SHORT PAPER

Maintaining intimacy during the COVID-19 pandemic

Tabea Wolf | Lisa Nusser

Department of Developmental Psychology, Ulm University, Ulm, Germany

Correspondence
Tabea Wolf, Department of Developmental Psychology, Institute of Psychology and Education, Ulm University, Albert-Einstein-Allee 47, 89081 Ulm, Germany.
Email: tabea.wolf@uni-ulm.de

Abstract
The present study investigated whether autobiographical memories serve to maintain feelings of intimacy in times of social isolation that result from the restrictions related to the COVID-19 pandemic. Data came from 104 young and older adults who reported three important and three social memories, that is, memories about someone the participants were unable to meet because of the pandemic-related restrictions. Our findings support that social memories more frequently serve intimacy functions than important memories do, and this difference is more pronounced for older compared to young adults. Moreover, social loneliness is associated with less frequent use of important memories for intimacy functions, whereas emotional loneliness shows a positive association. Results are discussed in terms of what type of memories can be used to maintain intimacy feelings across age groups and regarding qualitative and quantitative aspects of loneliness that differently predict the use of memories for intimacy functions.

KEYWORDS
age differences, autobiographical memory, COVID-19 pandemic, intimacy function, loneliness

1 MAINTAINING INTIMACY DURING THE COVID-19 PANDEMIC

Since the World Health Organization formally declared COVID-19 a pandemic on March 11, 2020, Germany, like many other countries, implemented various behavior guidelines to slow the spread of the virus. These guidelines involved social distancing and social isolation. Even when close persons are not present, we can draw on our memory to keep those persons close. For instance, remembering events that one has experienced with a partner can provide feelings of warmth and closeness (Alea & Bluck, 2007). In the present study, we aimed to investigate whether autobiographical memories serve intimacy functions in times of social distancing and isolation that result from the restrictions related to the COVID-19 pandemic. Specifically, we were interested in the individual circumstances associated with a more (or less) frequent use of autobiographical memories for intimacy functions. Apart from feelings of loneliness and isolation during the COVID-19 pandemic, we considered age an important predictor variable. Finally, we compared two types of autobiographical memories. Participants were asked to recall three memories that include someone they cannot meet because of the restrictions related to the COVID-19 pandemic and to rate how frequently they recall these memories for intimacy functions; we refer to these memories as social memories. In addition, participants reported their three most important memories; these often involve events with close persons, such as falling in love, first partner, or others’ death (e.g., Hatiboğlu & Habermas, 2016). Consequently, important memories are likely to serve intimacy functions but to a lesser extent than thinking about someone from whom one is separated during the COVID-19 pandemic.

1.1 The intimacy functions of autobiographical memory

Autobiographical memories serve psychosocial functions in daily life. Memories serve to create a sense of self-continuity, to guide present
or future behavior, and to provide social connections to others. The intimacy function is one of several proposed social functions (Alea & Bluck, 2003) and describes the recall of autobiographical memories to develop and maintain intimacy in relationships. This can happen during mutual remembering when people jointly remember events they have experienced together. Research has shown that people experience a more positive mood (Pasupathi & Carstensen, 2003) and feel closer to conversation partners (e.g., friends or partners) after talking about shared experiences (Beike et al., 2017). However, thinking or talking about the past can also serve to maintain intimacy when the person involved in the memory is currently not present (Alea & Bluck, 2007) or has passed away (Webster, 1993). In a study conducted by Alea and Bluck (2007), young and older adults rated feelings of intimacy toward their partner before and after remembering events they had experienced together (i.e., a vacation and a romantic evening with their partner) as well as after remembering nonautobiographical events from a fictional vignette about the same topics. Intimacy was significantly enhanced after recalling personally meaningful relationship events but not after remembering nonautobiographical relationship events. Similarly, Alea and Vick (2010) showed that the rehearsal of relationship-defining autobiographical memories, such as the first encounter with one’s partner, predicts relationship satisfaction and intimacy. Hence, there is evidence showing that remembering someone who is currently absent can increase feelings of intimacy toward that person.

