

# Psychological Aspects of Caregiving

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Over the past decade, an extensive literature has emerged within psychology related to the caregiving of disabled family members. A search of the major database of psychological research, PsychINFO, revealed over 12,000 articles, books, or chapters related to caregiving. To date, a majority of the psychological literature has focused on caregiving for older adults, including geriatric issues, with less literature devoted to pediatric populations.

Significant and dramatic changes in the delivery of health care within this country have, in part, fueled interest in this area. First, with advanced technologies in medical care, individuals are surviving previously unsurvivable illnesses, thereby resulting in an increase in the need for caregiving by family members. Second, increased costs of health care in this country have resulted in a movement toward home-based care of individuals who in previous years may have been hospitalized or treated in a residential or rehabilitation care facility. As a result of these two factors, record numbers of adults are providing care for disabled parents, spouses, and children.

This chapter focuses on current and future contributions of psychology as a discipline and psychologists as health service providers to caregivers. We also focus on psychological caregiving science and its implications for caregiver practice.

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## **Current Status**

The process of caregiving may be conceptualized as a developmental process affected by multiple variables. A review of the literature reveals that caregivers frequently evidence difficulties with overall adjustment, and are at-risk for the development of depression, anxiety, and somatic symptoms that require intervention. Given that caregivers are at increased risk for serious psychological and physical difficulties, psychologists have specifically focused their efforts on improving the quality of life of caregivers through practice, education/training, research, and policy/advocacy.

### ***Psychological Practice***

The literature suggests that caregiving impacts both physical and mental health. Caregiving has been clearly linked with physical morbidity in studies using a variety of methodologies, including self-report ratings of physical health, health care utilization, and direct measurement of immune function (Shulz et al. 1990). Haug et al. (1999), in a longitudinal 2-year investigation of elderly caregivers, found significant decreases in physical and mental health during this period.

Similarly, Grant et al. (2002a, b) followed a sample of 119 caregivers for 18 months. They found that caregivers had higher systolic blood pressure at rest than did noncaregivers, and the caregivers whose spouses were residentially placed or deceased showed improvement in physical symptoms, while caregivers who continued to provide care showed no change in physical symptoms.

The psychological literature suggests that caregiving is associated with diminished health status, which is related to difficulties in adhering to self-care regimens, including medication adherence, attending appointments with health care providers, and exercising routine health behaviors that are compatible with good health care (e.g., diet, exercise, and sleep; Connell and Gallant 1999).

The physically deleterious impact of caregiving has been addressed by Schulz and Beach (1999), who studied 400 elderly spousal caregivers ranging in age from 66 to 96 years. Findings revealed that even after controlling for demographic factors, illnesses, and subclinical cardiovascular disease, spouses who provided care and simultaneously reported perceived emotional and mental strain had higher frequencies of mortality than did noncaregiving comparison controls. These data suggest that caregiving is an independent risk factor that compromises health and is also associated with mortality.

### ***Caregiver Variables***

Specific caregiver characteristics play an important role in predicting the physical and psychological well-being of caregivers. These characteristics identified in the literature include ethnicity, gender, social support, stress appraisal, and coping style.

*Ethnicity* The majority of studies examining ethnicity have focused on the differences between African-American and Caucasian caregivers (for review see, Dilworth-Anderson et al. 2002). In general, findings reveal that, relative to their majority Caucasian counterparts, minority caregivers report greater social supports from informal social networks. In addition, some investigations have demonstrated fewer depressive symptoms among African-American caregivers relative to other groups, although other studies have revealed few differences (Dilworth-Anderson et al. 2002). Differences in coping strategies among African-American caregivers (Differences in coping strategies used by African-American, as opposed to those used by Caucasians) have been found in some studies. For example, African-American caregivers evidence greater use of prayer and religion as a means of coping, relative to their Caucasian counterparts. Clearly, there is a dearth of literature related to cultural and ethnic variance in adaptation to the caregiving experience. The field is ripe for additional studies in this area, particularly research focusing on specific cultures and ethnic groups other than African-American and Caucasian individuals (e.g., Asian-Americans, Hispanics).

