Gender Differences in Psychiatric Morbidity Among Family Caregivers: A Review and Analysis

Jennifer L. Yee, PhD, and Richard Schulz, PhD

The major goal of this article was to review and synthesize the empirical research on caregiver gender and psychiatric morbidity, with the aim of answering three questions: (a) Is there greater psychiatric morbidity among female than male caregivers, (b) is the excess psychiatric morbidity among female caregivers attributable to caregiving, and (c) what factors in the caregiving situation contribute to the excess psychiatric morbidity among female caregivers? In almost all studies reviewed, women caregivers reported more psychiatric symptoms than men caregivers. Comparisons with noncaregiving community samples suggest that female caregivers experience excess psychiatric morbidity attributable to caregiving. Using a stress process model as an organizing framework, the study demonstrated that at all stages of the stress process, women are at greater risk for psychiatric morbidity than men. Directions for future research and implications for interventions and public policy are discussed.

Key Words: Gender, Caregiving, Psychiatric morbidity, Depression, Stress, Caregiving activities

Research on the morbidity effects of caregiving has firmly established the negative impact of providing care on the psychological well-being of caregivers. As noted in two review articles (Schulz, O’Brien, Bookwala, & Fleissner, 1995; Schulz, Visintainer, & Williamson, 1990), this literature strongly indicates that, compared with population norms and noncaregiving controls, caregivers report higher levels of depressive symptoms, clinical depression, and anxiety. However, systematic analysis of the role of individual differences, such as gender, in explaining the psychological well-being of caregivers has been limited.

Although the relationship between gender and caregiving is reported in many studies, little effort has been made to systematically review and synthesize the findings from these studies. To date, the only review of this literature is Miller and Cafasso’s (1992) meta-analysis, which included 14 studies and examined gender differences only with regard to caregiver burden as the outcome measure. A strong case can be made that it is equally if not more important to examine gender differences on indicators of psychiatric morbidity (George & Gwyther, 1986; Schulz et al., 1995). Mental health outcomes provide a stronger basis for making policy recommendations, and they facilitate comparisons across many different types of populations, including noncaregivers.

Our goal in this article is to update and further synthesize the empirical research on caregiver gender and psychiatric morbidity. First, we review the results of existing studies on gender differences in psychiatric morbidity, with the aim of answering the question: Is there greater psychiatric morbidity among female caregivers than male caregivers? Next, we examine whether there is excess psychiatric morbidity among female caregivers that is attributable to caregiving. We then evaluate factors in the caregiving situation that may contribute to excess morbidity among female caregivers by using a basic stress process model as an organizing framework. Subsequently, we discuss directions for future research and implications for interventions and public policy.

This review includes 30 empirical research reports published from 1985 through 1998. Articles were selected for inclusion on the basis of the following criteria: (a) gender was a main focus of investigation; (b) empirical results were reported on gender differences in caregivers’ psychiatric morbidity and/or factors in the caregiving experience that may account for gender differences in psychiatric morbidity (e.g., caregiver burden, role strain, caregiving tasks performed, or formal/informal support received); and (c) the focus was on caregivers of frail elders, physically ill adults, and/or demented adults. We excluded studies on caregivers of those with other mental illnesses (e.g., schizophrenia) and caregivers of physically ill children. Articles were identified through the PsycLit, Medline, and Current Contents databases and through citations from other published articles.

We adopted a narrative rather than a meta-analytic approach when conducting this review for two reasons. First, the studies included in this review differed drastically in terms of methodology, and thus quantitative comparisons would be difficult to make.
Second, a narrative approach was used to maximize the number of articles included in this review, as some studies do not provide the information needed to conduct a meta-analysis.

**Gender Differences in General Psychiatric Symptomatology, Depression, Life Satisfaction, and Anxiety**

**Gender Differences in Psychiatric Symptomatology**

Eleven articles examined gender differences in depression, general psychiatric symptomatology, and/or other psychiatric problems. Table 1 displays important attributes of these studies, including characteristics of the sample, instruments used to assess psychiatric morbidity, gender differences in mental health outcomes, and correlates of psychiatric morbidity for men and women. Nine studies reported findings on gender differences in depression (Beach, Schulz, Yee, & Jackson, in press; Fitting, Rabins, Lucas, & Eastham, 1986; Lutzsky & Knight, 1994; Parks & Pilisuk, 1991; Pruchno & Resch, 1989; Rose-Regó, Strauss, & Smyth, 1998; Schulz & Williamson, 1991; Tennstedt, Caffaretta, & Sullivan, 1992; Williamson & Schulz, 1990). In addition, three studies (Collins & Jones, 1997; Lutzsky & Knight, 1994; Young & Kahana, 1989) reported gender differences in general psychiatric symptomatology.

Overall, the majority of studies on gender and depression in caregiving (7 out of 9) found higher levels of depressive symptomatology in women than in men. Among those using the CES-D (Centers for Epidemiologic Studies Depression Scale; Radloff, 1977), Lutzsky and Knight (1994), Pruchno and Resch (1989), and Rose-Regó and colleagues (1998) found that wife caregivers reported higher levels of depressive symptoms than husband caregivers. In addition, using samples of caregivers that included adult children and spouses, Schulz and Williamson (1991), Tennstedt and colleagues (1992), and Williamson and Schulz (1990) reported that women had higher CES-D scores than men. Furthermore, on examining the men’s and women’s means for all studies that used the CES-D, the means for women are very close to or above the cutoff score of 16 for being considered at risk for clinical depression, whereas the mean values for men in almost all instances fall below the 16 cutoff score. Thus, it appears that women caregivers are especially at risk for clinical depression. With respect to other measures of depression, Fitting and colleagues (1986), who used the Minnesota Multiphasic Personality Inventory Depression subscale and the Wiggins Depression Inventory, found that wife caregivers reported higher depression scores than husband caregivers. Parks and Pilisuk (1991) reported no gender differences in depression among adult children, and Beach and colleagues (in press) found no overall gender differences among spousal caregivers.

Three investigators who used general measures of psychiatric symptomatology found that women had higher levels of psychiatric symptoms. Using the General Health Questionnaires (GHQ), Collins and Jones (1997) found that a higher percentage of women caregivers than men caregivers reached the cutoff of 12 for psychiatric “caseness.” Similarly, Young and Kahana (1989) reported that women had higher levels of distress (Symptoms Checklist scores) than men. Using the General Symptom Index (GSI), Lutzsky and Knight (1994) showed that wives reported greater psychiatric symptomatology than husbands.

Although depression is the most commonly studied psychiatric problem in the caregiving literature, Fitting and colleagues (1986) and Parks and Pilisuk (1991) also found gender differences in anxiety. Both Parks and Pilisuk and Fitting and colleagues found that women had higher anxiety scores than men. In addition, Fitting and colleagues showed that women reported more paranoia than men, and several investigators mentioned that women caregivers reported lower life satisfaction than men caregivers (Chang & White-Means, 1991; Collins & Jones, 1997; Rose-Regó et al., 1998).

Most studies that report gender differences in psychiatric morbidity are cross-sectional. As a result, the differential effects of caregiving on men’s and women’s psychiatric symptomatology over time is not clear. In a longitudinal study conducted on gender differences in depression among dementia caregivers, Schulz and Williamson (1991) found that at Time 1, consistent with other studies, women reported more depressive symptoms than men. However, over a 2-year period, women’s depression scores remained high and stable, whereas men’s depression scores increased and became essentially equivalent to women’s scores. In another longitudinal study that included caregivers and noncaregivers, Beach and colleagues (in press) found that gender did not predict changes in Diagnostic Interview Schedule depression or anxiety. However, they did report that caregiving involvement had differential effects on changes in men’s and women’s mental health depending on whether they were in high- or low-quality marriages. Specifically, for women in good marriages, the more help they provided, the more improved their mental health. For women in poor quality marriages or men in either high- or low-quality marriages, increased caregiving demands were associated with decreased mental health.

**Comparison of Caregiver Depression Scores With Age-Matched Noncaregiving Community Samples**

Although many studies show that women caregivers report higher levels of depression than men caregivers, it is possible that these differences reflect a general tendency for women to report higher depression levels than men (Blazer, 1993; George, 1989, 1994) rather than the differential impact of caregiving on men and women. Thus, it is important to answer this question: “Is there excess depression among women attributable to caregiving?” To address this question, we compared depression scores of caregivers with scores of age-matched noncaregiving community samples.