### 1.2 Age differences in using autobiographical memories for intimacy functions

Alea and Bluck (2007) argued that the use of memories to enhance intimacy shows age continuity. The authors found that recalling events experienced with one’s partner led to an increase in feelings of warmth, irrespective of age. Similarly, feelings of closeness were enhanced but only in young and older women. This may hold for romantic relationships in particular but might not prove valid if one considers other types of relationships as well. Young adults more frequently engage in the development of a large social network with various relationships; these relationships do not need to be intimate but do provide diverse knowledge. In older adulthood, goals change from gaining knowledge to increasing current well-being. According to socioemotional selectivity theory (Carstensen et al., 1999), focusing on the present and positive emotions aligns with a reduction in a person’s social network: Older adults have fewer relationships but focus on those that are meaningful and provide them with feelings of closeness. In short, whereas young adults’ social networks include greater numbers of different relationships, which do not have to be close or intimate, older adults’ networks are smaller but include greater proportions of close and intimate social partners (e.g., Lang, 2001). Consequently, older adults may more frequently rely on autobiographical memories to maintain or increase intimacy in their relationships than younger adults, who are more concerned about developing new relationships (Bluck et al., 2005).

### 1.3 Social isolation and feelings of loneliness (during COVID-19)

Using autobiographical memories for intimacy functions may be especially relevant during the COVID-19 pandemic. To slow the spread of the SARS-CoV-2 virus, people were advised to limit their social contacts and to stay at home (Presse- und Informationsamt der Bundesregierung, 2020). Although social distancing can help to reduce the rate of infection, it may have a negative impact on people’s health and can be associated with feelings of social isolation and loneliness. Feeling lonely and missing other people may then trigger autobiographical remembering (Wildschut et al., 2006). Hence, feelings of loneliness resulting from the social distancing and “stay at home” orders might influence how frequently autobiographical memories are used for intimacy functions.

Several studies have found an increase in loneliness since the outbreak of COVID-19 (e.g., Ausin et al., 2021; but see Luchetti et al., 2020 for fairly stable loneliness rates). For instance, Killgore et al. (2020) found loneliness on average to be significantly higher than reported in prior work. As older adults—that is, over 65 years of age—and adults with preexisting medical conditions are being told to self-quarantine and to follow social distancing guidelines, one might expect older people to face dramatic changes in their social life and to be more susceptible to negative consequences such as loneliness. However, in older adulthood, individuals typically focus on few but meaningful relationships, and young adults strive to build a broad social network with whom to connect (Carstensen et al., 1999). From this perspective, the restrictions regarding social life may have an even stronger impact on young adults. This is supported by recent studies that show higher levels of pandemic-related loneliness in young adults compared to older adults (e.g., Groarke et al., 2020; Wickens et al., 2021), which may result from lower contact frequencies with friends (Franssen et al., 2020).

Most of the studies mentioned so far were based on a general construct of loneliness (Hughes et al., 2004), but some researchers distinguished between different types of loneliness (e.g., De Jong Gierveld & Van Tilburg, 2010). Weiss (1973) introduced two dimensions of loneliness, namely social loneliness and emotional loneliness. Social loneliness refers to the discrepancy between a person’s desired and actual number of social contacts (e.g., Peplau & Perlman, 1982). By reflecting the absence of a broader social network, social loneliness is quantitative in nature. By contrast, emotional loneliness involves qualitative deficiencies such as the lack of a close intimate relationship (partner, sibling, best friend, close confidant) and is characterized by feelings of emptiness and abandonment (Weiss, 1973).

