Personality, Relationship Closeness, and Loneliness of Oldest Old Adults and Their Children

M. Valora Long and Peter Martin

This study examined the effects of personality, attachment, and dimensions of family solidarity on the loneliness of oldest old adults (i.e., 85 years and older) and their adult children. Parent–child dyads were formed with data collected from 100 parents and their children. Results from path analyses indicated that oldest old adults’ loneliness was reduced by affection both for and from their children. Although an anxious personality decreased affection, perceptions of attachment to children increased feelings of affection. In addition, parents and children who had anxious personalities were more likely to be lonely, whereas loneliness was decreased for those with an extra-verted personality. Children’s loneliness also was decreased by association with their parents and by the quality of their friendships. Perceptions of childhood attachment to parents increased current affection and association with and fulfillment of parents’ expectations.

Robertts, Richards, and Bengtson (1991) posed a challenging question: “Do members of families with higher levels of intergenerational solidarity fare better in life?” (p. 35). Are parent–child relationships over the life span important to late-life morale? In an attempt to answer these questions, this study examined the effects of relationship closeness on loneliness. Oldest old adults (i.e., 85 years of age and older) and their children were targeted as candidates for this study, because they likely have experienced life together for over 60 years. In addition, older adults are vulnerable to loneliness, and previous studies have not targeted loneliness when examining the relationship between oldest old adults and their children. Oldest old adults have experienced a shrinkage of size in their social network because of the death of family and friends. At the very time when this age group is needing support, support is often lacking. Children are reaching their own life expectancy and may have died or, if they are still living, they may have health problems of their own and/or they may not live nearby (Bould, Sanborn, & Reif, 1989). In this study, personality, attachment during adult children’s childhood, and quality of the current relationship were assessed with loneliness as an outcome variable.

The personality trait theory has been used to explain and describe behavior such as psychological well-being (McCrae & Costa, 1991). When comparing three age groups (i.e., 60s, 80s, and 100s), Adkins, Martin, and Poon (1996) found that personality directly predicted morale, and Fees, Martin, and Poon (1999) found that personality predicted loneliness. These findings were supported in a cross-cultural study by Martin, Hagberg, and Poon (1997). In addition, personality traits may impact loneliness indirectly through relationships. Personality has been found to affect early parent–child relationships (Egeland & Farber, 1984) as well as relationship closeness during the adult years (Antonucci, 1990).

Weiss (1974) claimed that individuals require attachment (as one of six key social provisions) to avoid loneliness. According to the attachment theory, attachment styles become established early in life and extend over the life span (Bowlby, 1969). And attachment styles influence the quality of interactions. Rubenstein and Shaver (1982) found that adults who reported better relationships with their parents during childhood were less lonely. An abundance of research has examined attachment between parents and their young children (Easterbrooks & Goldberg, 1990). And there is an increasing expansion in the number of studies addressing the influence of childhood attachment in adolescence (Papi, Roggman, & Anderson, 1991), in college-aged students (Rothbard & Shaver, 1994), on intimate relationships (Collins & Read, 1990), and in adult relationships (Shaver & Hazan, 1993). But there is a dearth of research examining the effect of childhood attachment on parent–child relationships in late life.

Bengtson and Robertts’s (1991) intergenerational solidarity concepts, assessing family interactions, have proven to be relevant and fruitful in current research. Researchers who have used the intergenerational solidarity framework have analyzed types of relationships between parents and children, as well as the conflicts and tensions between generations (Bengtson & Harootyan, 1994).

Several researchers have found that the older generation is more invested in the parent–child relationship than is the younger generation (Bengtson & Kuypers, 1971; Giarrusso, Stallings, & Bengtson, 1995). Bengtson and Kuypers (1971) used data from middle-aged parents and their young adult children. On the basis of their findings, Bengtson & Kuypers proposed that because parents and children had different developmental concerns, each had a different “stake” in the intergenerational relationship and, thus, rated the relationship differently. Parents were concerned about passing on values and desired to maintain close relationships within the family, whereas young adults were seeking to establish autonomy from their parents in values and so-
cial relationships. Thus, parents rated the relationship higher than did their young adult children. Giarrusso and colleagues (1995) used data from older parents (average age 63.5 years) and their adult children (average age 39.5 years) and compared means over time, finding that the intergenerational stake phenomenon extended across the life course. They concluded that investment of affect by the older generation appeared to be greater than investment of affect by the younger generation and that this was the result of lineage position rather than psychosocial development as Bengtson and Kuypers (1971) had suggested.

