Differences Between Men and Women in Social Relations, Resource Deficits, and Depressive Symptomatology During Later Life in Four Nations

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This article examines gender differences in social relations and resource deficits in France \( (N = 553) \), Germany \( (N = 516) \), Japan \( (N = 491) \), and the United States \( (N = 514) \). These data, from regionally representative samples, indicate few gender differences in quantity or quality of social relations, but that women are more likely than men to experience widowhood, illness, and financial strain. In all countries, more deficits and more negative social interactions are associated with higher levels of depressive symptoms. Interestingly, among women in France and Japan but not among men in any country, quality of social relations offsets the negative consequences of resource deficits. Findings suggest that quality of social relations may have important implications for helping people, particularly women, cope with resource deficits common in late life.

It is increasingly recognized that the influence of social relations is pervasive. There is much still not understood, however, about the nature of these relations or when and how they are influential. Similarly, we are only just beginning to understand how social relations might be the same or different among diverse groups of people and in different countries. While it is likely that social relations are influenced by the broader cultural milieu and customs within which they exist, it may be true also that there are general principles and effects of social relations that transcend particular countries, cultures, or nations. This may be especially the case among older people who are more likely to experience resource deficits that challenge their well-being.

In the present article these issues are explored by capitalizing on the availability of parallel data from four countries to explore gender differences in quantitative and qualitative aspects of social relations. We examine also the presence of resource deficits, specifically widowhood, illness, and financial strain, among older men and women. Further, the degree to which social relations, especially negative social relations, may exacerbate the risk of depressed affect among older men and women experiencing resource deficits is examined. The study focuses on four research questions: (a) Do older men differ from older women in quantitative aspects of their social networks in France, Germany, Japan, and the United States? (b) Do older men and women differ in positive and negative aspects of their social relationships in these countries? (c) Are there gender differences in the four countries in the experience of widowhood, illness, financial strain, and depressive symptoms? and (d) Do negative social relations exacerbate the risk of depressive symptoms associated with the experience of resource deficits differentially for men and women?

Researchers have long attempted to both describe and understand differences in the social networks of older men and women (e.g., Sauer & Coward, 1985; Troll, 1994; Vaux, 1985; Weiss, 1974; Wellman & Wortley, 1990). It has been argued that women have larger networks than do men (Troll, 1994; Vaux, 1985), but there are also important similarities between men and women in the people who constitute their most important and closest relationships (Antonucci & Akiyama, 1987; Troll,
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1994). For example, the closest relationships of both men and women are likely to be spouse, children, siblings, and friends. However, although structural aspects of their relationships can often be the same, men and women may differ in qualitative aspects of these relationships (e.g., Hatch & Bulcroft, 1992; Johnson & Troll, 1994; Norris, Stephens, & Kinney, 1990). Some researchers have sought to shed light on the nature of the differences between the social relationships of men and women by noting that it is not the number or role relationships of the closest network members that is important but rather the degree to which these relationships are of high versus low quality (Antonucci, Akiyama, & Lansford, 1998; Okun & Keith, 1998; Rook, 1992).

To explore this issue in the present study, we focus on gender differences in both quantitative (as indicated by network size) and qualitative (as measured by positive and negative assessments of social relations) aspects of close social relations. Most research on gender differences in social relations has focused on one cultural group at a time. It is unclear to what extent gender differences in social relations are related to norms in a particular country versus more broadly found across cultures and countries. The present study addresses this limitation by examining differences between older men and women in four countries: France, Germany, Japan, and the United States. These are all developed industrialized countries but the older people in these countries have all had a unique history, e.g., with respect to World War II (winning, losing) and the process of modernization (early, later) and cultural/value systems (Western versus Eastern).

