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Interactive Effect of Support From Family and Friends in Visually Impaired Elders

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The interactive relationship of high and low friend and family support for adaptation to chronic vision impairment was examined in 241 men and women. Two 2 (High/Low Family Support) × 2 (High/Low Friend Support) × 2 (Gender) multivariate analyses of covariance tested for psychological well-being, one with qualitative support measures, the other with quantitative support measures. Two analyses of covariance models tested for adaptation to vision loss. A significant multivariate 3-way interaction effect for qualitative support was found. Women with high support from both friends and family had better psychological well-being, whereas men with high support from both friends and family or just from family had better psychological well-being. Two univariate main effects showed that participants with high qualitative friend support and high quantitative family support had better adaptation to vision loss. Findings demonstrate the complexity of measuring and understanding relationships among social support, well-being, and domain-specific adaptation to chronic impairment.

AGE-RELATED vision loss is a common physical disability that adults aged 65 and older face (Ford et al., 1988). A recent national survey on age-related vision loss in middle-aged and older Americans found that self-reported vision impairment affects 15% of adults between 45 and 64 years of age, 17% of adults between 65 and 75 years of age, and 26% of adults older than the age of 75 (The Lighthouse Research Institute, 1995). Research has demonstrated that age-related vision loss is associated with increased functional disability (Horowitz, 1994; LaForge, Spector, & Sternberg, 1992) and poorer psychological well-being (Branch, Horowitz, & Carr, 1989; Horowitz, Reinhardt, McInerney, & Balistreri, 1994; Reinhardt, 1996). Research has shown that one important factor for more positive adaptation to age-related vision loss is higher levels of social support (e.g., Horowitz et al., 1994; Reinhardt, 1996).

Relationships with family and friends influence well-being across the life span and low levels of support have been consistently linked with lower levels of well-being (Antonucci & Akiyama, 1995). Older adults may be especially vulnerable to the detrimental effects of stress on their well-being when they do not have adequate levels of social support (Sauer & Coward, 1985). Supportive relationships are especially important when a person experiences significant chronic impairment and may even serve as a buffer between this chronic stressor and the individual's psychological and physical well-being (Cohen & Wills, 1985). Low levels of social support from family and friends may decrease an individual's ability to adapt to vision loss and may be associated with poorer psychological well-being.

Understanding the relationship between social support, well-being, and adaptation to chronic impairment can be useful in designing interventions for older people with vision impairment. In theory, interventions focused on maintaining or improving existing relationships may affect well-being (Adams & Blieszner, 1993; Blieszner, 1995; Rook, 1984). However, it is unclear which variables are most important in terms of designing interventions focused on social relationships (Heller, Thompson, Trueba, Hogg, & Vlachos-Weber, 1991). The conceptualization of social support can be very complex, and interventions may focus on a variety of strategies such as attempting to increase the quality of support, frequency of contact, or network size. An additional consideration involves the support provider and whether the intervention will target family, friends, neighbors or other important relationships. Knowledge of the complex associations among social support variables and well-being can be useful to service providers in terms of identifying older adults at risk for loneliness and poor well-being (Rook, 1984).

In the present study, we assessed three commonly used conceptualizations of support in terms of their effect on multiple outcomes including psychological well-being (i.e., depressive symptomatology and life satisfaction) and adaptation to vision loss in a sample of older men and women. We examined the structural aspect of social support in terms of the relationship type of the support provider, family, or friend. We used perceived support quality as a measure of the qualitative aspect of social support, hereafter termed *qualitative support*. Finally, we used network size as a measure of quantitative support, hereafter termed *quantitative support*. On the basis of prior research showing gender differences in support use (e.g., Antonucci, 1990; Wright, 1989), we also examined the impact of gender on adaptation. We assessed both positive and negative aspects of life quality, as earlier work has stressed the importance of including both of these aspects in studies of well-being (e.g., Diener & Emmons, 1984; Zautra & Reich, 1983). Further, we examined the impact of these support variables on both the general outcome of well-being and the domain-specific

outcome of adaptation to vision loss for comparison. Thus, in this study, overall well-being is not considered a proxy for adjustment to vision loss. The latter is specifically defined as including realistic acceptance of the impairment, having a positive attitude regarding continuing one's social relationships, and using rehabilitative interventions.