In late life, when other types of social support may be absent (e.g., death of spouse and friends), affection, association, and having expectations met may be especially pertinent relative to the loneliness of oldest old adults. And loneliness is a significant characteristic of the well-being (Bowling, Edelmann, Leaver, & Hoekel, 1989). The absence of close relationships has a negative effect on morale and may lead to depression in the presence of adverse life events (Brown & Harris, 1978). In addition, even in old age, parents may continue to be a source of identity for children as attested to by children who claim that they feel a sense of rootlessness when a parent dies. Although Bengtson has provided the means for examining relationships between adult family members, very few researchers have assessed long-term intergenerational relationships (cf. Bengtson & Harootyan, 1994, for an exception) and their effect on loneliness.

How do attachment, personality, and the solidarity of oldest old adults’ and their children’s current relationship relate to loneliness? On the basis of research findings that oldest old adults have a higher stake in their children than children have in their parents, we proposed that attachment and solidarity would be perceived as higher by the oldest old participants than by their children. In addition, because oldest old adults are more likely to be widowed and living alone, we hypothesized that parents would perceive loneliness as higher than would their children.

Because attachment is a requisite for preventing loneliness and many oldest old persons have lost their spouse and friends, we suggested that perceived attachment in childhood, as well as current perceptions of affection, association, and having expectations fulfilled (i.e., normative solidarity) would decrease loneliness even after we controlled for educational status, level of income, perceived health, friendship quality, marital status, and proximity. And for the child generation, because attachment in childhood has such a significant influence on children’s relationships over the life span, we suggest that children’s perceived attachment as well as their perceptions of affection, association, and having fulfilled their parents’ expectations would decrease their levels of loneliness, even after taking the control variables into consideration.

We also propose that because oldest old adults have so much invested in their children, their children’s level of attachment, affection, association, and fulfillment of filial obligations would decrease their parents’ loneliness. Also, because children’s identity is connected to their parents, and because children’s morale may be influenced by the way they meet parental expectations, we hypothesized that parents’ perceptions of attachment, affection, association, and having expectations met would decrease their children’s loneliness, even after we controlled for educational status, level of income, perceived health, friendship quality, marital status, and proximity.

On the basis of the personality trait theory that personality affects behavior, we propose that parents’ and their children’s anxiety would decrease levels of attachment and quality of the current relationship, whereas anxiety would increase parents’ and their children’s loneliness. We also predicted that oldest old adults’ and their children’s Extraversion would increase feelings of attachment and quality of current relationship and would decrease feelings of loneliness.

Methods

Sample

Data for this study consisted of a sample of female and male adults 85 years of age and older currently living in the state of Iowa and their children. These oldest old participants had to have at least one living child who also lived with them before the age of 12 years, and they had to be cognitively intact and in reasonable health to participate in the study. For the oldest old sample, the Short Portable Mental Status Questionnaire (Fillenbaum, 1988) was used as a screening device to examine mental status.

Sample participants were selected through Iowa’s Area Agencies on Aging, through contact with churches, nursing home and retirement facilities, and by referral from acquaintances. Contacts were made with 163 oldest old adults; 116 of these individuals were interviewed face to face (a response rate of 71%). Reasons for not participating included difficulty in remembering, unwillingness to involve children, ill health, no living children, not wanting to be bothered, too busy, and not wanting to remember past family relationships; in some cases, no reason was given. Subsequent to data analysis, six cases were deleted because the children refused to participate in the study, six cases were deleted because child data had not been returned before analyses were conducted, two cases were deleted because the oldest old participant died before the children responded, one case was deleted because of a high number of errors on the mental status questionnaire, and one case was deleted because of a high proportion of missing data. One hundred oldest old adults were retained for the present study. Oldest old participants ranged in age from 84 to 102 years, with an average age of 90.04.

Questionnaires were mailed to 250 adult children; 208 questionnaires were returned (an 83% response rate). Some of the reasons that children did not complete the questionnaires included “too busy,” did not “do things like this,” poor relationship with parent, unwillingness to share family information, death of parent, not enough contact with parent to answer the questions, and changes in parent’s personality that were due to health problems. We randomly selected one child from each intergenerational family unit for the present study. This provided a sample of 48 first-born children, 39 second-born, 8 third-born, 4 fourth-born, and 1 fifth-born child (n = 100). Children ranged in age from 42 to 78 years, with an average age of 59.72.
Eighty-four percent of the oldest old participants were widowed (compared with 10% of the children); 14% were married (compared with 69% of the children). Seventy-seven percent of the parent generation were women, compared with 52% of the child generation. Whereas 84% of the children were college educated, 53% of the oldest old participants had some college education. Children were more likely to be in professional employment than were their parents: 68% and 47%, respectively. Whereas income for almost half of the parents (48%) ranged from $1,000 to $15,000, 80% of the children had incomes of $30,000 or above. Parents were more likely to be living alone (85%), in nursing homes (37%), or in retirement facilities (45%), whereas children were more likely to be living in the community (96%) and with a spouse (78%). Close to half the parents and their children (49%) lived within 50 miles of each other, whereas 34% lived more than 500 miles apart.