Also, this article seeks to document gender differences in the experience of three resource deficits common in old age: widowhood, illness, and financial strain. These are considered only briefly here, but a more detailed account of these resource deficits can be found in Antonucci et al. (2001). Losing a spouse is a common experience in later life, somewhat more so for women than men. This event can be conceptualized as a developmental transition because it often serves as a trigger for other major life changes. Widowhood is sometimes, if not always, traumatic and has been found to be associated with increased morbidity and mortality (Goldman, Koreman, & Weinstein, 1995). Although perhaps self-evident, it should be noted that widowhood almost always involves the loss of the closest social relationship—one’s spouse. Hence, it is especially important to examine how the loss of this central relationship can be offset by other social relationships. Because women are thought to have more complex and intimate relationships, it might be hypothesized that they would be better able to find other social relations to help them cope with the loss of their spouse (Chown, 1981; Hatch & Bulcroft, 1992). It is also the case, however, that widowed women have reported that other close relationships, in particular family members, can be a source of stress during this time (Morgan, 1989). Furthermore, there appear to be cultural differences in the experience of widowhood. For example, in Japan, the multigenerational nature of most households is likely to reduce the drastic structural changes in
network characteristics that often accompany widowhood in other countries (Harris & Long, 1993; Tsuya & Martin, 1992). It is also the case that in Europe, especially in contrast to the United States, there tends to be greater residential stability (Antonucci et al., 2001). Thus, American widows, who often move in order to be closer to family, are likely to experience the most substantial changes in their social relations compared to Europeans and Japanese, and the Japanese could be expected to experience the fewest changes. Since recent findings in France (Helmer et al., 1999) and Sweden (Fratiglioni, Wang, Ericsson, Maytan, & Winblad, 2000) have shown that marital status is associated with Alzheimer’s disease (non-married people being more likely to develop AD), the importance of widowhood as a resource deficit may be particularly significant for other types of morbidity associated with age.

A second common resource deficit associated with old age is illness. Clearly, frequency of illness increases with age, and it can be assumed that this increase, though perhaps not the rate, is consistent across all countries and cultures. Since men have shorter life expectancies than women, they have fewer years to be ill, but women have more years to be chronically ill (Verbrugge, 1989) because women’s life expectancy is longer. It is also known that social relations can affect health. There is evidence that people with numerous social ties experience less morbidity and mortality (Berkman & Syme, 1979; Blazer, 1982; Orth-Gomer & Johnson, 1987). Little work has examined gender or cultural differences in associations between social relationships and health. If illness is associated with functional impairments and limitations in activities of daily living, gender and cultural variations in the patterns and expectations of social relations might influence how well an individual can cope with problems associated with illness. For example, in Japan, elders faced with the need for support from family and friends in order to meet the needs of daily living are likely to be living with their children already and thus will experience minimal disruptions to their usual life style. By contrast, American elders living across town or across the country from their children may require a major change in life style when experiencing illness. Previous research has shown that inability to function in daily life can have an exacerbating effect on an already present illness (Iwarsson, 1998; Iwarsson & Isacsson, 1997; Norris et al., 1990). It is not clear how effects of illness on well-being are related to the quantity and quality of social networks or how this may differ by gender.

A third common resource deficit often experienced in later life is financial strain. However, because some countries provide stronger financial supports to the elderly than others, it may be that financial strain is more of a problem in some countries (e.g., the United States) than in others (such as France, Germany, and Japan). Although the data are limited, there is some evidence that the social relations of people experiencing financial strain are themselves strained (Krause, Liang, & Keith, 1990). It is known, primarily from American studies, that people with fewer economic resources exchange support with fewer people and have more
sex-segregated support networks that consist mostly of family (Gurin, Veroff, & Feld, 1960; Marmot et al., 1998). In addition, Krause (1997) has shown that, at least in the United States, financial strain can negatively affect both the individual and his or her social network. To our knowledge, no studies have compared the links between financial strain, social relations, and well-being across countries, nor have these links been examined differentially for men and women. In this study we examine whether financial strain is more common among older men or older women across countries and whether social relations buffer older people against the depressive symptoms that may be associated with financial strain.

In addition to examining gender differences in social relations and resource deficits, many researchers have studied gender differences in depression (see Nolen-Hoeksema, Larson, & Grayson, 1999). Women are often shown to exhibit higher levels of depression than men (e.g., Gatz, Kasl-Godley, & Karel, 1996). Differences have been documented in levels of depressive symptomatology across countries, with French women exhibiting much higher levels of depressive symptomatology (Fuhrer & Rouillon, 1989) than French men whereas Japanese women exhibit levels of depressive symptomatology that are quite similar to Japanese men (Akiyama & Antonucci, in press). At the same time, research has demonstrated that social relationships are related to depressive symptomatology for both men and women (e.g., George, Blazer, Hughes, & Fowler, 1989; Oxman, Berkman, Kasl, Freeman, & Barrett, 1992). Of particular interest in the present study is whether negative social relationships exacerbate the risks of depression associated with resource deficits.