*Gender* In the majority of studies reviewed, female caregivers have reported more psychiatric symptoms than their male counterparts (Yee and Schulz 2000). Bookwala and Schulz (2000), in an investigation of approximately 300 elderly spousal caregivers, provided important data indicating that women experience greater stressors and depressive symptoms associated with the caregiving experience than do their male counterparts. Further, some experts have suggested that women respond differently to the role demands associated with caregiving than men (Yee and Schulz 2000). However, females were found to be personally engaged in a greater number of caregiving behaviors, while men were more apt to obtain informal assistance with caregiving tasks. In addition, males and females have been found to employ differential coping strategies. For example, in a longitudinal investigation of parents of adult children with mental retardation (Essex et al. 1999), mothers were found to use more problem-focused coping strategies relative to fathers. No differences were found for emotion-focused coping strategies. In addition, less use of emotion-focused coping strategies relative to problem-focused coping styles buffered the impact of caregiving for mothers, yet not for fathers.

*Social Support* Social support is often operationally defined as the number of individuals who the caregiver may turn to for utilitarian support, social and activity support, and refers to the caregiver's satisfaction with perceived support. Caregivers who have a strong social network with which they are satisfied are more likely to have a positive caregiving experience than those with a perceived weaker social support network (Dunkin and Anderson-Hanley 1998). Specifically, caregivers who report greater satisfaction with their social support network reveal less depressive symptoms, greater life satisfaction, and fewer health problems. In fact, the issue of social support is a robust predictor of caregiver outcome and a viable predictor of outcome in caregivers of patients with stroke (Grant et al. 2000), cancer (Gilbar 2001), and dementia (Pot et al. 2000), as well as for children with chronic health conditions (Horton and Wallander 2001).

*Appraisal of Stress* Some experts have suggested that an individual's response to stress is contingent upon the appraisal of a stressor's significance (Lazarus and Folkman 1984). Some investigators have applied this model to the caregiving literature and, not surprisingly, found a general consensus that caregivers who appraise their experiences as more stressful generally evidence poorer outcomes. For example, Harvey et al. (2001) investigated 154 caregivers and found that negative appraisal strongly predicted psychological distress (Harvey et al. 2001).

*Coping* Coping strategies, such as problem solving skills, may be the most important predictor of adjustment among caregivers (Chwalisz 1996). Social problem solving involves effective coping responses to everyday problems. A study of caregivers of stroke victims found that social problem-solving abilities were related to caregiver depressive behavior and health (Grant et al. 2001). In a study examining stress in parents of children with autism, distancing (acting as if nothing is wrong) and escape-avoidance coping styles led to increased depression (Dunn et al. 2001). Failure to use coping styles such as positive reappraisal (being inspired, finding faith) and confrontive coping (expressing anger) were associated with poorer outcomes. In a study of the families of 174 children with traumatic brain injuries or orthopedic injuries, acceptance of the disability was associated with lower burden, while denial was associated with greater distress (Wade et al. 2001).

Some researchers have hypothesized that specific coping strategies are more effective in certain situations (goodness-of-fit; Lazarus and Folkman 1984). For example, problem-focused efforts may be more effective in controllable situations while emotion-focused strategies may be more effective in uncontrollable situations. Park et al. (2001) tested this hypothesis using a group of 305 gay men (244 caregivers for HIV positive partners and 61 noncaregivers). They concluded that goodness-of-fit was very important for problem-focused coping and somewhat important for emotion-focused coping.

Schulz et al. (1997) examined the health effects of caregiving in over 500 elderly married couples in which the spouse's affliction with an illness resulted in health problems as well as problems associated with alterations in mental status. Findings revealed that over one-half of the caregivers were found to have adverse mental or physical sequelae related to the caregiving experience. Specifically, caregivers participating in this investigation relative to comparison controls were found to have higher rates of depressive and anxiety related symptoms. These caregivers evidenced poor self-care behaviors, including inadequate rest and exercise. In addition, they received less medical care and a higher frequency of prescriptive medications than their counterparts who were not involved in the caregiving experience. Lack of time and energy for self-care has been implicated as a causal factor in caregivers' distress.

*Depression* In terms of the psychological adjustment of caregivers, the presence of depressive symptoms is the most frequently cited condition. Grant et al. (2000) examined self-reports of psychological adjustment among caregivers of stroke survivors. Findings revealed significant depressive symptoms among caregivers that were best predicted by levels of social support and physical functioning.

Schulz et al. (1995) provided a careful review of studies of caregivers of patients with dementia. Findings revealed a high prevalence of depressive symptomatology among caregivers. More importantly, those investigations that employed structured diagnostic interviews revealed high rates of clinical depression and anxiety. Similarly, in a review of studies regarding the impact of stroke on caregivers, Low et al. (1999) found a pattern of increased strain, depression, and anxiety in caregivers of stroke survivors.