In studies that included middle-aged and elderly community samples of men and women, Berkman
Table 1. Summary of Studies Published on Gender Differences in Mental Health Outcomes, Help Provided, and Help Received

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<td>Allen (1994)</td>
<td>N = 353 advanced cancer patients (188 men, 165 women), recruited from outpatient chemotherapy or radiation centers in three locations, who needed assistance with one or more ADLs/IADLS.</td>
<td>Help Provided and Received: Assistance received with ADL/IADL activities, hours of help provided.</td>
<td>Help Provided and Received: No gender differences in help received with personal care. Male patients received more help than female patients with IADLS. Husbands (40.9%) were more likely to have other helpers than wives (24.7%). At high and low levels of patient morbidity, wives (low morbidity, M = 18.9; high morbidity, M = 27.9) provided approximately twice the number of hours of assistance than husbands (low morbidity, M = 9.3; high morbidity, M = 13.8). Mental Health: Women (M = 74) reported higher burden levels than men (M = 66); however, this difference can be explained in part by memory and behavior problems of the recipient. Men reported greater coping effectiveness than women in managing interpersonal problems, financial problems, and health-related problems. Women reported using more coping strategies to deal with recipient behavior problems and reported coping more effectively with psychological problems.</td>
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<td>Barusch &amp; Spaid (1989)</td>
<td>N = 131 elderly spouse caregivers (92 women, 39 men) recruited via agencies, public service announcements, and self-referrals. 51% were caregivers of a spouse with a dementia-related condition.</td>
<td>Mental Health: 34-item coping inventory, Zarit Burden Interview (Zarit, Reever, and Bach-Peterson, 1980).</td>
<td>Help Provided and Received: Number of IADL and number of ADL tasks performed; number of formal services used.</td>
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<td>Beach, Schulz, Yee, &amp; Jackson (1998)</td>
<td>Participants (N = 680) were a stratified sample of older adults (49.9% female, 50.1% male) randomly selected from HCFA lists from four U.S. counties (Allegheny County, Pittsburgh, PA; Forsyth County, NC; Sacramento County, CA) who survived across two waves of data collected approximately 1 year apart.</td>
<td>Mental Health: DIS III Anxiety and Depression scores</td>
<td>Mental Health: Overall, gender was not related to changes in anxiety and depression. Correlates: However, there were significant interaction effects involving gender and quality of relationship. These interactions showed that: (a) helping a disabled spouse was related to improved mental functioning among women in high-quality marriages; (b) changes in caregiving strain were related to decreased mental functioning among men and among women in low-quality marriages; and (c) changes in spousal disability were related to decreased mental functioning among women in high-quality marriages.</td>
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<td>Chang &amp; White-Means (1991)</td>
<td>N = 1,929 caregivers (516 men, 1,413 women) from the National Long-Term Care Channeling Demonstration.</td>
<td>Mental Health: Degree of physical, emotional, and financial stress; whether or not caregiver was satisfied with life in general and arrangements for the care of the recipient; whether or not caregiving interfered with sleep, limited time with family, seriously limited time.</td>
<td>Help Provided: Whether or not the caregiver provided assistance for 13 tasks that dealt with medical care, personal care (ADLs), and help around the house.</td>
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### Table 1. Summary of Studies Published on Gender Differences in Mental Health Outcomes, Help Provided, and Help Received (Continued)

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<td>Collins &amp; Jones</td>
<td>$N = 48$ (24 male and 24 female) caregivers of a demented spouse in contact with the psychiatric service of the Nottingham Department of Health Care of the Elderly during a 7-month period.</td>
<td>Mental Health: General Health Questionnaire (GHQ; Goldberg, 1972) caregiver strain; life satisfaction; informal and formal support; relationship with demented spouse; attitudes toward caregiving role.</td>
<td>In addition, nonspouse female caregivers were more likely than nonspouse male female caregivers to help with therapy, other medical treatments, getting out of a bed or chair, and toileting. With regard to household tasks, a higher percentage of wives and nonspouse caregivers fixed meals than husbands and other nonspouse male caregivers. Husbands and nonspouse male caregivers were more likely to help with chores and arranging transportation services. There was no overall gender difference in hours spent caregiving. Mental Health: More women (65%) than men (38%) had GHQ scores above the cutoff of 12 necessary for psychiatric caseness. Women ($M = 15.3$) reported greater caregiving strain than men ($M = 11.3$). Women ($M = 10.7$) reported lower life satisfaction than men ($M = 15.5$). Husbands were generally more positive about their relationship with their spouse than wives, while wives were more likely to consider relinquishing the caregiving role. Help Provided and Received: Women ($M = 7.0$) provided more assistance than men ($M = 7.1$) with housework, whereas men ($M = 7.0$) provided more assistance with managerial tasks ($M = 6.0$). Men and women did not differ in the receipt of formal/informal support.</td>
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<td>Dwyer &amp; Coward</td>
<td>$N = 4,371$ impaired elders who were a part of the 1982 National Long-Term Care Survey and their adult children ($N = 13,172$).</td>
<td>Help Provided: Whether or not adult child helped with any ADL tasks, whether or not adult children helped with each of 7 IADL tasks. Control Variables: Adult child's and elder's sociodemographics; number of children in family; elder's physical functioning.</td>
<td>Help Provided: Daughters (percent helping: ADLs = 12%, IADLs = 31.7%) were more likely than sons (percent helping: ADLs = 3.9%, IADLs = 16.5%) to provide ADL and IADL assistance even after control variables were entered. The odds for daughters providing IADL assistance were slightly lower than those for providing ADL assistance. Daughters were more likely than sons to provide help with all IADL tasks (taking medicine, getting around outside, going places outside of walking distance, shopping, money management, housework, preparing meals). However, the differences were strongest for household and preparing meals. Help Provided: Husbands reported spending the most extra hours on caregiving than any other group. Husbands were more inclined to report more extra time than wives providing assistance with the following tasks: laundry, shopping, errands, moving outside, transportation, moving inside, getting in/out of bed, and toileting. Wives were more likely to report spending extra time than husbands with telephoning, managing money, and bathing. Sons were more likely than daughters to report spending extra time helping with errands and moving inside. Daughters were more likely than sons to report spending extra time helping with meals, telephoning, bathing, and laundry. Help Provided: Daughters were more likely than sons to help with ADLs (daughters, 58%; sons, 18%), cognitive assistance (daughters, 58%; sons, 25%), and expressive tasks (daughters, 74%; sons, 59%). No difference found for instrumental tasks or arranging services. Gender differences in the percentage of activities helped with remained even after controlling for role conflict, filial obligation, and external resources, suggesting that gender differences in caregiving have been institutionalized.</td>
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<td>Dwyer &amp; Seccombe</td>
<td>$N = 813$ primary caregivers of impaired elders (333 wives, 167 husbands, 277 daughters; 56 sons) who assisted with at least one ADL task and who were a part of the 1982 National Survey of Informal Caregivers ($N = 1324$) and the National Long-Term Care Survey ($N = 6,393$).</td>
<td>Help Provided: Number of extra hours of help provided because of elder's disability; whether or not caregivers spent extra time helping with 6 ADL and 9 IADL activities because of the elder's disability.</td>
<td>Help Provided: Daughters (percent helping: ADLs = 12%, IADLs = 31.7%) were more likely than sons (percent helping: ADLs = 3.9%, IADLs = 16.5%) to provide ADL and IADL assistance even after control variables were entered. The odds for daughters providing IADL assistance were slightly lower than those for providing ADL assistance. Daughters were more likely than sons to provide help with all IADL tasks (taking medicine, getting around outside, going places outside of walking distance, shopping, money management, housework, preparing meals). However, the differences were strongest for household and preparing meals. Help Provided: Husbands reported spending the most extra hours on caregiving than any other group. Husbands were more inclined to report more extra time than wives providing assistance with the following tasks: laundry, shopping, errands, moving outside, transportation, moving inside, getting in/out of bed, and toileting. Wives were more likely to report spending extra time than husbands with telephoning, managing money, and bathing. Sons were more likely than daughters to report spending extra time helping with errands and moving inside. Daughters were more likely than sons to report spending extra time helping with meals, telephoning, bathing, and laundry. Help Provided: Daughters were more likely than sons to help with ADLs (daughters, 58%; sons, 18%), cognitive assistance (daughters, 58%; sons, 25%), and expressive tasks (daughters, 74%; sons, 59%). No difference found for instrumental tasks or arranging services. Gender differences in the percentage of activities helped with remained even after controlling for role conflict, filial obligation, and external resources, suggesting that gender differences in caregiving have been institutionalized.</td>
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<td>Finley (1989)</td>
<td>$N = 325$ children caring for a disabled mother who were selected via random digit dialing techniques from households in the metropolitan Huntsville, AL area.</td>
<td>Help Provided: Whether help was provided for five categories of tasks: ADLs, cognitive tasks, instrumental tasks, expressive tasks, arranging services.</td>
<td>Help Provided: Daughters (percent helping: ADLs = 12%, IADLs = 31.7%) were more likely than sons (percent helping: ADLs = 3.9%, IADLs = 16.5%) to provide ADL and IADL assistance even after control variables were entered. The odds for daughters providing IADL assistance were slightly lower than those for providing ADL assistance. Daughters were more likely than sons to provide help with all IADL tasks (taking medicine, getting around outside, going places outside of walking distance, shopping, money management, housework, preparing meals). However, the differences were strongest for household and preparing meals. Help Provided: Husbands reported spending the most extra hours on caregiving than any other group. Husbands were more inclined to report more extra time than wives providing assistance with the following tasks: laundry, shopping, errands, moving outside, transportation, moving inside, getting in/out of bed, and toileting. Wives were more likely to report spending extra time than husbands with telephoning, managing money, and bathing. Sons were more likely than daughters to report spending extra time helping with errands and moving inside. Daughters were more likely than sons to report spending extra time helping with meals, telephoning, bathing, and laundry. Help Provided: Daughters were more likely than sons to help with ADLs (daughters, 58%; sons, 18%), cognitive assistance (daughters, 58%; sons, 25%), and expressive tasks (daughters, 74%; sons, 59%). No difference found for instrumental tasks or arranging services. Gender differences in the percentage of activities helped with remained even after controlling for role conflict, filial obligation, and external resources, suggesting that gender differences in caregiving have been institutionalized.</td>
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Table 1. Summary of Studies Published on Gender Differences in Mental Health Outcomes, Help Provided, and Help Received (Continued)