### 1.4 The present study

In the present study, we investigated whether autobiographical memories serve intimacy functions during times of social distancing and isolation. Specifically, we aimed to examine whether feelings of loneliness during the COVID-19 pandemic predict the frequency of using
autobiographical memories for intimacy functions. To gain a more differentiated picture, we treated loneliness as a multidimensional phenomenon: Apart from an overall loneliness score, we separately considered social and emotional loneliness. In addition, we examined whether young and older adults differ in the extent of using autobiographical memories for intimacy functions. Based on the socio-emotional selectivity theory, older adults may more frequently use their memories for intimacy functions because they are typically more concerned about maintaining intimacy in relationships. However, the restrictions regarding social life have a substantial impact on young adults’ lives. Consequently, they may also frequently rely on autobiographical memories to keep other people close. Finally, we investigated whether different types of memories differ in the extent to which they serve intimacy functions. Specifically, we tested whether social memories that include a person, participants cannot meet because of the COVID-19 pandemic are used more frequently for intimacy functions. We also examined whether different types of memories differ in the extent to which they serve intimacy functions than memories that participants consider important to their lives; these important memories do not necessarily involve persons with whom they cannot currently meet.

2 | METHODS

2.1 | Participants

Participants were 53 young adults between 18 and 31 years of age ($M = 23.11, SD = 3.43$) and 51 older adults between 60 and 88 years of age ($M = 70.37, SD = 6.20$). In both age groups, the majority was female ($n_{\text{young}} = 39, n_{\text{old}} = 29$). Age groups differed regarding marital status: Older participants were mostly married, respectively, living in a long-term relationship ($n_{\text{old}} = 30$), and most of the young adults reported to be single ($n_{\text{young}} = 39$). The groups also differed regarding education and occupational status. Almost half of the older adults had graduated from university (45.1%), but most of the young adults were university students at the time of data collection (73.6%). Older adults were mostly retired (73.6%). Table 1 provides a more detailed overview of demographic characteristics per age group.

Participants were recruited through promotional flyers, e-mail, and word of mouth. After finishing the study, they could take part in a lottery to win a gift voucher worth 10 Euros. For students, there was an option to earn course credit instead of the lottery. Young and older adults both reported to be in good health, but younger adults rated their health as slightly better than older adults (young: $M = 1.58, SD = 0.63$; old: $M = 2.08, SD = 0.77$), $t (101) = -3.574, p = .001$.

2.2 | Procedure

The present study was conducted in accordance with the Declaration of Helsinki, and data were collected online via the www.soscisurvey.de platform. The study was online during the first lockdown in Germany (April 24, 2020, through May 4, 2020). We stopped data collection efforts on the day the lockdown ended because we did not want an easing in the restrictions on social life to affect our findings. After providing informed consent, participants offered demographic information (e.g., age, gender, marital status, education) and rated their subjective health. Next, participants were asked to recall three important memories. They were instructed to briefly describe a memory that came to mind. The memory did not have to be extraordinary but should refer to a specific and distinct event from their personal past and one that they perceived as important. Each memory was allotted a separate page for participants to enter a brief description of the event and then proceed to the next memory. After describing their memories, participants were presented with each event description and asked to rate the extent to which they recall each event for intimacy functions (see below). Participants also indicated which persons were involved in the event. They could choose from a list that included their partner, close relatives, close friends, colleagues, or any other acquaintances; multiple responses were possible. Memories were presented in the order in which they had been recalled.

The next part of the study focused on the COVID-19 pandemic. After summarizing the pandemic-related regulations and restrictions that were valid at the time of data collection, participants were asked to again report autobiographical memories from their personal past. This time, they were instructed to think about close others with whom they are usually in frequent contact but cannot meet presently because of the COVID-19 restrictions (social memories). Again, participants were told that memories did not have to be extraordinary but should refer to a specific and distinct event from their personal past. After recalling three social memories, participants rated the extent to which each memory was used for intimacy functions (see below). Participants also indicated which person they were thinking about; only one response was possible. Memories were presented in the order in which participants had recalled them. Finally, participants completed a questionnaire to assess current feelings of loneliness.

2.3 | Measures

Intimacy functions. Intimacy can be measured by distinct constructs (Alea & Bluck, 2007). In the present study, we considered feelings of being close to others, supported by others, and loved by others. For each memory, participants rated how frequently they remember this
event to promote feelings of closeness and connectedness to people I cannot meet currently (closeness), reassure myself that there are people I can lean on when I have problems (social support), and remind myself that I am being loved (being loved). The item capturing closeness was derived from the Reminiscence Function Scale (Webster, 1993; subscale Conversation). The item assessing social support was adapted from the De Jong Gierveld Loneliness Scale (De Jong Gierveld & Van Tilburg, 2006; subscale social loneliness). We added the item capturing the feeling of being loved.