Schulz et al. (1990), in reviewing the literature regarding the psychiatric effects of caregiving, concluded that most studies reveal elevations in depressive symptoms among caregivers when compared to noncaregiving comparison controls. Some caregivers were also at increased risk for psychiatric illness. Although many of the participants in the various studies met specific criteria for a psychiatric disorder, it is difficult to differentiate true psychiatric pathology from typical reactions to those stressors associated with the caregiving experience.

Marks et al. (2002) presented data from a very large study employing over 8,000 participants. Findings revealed important information to suggest that prior to the caregiving experience, adjustment problems were essentially nonexistent. However, with the commencement of the caregiving experience, depressive symptomatology among caregivers showed a marked increase. Interestingly, in some cases, although the transition was associated with more depressive symptoms, some caregivers also reported increases in life purpose.

Perhaps not surprisingly, given the data regarding the prevalence of psychiatric distress among caregivers, several studies have found that caregivers are more likely to be using psychotropic medications (Schulz et al. 1995) than those who are not providing care for the disabled. The aforementioned studies are important as the data suggest significant health and mental health risk associated with the caregiving experience.

However, findings have revealed marked variability in overall adjustment associated with the caregiving experience. As noted previously, one-half of the samples in the Schulz et al. (1997) investigation demonstrated adequate adaptation, while the remainder evinced significant adjustment difficulties, including mental and physical strains. We review interventions that show particular promise.

### ***Education and Training by and for Psychologists***

Another body of literature has focused on the efficacy of psychoeducational approaches in assisting caregivers. In their review of the literature, Sinnakaruppan and Williams (2001) conclude in support of the importance of education for caregivers that the pervasive need among caregivers of the head injured is information. Specifically, caregivers wanted honest information about the behavioral sequelae of head injury and strategies for managing behavioral changes (e.g., agitation and emotional lability) in the person needing care. Group interventions often focus on both education and social support. Educational interventions are typically provided in a package

of several techniques and strategies designed to assist caregivers in their efforts. However, patient education is significantly under-administered, and when such programs are implemented, the patient as well as the caregiver frequently misses or does not attend to much of the information provided. According to Toseland and Rossiter (1989), the typical group intervention provides education and knowledge about the patient's condition, encourages self-care behaviors for the caregiver, and focuses on the importance of social support for the caregiver. Studies that have examined attendance, requests for additional groups by caregivers, and subjective reports from both the participant and the provider, have generally reported positive effects. However, when outcomes are measured using standardized instruments in well-designed clinical trials, significant group effects are generally lacking (Toseland and Rossiter 1989).

### ***Promotion of Health Behaviors***

Given the rather guarded prognosis for caregiver health (including cardiovascular risk factors), predisposing these individuals to cardiac problems and even mortality, many of the intervention packages have included positive health behaviors as part of their core ingredients. Unfortunately, with the exception of exercise programs, these health-promoting components have rarely been independently evaluated.

King et al. (2002) conducted a randomized controlled trial of a home-based exercise program for 100 female caregivers. The experimental group received 15–20 min phone calls 1–2 times per month to monitor exercise progress and to provide feedback to the caregivers. The control group received phone calls that only included nutritional advice. Both the control and experimental arms demonstrated improvements in measures of psychological distress. In addition, and most importantly, the exercise group demonstrated reductions in stress-induced cardiovascular reactivity and improvements in quality of sleep.

### ***Social Problem Solving Therapy***

One of the most promising caregiver interventions is social problem-solving therapy. This treatment teaches caregivers to use problem-solving skills to address specific caregiving issues (e.g., transportation, medical crises situations, and loneliness) and to manage negative responses (i.e., difficulties in patient management, feelings of guilt, and sexual problems) to caregiving. In a review of the literature regarding psychosocial interventions for caregivers of individuals with dementia, Pusey and Richards (2001) conclude that those interventions employing a problem-solving and behavioral approach were generally effective in enhancing psychological well-being, with results affecting coping, stress, and decreasing depression.

Grant et al. (2002a, b) examined a 13-week telephone problem-solving intervention study for caregivers of recent stroke survivors. This well-designed study

included a control group and an attention control group. Findings revealed positive outcomes for the problem-solving arm, including enhanced problem-solving skills, better physical and mental health, and better caregiver preparedness relative to the control groups.