Source of Support: Family and Friends

An important aspect of social support involves the structure of the social network in terms of the relationship type of the support provider. Past research has revealed mixed findings in terms of the importance of family support and friend support for older individuals. Mancini and Simon (1984) studied older adults' expectations of support from family, close friends, and casual friends. Older adults' expectations for assistance were greater for family compared with close friends and casual friends. However, social integration and intimacy were expected from both family members and close friends.

Research has also demonstrated that support from family versus friends can have a differential effect on well-being. Felton and Berry (1992) investigated the effects of a variety of social provisions made either by family or friends on the psychological well-being of users of a geriatric clinic. Provision of reassurance of worth by friends (i.e., recognition of older persons' unique abilities), but not by family, was related to well-being. On the other hand, provision of instrumental support by family, but not by friends, was related to better well-being. Larson, Mannell, and Zuzanek (1986) examined the relationship between social support from family and friends and well-being in older adults by assessing self-reported activities and subjective state at random points in daily life. The enjoyment of companionship from friends was found to be related to the immediate well-being of the older individuals (i.e., their current level of affect and enjoyment), however, the long-term provision of support by friends was not as important. On the other hand, the long-term provision of emotional and instrumental support from family was related to the global well-being of these older adults, whereas the immediate enjoyment from family members was not as important for their current affect.

Reinhardt (1996) investigated the importance of support from both family and friends for psychological well-being and adaptation to vision loss in older adults. Findings demonstrated that friendship support predicted unique variability in well-being after accounting for family support. Yet, only friendship support was a significant predictor of adaptation to vision loss when both family and friendship support were added in the model. Thus, overall, support from both family and friends is important for well-being, but friendship support may be particularly important in the domain-specific area of adaptation to vision loss. The studies cited above demonstrate that, taken separately, support from family and friends is important for older persons; however, these studies do not address how the interaction of family and friend support may affect well-being. That is, it is unclear whether having high support from just one of these supportive relationships is sufficient for well-being.

Effects of Qualitative Support Versus Quantitative Support on Well-Being

Social support has often been defined in either qualitative terms (e.g., perception of support) or quantitative terms (e.g., size of network). Generally, the literature shows more consistent evidence for the impact of qualitative social support on well-being, whereas the impact of quantitative social support on well-being has mixed results.

Some studies that compared the effect of qualitative and quantitative support on well-being found significant effects only for the former. For example, Chappell and Badger (1989) found that elders who lacked a confidant reported less happiness with life and lower life satisfaction, yet quantitative measures that assessed contact frequency in elders were not related to subjective well-being. Newsom and Schulz (1996) investigated the relationships between qualitative and quantitative aspects of support, functional status, depression, and life satisfaction in a sample of older adults. Quantitative support (i.e., frequency of contact with family and friends) was associated with lower depressive symptoms and higher life satisfaction. However, these effects disappeared when qualitative support (i.e., perceived support quality) was added to the regression analysis.

Other studies that compared the effects of qualitative and quantitative support have found significant effects for both, but the effects for qualitative support are stronger. Antonucci, Fuhrer, and Dartigues (1997) found that although quantitative support measures influenced depressive symptoms, qualitative measures were most strongly related to depressive symptoms; that is, they provided a better fitting model. In another study, Hays and colleagues (1998) demonstrated that qualitative support was associated with all four dimensions of depression as assessed by the Center for Epidemiologic Studies–Depression scale (CES-D), whereas quantitative support was associated with only two of these dimensions (depressed affect, interpersonal problems).

Finally, the importance of both qualitative and quantitative friend and family support has been demonstrated by Thompson and Heller (1990), who studied community-dwelling older women who were targeted for a peer-support intervention. This study demonstrated effects for both quantitative (network embeddedness as assessed by number of network ties and contact frequency) and qualitative (perceived support) support. Results showed that older women who had low network embeddedness with both family and friends revealed low levels of psychological well-being, regardless of their level of qualitative support. Also, elders with low perceived family support did show lower levels of psychological well-being compared with those with high perceived support from family regardless of perceived support from friends or network embeddedness.

Although the majority of studies cited above showed that quantitative support was not related—or not as strongly related—to well-being, Thompson and Heller (1990) demonstrated that quantitative support was relevant to their sample of older women. Thus, overall, there are conflicting findings concerning the relative effects of qualitative and quantitative support. Therefore, it is necessary to examine both aspects of social support to gain a clear picture of the effects of support on well-being.