The sample for this study was compared with the population of the state of Iowa to assess its representativeness. On the basis of 1990 census data representing the 85+ population (Goudy, Burke, Beebe, & Gosselink, 1994), the oldest old sample in the present study underrepresented the percentage of men, men married, and women widowed. In addition, the sample in the present study slightly overrepresented the percentage of oldest old adults living in nursing homes.

Measures

Measures of attachment, personality, solidarity, and loneliness were assessed in both generations. Education, income, health, friendship quality, marital status, and proximity were measured as control variables.

Attachment.—Attachment was operationalized with a scale developed by Hazan and Shaver (1986): the attachment style measure. Hazan and Shaver developed a discrete, forced-choice retrospective measure consisting of three single items that presents simple descriptions of the three adult attachment styles (i.e., secure, anxious–ambivalent, avoidant). Participants are required to select the attachment style that is most applicable to their feelings about close relationships. Collins and Read (1990) modified this instrument by using the measures as a Likert-type scale. Consistent with Collins and Read’s use of the measure, this study used a scaled format of attachment. For each parent, children rated on a 10-point scale the extent to which each description characterized their relationship with their parent during childhood. Changes were made in the wording of the instrument to attain measures of the parent’s perceived relationship with his or her child. During the analyses, only the secure subdimension was used to describe attachment as parental warmth and supportiveness. Higher levels of security indicated higher levels of attachment.

Personality.—A shortened version of the 16 Personality Factor (16PF) Scale (Cattell, Eber, & Tatsuoka, 1970) developed by Martin, Poon, and Johnson (1996) was included in this study to assess two dimensions of personality: Anxiety and Extraversion. The Anxiety Scale (i.e., neuroticism) consisted of three factors: Emotionality, Apprehension, and Tension. The alpha coefficient measuring internal consistency of Anxiety using data from the present study was 0.80 for the oldest old participants and 0.82 for their children. The Extraversion Scale consisted of three factors: Warmth, Sociability, and Assertiveness. The alpha coefficient for Extraversion using data from the present study was 0.74 for the oldest old participants and 0.74 for their children.

Solidarity.—Four dimensions from Bengtson and Roberts’s (1991) measure of solidarity were used in the present study. Affective Solidarity, Associative Solidarity, and Familial Norms were used as measures of solidarity, whereas elements of family structure were used as control variables (i.e., marital status and proximity). Affective Solidarity is defined as the nature and extent of positive sentiment toward other members of the family. Participants indicate levels of affection by how well they understand, trust, respect, feel affection for, and feel they are fair toward a family member; levels range from 1 (not well) to 6 (extremely well; Gronvold, 1988). Internal consistency using data from the present study was determined by Cronbach’s alpha: 0.92 for the oldest old adults and 0.96 for their children.

Associative Solidarity is the degree to which family members share activities with other family members. Levels of association in various activities are scaled from 1 (almost never) to 8 (almost every day; Mangen & Miller, 1988). Internal consistency of Associative Solidarity for the present study was determined by Cronbach’s alpha: 0.71 for parents and 0.78 for their children.

Normative Solidarity (i.e., Familial Norms) is defined as the degree of perceived filial responsibility. Levels measuring norms of familism are scaled from 1 (disagree) to 4 (agree). Internal consistency using data from the present study was determined by Cronbach’s alpha: 0.60 for oldest old adults and 0.73 for their children.

Empirical indicators for family structure include kinship network (i.e., marital status, gender, and number of children) and geographic proximity. On the basis of McChesney and Mangen’s (1988) findings, only one generation needs to indicate proximity. Because children will more likely travel distances to be with their oldest old parents, the children were asked in the present study to respond to the proximity measure.

Loneliness.—Loneliness was measured using the UCLA Loneliness Scale (Version 3; Russell, 1996). The scale contains 20 items; 11 of the items reflect dissatisfaction (negatively worded) with social relationships and 9 reflect satisfaction (positively worded). In accord with Russell’s (1996) procedures, after nine items on this scale were reverse coded, the scores of each item were summed together. Higher scores indicated greater degrees of loneliness. Internal consistency using data from the present study was determined by an alpha coefficient of 0.87 for the oldest old participants and 0.90 for their children.