To summarize, the present study examines gender differences across four countries in quantitative and qualitative characteristics of older adults’ social relations and in the experience of widowhood, illness, financial strain, and depressive symptoms. Whether negative social relationships exacerbate negative effects of resource deficits and whether this differs for men and women is examined also. These questions are investigated using comparable data from France, Germany, Japan, and the United States. Specifically, it is hypothesized that there will be few gender differences in the quantity of social relations since close relationships tend to be among the same people (i.e., spouse, children, friends) for both men and women. On the other hand, it is hypothesized that there will be differences in the quality of these relationships since women have been found to experience both more positive and more negative aspects of their relationships. It is also expected that women will experience more resource deficits than will men, although this difference may be greater in some countries than others because of different government policies and societal traditions. And finally, it is hypothesized that women, more than men, will be especially at risk for depressed affect if they experience negative social relationships in addition to resource deficits.
Method

Participants

Four major data sets from France, Germany, Japan, and the United States were utilized in this study (see Antonucci et al., 2001, for details).

France. Stratified (by age and gender) probability sampling techniques were used to obtain the original regionally representative sample in the Gironde and Dordogne regions of France (see Dartigues et al., 1992, for details). For the current study, a subsample limited to the Bordeaux metropolitan area sample was used which consisted of 553 adults, 39% men and 61% women, aged 70 to 97 years ($M = 78.10, SD = 5.93$). Two-thirds (66%) of this sample had 7–11 years of formal education. The data were collected in 1994 and 1995 by the Personnes Agees Quid Research Team from Institut National de la Sante et la Recherche Medicale in Bordeaux and Paris. Data were collected in face-to-face interviews that lasted approximately 60 minutes by master’s level trained psychologists.

Germany. Stratified (by age and gender) probability sampling techniques were used to obtain a regionally representative sample of 516 older adults aged 70 to 103 years ($M = 79.84, SD = 5.64$; 50% men and 50% women) in the area of former West Berlin (see Baltes & Mayer, 1999). On the average, they had 10.75 years of formal education. Data used in the present study were collected by specially trained interviewers in face-to-face interviews that lasted approximately 90 minutes and were conducted between 1990–1993.

Japan. Stratified (by age and gender) probability sampling techniques were used to obtain a regionally representative sample in the Yokohama metropolitan area (see Antonucci & Akiyama, 1994). The original sample consisted of people aged 8 to 96 but the current study included 491 adults, 51% men and 49% women, aged 60 to 92 years ($M = 71.15, SD = 6.75$) with the average of 9.91 years of education. Data were collected in 1991 by Central Research Services of Tokyo in face-to-face interviews that lasted approximately 60 minutes.

United States. Stratified (by age and gender) probability sampling techniques were used to obtain a regionally representative sample of people aged 8 to 93 in the Detroit metropolitan area (see Antonucci & Akiyama, 1994). The sample for the current study consisted of 514 adults, 41% men and 59% women, aged 60 to 93 years ($M = 71.35, SD = 7.30$) with the average of 11.56 years of education. Data were collected from 1992 to 1994 by the University of Michigan Survey Research Center in face-to-face interviews that lasted approximately 60 minutes.
Measures

Resource deficits. Participants indicated whether they experienced each of three types of resource deficits: widowhood, illness, and financial strain. Widowhood was assessed by the question “Are you currently married or living with a partner, widowed, divorced, separated, or have you never married?” Illness was assessed by the question “How would you rate your health at the present time? Would you say it is excellent, fairly good, average, not very good, or poor?” Since responses were quite skewed this measure was dichotomized with response items of “average,” “not very good,” or “poor” coded as having an illness, and responses of “excellent” and “fairly good” coded as not having an illness. The “average” category was included with “not very good” and “poor” because of evidence regarding the association between subjective and objective reports of health suggesting that older adults make comparisons before giving subjective reports of their health. Specifically, they tend to say that their subjective health is average although objectively it is poorer because they expect to have very bad health problems and are thankful that their problems are not as bad as they could be (see Idler, 1993). Nevertheless, individuals’ subjective rating of their own health has been found to be a valid measure of health when compared to illnesses diagnosed by physicians, and subjective ratings are good predictors of mortality (e.g., Idler & Kasl, 1991; Segovia, Bartlett, & Edwards, 1989).