Gender Differences in the Use of Social Networks

Gender differences involved with the use of supportive relationships and subsequent effects on well-being have been established in past research. According to Antonucci (1990), women are more inclined than men to have multiple sources of support. Older men, on the other hand, rely heavily on their spouses. Further, men seem to perceive spousal support as the most positive, compared with women, who perceive support from adult children to be the most significant (Lynch, 1998).

Antonucci (1990) has suggested that older men are more likely than older women to be vulnerable to stressful events because broader social networks have been linked to better adaptation to stressors in late life. These findings indicate that women use a larger and more extensive social network, which may be essential to their well-being. Thus, for older women, not having multiple sources of support may lead to poor well-being.

According to Belle (1991), a review of the literature concerning the effects of gender differences on stress revealed that men and women composed and used their social networks in different ways, which has implications for well-being. Women tend to be more likely to use their social networks in terms of seeking and receiving support during stressful times compared with men. Consequently, it is necessary to examine gender differences when exploring the effects of supportive relationships on well-being for men and women.

Purpose and Hypotheses

This research represents additional analyses of prior work that demonstrated the unique contribution of friendship support after accounting for family support in adaptation to vision impairment in elders (Reinhardt, 1996). The purpose of the present study is to extend this earlier finding by examining the interactive effects of the support variables (i.e., family and friend support) and gender on psychological well-being (i.e., depressive symptoms and life satisfaction) and adaptation to vision loss in a sample of elders dealing with chronic vision impairment. Because of their association with these outcome variables, we used vision loss severity and education (Horowitz et al., 1994; Reinhardt, 1996) as control variables in this study. This research also builds on and expands the prior work of Thompson and Heller (1990). These researchers examined the impact of both qualitative and quantitative support on well-being but studied only women and chose participants who were low in qualitative friendship support and income by definition. The present study also compared the impact of support variables on both psychological well-being and a domain-specific indicator of adaptation to age-related vision loss.

There are two main goals in this study, which we examined separately for both qualitative and quantitative support variables. Study hypotheses focus specifically on the interactive effects of friendship and family support.

1. The first goal was to test the hypothesis that visually impaired men and women with low social support from both their closest family member and their closest friend experience poorer psychological well-being and poorer adaptation to vision loss compared with individuals who are high in social support from both of these providers.
2. The second goal was to determine whether having high support from at least one provider (high-family–low-friend support or low-family–high-friend support) in visually impaired women or men results in more positive psychological well-being and better adaptation to vision loss compared with those with both low family and low friend support.

Methods

Participants

Study participants were 130 women and 111 men (n = 241) whom we approached when their cases had closed at a vision rehabilitation service agency. These respondents represented a subset of the total sample (Reinhardt, 1994; N = 343) of visually impaired elders who were chosen because they had both a close family member and a close friend for comparison. Comparisons between this subset and the remainder of the larger sample showed that participants in the subset were significantly younger, reported better health status, and reported less functional disability. There were no significant differences between the two groups on the basis of gender, marital status, education, vision loss severity, life satisfaction, depressive symptoms, or adaptation to vision loss.

For the subset who had both a close friend and a close family member, on which this article is based, the relationship type of the closest family member was almost equally divided among spouses (33%), adult children (38%), and other relatives (29%). Age ranged from 65 to 99 years with an average age of 78.60 years (SD = 7.14). Just over half (53%) of the sample were female and 85% were Caucasian. Fifty-eight percent reported that they were without a spouse and 40% lived alone. Thirty-four percent reported that they had less than a high school education, 23% had a high school diploma, 16% had 1 to 3 years of college, 13% were college graduates, and 13% had a professional degree (MA or PhD). Scores on the four-factor Hollingshead Index of socioeconomic status were normally distributed across the five categories. Seventy-six percent reported having a gradual loss of vision compared with the sudden loss of vision and 49% of respondents reported having more than one vision problem. Vision problems reported by participants included macular degeneration (48%), cataracts (38%), and glaucoma (26%).

Procedures

Face-to-face structured interviews were conducted in participants' homes by trained interviewers (average length of interview was 93.12 min, SD = 25.21). The study was initially described to potential participants by letter, and follow-up phone calls were used to set up appointments with those who were eligible (were English-speaking, held community residence, and were age 65 or older) and interested. We obtained a 60% response rate (Reinhardt, 1996). Respondents were given $10 in appreciation for their time.