Control variables.—This study assessed education, income, a measure of subjective health, a subjective rating of the quality of relationships with friends, marital status, and proximity as control variables. Whereas data for the education, income, and health variables came from the Duke
Older Americans Resources and Services Multidimensional Functional Assessment Questionnaire (OARS; Fillenbaum, 1988), a single-item subjective rating of the quality of relationships with friends was self-constructed on the basis of Russell’s (1996) assertion that quality of friendships is more important in assessing loneliness than quantity or frequency of contact with friends. The wording of the statement is very similar to the wording of the subjective health question: “How would you rate the quality of your relationship with your friends? Excellent, good, fair, poor.” Higher scores indicated higher quality of relationships with friends. Marital status and proximity were obtained from the family structure variable of the solidarity construct.

Procedure
Interviews were conducted with each parent in her or his place of residence. The interviews lasted, on average, about an hour and a half.

Oldest old parents provided the names, addresses, and telephone numbers of their children. A letter, accompanied by directions, the informed consent form, and the questionnaire packet, was mailed to all children of each oldest old adult requesting their participation in the study. The questionnaire packet included the same instruments used in interviewing the oldest old participants; however, the wording was changed to ask for information on perceived relationships with a parent. Children were also asked proximity in miles to the parent.

Paired $t$ tests were calculated to assess differences between oldest old adults and their children on attachment, Affective Solidarity, Associative Solidarity, Normative Expectations, personality, loneliness, and the control variables. In addition, paired $t$ tests were calculated to assess gender differences on all variables for each generation. Responses of each parent were paired with the corresponding child’s responses, resulting in matched-pair dyads. Bivariate correlations were used to examine the relationship between variables for each generation and to examine the relationship between generations for each variable.

Path analyses were computed with AMOS (an SPSS-based program) to assess the structural relations among personality, attachment, solidarity, and loneliness (with each variable described by a single indicator). In an analysis with incomplete data, AMOS does not display commonly reported fit indexes for testing goodness of fit. For this reason, missing data (less than 10% of the sample) for the oldest old adult variables of income and health and adult children’s health, were replaced with a median substitution.

Results
Table 1 provides information on mean levels exposing generational differences of attachment, solidarity, personality, and loneliness, as well as for the control variables. Parents perceived their relationship with their children as warmer (i.e., attachment), $t(100) = 4.92, p < .001$, and more affectionate, $t(100) = 5.37, p < .001$, than did their children. In addition, parents were more likely to indicate that family members should fulfill their filial responsibilities, $t(100) = 2.95, p < .01$, than were their children. There were no significant differences in personality or in loneliness between oldest old adults and their children. Children were higher on several variables: level of education, $t(100) = -7.22, p < .001$; income, $t(100) = -11.21, p < .001$; health, $t(100) = -5.71, p < .001$; and marital status, $t(100) = -9.28, p < .001$.

Oldest old mothers perceived their relationship with their children as warmer than did oldest old fathers, $t(100) = 31.91, p < .001$, whereas fathers were more likely to indicate that family members should interact with each other than were mothers, $t(100) = 7.13, p < .01$ (table not shown). Male children were more highly educated, $t(100) = 5.93, p < .05$, and had a higher income, $t(100) = 9.45, p < .01$, than female children. Fathers and male children were more likely to be married than were mothers and female children, $t(100) = 5.25, p < .05$, and, $t(100) = 17.82, p < .001$, respectively.

Bivariate correlations (Table 2) indicate that there was no significant correlation between parents’ and children’s loneliness. Within-generation correlations indicated that Associative Solidarity had a significant negative correlation with loneliness for both oldest old adults and their children ($r = -.21, p < .05$; $r = -.24, p < .05$, respectively). But Affective Solidarity was significantly correlated with loneliness only in the parent generation ($r = -.45, p < .001$). Evidence was provided that described a significant positive relationship between Anxiety and loneliness in both generations: oldest old adults ($r = .45, p < .001$) and children ($r = .38, p < .001$). But Extraversion was significantly correlated with loneliness only for children ($r = -.35, p < .001$). In examining loneliness and the control variables, loneliness was negatively related to income and health for oldest old adults ($r = -.24, p < .05$; $r = -.34, p < .001$, respectively) and their children ($r = -.20, p < .05$; $r = -.32, p < .001$, respectively).

