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Elderly caregivers' underutilization of respite services

Miyako Baba

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ELDERLY CAREGIVERS' UNDERUTILIZATION
OF RESPITE SERVICES

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements of the Degree
Master of Arts
in
Psychology

by
Miyako Baba
June 2000
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6-6-00 Date
ABSTRACT

Family caregivers of elderly individuals experience strain. It has been reported that respite services are effective in helping caregivers reduce strain levels. Nonetheless, many caregivers don't utilize respite services. Factors related to caregivers' use of respite services have been investigated, and studies have shown that caregivers' knowledge about services doesn't necessarily lead to an increased utilization rate of services. This may be due to the fact that prior studies have failed to clarify the definition of knowledge about respite services. The present study defines caregivers' knowledge about one type of respite service, adult day care (ADC), based on several different dimensions of ADC. Using a sample of 79 female potential caregivers of Alzheimer's patients, the study examines how different types of knowledge about a hypothetical ADC center affect the likelihood of potential caregivers' use of the service. In addition, potential caregivers' attitudes toward using ADC are examined in relation to the potential use of hypothetical ADC.

The study addresses three hypotheses: 1) the likelihood of potential caregivers' use of ADC is influenced by the type of knowledge that they have about ADC; 2) potential caregivers' attitudes toward using ADC are influenced by the
type of knowledge that they have about ADC; and 3) there is
a positive relationship between potential caregivers'
attitudes toward using ADC and the likelihood of caregivers'
use of ADC after they receive information about ADC.

All participants were first given the same vignette
describing a hypothetical caregiving situation and ADC;
based on which, they reported the likelihood of, and
attitudes toward, using ADC. Then, participants were given
one of four types of vignette depicting different dimensions
of ADC. Based on the vignette, participants again reported
the likelihood of, and attitudes toward using ADC.

To test the first and second hypotheses, a multivariate
single-factor between-subjects multi-group pretest-posttest
design was used. To test the third hypothesis, a bivariate
 correlational design was used.

No support was found for the first and second
hypotheses. The third hypotheses was supported. Discussion
and implications for practice and future research are
presented.
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LITERATURE REVIEW

Life expectancy in the U.S. has been increasing over the past several decades. In 1980, men's life expectancy at birth was 70.0 years and women's was 77.4 years. In 1996, men's life expectancy at birth was 73.1 years and women's was 79.1 years (National Center for Health Statistics, 1998). The number of people aged 65 years or older was 34.1 million in 1997, which indicates that one in every eight people in the U.S. was 65 or older in that year (Administration on Aging, 1999). The older population is expected to continue to grow. By the year 2010, the number of people over 65 will reach 39.4 million, and the proportion of the older population to the entire population will also continue to increase (U.S. Bureau of the Census, 1996).

This dramatic change in the demographics of old age raises many important issues. What is particularly striking are health-related issues. As people live longer, health-related issues become inevitable for many elders. For example, about half of the older population experience arthritis, 36% experience hypertension, 32% experience heart disease, and 29% experience hearing impairments (Administration on Aging, 1999). In addition to these symptoms, older people are at risk for dementia. One
increasingly diagnosed form of dementia is Alzheimer's disease, which accounts for about 50 to 60% of all U.S. dementia cases (Mace & Rabins, 1999). Alzheimer's disease attacks one in every ten people over 65 and about 50% of people over 85 in the U.S. (The Alzheimer's Association, 1998a).

The health problems of older people have a significant impact on their lives. It is reported that 14% of the older population have trouble in managing tasks such as eating, dressing, and bathing, and that 21% have trouble in managing tasks such as cooking, making a phone call, shopping, and financing (Administration on Aging, 1999). It is apparent that for many elders, increased life expectancy is accompanied by serious health problems and limitations on everyday functioning.

Despite the difficulties in old age, however, the majority of older people live in community settings. Those who live in nursing homes account for only 4% of people over 65 (Administration on Aging, 1999). This implies that, whether community-residing elders live with their families or alone, they turn to their families if their health deteriorates and they need help from others. According to Cohen (1983), about 95% of elders living in community settings are offered support from their family members.
Given the demographics of the older population, it is not surprising that issues related to family caregivers, as opposed to paid, professional caregivers, have been investigated by a number of researchers.

**Caregivers of the Elderly**

Who are these family members caring for elders? A consistent finding in previous studies is that the majority of family caregivers are women (e.g., Beisecker, Wright, & Chrisman, 1996; Cohen-Mansfield, Besansky, Watson, & Bernhard, 1994; Montgomery & Borgatta, 1989; Mui, 1995). It is also reported that elders are most likely to be cared for by their adult children, followed by their spouses (e.g., Cohen-Mansfield et al., 1994; Montgomery & Borgatta, 1989). At the same time, however, as elder parents receive assistance from their adult children, adult children are themselves aging. According to Brody (1985), one in ten people over 65 years old have children over 65 years old. This implies that due to the growing population of elders, people besides adult children and spouses may become more involved in family caregiving in the future. For instance, there is a possibility that some people will take care of not only their parents but their grandparents at the same time.