Qualitative support.—The 24-item Social Provisions Scale (SPS; Cutrona & Russell, 1987) was used to measure perceived support quality. The SPS was asked in relation to both the respondent's closest friend and closest family member. The order of questions relating to the closest family member and closest friend was counterbalanced. The SPS, which is based on Weiss's (1974) theory of social provisions, contains six components including reliable alliance (e.g., "I can count on this person to help me if I really need it"), guidance (e.g., "I can talk to this person about important decisions in my life"), attachment (e.g., "I feel a strong emotional bond with this person"), reassurance of worth (e.g., "This person admires my talents and abilities"), social integration (e.g., "This person enjoys the same social activities I do") and nurturance (e.g., "I feel that this person relies on me for his/her well-being"). Items are rated on a 4-point Likert scale ranging from 4 (strongly agree) to 1 (strongly disagree). Total scores range from 24 to 96. The components are added together for a measure of total perceived support quality with a high score indicating high total perceived support. The SPS has been demonstrated to be a reliable and valid instrument in previous research dealing with samples of older individuals (Cutrona & Russell, 1987; Mancini & Blieszner, 1992). For this particular study, reliability for the total friend support scale was $\alpha = .88$ and for the total family support scale was $\alpha = .89$. Scores on the SPS for both the closest family member and the closest friend were divided at the median to indicate low versus high levels of perceived support.

Quantitative support.—Quantitative social support was defined in terms of network size for both friends and family. Respondents were asked to indicate the number of close friends and the number of close family members (i.e., children, siblings, and close relatives) in their social network. Once again, a median split was used to define high versus low levels of quantitative support for family and friends.

Psychological well-being.—Psychological well-being was measured with both a positive and a negative indicator. The Life Satisfaction Index–A (LSI; Neugarten, Havighurst, & Tobin, 1961) was used as a positive indicator of well-being. The 18-item version (Adams, 1969) of the LSI was used, with scores that range from 0 to 18, with high scores demonstrating more positive well-being. Respondents are asked whether they agree or disagree with a series of statements. Example items from the LSI include "My life could be happier than it is now" and "As I look back on my life, I am fairly well satisfied." The reliability for the LSI was $\alpha = .82$ for this sample.

The CES-D (Radloff, 1977) is a measure of depressive symptomatology that was used as a negative measure of well-being. The CES-D is a 20-item self-report scale that is used to examine the frequency of mood and behavioral symptoms that occurred during the previous week. Frequency of behavior is rated on a 4-point scale ranging from 0 (rarely/none of the time), to 3 (most of the time). Positive items are reverse coded. Examples of items include "I felt that I could not shake off the blues even with the help of my family and friends," "I felt depressed," and "I enjoyed life." Scores on the CES-D range from 0 to 60 with high scores indicating high depressive symptoms. For this sample, the reliability for the CES-D was $\alpha = .90$.

Adaptation to vision loss.—The Adaptation to Age-Related Vision Loss Scale (AVL; Horowitz & Reinhardt, 1998) is a 24-item scale that measures the extent to which an individual has adapted to vision loss. It includes items that assess realistic acceptance of vision impairment, attitudes toward rehabilitation including having a positive attitude toward the importance of learning new skills, and attitudes towards relationships with family and friends including having a positive view of relationships with family and friends. The respondent is asked to agree or disagree with a series of statements related to vision loss (e.g., "Visual impairment is the cause of all my problems," "It is degrading for visually impaired persons to depend so much on family and friends," and "I can still do many of the things I love, it just takes me longer because of my vision impairment"). Scores on the AVL range from 0 to 24 with higher scores indicating greater adaptation to vision loss. The reliability for the AVL in this sample was $\alpha = .87$.

Vision-loss severity and education level were used as control variables because of their association with the outcome variables. The 15-item Functional Vision Index (Horowitz, Teresi, & Cassels, 1991) was used to measure vision loss severity. Sample items include "Does trouble with your vision make it difficult for you to read medicine bottle labels?" and "When you are walking in the street, can you read the street name signs?" Scores range from 0 to 15 with a high score demonstrating high vision loss severity. Education was assessed with a single-item measure ("How many years of schooling did you complete?"). Education was broken down into seven categories ranging from 1 (less than seven years of school) to 7 (professional degree).