The predictors of loneliness were calculated with path analyses in three steps. In the first step, predictors of loneliness were examined within generations and in the second

![Table 1. Mean Differences in Attachment, Solidarity, Personality, Loneliness, and Control Variables](image)
Within-Generation Analyses

The first computation assessed parents’ loneliness. Without the control variables, Anxiety positively predicted loneliness, whereas Extraversion and Affective and Associative Solidarity negatively predicted loneliness. Thirty-four percent of the variance of the loneliness was explained. When the control variables were entered into the equation, Associative Solidarity, income, and friendship quality emerged as significant negative predictors of loneliness, whereas Extraversion and Anxiety retained their power to predict loneliness (Table 3). Fifty-nine percent of the variance in loneliness was explained.

Between-Generation Analyses

The second step in the structural equation analyses addressed the relationship between personality, attachment, and dimensions of solidarity and the loneliness of the other generation. First, parents’ loneliness was regressed on children’s attachment, solidarity, and personality (i.e., Anxiety and Extraversion). Without the control variables, children’s Affective Solidarity negatively predicted parents’ loneliness, and children’s Anxiety positively predicted parents’ loneliness. Ten percent of the variance in parents’ loneliness was explained by children’s attachment, personality, and solidarity. With the addition of control variables, children’s Affective Solidarity continued to yield a significant relationship with their parents’ loneliness (Table 4); however, children’s Anxiety was no longer significantly predictive of their parents’ loneliness. Oldest old adults’ income, health, and friendship quality emerged as significant negative predictors of loneliness. Thirty percent of the variance of the oldest old adults’ loneliness was explained.

Next, path analysis was used to examine the relationship between parents’ perceived attachment, current solidarity, personality, the control variables, and children’s loneliness. Parents’ attachment, solidarity, and personality were not significantly related to children’s loneliness.

Trimmed Models

As a third step, analyses were calculated using only those variables that had been found to be significant predictors of relationship closeness and loneliness. Oldest old adults’ Affective Solidarity, Extraversion, income, education, and

---

Table 2. Correlation Matrix of the Variables From Oldest Old Adults (Above the Diagonal) and From Adult Children (Below the Diagonal)

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Loneliness</td>
<td>0.01</td>
<td>-0.20</td>
<td>-0.45***</td>
<td>-0.21</td>
<td>-0.05</td>
<td>0.45***</td>
<td>0.00</td>
<td>0.03</td>
<td>-0.24</td>
<td>-0.34***</td>
<td>-0.08</td>
<td>-0.30**</td>
<td>0.11</td>
</tr>
<tr>
<td>Predictor variables</td>
<td>2. Attachment</td>
<td>-0.16</td>
<td>0.08</td>
<td>0.40***</td>
<td>0.05</td>
<td>0.02</td>
<td>-0.11</td>
<td>-0.03</td>
<td>-0.20***</td>
<td>-0.10</td>
<td>0.12</td>
<td>-0.20*</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>3. Affective</td>
<td>-0.12</td>
<td>0.62***</td>
<td>0.28**</td>
<td>0.39***</td>
<td>0.02</td>
<td>-0.29***</td>
<td>-0.08</td>
<td>-0.03</td>
<td>0.01</td>
<td>0.23*</td>
<td>-0.09</td>
<td>0.31***</td>
</tr>
<tr>
<td></td>
<td>4. Associative</td>
<td>-0.24*</td>
<td>0.33***</td>
<td>0.46***</td>
<td>0.66***</td>
<td>-0.01</td>
<td>0.13</td>
<td>0.07</td>
<td>0.25*</td>
<td>0.25**</td>
<td>-0.03</td>
<td>0.07</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>5. Normative</td>
<td>-0.17</td>
<td>0.36***</td>
<td>0.25**</td>
<td>0.14</td>
<td>0.07</td>
<td>-0.10</td>
<td>-0.23**</td>
<td>-0.02</td>
<td>0.09</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.09</td>
</tr>
<tr>
<td>Personality</td>
<td>6. Anxiety</td>
<td>0.38***</td>
<td>-0.05</td>
<td>-0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.12</td>
<td>0.40***</td>
<td>-0.06</td>
<td>-0.12</td>
<td>-0.25**</td>
<td>0.09</td>
<td>-0.19</td>
</tr>
<tr>
<td></td>
<td>7. Extraversion</td>
<td>-0.35***</td>
<td>0.00</td>
<td>0.01</td>
<td>0.14</td>
<td>0.07</td>
<td>0.23*</td>
<td>0.16</td>
<td>-0.04</td>
<td>-0.02</td>
<td>-0.06</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>Control variables</td>
<td>8. Education</td>
<td>-0.15</td>
<td>-0.06</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.10</td>
<td>0.07</td>
<td>0.12</td>
<td>0.45***</td>
<td>0.51***</td>
<td>0.03</td>
<td>0.15</td>
<td>0.25*</td>
</tr>
<tr>
<td></td>
<td>9. Income</td>
<td>-0.20***</td>
<td>-0.09</td>
<td>-0.09</td>
<td>-0.15</td>
<td>-0.18</td>
<td>0.03</td>
<td>0.05</td>
<td>0.40***</td>
<td>0.29**</td>
<td>0.11</td>
<td>0.36***</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>10. Health</td>
<td>-0.32***</td>
<td>-0.13</td>
<td>-0.09</td>
<td>-0.05</td>
<td>-0.15</td>
<td>-0.26**</td>
<td>0.00</td>
<td>0.19</td>
<td>0.36***</td>
<td>-0.05</td>
<td>-0.10</td>
<td>0.23*</td>
</tr>
<tr>
<td></td>
<td>11. Marital status</td>
<td>-0.01</td>
<td>0.06</td>
<td>0.08</td>
<td>0.01</td>
<td>0.04</td>
<td>-0.06</td>
<td>0.11</td>
<td>-0.09</td>
<td>-0.20*</td>
<td>-0.02</td>
<td>-0.04</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>12. Friendship quality</td>
<td>-0.56***</td>
<td>0.05</td>
<td>0.00</td>
<td>0.05</td>
<td>0.09</td>
<td>-0.24*</td>
<td>0.27**</td>
<td>0.03</td>
<td>0.01</td>
<td>0.20*</td>
<td>0.14</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>13. Proximity</td>
<td>0.13</td>
<td>-0.12</td>
<td>-0.07</td>
<td>-0.66***</td>
<td>-0.05</td>
<td>-0.08</td>
<td>-0.02</td>
<td>0.10</td>
<td>0.13</td>
<td>0.03</td>
<td>0.01</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