## ***Research***

The methodological rigor across psychological studies on caregiving has been somewhat variable, although there has been some excellent research characterized by well-controlled study designs, extremely large cohorts of participants, and measures with sound psychometric properties. Although the majority of studies have been disease-specific (e.g., focusing on patients with closed head injury and dementia), some research suggests that response to caregiving is not disease specific; rather, the adjustment of the caregiver, in part, is due to individual characteristics of the caregiver rather than patient characteristics.

The literature regarding intervention programs for caregivers has improved greatly in the past decade. Early investigations focusing on intervention programs for caregivers were typically weaker than more recent studies, and the earlier studies often failed to incorporate the gold standard measurement and clinical controls typically employed in controlled clinical trials. The initial studies were often not experimental in design; specifically, they did not employ random assignment to treatment groups, nor did they include control groups. Further, they often failed to employ standardized instruments and instead relied extensively on the use of clinical impressions of health care providers and on self-reports of satisfaction from the caregivers. The majority of these investigations focused on social support, psychoeducational approaches, self-help groups, respite care, and behavioral approaches.

The corpus of literature suggests that some caregivers demonstrate better adaptation to the caregiver role than others. Interestingly, we have reviewed evidence to suggest that males from minority populations may cope better than their majority White female counterparts. In addition, evidence suggests that those individuals who have better established social support networks, those who appraise the task as less stressful, and those who evidence more adaptive coping skills tend to fare better in the caregiving role.

Despite lacking empirical rigor, the findings of earlier studies generally yielded positive results, suggesting that caregivers were satisfied with the treatment programs provided and endorsed benefits from them. Unfortunately, more recent studies, which employ better experimental methodology and standardized outcome measures, have produced less favorable results and have called into question previous assumptions about the efficacy of many caregiver interventions. Thus, the more rigorous the design of these intervention trials, the weaker are the findings to support their efficacy. Cooke et al. (2001) reached a similar conclusion after reviewing 40 studies that examined the effect of psychosocial interventions for caregivers. These authors reported that two-thirds of the intervention studies did not demonstrate improvement on any outcome

measure. Those studies that did yield some positive effects include respite care, education, exercise programs, and social problem-solving therapy.

### ***Respite Care***

Respite interventions typically provide services such as daycare, home respite care, and institutional respite care. A meta-analysis of eight respite/care planning studies revealed a small to moderate effect of this type of intervention on caregiver distress (Knight et al. 1993). Results of such studies often show that the caregivers want continued respite care and report positive outcomes on nonstandardized measures, such as a reduction in feelings of isolation and increased self-esteem. However, group differences have typically not been demonstrated on well-standardized and psychometrically sound instruments, including caregiver burden, stress, or mood disturbance (Bourgeois et al. 1996). Interestingly, several authors have noted that families are reluctant to use respite services; these opportunities are often underutilized. Given the findings that respite care has shown some benefit for patients, including fewer hospitalizations and greater community involvement, additional efforts are needed in support of caregivers' use of respite interventions, especially at earlier points in the caregiving process.

### ***Social Support***

Given that social support has been demonstrated to predict good adjustment and adaptation during the caregiving process, numerous intervention efforts have focused on evaluating the efficacy of social support clinical interventions. Interventions with a social component typically involve support groups, social skills training, scheduled social activities, and interventions that aim to teach the caregiver to recruit social support from existing social networks.

The majority of studies that have demonstrated a positive effect of social support have used social support in combination with other interventions, such as education. Pillemer and Suitor (2002) conducted a study to examine the independent effect of social support enhancement on 115 caregivers of individuals with Alzheimer's disease. The investigation employed an intervention that included peer volunteers who also had a family member with Alzheimer's. These volunteers were trained to provide social support to the targeted caregivers and to avoid advice giving or problem-solving. Each volunteer was individually matched to a treatment group participant and visited the participant over an 8-week period. Findings revealed no treatment effect on either caregiver depression or self-esteem, despite very positive evaluations of the program by treatment participants. These results suggest that social support alone is unlikely to have a dramatic effect on the domains assessed. However, future research may demonstrate the efficacy of social support interventions that aim to influence participants' recruitment of social support networks from their environments.



## ***Policy and Advocacy***

For this reason, we conclude with recommendations for future programmatic and research efforts that psychology and psychologists can contribute to the science and practice of family caregiving.