In France, Japan, and the United States, financial strain was assessed by the question “Financially, how well off are you (and your family living here)? Would you say that you (and your family) are very well off, fairly well off, average, not so well off, or not well off at all?” Again, since responses were skewed the five response categories were dichotomized with the responses of “not so well off” and “not well off at all” coded as having financial strain, and responses of “very well off,” “fairly well off,” and “average” coded as not having financial strain. In Germany, financial strain was assessed by asking respondents how satisfied they were with their financial situation on a 4-point scale. Responses were dichotomized such that “not satisfied” and “less satisfied” were coded as having financial strain, and “very satisfied” and “satisfied” were coded as not having financial strain. Although our measure of financial strain is self-reported and thus not strictly objective, there is some debate about what are the most meaningful ways to assess financial status among older adults (see Berkman, 1988). We were specifically interested in subjective appraisals of financial strain given the different objective situations encountered by older adults in the four countries. These dichotomized financial strain, illness, and widowhood variables were used to compute a count of the number of resource deficits (range = 0 to 3) the respondents experienced.

Social network characteristics. Characteristics of respondents’ social networks were assessed through the network mapping procedure developed by
Antonucci (1986). Respondents were shown a diagram depicting three concentric circles. In the center of the smallest circle was written the word “you.” Respondents were told that they should think of “people who are important in your life right now” and then place their names into one of the three circles based on how close they felt to that person. Respondents were instructed to place the people “whom it was hard to imagine life without” in the innermost circle of the network diagram. The same procedure was followed for the next circle, described as including “people to whom you may not feel quite that close but who are still very important to you.” For the outer circle, respondents were instructed to place names of “people whom you haven’t already mentioned but who are close enough and important enough in your life that they should be placed in your personal network.” Overall network size was the count of the total number of people mentioned in the circle diagram.

Respondents in France, Japan, and the United States (but not Germany) then were asked a series of questions concerning the quality of their relationships with their spouse, (closest) child, and same sex best friend. Since a great deal of past research has focused on positive support, several questions which have been traditionally asked addressing this type of support were included. However, since we were also interested in exploring the role of negative aspects of relationships, two items were added to assess negative support. For each relationship present, the respondent was asked to indicate (on a five-point agree-disagree scale) their endorsement of the following items. Questions regarding best friendships are used as examples, but the appropriate role was inserted for each relationship. Positive quality was created by averaging responses to the items: (a) When my friend is having a hard time, I want to help him/her. (b) I feel my friend supports me, that he/she is there when I need him/her. (c) It makes me happy to know my friend is happy. (d) I enjoy being with my friend. (e) I feel my friend encourages me in whatever I do. (f) I feel that my friend believes in me. Negative quality was created by averaging responses to the items: (g) My friend makes too many demands on me. (h) My friend gets on my nerves. Alphas ranged from .68 to .90. Composite measures of positive and negative quality were constructed by averaging the positive and negative friendship, spouse, and child variables, respectively.

Depressed affect. Depressive symptoms were measured by the 20 item Center for Epidemiologic Studies Depression Scale, the CES-D (Radloff, 1977). These items asked how often in the last week respondents had experienced a series of affective, somatic, and interpersonal symptoms of depression. Items were coded on a 4-point Likert-type scale ranging from 1 = rarely/none of the time to 4 = most/all of the time. A composite total was created by taking the mean of these items (alphas ranged from .83 to .89).
Missing Data

Pairwise deletion of missing data was used in the analyses reported below to take advantage of as much data as possible. Data on the relationship quality variables were available only if a respondent had a particular relationship (e.g., widows did not report on the quality of their relationship with their spouse). Requiring complete data on all variables would have eliminated from analysis all respondents who did not have all three relationships, considerably limiting the generalizability of our findings. With the exception of the relationship quality measures, however, data were missing at random, i.e., there was no pattern to which data were missing, and conducting the analyses using list-wise deletion of these missing data did not substantively alter the findings.

Results

In the paragraphs below, results from each research question are presented. Analyses were conducted separately for each country. Cross-cultural research experts caution against comparing means across countries within the same analyses. It is argued that despite careful translation, back translation, consultation with native speakers and the like, it is impossible to be certain that the questions asked have identical meaning, variance and co-variance matrices across countries. We, therefore, limited our analyses to an examination of gender differences within country in the analyses described below.