Note: Bold-faced entries are between-generations correlations.

*p < .05; **p < .01; ***p < .001.
health were found to be significant negative predictors of loneliness, whereas Anxiety positively predicted oldest old adults’ loneliness (Figure 2). Anxiety and attachment indirectly predicted loneliness through Affection. In addition, Extraversion negatively predicted Normative Solidarity. The low ratio of chi-square to degrees of freedom, $\chi^2(12, n = 100) = 4.20, p = .98$, and the high goodness of fit indexes associated with this model, GFI = .99 and AGFI = .97, indicated an acceptable fit to the data. Oldest old adults’ Anxiety, Extraversion, Affective Solidarity, income, education, and health explained 42% of the variance in loneliness.

Children’s loneliness was negatively predicted by Associative Solidarity, Extraversion, income, and by friendship quality (Figure 3). Anxiety was a positive predictor of children’s loneliness. In addition, attachment predicted loneliness indirectly through Associative Solidarity. Attachment, G1 Marital status $0.10$ $0.94$ $-1.15$ 0.06 0.64 0.89
Proximity $0.05$ $0.28$ $0.62$ 0.03 0.26 0.37

Notes: G1 = oldest old adults; G2 = adult children; CR = critical ratio.

$^a\chi^2(27, n = 200) = 105.31$.

$^b$CR greater than 1.96 indicates significance at the .05 level.

As predicted, this study found that oldest old parents who were 85 years of age or older perceived both past attachment and current relationships to their children to be higher than did their children. This reaffirms the findings of other researchers (Bengtson & Kuypers, 1971; Giarrusso et al., 1995)
but with the added dimensions of assessing both current relationships and retrospective attachment within an older population. In a cross-sectional study, Bengtson and Kuypers (1971) concluded that because parents and children had different developmental concerns, each rated the relationship differently; Giarrusso and colleagues (1995), however, using longitudinal data, proposed that parents rated the relationship closer on the basis of lineage position. It is well to consider that “stake” may be defined differently by parents who are 85 years of age or older than it is by parents who were middle aged (cf. Bengtson & Kuypers, 1971) or even by parents who averaged 65 years of age (cf. Giarrusso et al., 1995). Oldest old adults are at an age when they are more likely interested in making sense out of their lives as they prepare for their death. This may mean that they consciously select experiences to give positive meaning to their lives (Birren, Kenyon, Ruth, Schroots, & Svensson, 1996). For these reasons, oldest old adults may mentally and emotionally construct the relationship with their children as close. On the other hand, adult children perceive the parent–child relationship from a different perspective. Retrospective bias will less likely be as apparent in children’s responses as their stake will less likely be in their parents. On the basis of normative society, children’s stake will more likely be in their family of procreation.