## **Determinants of Outcome for Caregivers**

Our review of the literature suggests that there are specific variables that mediate and moderate the overall adjustment and adaptation of the caregiver. Both patient variables and caregiver variables are associated with the general outcome of caregivers in response to the caregiving experience.

### ***Patient Variables***

Patient variables such as diagnosis, patient age, and types of behaviors have been evaluated as possible mediator or moderator variables between caregiving and distress. Interestingly, most evaluated patient variables are not strongly related to caregiver distress. In general, most studies have not found positive associations with variables such as functional impairment, cognitive impairment, and specific diagnosis of the patient; patient variables that have been associated with caregiver distress in the research literature include patient problem behaviors and the patient's overall level of impairment.

In a review of the literature related to dementia caregiving, Dunkin and Anderson-Hanley (1998) found that behavior problems among patients, including agitation, argumentativeness, and combativeness, present a greater burden to caregivers than do actual functional impairments (e.g. difficulties with daily living skills) or psychiatric impairments (e.g., delusions and hallucinations). For example, Anderson et al. (2002) examined behavior problems in individuals with severe traumatic brain injury. Findings revealed that high levels of behavior problems affecting management significantly influenced familial problems and, as a result, increased psychological distress among caregivers.

Further, in addition to behavior and management problems associated with the care of a disabled patient, the overall level of impairment has shown to be an important factor in caregiver distress. For example, Schulz et al. (1990) reviewed the literature regarding the psychiatric effects of caregiving on the caregiver and found that caregivers of patients with greater impairments exhibited more depressive symptomology. In a review of studies focusing on burden among caregivers of the mentally ill, all studies revealed positive associations between depressive symptomology among caregivers and amount of care and burden. Thus, the greater care provided, the greater the psychological burden. However, the specific diagnosis of

the patient was not associated with reported burden in caregiving (Baronet 1999). The general corpus of findings suggests that patients who evidence greater physical and emotional impairments have caregivers who exhibit and report greater distress. Specifically, the data suggest that the presence of behavior and management problems among patients is associated with the greatest levels of distress among caregivers. However, an interesting finding is that regardless of the level of impairment, caregivers who have a close relationship with the patient are less distressed than are those who do not have this type of relationship (Dunkin and Anderson-Hanley 1998).

In summary, patient variables are generally less salient than caregiver variables in predicting caregiver adaptation. The most important patient variables include the patient's problem behaviors and overall level of impairment, and caregiver variables such as caregiver demographics, social support, and coping responses play important roles in predicting outcome. Recently, several researchers have recognized the need to synthesize this information to create a comprehensive model of caregiving. The dominant models of caregiving are stress process models. Several related stress process models based on Lazarus and Folkman's stress-appraisal-coping paradigm have been proposed (1984). In its simplest form, this model states that an individual's response to a stressor depends on the individual's appraisal of the significance of that stressor. Szmukler et al. (1996) applied this model to caregiving and suggested that the caregivers' response (e.g. adaptive coping, depression, etc.) to stressors such as caregiving demands depends on the judgment of the significance of the demand. This model, known as the stress-coping model of caregiving has been supported by research showing that caregivers who make negative appraisals of caregiving exhibit more psychological distress (Harvey et al. 2001). The stress process model of caregiving proposed by Haley et al. is also an adaptation of the stress-appraisal-coping paradigm. It suggests that a variety of factors, including stress appraisal, social support, and coping responses, mediate the relationship between caregiving stress and caregiver well-being (Goode et al. 1998). The stress process models play an important role in guiding our understanding of those factors that mediate the physical and psychological impact of caregiving and of those interventions that are most likely to be effective.

### ***Education and Training by and for Psychologists***

Our review of this growing psychological caregiving literature suggests that more research needs to be conducted to evaluate the efficacy of packaged interventions involving education, social support, and exercise. Promising interventions include cognitive behavioral approaches that aim to teach problem solving and other coping skills. Further, research that focuses on positive adaptation versus inadequate adaptation will be important in both predicting psychological and physical risk factors as well as identifying essential ingredients for programs of psychological intervention.

## ***Research***

Current research falls short in the identification of a specific mechanism underlying health and mental health adaptation to the caregiving experience. Studies focusing on mediating and moderating variables (e.g., immune response and self-care behaviors) represent a first step in the identification of mechanisms underlying both positive and poor outcomes.