Results

As in prior research (Thompson & Heller, 1990), the median-split technique was used to define high and low qualitative support and quantitative social support for family and friends. Scores for low qualitative family support ranged from 53 to 77 with a mean score of 70.07 ($SD = 5.45$) and scores for high qualitative family support ranged from 78 to 96 with a mean score of 84.00 ($SD = 4.83$). Scores for low qualitative friend support ranged from 51 to 70 with a mean of 64.62 ($SD = 4.62$), and scores for high qualitative friend support scores ranged from 71 to 93 with a mean of 78.35 ($SD = 5.33$). We used cross-tabulation to create four categories of individuals that included (a) individuals who had low qualitative social support from both family and friends (31%), (b) individuals who had low qualitative social support from family but not from friends (19%), (c) individuals who had low qualitative social support from friends but not from family (19%), and (d) individuals who had high qualitative social support from both friends and family (31%).

Scores for low quantitative family support ranged from 1 to 5 family members reported in the individual's network ($M = 3.37$; $SD = 1.28$), and scores for high quantitative family support ranged from 6 to 30 family members reported ($M = 9.28$; $SD = 4.52$). Scores for low quantitative

friend support ranged from 1 to 3 friends reported in the individual's network ($M = 1.85$; $SD = 0.79$), and scores for high quantitative friend support ranged from 4 to 22 friends reported ($M = 6.20$; $SD = 3.35$). We used cross-tabulation to create four categories of individuals that included (a) individuals who had low quantitative social support from both family and friends (42%), (b) individuals who had low quantitative social support from family but not from friends (22%), (c) individuals who had low quantitative social support from friends but not from family (20%), and (d) individuals who had high quantitative social support from both friends and family (16%).

Data Analysis Strategy

Descriptive statistics for the support variables, the three outcome variables and the control variables are presented in Table 1. We conducted two $2 \times 2 \times 2$ multivariate analyses of covariance (MANCOVA) to examine the effects of family support (high and low), friendship support (high and low), and gender on psychological well-being. One of these analyses focused on qualitative support, and the other focused on quantitative support. We tested depressive symptoms and life satisfaction as a system as these two variables are highly correlated ($r = -.72$, $p < .001$) and conceptually similar (i.e., negative and positive global measures of well-being; Huberty & Morris, 1989). Similarly, we tested two $2 \times 2 \times 2$ analysis of covariance (ANCOVA) models using adaptation to age-related vision loss as the outcome variable. Although AVL scores were highly correlated with the CES-D and the LSI ($r = .55$ and .49, respectively), we tested ANCOVA models for adaptation to vision loss because this variable is domain specific and conceptually different from the global measures (Horowitz & Reinhardt, 1998; Reinhardt, 1996).

Results for Qualitative Social Support and Psychological Well-Being

The MANCOVA that examined the effect of qualitative friend and family support and gender on psychological well-being (listwise $n = 231$) demonstrated two significant multivariate effects: one main effect and a three-way interaction. Table 2 shows mean scores and standard deviations for high and low support and gender. There was a significant main effect of qualitative family support on psychological well-being, $F(2,220) = 5.26$, $p < .01$. Elders with high qualitative family support had higher levels of psychological well-being than did individuals with low qualitative support from family. There were no significant main effects for friendship support or gender, and there were no significant two-way interactions. However, a significant, multivariate three-way interaction was demonstrated, $F(2,220) = 3.07$, $p < .05$. Adjusted means for women and men are presented in Table 3. Examination of univariate effects showed that the three-way interaction was significant for depressive symptoms, but not significant for life satisfaction. Therefore, the significant multivariate interaction was due largely to depressive symptoms, so we conducted planned comparisons for depressive symptoms only.

To aid in interpretation, we plotted the interaction for depressive symptoms separately for women and men (See Figures 1 and 2). Using Scheffe's post hoc tests, we examined three pairwise comparisons for men and women separately (Maxwell & Delaney, 1990). Because Scheffe's tests are conservative, the alpha level was maintained at the .05 level. Additionally, the harmonic mean was used to control for unequal sample sizes between the cells. To test Hypothesis 1, we compared participants with low family support and low friend support with those with high family and high friend support in terms of depressive symptoms. Results showed that women with high support from both family and friends had significantly lower depressive symptoms com-