Participants rated these intimacy items for both types of memories: important and social memories. Responses were made on a 5-point Likert scale ranging from almost never (1) to very frequent (5). The three intimacy items were positively and significantly related. Bivariate correlations ranged between .42 and .59 for important memories. For social memories, bivariate correlations ranged between .58 and .60. Given their positive correlations, we combined the three intimacy items into one scale. Cronbach’s α was .74 for important memories and .81 for social memories.

**Feelings of loneliness.** We used the De Jong Gierveld Loneliness Scale (De Jong Gierveld & Van Tilburg, 2006) to measure feelings of loneliness. The scale consists of 11 items. Responses were made on a 5-point Likert scale ranging from totally disagree (1) to totally agree (5). Six items measure emotional loneliness (e.g., “I miss the pleasure of the company of others.”), and five items capture social loneliness (e.g., “There are enough people I feel close to.”).

We created three scores for loneliness: emotional loneliness, social loneliness, and overall loneliness. To create the emotional loneliness score, we counted the neutral and positive answers of the respective six items. To calculate the social loneliness score, one counts the neutral and negative answers of the respective five items. Both scores are only valid if participants responded to all six items regarding emotional loneliness and all five items regarding social loneliness. Finally, we also created a sum score of emotional and social loneliness to get the overall loneliness score. On average, participants reported moderate levels of emotional (M = 2.64, SD = 1.39; range: 0–6) and lower levels of social loneliness (M = 1.01, SD = 1.50; range: 0–5). The sample showed moderate levels of overall loneliness, on average (M = 3.65, SD = 2.36; range: 0–11).

## 3 | RESULTS

### 3.1 | Preliminary analyzes

Preliminary analyzes examined potential age and gender differences in our dependent variable (i.e., frequency of using memories for intimacy functions). Regarding age differences, we ran an ANOVA and found that young adults (M = 2.80, SD = 1.22) and older adults (M = 2.61, SD = 1.15) used their memories with equal frequency for intimacy functions, F (1605) = 5.34, p = .052, ηp² = .01. Regarding gender, an ANOVA revealed no differences in using memories for intimacy functions between men (M = 2.63, SD = 1.24) and women (M = 2.75, SD = 1.17), F (1605) = 1.40, p = .24, ηp² = .00. Regarding different measures of loneliness, we found the frequency of using memories for intimacy functions to be unrelated to overall loneliness (r = .060, p = .144) but negatively correlated with social loneliness (r = −.101, p = .014) and positively related to emotional loneliness (r = .214, p ≤ .001).

Regarding social memories, participants mainly thought about a close relative or friend. Young adults remembered twice as many events experienced with a friend (62.6%) than events experienced with a relative (31.6%). For older adults, we found the reversed pattern: Older adults more frequently remembered events that included a close relative (41.4%) and less frequently events that included a close friend (28.6%). Regarding important memories, a different picture emerged. Both young and older adults most often reported memories that included one or more close relatives (young adults: 44.3%; older adults: 56.9%). The important memories of young adults equally often included friends (41.8%). Older adults less frequently reported memories that included friends (15.7%) but more often remembered important memories that included their partner (32.0%).¹

### 3.2 | Main analyzes

To account for the hierarchical nature of the data (six memories at level 1 nested within 104 individuals at level 2), we ran multilevel models (Wright, 1998). We conducted analyzes using SPSS Version 26 (IBM Corp, 2019). We first conducted the empty hierarchical model to test for the nonindependence of memories within a given person (Snijders & Bosker, 1999). The results showed that multilevel models were necessary, as significant amounts of the total variance in memories were attributed to individuals (i.e., nonindependence of a given person’s memories). Thus, we conducted a multilevel model with the frequency of using memories for intimacy functions as our continuous dependent variable. We specified a linear hierarchical model in which level 1 residuals were normally distributed. As predictors, we included type of memory, age group, and feelings of loneliness. As control variables, we entered participants’ gender. Type of memory (level 1 predictor) was dummy coded with 0 (important memories) and 1 (social memories). Participants’ age (level 2 predictor) was also dummy-coded with 0 (young adults) and 1 (older adults). Emotional, social, and overall loneliness (level 2) was grand mean-centered.