Clearly lacking in this area are sound, controlled clinical trials designed to evaluate treatment outcome. Frequently, the available literature has revealed studies with less adequate control groups, and when there are control groups, there is a failure to randomly assign individuals to groups. In addition, many of the studies are characterized by dependent measures that are not gold standard, and raters that are not blind to treatment conditions. When studies in this area have been more methodologically rigorous, treatment effects have frequently been small or even nonexistent.

Additional studies characterized by methodologically sound research designs are sorely needed in this area. In particular, longitudinal studies are needed, as they will examine adaptation over time and capture the developmental changes inherent in the caregiving experience, functions in which cross-sectional studies are limited. Given the compelling data with regard to individual differences and the prediction of outcome, future studies will need to capture the heterogeneity of caregiver populations to determine the specific variables that predict adjustment to the caregiving experience. For example, studies of ethnicity have been primarily devoted to African-American caregivers, while there is little research focused specifically on caregivers who are Hispanic and Asian-American. As noted previously, other methodological problems in this area have included poor control groups, small sample sizes that limit generalizability, and dependent measures of questionable reliability and validity.

With respect to treatment studies, problems characteristic to this research area include dependent measures and unrealistic end points given the short time period of intervention. Within this very complex area of intervention, it is necessary to have treatment studies that either follow caregivers over a lengthy time period to permit an adequate assessment of the intensity of the intervention, or to have outcome variables specific to the skills being taught in the intervention program. Further, as with many treatment outcome studies, samples have been primarily those of convenience, with all participants selected on the basis of seeking services. This entire program of research has been difficult to interpret due to ambiguity in operational definitions, which are necessary to programmatic research. For example, the literature has been less than clear with regard to the operational definition of "caregiver," with definitions ranging from an individual in the home where the caregiver is the only caregiver, to an individual providing occasional support, to a relative residing in the community.

Many critical questions remain to be addressed. First, it is recommended that future studies examine caregiver characteristics and then match them to specific interventions that might prove efficacious. For example, one might predict that those individuals who experience significant isolation as a result of the caregiving experience may in fact benefit from social support interventions, while those caregivers

with individual skill deficits might benefit from a coping skills training program. In addition, many of the available treatment programs have been characterized by multi-push efforts whereby several interventions are provided (e.g., information giving and social support and skills training). For those programs that have proved to be effective, research that attempts to dismantle the essential ingredients of these programs will prove fruitful. Also, there is a need for greater theoretical focus on research in caregiving. This includes identifying underlying mechanisms for relationships and interventions that rely on specific models demonstrated in correlational studies. In particular, stress process models have shown promise for guiding research efforts with caregivers. Finally, the development of a psychometrically reliable and valid instrument for identifying the needs, symptoms, and critical competence of caregivers represents a future important goal in this area.

### ***Policy and Advocacy***

In this chapter, we anticipate that significant policy implications will emerge from a program of psychological research. In particular, we hope that a standard of care will be developed for caregivers based on empirical evidence. Further, policy recommendations need to develop strategies to identify caregivers in the community (e.g., the use of outreach coordinators and the use of care coordinators in primary care settings) and provide empirically supported intervention programs ideally matched to the caregivers' specific needs. Finally, it has been our clinical experience that many caregivers perform exceptionally well in the face of significant demands and adversities. Systematically studying these individuals who evidence good adaptation to the caregiving experience will be a productive task. Hopefully, we can focus on the identification of the resources and beliefs that they bring to the caregiving experience. It is hoped that by this type of systematic investigation, we can effect positive change and improve the quality of life for both patients and their caregivers.

### **Conclusions**

Caregiving is affected by the caregiver's physical and mental health. A growing psychological literature suggests that caregivers are at risk for a number of psychiatric disorders, including depression, anxiety, and other adjustment difficulties.

The caregiving experience places individuals at risk for general health problems, including serious chronic diseases. Compromised caregiver health has been attributed to poor immune responses associated with stress, coupled with poor self-care behaviors, such as lack of sleep, poor nutrition, lack of exercise, and the failure to comply with prescribed treatment procedures and protocols.

We are only beginning to understand the deleterious effects caregiving can exert on emotional adjustment and adaptation. Fortunately, variables that are likely to

be associated with positive adaptation to the caregiving role are emerging from caregiving research. Nonetheless, this literature is only in its beginning stage, and given the increasing strides in medical technologies and health care, more individuals will likely survive catastrophic illnesses and disabilities, and will need caregivers.

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