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<td>Fitting, Rabins, Lucas, and Eastham (1986)</td>
<td>N = 54 spousal caregivers (28 men, 26 women) of persons diagnosed with dementia recruited from Johns Hopkins Hospital in Baltimore, MD.</td>
<td>Mental Health: Zarit Burden Interview (Zarit, Reever, &amp; Bach-Peterson, 1980); Depression, Hysteria, Psychopathic Deviate, and Paranoid subscales of the MMPI; Wiggins Depression scale. Correlates: Age, spousal impairment.</td>
<td>Help Provided: Daughters were more likely than sons to help with ADLs (daughter, 58%; sons, 18%), cognitive assistance (daughters, 58%; sons, 25%), and expressive tasks (daughters, 74%; sons, 59%). No difference found for instrumental tasks or arranging services. Gender differences in the percentage of activities helped varied even after controlling for role conflict, filial obligation, and external resources, suggesting that gender differences in caregiving have been institutionalized.</td>
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<td>Fredriksen (1996)</td>
<td>N = 1,139 University of California at Berkeley personnel (675 women, 464 men) who indicated that they assisted an adult family member or friend who has a health problem or disability.</td>
<td>Mental Health: Caregiving strain (physical, financial, and emotional); work interference; role strain. Help Provided: Whether or not the caregiver provided assistance for 10 ADL/IADL tasks. Control Variables: Caregiver sociodemographics; recipient age, residence, and cognitive and physical functioning; number of children, assistance provided.</td>
<td>Help Provided: Women were more likely than men to assist with emotional support (women = 81.1%; men = 75.8%) and housekeeping tasks (women = 42.9%; men = 30%), while men were more likely to help with home maintenance tasks (women = 26.6%; men = 42.6%). No gender differences were observed for the performance of transportation (women = 81.1%; men = 75.8%), financial management (women = 81.1%; men = 75.8%), monitoring of services (women = 81.1%; men = 75.8%), or personal care tasks (women = 81.1%; men = 75.8%). No gender differences were observed for the time spent on caregiving.</td>
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<td>Horowitz (1985)</td>
<td>N = 131 adult child caregivers (32 men, 99 women) of older frail adults recruited from community agencies within New York City.</td>
<td>Mental Health: 29-item scale designed to assess the effects of caregiving on caregivers' social, emotional, work, and familial lives. Help Provided and Received: Extent of help given for 10 tasks that included some ADLs/IADLs; utilization of formal services.</td>
<td>Help Provided and Received: Daughters were more likely to provide assistance with hands-on tasks, such as transportation, meal preparation, and housekeeping (daughters = 59.6%; sons = 48.8), household chores (daughters = 60.6%; sons = 34.4), and personal care (daughters = 36.4; sons = 12.5%). Sons and daughters did not differ on the amount of help provided for male-oriented tasks, such as financial management. Daughters (M = 25.0) devoted more time to caregiving than did sons (M = 19.6). No differences were observed with respect to the use of formal services and overall receipt of support for other family members. However, sons were more likely to get support from their spouse than daughters.</td>
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<td>Ingersol-Dayton, Starrels &amp; Dowler (1996)</td>
<td>N = 1,585 employees (63% female) from 33 businesses in Portland, OR, who help out an elderly parent or parent-in-law.</td>
<td>Mental Health: Costs of caregiving (interference with other work and social responsibilities, difficulty in helping elder). Help Provided and Received: Frequency of assistance provided for the following tasks: health care/management, home maintenance tasks, and social support help elder provides caregiver with child care, meal preparation, and cleaning. Control Variables: Caregiver age, race, partner status, occupation, hours worked, elder's age, functional status, problem behaviors.</td>
<td>Help Provided and Received: Frequency of assistance provided for the following tasks: health care/management, home maintenance tasks, and social support; help elder provides caregiver with child care, meal preparation, and cleaning. Help Provided and Received: In general, women reported higher costs of caregiving than men (β = .30) after control variables were entered.</td>
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<td>Kramer &amp; Kipnis (1995)</td>
<td>N = 512 caregivers (60% male, 70% female) who regularly helped someone 60 or older who did not reside with them. Participants were selected through a random digit dialing sampling technique.</td>
<td>Mental Health: Caregiver burden, work role strain (distraction at work, leaving work early/coming in late, using sick leave and vacation time). Help Provided: Amount of help provided with care provision tasks (e.g., personal care, housework) and care management tasks (e.g., transportation, finances).</td>
<td>Mental Health: Women (M = 1.70) reported significantly more caregiver burden than men (M = 1.12). However, the effects for gender decreased as control variables were added. Help Provided: Women (M = 1.54) were more likely to assist with care provision than men (M = 1.10). No gender differences were found in assistance provided for care management tasks (women, M = 2.27; men, M = 2.14).</td>
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<td>Lutzsky &amp; Knight (1994)</td>
<td>N = 92 spousal caregivers (52 women, 40 men) of dementia patients recruited through a counseling center, a social service agency, the Alzheimer’s Disease Research Center of Los Angeles and Orange Counties, and the Alzheimer’s Association of Los Angeles.</td>
<td>Mental Health: Caregiving distress: CES-D; (GSI) General Symptom Inventory (Derogatis &amp; Spencer, 1985); and Zarit Burden Interview (Zarit, Reever, &amp; Bach-Peterson, 1980). Control Variable: Age.</td>
<td>Mental Health: Wives (CES-D, M = 17.53; burden, M = 45.27; GSI, M = 0.71) reported higher levels of depression, burden and higher GSI scores than husbands (CES-D, M = 12.50; burden, M = 30.18; GSI, M = 0.43). Women reported higher neuroticism scores (b = .20) and escape-avoidance coping (b = .17) than men. Correlates Path Analyses indicated that gender differences in depression and GSI scores could be explained by women’s higher neuroticism and greater use of escape-avoidance coping.</td>
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<td>Miller (1990)</td>
<td>N = 554 spousal caregivers (351 wives, 203 husbands) that were a subsample of the National Long-Term Care Survey.</td>
<td>Mental Health: Time strain, health strain, emotional strain.</td>
<td>Mental Health: No gender differences were found with regard to objective and subjective burden (objective burden: women, M = 15.50; men, M = 14.56; subjective burden: women, M = 10.95; men, M = 10.27). Help Provided: Daughters reported spending more time helping than sons with all types of tasks (transportation, daughter, M = 7.08; sons, M = 5.21; personal care (daughters, M = 6.41; sons, M = 1.98), eating (daughters, M = 12.24; sons, M = 7.38), except financial tasks (daughters, M = 6.41; sons, M = 1.98). The differences were especially large for eating tasks and personal care tasks. Daughters appear to have performed most of the caregiving for a longer duration of time.</td>
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<td>Montgomery &amp; Kamo (1989)</td>
<td>N = 347 impaired elders and their adult child caregivers (64 sons, 273 daughters).</td>
<td>Mental Health: Subjective burden (the degree that caregivers felt that several aspects of their life was disrupted because of caregiving); objective burden (disruptions or changes in caregivers’ lives). Help Provided: Time spent per week helping with personal care tasks, transportation tasks, eating tasks, and financial tasks Correlates: Level of affection for parent, caregivers’ health, number of children, employment status.</td>
<td>Mental Health: No gender differences were found with regard to objective and subjective burden (objective burden: women, M = 15.50; men, M = 14.56; subjective burden: women, M = 10.95; men, M = 10.27). Help Provided: Daughters reported spending more time helping than sons with all types of tasks (transportation, daughter, M = 7.08; sons, M = 5.21; personal care (daughters, M = 6.41; sons, M = 1.98), eating (daughters, M = 12.24; sons, M = 7.38), except financial tasks (daughters, M = 6.41; sons, M = 1.98). For both sons and daughters, higher emotional strain was associated with greater subjective burden. However, caregiver’s health and objective burden were stronger predictors of subjective burden among men. Employment status and number of dependent children were predictors of burden among daughters, but not sons.</td>
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<td>Mui (1995)</td>
<td>N = 818 adult child caregivers (215 sons, 603 daughters) of older frail adults. This sample was a subsample of data from the National Long-Term Care Channeling Demonstration, 1982–1984. Participants were recruited in 10 communities through case management agencies.</td>
<td>Mental Health: Caregiver emotional strain (personal and social life); caregiving role involvement (time spent caregiving, number of ADL/IADL tasks helped with); other role involvement. Control Variables and Correlates: Parent and caregiver sociodemographics, parent's ADL and cognitive functioning; caregiver's living arrangements, ratings of parent problem behaviors; coping resources (caregiver's physical health, quality of relationship with parent; number of secondary helpers); interference with life.</td>
<td>Mental Health: Bivariate analyses showed that daughters (M = 3.80) experienced greater levels of emotional strain than sons (M = 3.36). However, after entering all other variables (parent and caregiver characteristics, coping resources, role involvement, interference with life), gender differences in emotional strain disappeared. Women (M = 9.77) reported greater interference with social life than did men (M = 8.48). Correlates: Higher emotional strain was associated with poorer quality of relationship and greater work interference for daughters, but not sons. For both sons and daughters, higher emotional strain was associated with greater interferences with personal and social life however, this relationship was stronger for daughters. For sons, higher emotional strain was associated with greater parent problem behaviors and fewer secondary helpers.</td>
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<td>Neal, Ingersoll-Dayton, &amp; Starrels (1997)</td>