We ran the model twice to consider different types of loneliness. In model 1, we focused on the overall loneliness score and in model 2 on the two subscales, namely social and emotional loneliness. All other predictors (type of memory, age group) and control variables (gender) were the same across both models. To compare the effects of gender, age, and loneliness between important and social memories, we included interactions terms. Fixed effects from both multilevel models are presented in Table 2. The first lines show the effects of gender, age, and loneliness on important memories. The lower part of the table shows whether these effects are different for social memories.

In model 1, we found a significant age difference in the frequency of using important memories for intimacy functions, in the sense that older adults less frequently used their important memories for
TABLE 2 Estimates from two multilevel models of the effects of type of memory, age group, and loneliness on the frequency of using memories for intimacy functions during the COVID-19 pandemic

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>SE</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.50</td>
<td>0.13</td>
<td>19.05</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>0.06</td>
<td>0.19</td>
<td>0.31</td>
<td>.756</td>
</tr>
<tr>
<td>Age group</td>
<td>-0.41</td>
<td>0.18</td>
<td>-2.29</td>
<td>.042</td>
</tr>
<tr>
<td>Overall loneliness</td>
<td>0.00</td>
<td>0.04</td>
<td>0.05</td>
<td>.957</td>
</tr>
<tr>
<td>Social loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of memory</td>
<td>0.66</td>
<td>0.11</td>
<td>6.26</td>
<td>.000</td>
</tr>
<tr>
<td>Type of memory * gender</td>
<td>-0.30</td>
<td>0.15</td>
<td>-2.00</td>
<td>.046</td>
</tr>
<tr>
<td>Type of memory * age group</td>
<td>0.49</td>
<td>0.14</td>
<td>3.43</td>
<td>.001</td>
</tr>
<tr>
<td>Type of memory * overall loneliness</td>
<td>0.06</td>
<td>0.03</td>
<td>2.07</td>
<td>.039</td>
</tr>
<tr>
<td>Type of memory * social loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of memory * emotional loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: \(N_{\text{memory}} = 624\) at level 1, \(N_{\text{person}} = 104\) at level 2.

Note: Intimacy ratings were rated using a scale ranging from 1 to 5. Gender was dummy-coded, respectively, 0 (female) and 1 (male). Age group was dummy-coded with 0 (young adults) and 1 (older adults). Type of memory was dummy-coded with 0 (important memories) and 1 (social memories).

FIGURE 1 Interaction effect of age group and type of memory on the frequency of using autobiographical memories for intimacy functions. For young adults, displayed estimates were taken from model 2. For older adults, we ran the same model but reversed the dummy coding of age group (i.e., 0 = older adults and 1 = young adults).

intimacy functions than younger adults. Regarding the comparison between important and social memories, we found that social memories more frequently served intimacy functions. The significant interaction terms imply that this difference was more pronounced for women, older adults, and higher levels of overall loneliness.

In model 2, we found social and emotional loneliness to be significantly related to the frequency of using important memories for intimacy functions. Whereas higher levels of social loneliness were associated with less frequent use of important memories for intimacy functions, higher levels of emotional loneliness were associated with more frequent use of important memories for intimacy functions. The effect of emotional loneliness was even stronger for social memories, implying that participants who miss having close and intimate relationships more frequently try to compensate for that by remembering someone with whom they cannot currently meet. As in model 1, social memories more frequently served intimacy functions compared to important memories, and this difference was more pronounced for older adults compared to young adults (see Figure 1).

In contrast to model 1, there was no significant interaction between type of memory and gender. As Table 2 shows, distinguishing between social and emotional loneliness led to a substantial improvement in model fit compared with model 1 (\(\chi^2 = 16, df = 1, p < .001\)).