Our prediction that loneliness of oldest old parents would be greater than loneliness of their children was not supported by our findings. There were no significant differences between parents and their children on loneliness. One might presume that oldest old adults would be lonelier, because they are more likely widowed and living alone. Although the sample for this study included many widowed oldest old participants, often times they were living in either a nursing home or a retirement center rather than alone in the community. Russell, Cutrona, de la Mora, and Wallace (1997) suggested that loneliness might motivate individuals to seek admission to nursing homes to satisfy their need for companionship. Parents’ increased opportunity for companionship may partially account for the lack of significant differences between generations on loneliness.

However, our findings may also be a reflection of the sample selected for this study. To be part of this study, oldest old parents had to have children who were also willing to participate in the study. This may have biased the data by providing responses from participants who (a) had children and (b) had children who cared enough about them to be involved in the study. Sample selection may therefore have underestimated loneliness in the oldest old sample.

As we hypothesized, current affection with children (but not association with nor fulfillment of filial obligations) appears to be central to relationship closeness and loneliness for oldest old adults. Perhaps parents at 85 years of age or older are more dependent on emotional attachment with children because they have lost a spouse and intimate friends (Bould et al., 1989). Although the characteristics of attachment may have changed for these oldest old parents who are now more likely to be care receivers rather than caregivers, the attachment they established in earlier years will likely continue to be expressed in current affection for their children. This finding supports attachment literature that has addressed the stability of attachment styles over the lifespan (Rothbard & Shaver, 1994). Norris and Tindale (1994) claim that although attachment does not diminish, attachment may change in characteristics as people go through different stages; it is the mental representations that remain fairly stable.

The fact that childhood attachment and current affection were related to loneliness for older parents, whereas neither association with their children nor the parents’ expectations of their children predicted loneliness, supports the findings of other researchers who also reported that loneliness scores were weakly related to objective characteristics of interpersonal relationships, such as frequency of contact, when assessing older populations (Russell, 1996). Russell (1996), for example, reported that loneliness scores were much more strongly related to perceived qualities of interpersonal relationships than to frequency of social contact and network density.

As we hypothesized, and consistent with findings from other studies (Fees et al., 1999; Martin et al., 1997), anxiety was directly related to loneliness for both oldest old parents and their children. Anxiety also impacted parents’ loneliness indirectly through affection. Although attachment literature has not addressed oldest old adults’ and their children’s relationships, attachment researchers have studied anxiety in other types of adult relationships and have found that anxious individuals desire affectionate relationships, but the relationships do not satisfy their needs (Feeney & Noller, 1990). In contrast, warm, sociable, assertive (i.e., extraverted) parents were less lonely and they also rated their expectations as relatively low. Extraverted individuals are more likely to be involved in social activities and to have their own network of friends. A network of friends provides support outside the family and, thus, may lessen the need for family interaction, support, and opinions in making life decisions. Further research is needed to clarify the relationship between personality and loneliness for oldest old adults.

The picture changes when viewing children’s perceptions of their relationship with parents who are 85 years of age and older and of their own loneliness. For example, contrary to our prediction, there was no evidence that children’s personality was related to their relationship with their parents, but extraverted children were less likely to be lonely. This is supported by the finding that friendship quality decreased loneliness for children.

In contrast to our findings with oldest old parents and in support of our hypothesis, children’s perceptions of past attachment were positively related to association with their parents, to fulfilling their filial responsibilities (i.e., Normative Solidarity), and to affectionate relationships. It makes
sense that children raised in a secure environment would continue to respond affectionately to parents with whom they have associated all of their lives. Cicirelli (1993) proposed that feelings of affection or love are derived from earlier attachment. The positive relationship between association with and fulfillment of parental expectations and attachment is also understandable when considering the position of children who have parents 85 years of age and older. Children may now be accepting their filial responsibility to care for an aging parent. This would support the findings of other researchers who have studied obligatory responses to aging parents (Cicirelli, 1993).

It is interesting to note that oldest old parents’ perceptions of affection were associated with feelings of loneliness, whereas children’s perceptions of association (and not affection) were related to loneliness. In addition, contrary to our prediction, parents’ perceptions of attachment and current solidarity had no effect on children’s loneliness. Why is the relationship to loneliness different for oldest old adults than it is for their children who are relatively old themselves (i.e., an average age of 60 years)? Emotional needs of oldest old adults may be fulfilled through children in the absence of spouse and friends who may have died (Johnson & Troll, 1992). For children, it may be that investment of time and energy into their relationship with older parents strengthens filial bonds, which would then decrease emotional loneliness. Another important buffer to loneliness for children, in addition to friendship quality, might be their positive commitment to their family of procreation.