<td>N = 2,174 (63% female) employed caregivers from 33 businesses in Portland, OR, caring for someone older than 60 years.</td>
<td>Mental Health: Recent and chronic caregiving stress; work effectiveness; time taken off work; difficulty combining family and work.</td>
<td>Mental Health: After relationship type and demographic variables were entered, gender (women greater than men) was a significant predictor of chronic elder care stress (β = -.19), reduced work effectiveness (β = -.18) and difficulty combining family and work (β = .26). Women performed more caregiving tasks overall and spent more hours on caregiving than did men.</td>
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<td>Parks &amp; Pilisuk (1991)</td>
<td>N = 176 adults (125 women and 51 men) who were providing some aspect of care for a parent with Alzheimer's. Participants were recruited through an Alzheimer's disease clinic, advertisements, and the Alzheimer's Disease and Related Disorders Association.</td>
<td>Mental Health: Hopkins Symptom Checklist-90, Zarit Burden Interview, Coping Behavior (Lazarus &amp; Launier, 1978).</td>
<td>Mental Health: Women were more likely than men to use fantasy as a coping strategy, while men were more likely than women to use withdrawal as a coping mechanism. Women (M = 45.82) reported more anxiety than men (M = 25.62). Women reported more burden than men. Women (M = 25.41) and men (M = 25.32) did not differ significantly with regard to depressive symptoms. Correlates: Being younger was associated with higher depression levels among men. Low sense of mastery was associated with higher depression among women. The lack of an adequate support network was predictive of anxiety among men, but not women.</td>
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<td>Puchno &amp; Resch (1989)</td>
<td>N = 315 persons (214 women, 101 men) who were providing care in the community to a spouse who was diagnosed with Alzheimer's or a related disorder. Participants were recruited via public service announcements and contacts with religious organizations, hospitals, service organizations, and support groups.</td>
<td>Mental Health: 20-item CES-D; caregiver burden (overall and a 17-item index of items frequently used in the caregiving literature).</td>
<td>Mental Health: Wives (CES-D, M = 18.89; burden, M = 34.90) indicated higher levels of depression and burden than husbands (CES-D, M = 12.96; burden, M = 33.30). Men (M = 3.12) felt a greater degree of emotional investment than did women (M = 2.54). In their relationship with their impaired spouse. Help Provided and Received: The degree to which the caregiver and others assisted with 15 IADL and ADL tasks; help provided by others with ADLs and IADLs. Correlates: Age, mastery, provision of social support (Turner, Frankl, &amp; Levin, 1983). Correlates: Among husbands, perceived health was a significant predictor of depression. Among wives, perceived health and degree of emotional investment were significant predictors of depression. Among wives, high burden was associated with poorer health, less emotional involvement, greater spousal impairment, and provision of more assistance with tasks.</td>
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<td>Roze-Rego, Strauss, &amp; Snythe (1998)</td>
<td>N = 99 (61 wives, 38 husbands) living with a spouse who has Alzheimer's and a control group of N = 113 (74 wives, 39 husbands). Participants were recruited from a Case Western Reserve Alzheimer's Diseases Research Center study.</td>
<td>Mental Health: 20-item CES-D, Positive and Negative Affect Schedule (PANAS; Watson, Clark, &amp; Tellegen, 1988), life satisfaction, and mastery.</td>
<td>Mental Health: Women caregivers (CES-D, M = 16.64; negative affect, M = 21.87) reported more depression and negative affect than men caregivers (CES-D, M = 9.31; negative affect, M = 15.38). Women caregivers (mastery, M = 18.37; life satisfaction, M = 10.38) reported less mastery and less life satisfaction than men caregivers (mastery, M = 20.50; life satisfaction, M = 13.97). Men and women noncaregivers did not differ on depression (women, M = 4.31; men, M = 4.30), negative affect (women, M = 14.90; men, M = 15.05), mastery (women, M = 22.68; men, M = 22.95), and life satisfaction (women, M = 14.90; men, M = 15.05).</td>
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<td>Authors</td>
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<td>Schulz &amp; Williamson (1991)</td>
<td>N = 174 primary caregivers (70% women) of family members diagnosed with possible or probable Alzheimer's dementia. Participants were recruited from Alzheimer's disease and related disease centers. Participants were interviewed on four occasions across 2-year time span.</td>
<td>Mental Health: 20-item CES-D.</td>
<td>Help Provided and Received: At Time 1, women caregivers (M = 13.98) reported significantly higher CES-D scores than men caregivers (M = 6.91). Over time, women reported high but stable rates of depression (Time 4, M = 14.73), whereas men showed significant increases in depression (Time 4, M = 11.32).</td>
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<td>Stoller &amp; Cutler (1990)</td>
<td>N = 363 elders (66.1% women) who were living in an eight-county region in northeastern New York. N = 173 were interviewed 7 years later. Interviews were also conducted with informal helpers at Time 1 (N = 243, 60% women) and Time 2 (N = 135).</td>
<td>Help Provided: Elders indicated whether they performed ADL or IADL activities by themselves or with the help of others. Caregivers were asked how many caregiving tasks they performed for the elder and how much time they spent on caregiving. Correlate: Assistance needed by elder.</td>
<td>Help Provided: No gender differences were found in the amount of help provided. Help Received: Overall, women helpers were more likely than men helpers to assist with food preparation (women, 26.4%; men, 15.5%) shopping (women, 35.2%; men, 23.6%), and laundry (women, 21.8%; men, 4.7%). Help Received: Husband caregivers were more likely to rely on informal assistance than wife caregivers. Husband caregivers were no more likely than wife caregivers to report using paid assistance.</td>
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<td>Tennstedt, Cafferata, &amp; Sullivan (1992)</td>
<td>Participants were a subsample of married individuals from the Supplement on Aging (SoA) to the 1984 National Health Interview Survey (NHIS) who mentioned having at least one ADL difficulty (N = 1,116) or IADL difficulty (N = 1,311).</td>
<td>Mental Health: 20-item CES-D.</td>
<td>Help Provided: No gender differences observed for help with ADL/IADL activities; hours of help provided. Correlate: Assistance needed by elder.</td>
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<td>Tennstedt, Crawford, &amp; McKinlay (1993)</td>
<td>N = 415 caregivers (290 women, 125 men) who were mentioned as caregivers to elders were part of a stratified sample of adults older than age 70 residing in Eastern Massachusetts who had functional difficulties (at least 2 IADLs or 1 ADL, or IADL and use of a walker).</td>
<td>Help Provided: Amount of hours spent on IADLs and personal care. Control Variables: Race, resources, need for assistance.</td>
<td>Help Provided: No gender differences observed for help with IADLs (meals, housekeeping, transportation, financial management, and arranging services). Men were more likely to provide help with personal care. Men were more likely to receive formal services in the form of meals for clinical depression (scores ≥ 16).</td>
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<td>Williamson &amp; Schulz (1990)</td>
<td>N = 174 primary caregivers (70% women) of family members diagnosed with possible or probable Alzheimer's dementia. Participants were recruited from Alzheimer's and related disease diagnostic centers.</td>
<td>Mental Health: 20-item CES-D, shortened version of the Zarit Burden Interview (Zarit, Reever, &amp; Bach-Peterson, 1980). Correlate: Relationship quality communal orientation.</td>
<td>Help Provided: Amount of help provided with ADL/IADLs. Help Provided: No gender differences were found for help with ADLs (meals, housekeeping, transportation, financial management, and arranging services). Among men, those who had a low communal orientation and rated their relationships as not close had higher depression scores. Among women, higher depression scores were found for those who had a low communal orientation and who rated their relationships as close. Help Received: No gender differences were found in the amount of assistance provided.</td>
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<th>Authors</th>
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<th>Gender Differences</th>
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<td>Young &amp; Kahana</td>
<td>183 caregivers of older heart attack patients (80% female, 63% spouses)</td>
<td>Mental Health: Symptom Checklist (SCL; Derogatis, Lipman, &amp; Covi, 1973); multilevel assessment inventory; Zarit Burden Interview (Zarit, Reever, &amp; Bach-Peterson, 1980).</td>
<td>Help Provided: Number of ADL/IADL tasks assisted with; whether assistance was provided for each task.</td>
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<td>Zarit, Todd, &amp;</td>
<td>64 spousal caregivers (33 women, 31 men) recruited from support groups and from Alzheimer's Disease advocacy groups. Participants were interviewed twice. The second interview took place 2 years after the initial interview.</td>
<td>Mental Health: Zarit Burden Interview (Zarit, Reever, &amp; Bach-Peterson, 1980).</td>
<td>Help Provided: Wives provided the most assistance with laundry and preparing meals. Husbands (74%) were more likely to help with handiwork than wives (49%) or daughters (64%). Husbands (93%) and daughters (93%) were more likely to help with transportation than wives (49%). No differences were found for personal care or financial management tasks.</td>
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Notes: ADLs = activities of daily living; IADLs = instrumental ADLs; HCFA = U.S. Health Care Financing Administration; DIS = Diagnostic Interview Schedule (Robins, Helzer, Croughan, & Ratcliff, 1981).
on spousal caregivers of Alzheimer's patients. Thus, additional research is needed to further clarify the nature of gender differences in psychiatric symptomatology among adult child caregivers and those caring for physically disabled recipients. In addition, in most of these studies bivariate rather than multivariate analytic strategies were used. To more clearly establish the prevalence of women caregivers' psychiatric morbidity, more multivariate studies are needed that control for factors associated with psychiatric morbidity (e.g., socioeconomic status, and the caregiver's physical health).