The first research question examined gender differences in quantitative aspects of social networks in France, Germany, Japan, and the United States. One-way analyses of variance (ANOVAs) conducted separately by country revealed no gender differences in overall network size or in inner, middle, or outer circle size in Germany (see Table 1). In France, men reported larger outer circle sizes than did women. Overall network size, inner circle, and middle circle size did not differ by gender (see Table 1). In Japan, women reported larger inner circle sizes than did men, but men reported larger middle circle sizes than did women. Overall network size and outer circle size did not differ by gender (see Table 1). In the United States, men reported larger middle circle sizes than did women. Overall, inner and outer circle sizes did not differ by gender (see Table 1).

Our second research question explored whether men and women differ in the quality of their social relationships in France, Japan, and the United States (quality was not assessed in Germany). As shown in Table 1, one-way ANOVAs conducted separately by country revealed no significant gender differences in either negative or positive quality in relationships with spouses, children, or friends in any of the countries.

Our third research question was whether men and women differed in their experience of resource deficits and depressive symptoms in the four countries.
Table 1. Means, Standard Deviations, and Tests for Gender Differences in Network Size, Quality, Resource Deficits, and Depressed Affect

<table>
<thead>
<tr>
<th>Variable</th>
<th>France</th>
<th>Germany</th>
<th>Japan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men N = 217</td>
<td>Women N = 336</td>
<td>Men N = 258</td>
<td>Women N = 258</td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Network size</td>
<td>7.75 (2.70)</td>
<td>7.65 (2.72)</td>
<td>10.18 (7.32)</td>
<td>9.31 (6.93)</td>
</tr>
<tr>
<td></td>
<td>1.92</td>
<td>.20</td>
<td>5.91 (3.24)</td>
<td>6.13 (3.25)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>6.82 (2.95)</td>
<td>.53</td>
</tr>
<tr>
<td>Inner circle size</td>
<td>5.80 (2.74)</td>
<td>6.02 (2.80)</td>
<td>3.31 (2.88)</td>
<td>3.16 (3.20)</td>
</tr>
<tr>
<td></td>
<td>.85</td>
<td>.85</td>
<td>.35</td>
<td>.35</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>3.07 (2.06)</td>
<td>3.63 (2.46)</td>
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<td></td>
<td></td>
<td></td>
<td>3.19 (2.61)</td>
<td>3.67 (2.79)</td>
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<tr>
<td>Middle circle size</td>
<td>1.66 (1.75)</td>
<td>1.52 (1.91)</td>
<td>3.53 (3.49)</td>
<td>3.22 (3.07)</td>
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<tr>
<td></td>
<td>.74</td>
<td></td>
<td>2.26 (2.10)</td>
<td>1.86 (1.78)</td>
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<td></td>
<td></td>
<td></td>
<td>2.90 (2.26)</td>
<td>2.52 (2.06)</td>
</tr>
<tr>
<td>Outer circle size</td>
<td>.30 (.79)</td>
<td>.11 (.46)</td>
<td>3.33 (3.44)</td>
<td>2.93 (3.17)</td>
</tr>
<tr>
<td></td>
<td>12.66***</td>
<td></td>
<td>1.85</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>.61 (1.24)</td>
<td>.69 (1.28)</td>
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<td></td>
<td></td>
<td></td>
<td>.73 (1.29)</td>
<td>.88 (1.43)</td>
</tr>
<tr>
<td>Negative quality</td>
<td>1.75 (.83)</td>
<td>1.67 (.87)</td>
<td>3.33 (3.44)</td>
<td>2.93 (3.17)</td>
</tr>
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<td></td>
<td>.91</td>
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<td>1.61 (.89)</td>
<td>1.52 (.69)</td>
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<td></td>
<td></td>
<td></td>
<td>1.93 (.93)</td>
<td>1.89 (.99)</td>
</tr>
<tr>
<td>Positive quality</td>
<td>4.72 (.33)</td>
<td>4.70 (.44)</td>
<td>3.33 (3.44)</td>
<td>2.93 (3.17)</td>
</tr>
<tr>
<td></td>
<td>.30</td>
<td></td>
<td>1.61 (.89)</td>
<td>1.52 (.69)</td>
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<td></td>
<td></td>
<td></td>
<td>1.93 (.93)</td>
<td>1.89 (.99)</td>
</tr>
<tr>
<td>Resource deficits</td>
<td>.71 (.75)</td>
<td>1.51 (.87)</td>
<td>123.23***</td>
<td>1.11 (.77)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.57 (.71)</td>
<td>1.57 (.71)</td>
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<td></td>
<td></td>
<td>.91 (.74)</td>
<td>1.28 (.82)</td>
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<td></td>
<td></td>
<td></td>
<td>.69 (.73)</td>
<td>1.24 (.84)</td>
</tr>
<tr>
<td>Depressed affect</td>
<td>1.30 (.31)</td>
<td>1.59 (.45)</td>
<td>68.74***</td>
<td>1.62 (.40)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16.93***</td>
<td>1.79 (.52)</td>
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<td></td>
<td></td>
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<td>1.58 (.40)</td>
<td>1.58 (.40)</td>
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<td></td>
<td></td>
<td></td>
<td>1.46 (.42)</td>
<td>1.55 (.49)</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
Differences Between Men and Women

