), 695–697. <https://doi.org/10.1016/j.jagp.2020.03.007>
- van Tilburg, T. G., Steinmetz, S., Stolte, E., van der Roest, H., & de Vries, D. H. (2021). Loneliness and mental health during the Covid-19 pandemic: A study among Dutch older adults. *The Journals of Gerontology: Series B*, 76(7). <https://doi.org/10.1093/geronb/gbaa111>
- Vlachantoni, A., Evandrou, M., Falkingham, J., & Qin, M. (2022). The impact of changing social support on older persons' onset of loneliness during the Covid-19 pandemic in the United Kingdom. *Gerontologist*, 62(8), 1147–1159. <https://doi.org/10.1093/geront/gnac033>
- Vokó, Z., & Pitter, J. G. (2020). The effect of social distance measures on Covid-19 epidemics in Europe: An interrupted time series analysis. *GeroScience*, 42(4), 1075–1082. <https://doi.org/10.1007/s11357-020-00205-0>
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (Covid-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5). <https://doi.org/10.3390/ijerph17051729>
- Weiss, R. S. (1973). *Loneliness: The experience of emotional and social isolation*. MIT Press.
- World Bank. (2022). *DataBank: World development indicators*. <https://databank.worldbank.org/home>
- Zhaoyang, R., Sliwinski, M. J., Martire, L. M., & Smyth, J. M. (2018). Age differences in adults' daily social interactions: An ecological momentary assessment study. *Psychology and Aging*, 33(4), 607–618. <https://doi.org/10.1037/pag0000242>

About the Authors



Ronny König is a senior research associate at the Department of Sociology, University of Zurich (Switzerland), and holds a PhD in sociology from the University of Zurich. He is a member of the research group LAbour, Generation, Stratification (AGES) and the research project SwissGen—Intergenerational Relations in Switzerland. His main research interests cover topics on the digital divide, intergenerational relationships, life course, migration, and social inequality.



Bettina Isengard is a senior research associate at the Department of Sociology, University of Zurich (Switzerland). She has a PhD in sociology from the University of Mannheim (Germany) and is a member of the research group LAbour, Generation, Stratification (AGES) and the research project SwissGen—Intergenerational Relations in Switzerland. Her current research activities include studies about family sociology, intergenerational solidarity, social structure, and inequality, as well as lifestyle research.