Table 1. Descriptive Statistics for Study Variables for Entire Sample

Variable	Range	*M*	*SD*
Qualitative family support	53–96	77.05	8.72
Qualitative friend support	51–93	71.56	8.56
Quantitative family support	1–30	5.52	4.07
Quantitative friend support	1–22	3.46	3.06
Depressive symptoms	0–48	12.74	11.05
Adaptation to vision loss	3–24	18.10	4.97
Life satisfaction	0–18	9.81	4.07
Vision loss severity	1–15	11.25	2.77
Education	1–7	4.16	1.81

Table 2. Descriptive Statistics for Psychological Well-Being by Qualitative Support and Gender

	CES-D		LSI		AVL	
Type of Qualitative Support	*M*	*SD*	*M*	*SD*	*M*	*SD*
Low family support	14.99	11.29	8.77	4.09	17.18	5.48
High family support	10.60	10.41	10.86	3.78	19.06	4.25
Low friend support	14.67	11.50	9.01	4.15	16.85	5.29
High friend support	10.98	10.34	10.60	3.84	19.35	4.33
Gender						
Women	14.53	11.24	9.23	4.09	17.86	5.07
Men	10.80	10.55	10.50	3.94	18.42	4.87

Note: CES-D = Center for Epidemiologic Study–Depression scale; LSI = Life Satisfaction Index; AVL = Age-Related Vision Loss Scale.

Table 3. Adjusted Means for Psychological Well-Being for Qualitative Support by Quantitative Support by Gender

Qualitative Social Support	Women's *M*	Men's *M*
CES-D		
Low Family/Low Friend Support	14.93	15.91
High Friend/Low Family Support	15.76	10.40
High Family/Low Friend Support	15.96	9.20
High Family/High Friend Support	9.63	10.36
LSI		
Low Family/Low Friend Support	8.69	8.60
High Friend/Low Family Support	8.56	9.93
High Family/Low Friend Support	8.76	11.08
High Family/High Friend Support	11.23	11.35

Note: CES-D = Center for Epidemiologic Study–Depression scale; LSI = Life Satisfaction Index.

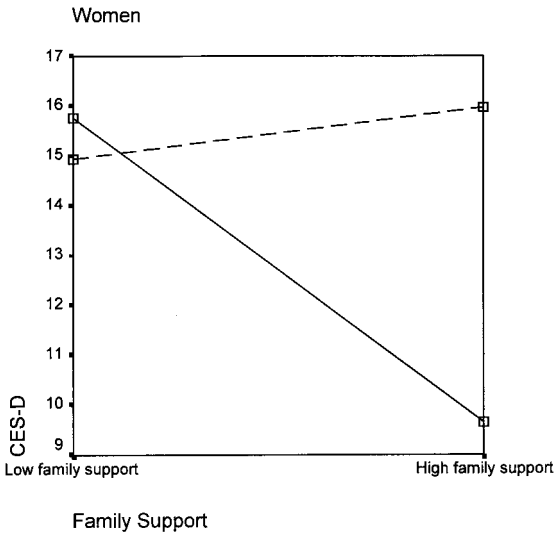

Figure 1. Depressive symptoms for women by friend and family support. --□-- Low friend support; —□— high friend support. CES-D = Center for Epidemiologic Studies–Depression scale.

pared with women with low support from both family and friends, $F(1,33) = 4.85$, $p < .05$. Likewise, men with high support from both family and friends had significantly lower depressive symptoms than did men with low support from both providers, $F(1,33) = 4.85$, $p < .05$.

To test Hypothesis 2, we compared individuals with low support from both family and friends with those with high support from family, but low support from friends. Then, we compared individuals with low support from both providers with those with high support from friends, but low support from family. For women, there was no significant difference between those with low support from both providers compared with those with high friend support but low family support. Similarly, there was no significant difference between women with low support from both providers compared with those with high family support, but low friend support.

In contrast, for men, those with high family support but low friend support had significantly lower depressive symptoms than did those with low support from both providers, $F(1,27) = 5.81$, $p < .05$. Men with low support from both providers also had higher depressive symptoms than did men with high friend support and low family support, yet this effect was only marginally significant, $F(1,23) = 3.46$, $p < .10$.