Our results showing that poor health was related to increases in loneliness for oldest old adults strengthens Koropeckyj-Cox’s (1998) and Fees and colleagues’ (1999) findings that poor self-perceived health was related to greater loneliness. Whereas Koropeckyj-Cox used a childless sample of respondents between the ages of 50 and 84, Fees and colleagues’ sample consisted of sexagenarians, octogenarians, and centenarians. In a cross-cultural analysis, Ferraro and Su (1999) also found that financial status and subjective health of a population ranging in ages from 59 to 110 years were related to psychological distress (which included loneliness). The result of our study, which indicates that older adults with lower incomes are more likely to be lonely, also adds support to Ferraro and Su’s finding that financial strain was associated with less integration in family and friend networks.

A positive relationship between education and loneliness for oldest old adults is interesting to contemplate. It may be that physical deficits more prevalent in later years, such as visual and auditory declines, prohibit activities normally enjoyed by the more highly educated. Lindgren, Svärdssudd, and Tibblin (1994) found that there was a relationship between loneliness and impaired eyesight and vision in a population 75 years of age and older in Sweden.

Findings that oldest old mothers perceived their relationship with children as warmer than did oldest old fathers is of special interest because Giarrusso and colleagues (1995) found that mothers’ and fathers’ (average age 63.5 years) affection for their children was comparable. Perhaps a perceived warm relationship with children is especially important for oldest old women who are more likely to be alone than are either oldest old men or older men and women in their 60s. In contrast, oldest old fathers were more likely than oldest old mothers to indicate that family members should interact. This finding warrants additional research with a larger male sample, because the current sample of oldest old men was relatively small. The findings of this study support other research that older men are more likely to have higher income and are more likely to be married than older women (Streib & Binstock, 1990), because older women are more likely to have had erratic work histories and to have worked in lower paying jobs with fewer fringe benefits. In addition, because women live longer than men, because the gender ratio favors men, and because men tend to remarry, women are less likely than men to be married.

This study was limited by the use of the shortened form of the 16PF Scale. A more detailed examination of personality may expose additional significant influences of personality on relationship closeness. In addition, the study was limited by using only the secure dimension of the attachment measure; anxious–ambivalent and avoidant attachment styles were not specifically identified. The sample included only those oldest old parents whose children were also willing to participate. The oldest old participants knew that the study was assessing filial relationships and that their children would also be participating. These characteristics would likely bias data toward underestimation of loneliness and overestimation of relationship closeness in comparison with the population.

It is important to note that oldest old adults were interviewed personally, whereas children responded to mailed surveys. It is possible that generational differences are the result of method effect, but concern for method effect is weakened by the fact that oldest old adults and children are two different populations. A similar data collection method was successfully used by the National Survey of Families and Households, which was based on interviews with one adult, the primary respondent, and a shorter, self-administered questionnaire completed by the spouse or cohabiting partner (Bumpass & Sweet, 1997; Sweet, 1989).

Because the sample of oldest old adults underrepresented the percentage of oldest old men, of men married, and of women widowed and it overrepresented the percentage of oldest old adults living in nursing homes, caution should be used in generalizing these results to all oldest old adults and their children. And finally, because the models for this study were based on cross-sectional data, caution must be exercised in interpreting antecedent–consequent relationships. Further examination by gender and birth order with a larger population (i.e., including data available on all children) has the potential to provide additional insight into the differences that surfaced in the present study.

In conclusion, this study has provided additional information to support the intergenerational stake hypothesis that parents perceive relationships to be closer than do their children, by assessing an older population and by linking attachment in childhood to current relationships. In addition, this study has added further to the literature on loneliness by examining the effects of filial relationships with an older population than has been studied previously. Of major value was the finding that the manifestations of loneliness were quite different for oldest old parents than for their children. For the oldest old parents, affectionate relationships with children was of prime importance as a buffer to loneliness. This is especially important information when considering the fact that for many oldest old
adults both spouse and friends are likely to be deceased. In addition, because oldest old parents have such a high stake in their children, believing in the affection of their children becomes even more important to their well-being.

Acknowledgments

This study is based on the doctoral dissertation of M. Valora Long.

Address correspondence to Dr. M. Valora Long, Iowa State University, 1094 LeBaron, Ames, IA 50011. E-mail: x1mvlong@exnet.iastate.edu

References


Received February 23, 1998

Accepted March 9, 2000

Decision Editor: Toni C. Antonucci, PhD