Factors in the Caregiving Situation That May Place Women at Greater Risk for Psychiatric Morbidity

Caregiving researchers have frequently used stress and coping models as a framework for investigating and describing the nature of the caregiving experience (Lawton, Moss, Kleban, Glickman, & Rovine, 1991; Pearlin, Mullan, Semple, & Skaff, 1990; Pruchno, Peters, & Burant, 1995). Cohen, Kessler, and Gordon (1995) developed a particularly useful stress process model, which Schulz and his associates (Martire & Schulz, in press; Schulz & Salthouse, 1999) recently adapted to the caregiving situation. Figure 1 shows an adaptation of the Cohen and colleagues model for the purposes of this review and a summary of gender differences observed at each stage of the stress process. Similar to other stress process models, the Cohen and colleagues model includes primary stressors/objective demands (e.g., recipient's disability), appraisals/subjective reactions (e.g., perceptions of burden or strain), and the effects of these variables on mental health. This model represents an improvement over other stress process models because it incorporates features from biological, environmental, and psychological perspectives of stress and coping. Previous models focused primarily on psychological and/or environmental factors associated with stressful events. In addition, unlike other stress process models, the Cohen and colleagues model includes physiological, affective, behavioral, and cognitive responses to stress. This model also explicitly focuses on morbidity effects as an endpoint of the stress process.

In the Cohen and colleagues (1995) model, people are confronted with challenging life events or environmental demands. Applied to the caregiving situation, these demands are driven by the level of patient disability and the consequent caregiving tasks required to maintain patient functioning in the community. In the next stage of this model, people then evaluate whether they have the resources to cope with these demands and if these demands pose a potential threat. If people believe that their coping resources are not sufficient to meet the challenges posed by environmental demands, they perceive themselves to be stressed. In the caregiving literature, perceived stress has generally been conceptualized as caregiver burden, caregiver strain, or role strain. In the next stage of this model, people can respond to this perceived stress by engaging in behaviors that increase or decrease their risk for mental health symptomatology. Behavioral responses to stress in the caregiving situation include seeking formal or informal support, taking care of one's health needs (e.g., getting enough rest or exercise), and relinquishing caregiving responsibilities. In the following sections of this article, we use this model as a general framework for assessing gender differences at each stage of the caregiving process (caregiving demands, perceived stress, and behavioral responses). Our goal is to better understand the source of the differential psychiatric morbidity observed among men and women and ultimately to make policy recommendations consistent with this analysis.

Caregiving Demands: Types and Amounts of Care Provided

Several researchers have argued that women caregivers may be at greater risk for negative mental health effects because they provide more caregiving assistance in general and are more likely to help with more hands-on, day-to-day caregiving activities, such as meal preparation, cleaning, cooking, and personal care (Horowitz, 1985; Miller & Cafasso, 1992; Montgomery, 1992; Stoller, 1990). Many studies (N = 20) included in this review used some measure of the amount and/or types of assistance that men and women caregivers provided to care recipients. Columns 3 and 4 of Table 1 identify the types of care provided and associated gender differences in care provision, when available. Gender differences in the performance of caregiving tasks are discussed in terms of general indicators of caregiving task performance, household-related tasks, personal care tasks, and care management and transportation tasks.

General indicators of caregiving task involvement.—Most studies that examined gender differences in time spent on caregiving reported that
women spend more time on caregiving tasks than men (Allen, 1994; Horowitz, 1985; Montgomery & Kamo, 1989; Neal, Ingersoll-Dayton, & Starrels, 1997). Two exceptions to this general conclusion are the findings of Fredriksen (1996) and Chang and White-Means (1991), who reported no gender differences in the amount of time spent providing care. In a study examining gender differences between husband and wife and between son and daughter caregivers, Dwyer and Seccombe (1991) reported that husbands spent the most extra hours providing care and that wives reported spending the least amount of extra hours on providing care. However, Dwyer and Seccombe’s sample was asked about extra hours of care provided rather than hours spent providing help. Thus, wives may have underreported the hours that they spent on caregiving because they perceived that time they spent helping their husbands was part of their duties as wives rather than extra time spent on caregiving.