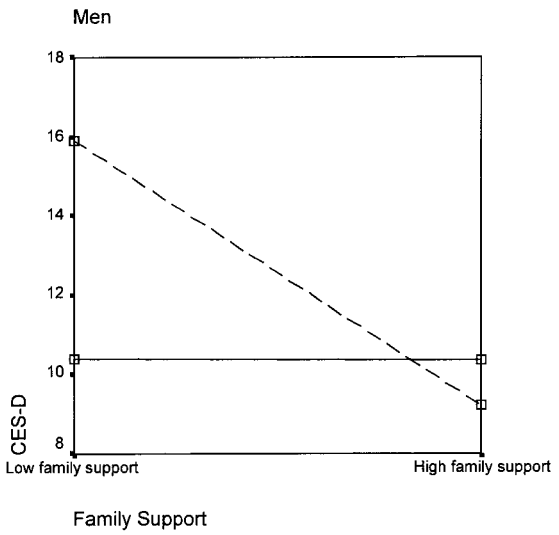

Figure 2. Depressive symptoms for men by friend and family support. --□-- Low friend support; —□— high friend support. CES-D = Center for Epidemiologic Studies–Depression scale.

Results for Qualitative Social Support and Adaptation to Vision Loss

There was one significant main effect for the ANCOVA examining the effect of qualitative friendship support on adaptation to vision loss, $F(1,232) = 9.39$, $p < .01$ (listwise $n = 232$). Individuals with high friendship support demonstrated better adaptation to vision loss than did individuals with low friendship support, (see Table 4 for descriptive statistics for women and men). There was no significant main effect for family support or gender, and there were no significant two-way or three-way interactions for adaptation to vision loss.

Results for Quantitative Social Support and Psychological Well-Being

There were no significant main effects or interactions demonstrated in the MANCOVA that examined the effect of quantitative friend and family support and gender on psychological well-being (listwise $n = 238$).

Results for Quantitative Social Support and Adaptation to Vision Loss

There was one significant main effect for the ANCOVA that examined quantitative social support and adaptation to vision loss (listwise $n = 239$). The result, $F(1,239) = 5.60$, $p < .05$, for family support indicated that individuals with a larger family-network size had significantly better adaptation to vision loss than did individuals with a smaller family network. There were no significant main effects for quantitative friendship support or gender for adaptation to vision loss, and there were no significant two-way or three-way interactions.

Table 4. Descriptive Statistics for Adaptation to Vision Loss by Qualitative Support and Gender

	AVL	
Type of Qualitative Support	*M*	*SD*
Low Family Support	17.18	5.48
High Family Support	19.06	4.25
Low Friend Support	16.85	5.29
High Friend Support	19.35	4.33
Gender		
Women	17.86	5.07
Men	18.42	4.87

Note: AVL = Age-Related Vision Loss Scale.

Discussion

Social support is very important to the psychological functioning of older adults. Supportive relationships may be especially meaningful to older individuals who are adjusting to late-life chronic impairment such as vision loss. Important distinctions need to be made regarding the operationalization of social support. First, the significant three-way multivariate interaction effect highlights the importance of looking at gender in addition to support from both family and friends. Different patterns emerged for women compared with men in terms of the effects of family and friend support on depressive symptoms. Specifically, for men, having high support from just family, or from both family and friends, was associated with lower depressive symptoms, whereas, for women, having lower depressive symptoms was associated only with having high support from *both* family and friends. Thus, having qualitative support from both family and friends is important for men; however, having support from at least one is also beneficial, especially when it's family. As in prior research (e.g., Antonucci, 1990), women tended to rely on multiple sources of support, and this use of multiple network members was beneficial to their well-being.

Note that we examined both positive and negative aspects of psychological status. That is, we assessed depressive symptoms and life satisfaction together as psychological well-being. The multivariate interaction effect was significant for psychological well-being, however, this effect was really driven by depressive symptoms, or—more appropriately—psychological status, rather than life satisfaction. However, life satisfaction did contribute something to this effect, although its contribution was not significant.

Second, the present study confirms prior findings in the literature that it is the quality of social relationships, not the quantity of network members, that is important to the psychological functioning of older individuals (e.g., Chappell & Badger, 1989; Newsom & Schulz, 1996; Thompson & Heller, 1990). In addition to the interaction effect for qualitative support on psychological status, there was a main effect for qualitative support on adaptation to vision loss. Thus, having high qualitative friendship support was especially important for domain-specific adaptation to vision loss. There was, however, one main effect for quantitative support as it related to adaptation to vision loss. Simply having a larger family network was also associated with better adaptation to vision loss in elders.