One-way ANOVAs conducted separately by country revealed that in all four countries, women on average experienced more resource deficits than did men (see Table 1). In all countries, women were more likely to be widowed than were men. In addition, women were more financially strained than were men in both France and the United States. In France and Germany, women were also more likely to be ill than were men. Women in the United States, France and Germany expressed higher levels of depressive symptomatology than men. There was no gender difference in depressive symptomatology in Japan.

Our fourth research question was whether negative social relations exacerbate depressive symptoms associated with the experience of resource deficits for men and women. Because there were large differences both in the number of resource deficits and levels of depressed affect experienced by men and women in these countries, the next set of analyses was conducted separately for men and women as well as by country.

Resource deficits and negative social relations were entered into Ordinary Least Squares Regression analyses. The interaction of resource deficits and negative social relations was also entered into the equation to assess the differential impact of negative social relations at different levels of resource deficits. Results are presented in Table 2 and consistently indicate that both resource deficits and negative social relations are directly and positively associated with depressive symptomatology. On the other hand, no support is evident for an interaction between resource deficits and negative social relations in the prediction of depressive symptomatology.

Since the question of the role of negative social relations among men and women experiencing high resource deficits was of particular interest, a pattern variable was created which considered levels of negative social relations among people experiencing high numbers of resource deficits. For France, Japan, and the United States, two groups, focusing on those with high numbers of resource deficits, were created based on median splits on the number of resource deficits and negative relationship variables. Thus, these groups represented the following profiles of individuals: (a) 2 or 3 deficits—more negative social relationships; (b) 2 or 3 deficits—less negative social relationships. There were no differences in depression among French men with more or less negative social relations, $F(1, 28) = 1.37$, ns, but French women with more negative relations were more depressed than those with less negative social relations, $F(1, 139) = 5.00, p < .05$ ($M = 1.77$ vs. 1.59). Japanese men who had more resource deficits and negative social relationships did not differ from those who had more resource deficits and less negative social relationships, $F(1, 45) = 1.14$, ns. However, Japanese women who had more resource deficits and negative social relationships had higher levels of depressed affect than did those who had more resource deficits and less negative social relationships, $F(1, 46) = 4.06, p < .05$ ($M = 1.73$ vs. 1.57). And finally, American men and women who had more resource deficits and negative social
Table 2. Regressions Predicting Depressed Affect from Network Characteristics and Resource Deficits

<table>
<thead>
<tr>
<th>Predictor</th>
<th>France Male</th>
<th>France Female</th>
<th>Germany Male</th>
<th>Germany Female</th>
<th>Japan Male</th>
<th>Japan Female</th>
<th>United States Male</th>
<th>United States Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male N = 217</td>
<td>Female N = 336</td>
<td>Male N = 258</td>
<td>Female N = 258</td>
<td>Male N = 249</td>
<td>Female N = 242</td>
<td>Male N = 212</td>
<td>Female N = 302</td>
</tr>
<tr>
<td>Predictor</td>
<td>β&lt;sup&gt;c&lt;/sup&gt;</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
<td>β</td>
</tr>
<tr>
<td>Negative network quality&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.08</td>
<td>.19**</td>
<td>-.02</td>
<td>-.10</td>
<td>.23*</td>
<td>.31**</td>
<td>.02</td>
<td>.24**</td>
</tr>
<tr>
<td>Resource deficits</td>
<td>.28***</td>
<td>.17**</td>
<td>.29**</td>
<td>.21**</td>
<td>.20*</td>
<td>.20*</td>
<td>.27*</td>
<td>.24**</td>
</tr>
<tr>
<td>Network × resource deficits</td>
<td>-.09</td>
<td>.02</td>
<td>.05</td>
<td>.07</td>
<td>-.03</td>
<td>.09</td>
<td>.16</td>
<td>.02</td>
</tr>
<tr>
<td>F (dfs)</td>
<td>6.88***</td>
<td>7.17***</td>
<td>5.96**</td>
<td>4.90**</td>
<td>4.57**</td>
<td>8.83***</td>
<td>3.03*</td>
<td>7.44***</td>
</tr>
<tr>
<td>R&lt;sup&gt;2&lt;/sup&gt;</td>
<td>.10</td>
<td>.07</td>
<td>.10</td>
<td>.08</td>
<td>.11</td>
<td>.18</td>
<td>.10</td>
<td>.12</td>
</tr>
</tbody>
</table>