In general, inconsistent findings were obtained concerning gender differences in the number of different caregiving tasks performed. Dwyer and Coward (1991) and Neal and colleagues (1997) reported that women performed more caregiving tasks than men. In contrast, Barusch and Spaid’s (1989) results showed that men assisted with marginally more tasks than women. Pruchno and Resch (1989) and Schulz and Williamson (1991) reported no gender differences in the number of different caregiving tasks that men and women performed. In sum, most studies demonstrated that women spent more time on caregiving than men; however, inconsistent results were found in terms of the number of caregiving tasks performed.

Housework-related caregiving tasks.—Using general measures of household task performance (e.g., meal preparation, laundry, and housework), Collins and Jones (1997), Fredriksen (1996), and Ingersoll-Dayton, Starrels, and Dowler (1996) found that more women caregivers reported helping with such tasks than men caregivers. Researchers also reported that women were more likely than men to perform specific household tasks, especially meal preparation, laundry, and housework. Dwyer and Coward (1991), Horowitz (1985), and Neal and colleagues (1997) reported that women were more likely than men to assist with meal preparation and housework. In addition, Stoller (1990) found that women were more likely to assist care recipients with preparing meals and laundry than were men. In contrast, Tennstedt, Crawford, and McKinlay (1993) found no gender differences in household caregiving tasks performed.

Most of these studies included primarily adult child caregivers; thus, there is strong evidence to support daughters’ greater levels of assistance with housework-related tasks when compared with those of sons. However, the pattern for spousal caregivers is less conclusive. Collins and Jones (1997) found that wives were more likely to provide help with household tasks than were husbands. In a study that included husband, wife, and daughter caregivers, Young and Kahana (1989) reported that wives were more likely to provide assistance with cooking and laundry than any other group. However, Barusch and Spaid (1989) found no significant differences between husbands and wives in terms of housework-related caregiving tasks.

Two studies have been conducted that included both adult child and spousal caregivers. Chang and White-Means (1991) reported that wives and daughters were more likely to help with meal preparation than were husbands and sons. In contrast, Dwyer and Seccombe (1991) reported different findings for adult child and spousal caregivers. These researchers found that daughters were more likely than sons to spend extra time assisting with laundry and meals, whereas husbands were more likely than wives to report spending extra time helping with laundry and housework. However, because participants in the Dwyer and Seccombe study were asked about extra time spent providing help, wives may have underreported the care that they provided because they viewed their assistance with household chores for an impaired husband as part of their role as wife rather than extra time spent caregiving. In sum, adult daughters caring for parents with physical ailments or dementia-related conditions are more likely to perform housework-related caregiving tasks than adult sons. However, the results are less conclusive for spousal caregivers.

Personal care tasks.—The results of several studies reviewed also provide evidence supporting women’s greater involvement in hands-on personal care tasks (e.g., assistance with toileting, bathing, eating). Chang and White-Means (1991), Collins and Jones (1997), Dwyer and Coward (1991), Finley (1989), Horowitz (1985), and Kramer and Kipnis (1995) demonstrated that women were more likely to assist with personal care tasks than were men. Similarly, Dwyer and Seccombe (1991) reported that daughters and wives were more likely than husbands and sons to spend extra time helping with bathing. Consistent with these researchers, Montgomery and Kamo (1989) and Tennstedt and colleagues (1993) reported that men spent less time on personal care tasks than did women. Contrary to these findings, a smaller subset of studies (Allen, 1994; Fredriksen, 1996; Neal, et al., 1997; Stoller, 1990; Young & Kahana, 1989) reported no significant gender differences in the provision of personal care tasks. In addition, Barusch and Spaid (1989) reported that husbands were more likely to perform personal care tasks than were wives. Overall, women’s greater performance of personal care tasks can be observed in studies that include adult child and spousal caregivers and caregivers of recipients with physical disabilities and dementia-related conditions.

Care management, shopping, and transportation tasks.—Some researchers (Horowitz, 1985) have argued that women are more likely to perform day-to-day caregiving tasks, such as housework and personal care, whereas men are more likely to help with
intermittent tasks, such as care management and transportation tasks. The results of this review generally do not support men’s greater performance of intermittent tasks. Most studies found no differences between men and women caregivers in terms of care management tasks (Chang & White-Means, 1991; Finley, 1989; Fredriksen, 1996; Horowitz, 1985; Kramer & Kipnis, 1995; Neal et al., 1997; Stoller, 1990; Tennstedt et al., 1993). In terms of shopping and transportation, most studies showed that women were more likely than men to perform these tasks (Dwyer & Coward, 1991; Horowitz, 1985; Montgomery & Kamo, 1989; Neal et al., 1997). In summary, results of the reviewed studies indicate that women tend to be exposed to greater caregiving demands than men, especially in terms of time spent on caregiving, and the performance of hands-on, day-to-day caregiving activities, such as household chores and personal care. The results also suggest that gender differences in the performance of household tasks may depend on the type of relationship between the caregiver and the care recipient.

Perceived Stress

Caregiver strain, caregiver stress, and caregiver burden.—Seventeen of the studies in this review (Barusch & Spaid, 1989; Chang & White-Means, 1991; Collins & Jones, 1997; Fitting, Rabins, Lucas, & Eastham, 1986; Fredriksen, 1996; Horowitz, 1985; Kramer & Kipnis, 1995; Lutzsky & Knight, 1994; Miller, 1990; Montgomery & Kamo, 1989; Mui, 1995; Neal et al., 1997; Parks & Pilisuk, 1991; Pruchno & Resch, 1989; Williamson & Schulz, 1990; Young & Kahana, 1989; Zarit, Todd, & Zarit, 1986) used measures of caregiver strain, stress, or burden (see Table 1). The vast majority of these studies reported that women experienced higher levels of burden than men.

Barusch and Spaid (1989), Collins and Jones (1997), Fredriksen (1996), Kramer and Kipnis (1995), Lutzsky and Knight (1994), Parks and Pilisuk (1991), Williamson and Schulz (1990), and Young and Kahana (1989) found that women caregivers reported higher amounts of caregiver burden than men caregivers. In addition, Horowitz (1985) reported that a greater proportion of daughters mentioned that their emotional state had changed for the worse and that their plans for the future were negatively affected by caregiving. In addition, Neal and colleagues (1997) found that after control variables (e.g., caregiver’s and elderly recipient’s sociodemographics, number of hours worked, number of problem behaviors in the care recipient) were introduced, gender was a significant predictor: Women experienced greater chronic elder care stress than men. In a study of husband and wife caregivers, Miller (1990) found that women had higher levels of health strain and time strain than men caregivers. In addition, Chang and White-Means (1991) found that women reported increased emotional and physical strain than did men. Although Fitting and colleagues (1986) reported no overall gender differences in burden, they did find that younger wives and older husbands reported increased burden as the care recipient’s level of impairment increased. In contrast to most studies, Montgomery and Kamo (1989) and Mui (1995) reported no gender differences in caregiver burden.

Almost all studies examining burden or strain as an outcome measure reported that women had higher levels of burden or strain than men. However, similar to depression, the differential effects of caregiving on men’s and women’s perceptions of stress over time is unclear. In the only longitudinal study addressing this issue, Zarit, Todd, and Zarit (1986) found that, at Time 1, wives reported greater burden levels than husbands. At the 2-year follow-up, there were no significant gender differences in caregiver burden. Specifically, the husbands’ burden means remained relatively constant, whereas the wives’ means significantly declined. Note, however, that the Time 2 sample included caregivers of spouses who lived at home and those that placed their spouses in care facilities between Time 1 and Time 2. The means of wives who placed their husbands dropped much more substantially from Time 1 to Time 2 than the means of women caring for a spouse who still resided in the home. Thus, the decrease in women’s burden levels may be due in part to the inclusion of caregivers who placed their spouses. To summarize, in the vast majority of reviewed studies, women experienced higher burden levels than men. Women’s higher levels of caregiver burden were found among different samples, including adult child and spousal caregivers as well as caregivers of recipients suffering from dementia-related and physical conditions. In addition, women reported increased burden in studies that used both bivariate and multivariate analytic strategies.