With the exception of the effect just mentioned, quantitative support does not appear to be a significant influence on the psychological functioning of older persons with chronic vision impairment. Although this does not support Thompson and Heller's (1990) findings on the effect of quantitative isolation on the well-being of older women, the two samples did differ. Thompson and Heller (1990) initially chose study participants on the basis of low levels of friendship support and low income. These two variables were more evenly distributed in the current study, which also included both women and men. The present study does, however, confirm Thompson and Heller's finding that lower qualitative support from family has a negative impact on the well-being of older individuals and extends this finding to show the interactive effects of family support, friendship support, and gender.

Study results also showed the importance of using multiple outcome variables including those that are both global and domain specific. More important, having high family support was associated with better psychological status, yet having high friendship support was associated with better adaptation to vision loss for elders. Thus, whereas having higher family support is an important part of one's general well-being, having supportive relationships and interacting with peers may be what encourages older adults to continue their daily functioning when faced with chronic impairment.

We expected in this study that individuals with low social support from both family and friends would be especially vulnerable to poor psychological functioning and poor adaptation to vision loss. This hypothesis was confirmed in that individuals with low qualitative support from both family and friends had poorer psychological status compared with those with high qualitative support from both family and friends. Interactive effects were also explored because the importance of having support from *both* the closest family member and the closest friend was unclear. Is it necessary for older individuals to receive support from both family and friends, or is one supportive relationship sufficient in terms of their psychological functioning? It seems that this question may need to be answered differently for men compared with women. For men, having high support from both family and friends, or just from family, was better for their psychological status than having low support from both friends and family. This supports prior research showing the importance of family relationships for men, particularly those with spouses (Antonucci, 1990). However, a different pattern was revealed for women such that only having high support from both family and friends was associated with better psychological status.

These findings also elaborate on Reinhardt's (1996) finding that friendship support contributed unique variance to adaptation above and beyond the effects of family support. The current study shows that interesting patterns emerge when the interactive effects of family and friend support are examined rather than their individual contributions. The complexity of the relationships that emerged between the various aspects of social support and the three measures of adaptation point to the importance of using multiple conceptualization of both social support and well-being and to the consideration of interaction effects. Interesting patterns regarding the effects of social support on psychological functioning may have been missed if a single conceptualization of support or a single outcome measure had been used. Family and friend support influenced the global measures of psychological functioning differently than did the domain-specific measure of adaptation to vision loss. Both higher qualitative friend support and a larger family network were related to better adaptation to vision loss. These findings, including the only significant finding for quantitative support, may have been missed had the focus been on only the global measures of psychological status.

This study suggests potentially important implications in terms of interventions for older persons adapting to vision loss. It may be important for interventions to focus prima-

rily on qualitative support and to understand that men and women may both use and react to their social networks in different ways. Men may actually be better able to adapt than are women in that having only one close supportive relationship insulates them against depression and contributes to better psychological functioning. Heller and colleagues (1991) discussed that one of the reasons their peer support telephone intervention for older women with low qualitative family support was unsuccessful is that family support was so important to these older women. Maybe future interventions for elders adapting to chronic impairment could focus on strengthening relationships with both family members and friends.

These findings are also relevant for service providers working with visually impaired older women. Older women with low qualitative support from both their family and friends might be targeted as being at risk for poor psychological status (i.e., depression). It may not always be possible to strengthen supportive ties because they may not exist. However, these women may benefit from counseling on how to deal with their situation (Rook, 1984).

Two possible limitations to this study need to be addressed. First, qualitative support from only the closest family member and the closest friend was examined. This approach allowed us to look at the supportive relationship between these older persons and their self-appointed closest relationships. Although these relationships are important in one's social network, it may also be useful to study qualitative support from the larger network of family and friends that may be available to visually impaired elders. Second, the quality and quantity of supportive relationships were examined at one point in time, therefore we cannot speculate about the effects of support across time. The hypotheses tested in this study need to be confirmed longitudinally. As Rook and Schuster (1996) have stressed, longitudinal data is essential to truly examine the issue of substitution in social relationships. However, the findings of this cross-sectional study support the importance of looking at these issues.

The major strength of the current study is the focus on multiple indicators of support and psychological functioning, as well as the effects of gender. The importance of qualitative support from friends versus family in terms of both psychological status and domain-specific adaptation to vision loss should not be overlooked when dealing with older individuals who have chronic stressors, such as vision loss. The relationship between gender and perception of support from family versus friends needs further exploration.

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