4 | DISCUSSION

The COVID-19 pandemic has imposed social and physical isolation measures to people all over the globe. Against this background, the present study aimed to investigate whether autobiographical memories serve to maintain intimacy with a person, participants could not meet in person. As hypothesized, our results demonstrate that autobiographical memories moderately serve intimacy functions in times of social distancing and isolation. This finding holds for both important and social memories but, as expected, pertained especially to social
memories. Hence, memories that explicitly involve a person one cannot meet because of the pandemic restrictions are used to maintain intimacy with that person. We obtained further evidence for an intimacy function of autobiographical memories but also extend previous findings on romantic relationships (Alea & Bluck, 2007) to close relationships in general.

We further investigated how people of different ages use autobiographical memories for intimacy functions. Our results show that older adults tend to less frequently use important memories for intimacy functions compared to young adults; however, these age differences only became significant in the model that included the overall loneliness score, not when emotional and social loneliness were considered separately. Across both models, we found a significant interaction between age group and type of memory: In young adults, intimacy ratings for social and important memories differed significantly, but this difference was even more prominent in older adults. These age differences might be explained by a potential overlap between important and social memories in the group of young adults. When adults are asked to recall important memories from their lives, these memories mainly stem from the time when participants were between 20 and 30 years of age (e.g., Berntsen & Rubin, 2004). For older adults, these memories are in the distant past and often refer to their wedding or the birth of their children (Bohn, 2010). Hence, these memories are likely to include their partner or other family members. Young adults, by contrast, are still in the life period in which these events typically occur. Consequently, participants in their twenties are likely to report memories from the recent past. As previous research has shown, these memories often refer to experiences from college, long trips, starting school, or falling in love (Bohn, 2010). As the contact ban during the COVID-19 pandemic mainly applied to nonfamily members, important and social memories reported by young adults are likely to include the same person(s) (e.g., their friends). Indeed, our results suggest that both important and social memories of young adults more often include close friends compared to the older adults' memories. Irrespective of these age differences, our results show that both young and older adults deliberately use autobiographical memories to feel close to those they cannot meet during the COVID-19 pandemic. Our results thus support the assumption that intimacy is important during young and older adulthood (Alea & Bluck, 2007).

We also considered feelings of loneliness to predict how frequently autobiographical memories are used for intimacy functions. Feelings of loneliness and isolation have been found to trigger thoughts about one's personal past (Wildschut et al., 2006). Our results suggest that this holds specifically for memories about someone from whom participants feel separated (i.e., social memories). This is important because loneliness has been found to increase during the COVID-19 pandemic (e.g., Ausin et al., 2021). Moreover, an increase was found for general feelings of loneliness but also when different types of loneliness, such as emotional and social loneliness, were considered (e.g., Van Tilburg, 2021; Van Tilburg et al., 2021). In the present study, we included overall feelings of loneliness but also distinguished between social loneliness and emotional loneliness. Indeed, the present study demonstrates that different types of loneliness show different associations with the frequency of using autobiographical memories for intimacy functions. Findings show that overall loneliness ratings are positively associated with using social memories for intimacy functions; similarly, feelings of emotional loneliness are associated with more frequent use of memories for intimacy functions. This holds for both important and social memories but is stronger for the latter. Hence, if someone feels a lack of quality in social relationships (i.e., emotional loneliness) and tries to compensate for that by remembering past events, they more often draw on memories about specific, close others rather than remembering important life events.

Our data suggest that higher scores on social loneliness are negatively related to the frequency of using memories for intimacy functions. This holds for both important and social memories. Thus, it appears that a person needs to be satisfied with the size of their social network (i.e., lower social loneliness) to frequently use their memories for intimacy functions. If such a network is missing and a person does not feel connected to people who share common interests and activities (Russell et al., 1984), they might find it difficult to use any type of memories for intimacy functions. For them, remembering important life events or someone close who is currently absent (i.e., because of the COVID-19 pandemic) does not seem to help foster a sense of feeling connected, socially supported, and loved.