Role conflict or strain.—Nine of the studies reviewed (Chang & White-Means, 1991; Fredriksen, 1996; Ingersoll-Dayton et al., 1996; Kramer & Kipnis, 1995; Miller, 1990; Miller & Montgomery, 1990; Mui, 1995; Neal et al., 1997; Young & Kahana, 1989) discussed gender differences concerning the impact of caregiving duties on other role obligations, such as work and social life. Montgomery (1992) maintained that women, especially those that are employed, are more likely than men to experience role strain because they are more likely to fully assume the role as primary caregiver to an impaired relative. In contrast, men, especially sons, are more likely to become secondary caregivers, providing intermittent care on an as-needed basis (Montgomery, 1992; Stoller, 1990).

Consistent with the reasoning that women are more likely to experience role strain as a result of caregiving, Kramer and Kipnis (1995) noted that women were more likely than men to report being distracted at work and having to use sick leave to fulfill their caregiving obligations. Furthermore, Neal and colleagues (1997) showed that gender (women more than men) was a significant predictor of reduced work effectiveness and difficulty combining work and family. Similarly, Mui (1995) showed that women...
reported greater work role strain than men. Fredriksen (1996) reported that women were more likely than men to give up their jobs entirely for caregiving, although she reported no gender differences in interference of caregiving with work. In contrast to these studies, Horowitz (1985) found no gender differences in work role strain.

Four studies that used general measures of role strain reported gender differences. Fredriksen (1996), Ingersoll-Dayton and colleagues (1996), and Young and Kahana (1989) reported greater role strain for women than for men. Furthermore, Chang and White-Means (1991) demonstrated that a higher percentage of women than men reported serious time limitations as a result of caregiving.

In terms of interference of caregiving with social life, Miller and Montgomery (1990) reported that women were more likely to experience social limitations due to caregiving than men. In addition, Chang and White-Means (1991) and Horowitz (1985) found that a higher proportion of women reported interference of caregiving with family and leisure time than did men. In contrast to these investigators, Mui (1995) reported no gender differences in interference of caregiving with social life. To summarize, most studies that examined gender differences in role strain showed that women reported more interference of caregiving with work and social life. Women's higher levels of role strain and role conflict were observed in samples that included caregivers of physically ill individuals and of those with dementia-related conditions. In addition, women reported greater role strain than men in bivariate as well as multivariate studies. Most of these studies focused on adult child caregivers, probably because interference with work and family is more likely to occur for these caregivers. However, Miller and Montgomery (1990) and Young and Kahana (1989) reported that wives and daughters experienced increased role conflict when compared with husbands and sons.

Behavioral Responses to Caregiving Stress

**Assuming and relinquishing the caregiving role.**—Before there is even an opportunity to experience the demands and stresses of caregiving, there are important gender differences in terms of who assumes primary responsibility for caregiving. Because caregiving is more consistent with women's identities as carers and nurturers, women are more likely to feel responsible for assuming caregiving duties (Walker, 1992). In addition, because caregiving is more consistent with women's socialization experiences, women expect and are expected to assume primary caregiving responsibilities (Montgomery, 1992). Supporting this view, data from national surveys have shown that women are more likely to become caregivers than men. These national surveys estimate that approximately 70–75% of all caregivers are women (National Alliance for Caregiving and the American Association of Retired Persons, 1997; Stephens & Christianson, 1986; Stone, Cafferata, & Sangl, 1987). Therefore, men are less likely to be exposed to the demands of caregiving. In addition, men may report fewer mental health symptoms than women caregivers because they are more likely to feel that they have chosen to assume the caregiving role.

With regard to the decision to relinquish caregiving duties, which can be viewed as a behavioral response to caregiving stress, Stoller (1990) maintained that men are more likely to drop out of the caregiving role as the recipient's need for assistance intensifies. Supporting this argument, she found evidence indicating a shift toward more women caregivers as the functional capacity of elderly recipients declined. In addition, Stoller reported that women's greater performance of personal care tasks and household-related tasks were especially pronounced when the elderly recipients required regular assistance. Furthermore, there is some evidence suggesting that men may be less tolerant of the memory and behavior problems that are characteristic of recipients suffering from dementia (Moritz, Kasl, & Ostfeld, 1992; Moritz, Stanislav, & Berkman, 1989; Mui, 1995). This lower degree of tolerance for problem behaviors may lead men to relinquish the caregiving role sooner than women. To summarize, men are less likely to assume caregiving responsibilities and thus are less likely to be exposed to the demands of caregiving. In addition, once men are in the caregiving role, there is evidence that they are more likely to relinquish caregiving responsibilities as the recipient becomes increasingly disabled.

Obtaining informal and formal support.—Women may be at greater risk for psychiatric symptomatology because they are less likely to obtain assistance with caregiving. Stoller and her associates (Stoller, 1990, 1992; Stoller & Cutler, 1992) argued that because men are less comfortable with the caregiving role, they are more inclined to seek and receive outside assistance for caregiving from formal and informal sources. Furthermore, they contended that because assuming the caregiving role is generally not expected of men, others are more likely to notice the care that men are providing and to assist them with caregiving to a greater degree than they would for women. Eleven investigators examined gender differences with respect to formal and/or informal support that caregivers received (see Table 1).

In terms of informal caregiving task support, several studies reported that men had more informal support than women from friends and family with caregiving tasks (Allen, 1994; Ingersoll-Dayton et al., 1996; Pruchno & Resch, 1989; Stoller & Cutler, 1992). In contrast, two studies (Collins & Jones, 1997; Horowitz, 1985) reported no gender differences in informal support. Although Horowitz did not find overall differences in family support between sons and daughters, she did report that sons had more support from their spouses than did daughters.

A few studies examined whether men and women caregivers differed with regard to the number of formal services or supports that they used. Barusch and Spaid (1989) and Horowitz (1985) found no gender differences in the overall number of formal services that
caregivers used. Contrary to these investigators, Stoller and Cutler (1992) found that husband caregivers reported receiving more formal support than wife caregivers. With regard to specific services, Barusch and Spaid (1989) and Tennstedt and colleagues (1993) reported that men were more likely to get home-delivered meals than were women. In summary, results of studies that included samples of adult child caregivers as well as spousal caregivers showed that men received more assistance with caregiving than women. However, inconclusive evidence was found concerning gender differences in formal support for caregiving.

**Health behaviors.**—In a recent study that included a sample of caregivers and noncaregivers, Burton, Newsom, Schulz, Hirsch, and German (1997) reported that women were less likely to engage in several preventative health behaviors than men. These researchers found that women were more likely to report not having enough time for rest and exercise, not being able to rest when sick, not being able to find time for doctors’ appointments, and forgetting to take medications. Because women engage in fewer preventative health behaviors, they may be at greater risk for physical as well as psychiatric morbidity.

**Moderators**

Variables such as personality characteristics, attitudes, and beliefs can act as moderators at any stage of the stress process (Cohen et al. 1995). Evidence is emerging that men and women differ on some important moderators than can influence their susceptibility to psychiatric morbidity. One such moderator is coping resources, which Pearlin and Schooler (1978) define as personality characteristics (e.g., self-mastery) that people can draw upon to help them deal with stress. Men and women may also differ in their preference for coping strategies. With regard to coping resources, Rose-Rego and colleagues (1998) found that women caregivers reported lower mastery levels than men. In addition, Parks and Pilisuk (1991) reported that low mastery was correlated with depression among women but not among men. Neuroticism is a negative personality trait that indicates an individual’s susceptibility to psychological distress, the propensity to use ineffective coping strategies, and an inability to control impulses (Costa & McCrae, 1985; Watson & Clark, 1984). Lutsky and Knight (1994) found that women’s higher levels of depression and psychiatric symptomatology could be explained in part by their higher neuroticism scores and greater use of escape–avoidance coping. Barusch and Spaid (1989) reported that women used a greater diversity of coping strategies than men and that the strategies women used were more effective than those reported by men in coping with psychological problems. Compared with women, men reported that the strategies they used were more effective in coping with interpersonal problems, financial problems, and health-related problems. Hooker, Frazier, and Monahan (1994) found no gender differences among Alzheimer’s caregivers in the use of problem-focused, emotion-focused, or social support coping.