<sup>a</sup>Negative network quality was not assessed in Germany so this variable reflects overall social network size for German participants.

<sup>b</sup>Ns vary due to missing data.

<sup>c</sup>Standardized beta coefficients.
relationships did not differ from those who had more resource deficits and less negative social relationships, $F(1, 25) = 1.43$ and $F(1, 104) = 1.42$, respectively.

**Discussion**

The findings presented in this article complement and add to those of Antonucci et al. (2001) and offer interesting insights concerning social relations and resource deficits. Consistent with Antonucci and Akiyama (1987) we found very few gender differences in network size and quality across the four countries. Also interesting, though perhaps not surprising, is the finding that in every country, women experience more resource deficits than do men. Resource deficits and quality of social relations are consistently related to depressive symptomatology for both men and women in most countries examined. Of special interest, though clearly a more tentative conclusion, is the finding that among women in France and Japan quality of social relationships influenced the experience of resource deficits. We consider these findings in greater detail below.

Generally speaking, regression analyses indicate that resource deficits were associated with increased depressive symptomatology in all four countries. This is a logical finding. Widowhood, illness, and financial strain are all likely to be stressful experiences that compromise a person’s well-being. Similarly, quality of social relations, specifically negative social relations, was found to be associated with depressive symptomatology. Of course, lacking longitudinal data, it is impossible to ascertain the direction of effects but one could make a compelling case for the bi-directionality of this relationship. It should also be noted that the interaction of network quality and resource deficits was not significant in any of the four countries or for men or women.

We also conducted very specific analyses to explore the role of network relations quality among those experiencing a greater number of resource deficits. The results of these analyses must be viewed with caution but do suggest that among women, negative social relations can exacerbate the effect of resource deficits on depressive symptomatology. Although these results can be considered only tentative, future research should explore this finding in greater detail.

The fact that some variability was evident in terms of the relative associations of social relations and resource deficits with depressive symptomatology in different countries suggests that there are country and cultural differences that influence this association. These findings lend credence to the belief that gender differences are indeed complex and often influenced by contextual circumstances such as culture and country.

While the findings from this study offer some preliminary insights into the nature of the social relations–resource deficits–depression link, certain limitations of the study should be noted. These data while available across cultures are both cross-sectional and limited in scope. Only a very few, ostensibly comparable,
support questions were available. More detailed questions would perhaps offer greater insight into the nature of these relationships. Similarly, the degree to which the same wording actually asks the same question in different languages is always unclear. Culture and context can fundamentally influence the meaning of the actual phrases. And finally, we examine these issues cross-sectionally but we are actually most interested in the longitudinal relationships among these variables. It is important to know, for example, whether poor quality of social relations produces higher levels of depressive symptomatology or whether higher levels of depressive symptomatology influence the quality of social relations. In sum, the results reported in this article should be viewed with some caution.

The availability of similar data from four countries, nevertheless, offers a unique insight into the experience of and coping strategies of older people coping with the common challenges of aging. As we seek to understand how best to maximize the well-being of older people, it is important to recognize the influence social relations can have on well-being in old age and that these influences are affected by the different experiences of men and women in the countries within which they live. As the world population grows older, it will be increasingly critical to identify those characteristics of everyday life that can help to maintain and improve the lives of older people. This paper offers the important potential that the quality of social relations can minimize, at least to some degree, the negative impact of common resource deficits experienced by older adults around the world.

References


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