Keeping in mind that this study design was correlational, it could also be the other way around. The more frequently individuals use both important and social memories for intimacy functions, the less they feel socially lonely. Likewise, frequently remembering those from whom one feels separated during the COVID-19 pandemic may entail feelings of emotional loneliness. Further experimental and longitudinal research is needed to disentangle the complex relationship between autobiographical remembering and feelings of loneliness. In addition, future research may consider examining gender differences in the intimacy function of autobiographical memory. In the present study, women tended to more frequently use their social memories for intimacy functions than men (see Alea & Bluck, 2007 for similar results). However, this difference only became significant in the model that included the overall loneliness score, not when emotional and social loneliness were considered separately. Moreover, posthoc power analyses revealed that potential gender differences were too small to be detected within the current sample. Future research is needed to replicate the present findings in larger samples of both participants and memories. Notably, power was not a general issue in the current study. With a sample of over 100 level-2 units (i.e., participants) and six level-1 units (i.e., memories), the study can be considered well-powered (> .85 for medium effects sizes; Scherbaum & Ferreter, 2009), and to provide unbiased estimates (Maas & Hox, 2005). We also conducted a posteriori power analysis (i.e., Monte Carlo Simulations) and found most effects to show a power of at least .78. While the sample was too small to detect significant age differences in using important memories for intimacy functions, the interaction between type of memory and age group had a power of 1.00.

One potential limitation of the study is that it was conducted online. As a result, the sample may be comprised of high functioning
older adults, and this would limit the generalizability of our results. It would be relevant to replicate the present findings using different methods that allow gathering a more diverse sample of older adults in particular (e.g., paper-pencil questionnaires). Moreover, we did not randomize the order in which important and social memories were recalled. All participants recalled important memories first. As such, we cannot rule out that the recollection order may have affected the comparison between important and social memories. Finally, an experimental prepost design would allow investigating whether remembering important life events, or memories about someone from whom one feels separated, leads to an increase in feelings of intimacy toward that person (e.g., Alea & Bluck, 2007). Although the present study cannot provide evidence for the effectiveness of using memories for intimacy functions, our findings show that both young and older adults rely on autobiographical memories to maintain intimacy with close others, especially during times of social distancing and isolation that bear the potential for feeling lonely, abandoned, and empty (e.g., Ausin et al., 2021).

FUNDING INFORMATION
This article was not supported by any grant funding (intramural or extramural).

CONFLICT OF INTEREST
The authors do not have any financial or other conflicts of interest.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author, TW, upon reasonable request.

ORCID
Tabea Wolf https://orcid.org/0000-0001-7205-5041

ENDNOTES
1 Age groups differed significantly regarding the persons included in the important and social memories. Regarding important memories, particip-

ants indicated which persons were involved in the event described. They could choose from a list including their partner, relatives, friends, colleagues, or any other acquaintances (multiple responses possible). Consequently, we were able to compare age groups regarding each cate-

gory separately: Compared to young adults, older adults more frequently reported memories including their partner ($\chi^2(1, 311) = 14.46$, $p < .000$) and/or relatives ($\chi^2(1, 311) = 4.91$, $p < .05$) but less frequently reported memories involving friends ($\chi^2(1, 311) = 25.72$, $p < .000$). Social mem-

ories, in contrast, have been restricted to involve only one person. Again, they could choose from a list including their partner, close relatives, close friends, colleagues, or any other acquaintances, but this time, only one response was possible. Results from a Chi-Square test indicated that categories differed significantly between young and older adults ($\chi^2(4, 295) = 45.61, p < .000$).

2 We ran several alternative models to test for interaction effects between age group and loneliness, as well as interaction effects between predictor variables and gender. Neither the age group and loneliness interaction nor any interaction with gender was significant. Importantly, including additional interaction terms hardly altered the estimates presented in Table 2, but resulted in a worse model fit. Hence, we decided to only present the best fitting and, at the same time, most parsimonious models.

REFERENCES
Beike, R. R., Cole, H. E., & Merrick, C. R. (2017). Sharing specific “we” autobiographical memories in close relationships: The role of contact fre-


innen-und-regierungschefs-der-laender-vom-22-03-2020-1733248