Gender differences in coping preferences have not been consistently found in the coping literature (Miller & Kirsch, 1987), and this may be due in part to differences in the types of life events examined. Wethington, McLeod, and Kessler (1987) found that women perceive life events involving members of their social network as more stressful than do men. In addition, these researchers argued that women are socialized to use less effective coping strategies than men when dealing with stress. Thoits (1991) suggested that women use more diverse coping strategies than men when coping with stressful events because the strategies that they initially use are not effective. Similarly, Pearlin and Schooler (1978) reported that women use less effective coping responses, such as selective ignoring, particularly when dealing with marital and family problems. Therefore, women may use less effective coping modes to manage the stresses of caregiving, which often involve family problems and negative life events that occur to a member of one’s social network. Admittedly, these ideas are speculative and more research is needed to clarify the role that coping plays in women caregivers’ higher levels of psychiatric morbidity. To summarize, a few studies suggest that women may be at greater risk for psychiatric morbidity than men because they appear to be at a disadvantage in terms of important moderators of the stress process, such as coping resources and responses.

**Summary and Directions for Future Research**

The results from these studies demonstrated that women caregivers report more psychiatric symptomatology than men caregivers. Specifically, results showed that women reported higher levels of depression, anxiety, general psychiatric symptomatology, and lower life satisfaction. Moreover, our comparative analysis with comparable noncaregiving samples suggests that women experience excess psychiatric morbidity attributable to caregiving. This review also revealed that women may be more susceptible to psychiatric morbidity than men because they respond differently at all stages of the stress process than men do. Results of these studies indicate that women caregivers face more caregiving demands than men caregivers. In addition, several studies reported that women spend more time providing care and perform more involved day-to-day caregiving tasks than men, such as housework and personal care. As would be expected, the higher levels of objective stressors translate into higher levels of perceived stress (burden and role strain) in women when compared with men. With regard to behavioral responses to stress, several studies demonstrated that men tend to engage in behaviors that put them at lower risk for psychiatric morbidity. Specifically, men caregivers are more likely than women caregivers to get informal assistance with caregiving, to relinquish
the caregiving role, and to engage in preventative health behaviors. In addition, some research suggests that women report lower mastery, higher levels of neuroticism, and greater use of escape-avoidance coping than men, which can moderate each stage of the stress process, thereby putting them at greater risk for psychiatric morbidity. Indeed, it is surprising that gender differences in psychiatric morbidity are not even larger, given our analysis that the observed differences at all stages of the caregiving stress process favor men.

Although there is evidence to support gender differences at each stage of the caregiving stress process that place women caregivers at a greater risk for psychiatric morbidity than men, little has been done to directly test the relative importance of these factors in explaining differences in psychiatric morbidity among men and women caregivers. Studies are needed that systematically control for known correlates of psychiatric morbidity (socioeconomic status, and the caregiver’s health) and explore gender-specific models. More research is also needed that examines whether gender differences vary with respect to the type of relationship between the caregiver and care recipient, and the nature of the recipient’s illness (e.g., physical disability or dementia).

The vast majority of studies included in this review focused on the negative effects of providing care. However, some theorists posit that there are also positive effects associated with caregiving (e.g., Kramer, 1997; Martire & Schulz, in press). For example, Beach and colleagues’ (in press) findings suggest that there may be gender differences in the positive effects of caregiving that favor women. Specifically, these researchers found that among women in high-quality relationships, helping a disabled spouse was related to reduced anxiety and depression. Thus, a fruitful area for future research concerns further establishing the nature of gender differences in the positive effects of caregiving.

Finally, our analysis focused on psychiatric outcomes because the empirical literature targets primarily these types of outcomes. However, a strong argument can be made that it is just as important to examine gender differences in physical health outcomes (Schulz et al., 1997). Future research should focus on differential behavioral health and biological consequences of caregiving among men and women.

**Implications for Interventions and Social Policy**

Results of these studies suggest that women caregivers are at a greater risk for psychiatric morbidity. Thus, practitioners need to target at-risk women caregivers early in the caregiving process before they suffer serious mental health effects. Interventions can be targeted at each stage of the stress process in an effort to reduce women’s risk for psychiatric morbidity. Adult day care and respite care programs as well as interventions that encourage women to be more assertive in seeking assistance from other family members would help to lessen caregiving demands. Therapies aimed at helping caregivers to deal with negative emotions and feelings of burden, counseling that teaches caregivers to reappraise the situation in a more favorable light, and support groups that allow caregivers to share their concerns with others would be useful in helping caregivers to manage perceptions of stress and burden (e.g., Kahana & Kinney, 1991). Support groups that enable caregivers to learn new ways of responding to the challenges of caregiving, and educational programs that emphasize the importance of taking preventative health measures, would help women engage in behaviors that reduce the risk of physical and psychiatric morbidity. In addition, women caregivers could benefit from skills training that teaches them to develop a greater sense of mastery so that they have greater coping resources to draw on during stressful caregiving situations.

Men can also benefit from intervention programs. Stoller (1990) maintained that men tend to relinquish the caregiving role sooner than women, especially if the caregiving role involves day-to-day housework or personal care activities. Therefore, caregiving men may benefit from skills training that teaches them how to perform caregiving tasks that they may have little experience with, such as cooking and cleaning. In addition, the above-mentioned intervention programs would benefit care recipients by improving the quality of care that they receive and by decreasing the likelihood of institutionalization.

However, practitioners need to proceed with caution when designing interventions and treatment programs for men and women caregivers. First, practitioners need to consider the individual needs and circumstances of caregivers, such as the caregiver’s relationship to the recipient (Toseland & Rossiter, 1989) and the caregiver’s needs and desires for services (Hooyman & Gonyea, 1995). In addition, Gwyther (1992) contended that it is important for clinicians to adapt delivery methods for treatment programs that are gender sensitive. She argued that the language used by service providers is especially crucial when designing gender-sensitive treatment programs for caregivers. Women are more likely to respond to labels such as “support groups,” whereas men are more likely to respond when the program is labeled “informational seminar” or “forum.” Furthermore, Gwyther pointed out that clinicians need to consider that men and women have different needs for services. She noted that men caring for an Alzheimer’s patient are more inclined to ask about available task-oriented formal assistance, such as meal services and housekeeping, whereas women are more likely to ask for emotional support in dealing with behavioral, functional, or personality changes in the patient.

The results of this review also have broader policy implications. Several demographic trends point to an increased need for caregivers, coupled with a decreased availability of individuals to provide care. Thus, more women, as well as men, will be called on to provide care in the future. Zedlewski and McBride (1992) projected that the number of elderly people
living in the community with disabilities in activities of daily living will more than double to 9.7 million by the year 2030. In addition, more older adults will be childless and parents with children will have fewer children available to provide care (Zedlewski & McBride, 1992). The U.S. Census Bureau (1995) projected that the parent-support person ratio (the number of adults 85 and over per 100 persons age 50 to 64) is expected to almost triple from 10 to 29 between 1993 and 2050. In addition, because of the relatively high divorce rates among the baby-boomer generation, there may be fewer spouses available to provide care (Dwyer & Coward, 1992). Finally, the increased participation of women in the labor force may further deplete the pool of available caregivers.

Unless broad gender- and family-responsive policies and programs are adopted to address the needs of both patients and caregivers, more women will be placed at risk for psychiatric morbidity and emotional, financial, and physical strain. A number of macro-policy recommendations have been proposed to address these future needs (Foster & Brizius, 1993). First, we should continue to reduce the severity of conditions that require care (e.g., by developing programs to reduce workplace injuries and injuries in the home) and continue research aimed at preventing or curing Alzheimer’s disease and other conditions that compromise the functional ability of older persons. Second, we should increase the options available to caregivers, such as encouraging employers to develop a more family-responsive workplace that allows families to meet caregiving needs more easily and effectively, or developing different means of financing caregiving to improve the range of choices available to caregivers and patients.

At an even broader level, researchers such as Foster and Brizius (1993) and Hooyman and Gonyea (1995) argued that inequities in the provision of care will continue unless we develop policies that redress gender inequities in our current economic and social systems. When a couple has to decide which one of them will quit a job or reduce hours to allow time for caregiving responsibilities, the woman’s job is often the first to go because it is usually the lowest paid. To encourage a more equal sharing of caregiving responsibilities among men and women, these researchers advocate policies that ameliorate gender inequities in pay and career advancement. The rising population of elderly persons, combined with the decreased availability of women to provide care and increasing divorce rates, will necessitate that more men provide care in the future. Thus, these authors have also advocated policies that enable and encourage men to take on caregiving responsibilities, such as employer-subsidized elder care and more flexible work hours. Our analysis of the literature on gender differences in caregiving do not allow us to advocate any one of these many policy recommendations that could be implemented to redress gender inequities in psychiatric morbidity. However, the magnitude of the gender differences are large enough that multiple approaches will be required.

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