Caregivers engage in a variety of tasks. Two types of
daily activities that older people may need help with include activities of daily living (ADLs) and instrumental activities of daily living (IADLs). According to the Alzheimer's Association (1998b), ADLs are defined as "personal care activities necessary for everyday living, such as eating, bathing, grooming, dressing, and toileting;" IADLs are defined as "secondary level of activities .... important to daily living, such as cooking, writing, and driving" (Alzheimer's Association, 1998b, cited from the World Wide Web). ADLs also include activities such as getting in and out of bed and moving around inside the house. IADLs include activities such as managing money, telephoning, and doing heavy and light housework (Dwyer & Coward, 1991).

Dwyer and Coward (1991) found that adult sons and daughters gave their parents more help with IADLs than with ADLs. When adult sons and daughters were compared, however, adult daughters helped their parents with IADLs and ADLs about 2.6 times and 3.2 times as often as adult sons did, respectively. This study, too, indicates that women are more involved in family caregiving.

Caregiver Strain

Family caregivers tend to experience strain or burden when they care for their older relative (e.g., Coen,
Caregiver strain is defined as "a weight that is dragging down the quality of life of the caregiver and negatively influencing his or her physical or mental health," (Atchley, 1997, p. 218). What makes caregiving a difficult task and why is it that many caregivers experience strain? Studies show that levels of caregiver strain are affected by care recipients' characteristics (e.g., Coen et al., 1997; Harper & Lund, 1990), caregivers' characteristics (e.g., Draper, Poulos, Poulos, & Ehrlich, 1995), and their living arrangements (e.g., Kosberg, Cairl, & Keller, 1990).

Care Recipients' Characteristics

Behavior problem/disturbance. Behavior problems of care recipients are one of the most important predictors of caregiver strain. Harper and Lund (1990) show that 30% of the variance in caregiver strain is explained by behavior problems of the elderly. In this study, men who care for their wives were more likely to report burden when children were around in the same home. According to Harper and Lund, this is presumably because the men were afraid that children and other family members, who might not be familiar with mentally-impaired older people, may be harmed by behavioral disturbances of the elderly. In a study by Coen et al. (1997), behavior disturbance was also the strongest
predictor of caregiver strain. According to Kosberg et al. (1990), behavior problems are related not only to overall strain but to poor health of caregivers. Draper et al. (1995) also note that behavior and mood disturbance of care recipients contribute to caregivers' strain and poor psychological health. Caregivers for the elderly with dementia also report suffering from sleep disturbance because the elderly frequently wake them up at night and they cannot go back to sleep (McCurry & Teri, 1995).

**Functional and cognitive impairment.** The degree of functional impairment of the care recipient is also related to caregiver strain (Draper et al., 1995; Kosberg et al., 1990) and to health of caregivers (Kosberg et al., 1990). Harper and Lund (1990) note that male caregivers in their study reported experiencing strain due to cognitive impairment of care recipients. Caserta, Lund, and Wright (1996) found that higher levels of functional and cognitive impairment contributed to greater caregiver strain because care recipients could not be left alone and caregivers had to spend a great amount of time watching or caring for them. Furthermore, Harper and Lund (1990) found that for families who visit and care for their older relative in nursing homes, progression in the relative's disease is a factor for caregiver strain, because these caregivers don't see their
relative every day and are therefore more likely to notice the deterioration in the relative's health when they visit him.

**Caregivers' Characteristics**

**Gender.** It has been reported that female caregivers are more vulnerable to strain compared to male caregivers (e.g., Horowitz, 1985; Kosberg et al., 1990; Stoller, 1983). This may be because female caregivers spend more time caring for an older relative and are responsible for a larger number of caregiving tasks than male caregivers (Dwyer & Coward, 1991; Neal, Ingersoll-Dayton, & Starrels, 1997). In addition, Doty, Jackson, and Crown (1998) argue that women are more likely to assume a caregiver role even when they are employed.

Situations surrounding women who play multiple roles (e.g., employee, caregiver, wife, mother) are complex. For example, one study (Stroller & Pugliesi, 1989) reports that female caregivers' other roles exacerbate strain if caregiving needs of an older relative are high. Another study (Stephens & Townsend, 1997) reports that when female caregivers have a stressful job, it contributes to increased strain; when they have a satisfying job, it helps reduce strain. According to Martire, Stephens, and Atienza (1997), however, having a satisfying job doesn't necessarily enhance
female caregivers' mental health. The researchers found that when female caregivers already experienced high levels of caregiving strain and also had a highly satisfying job, they were more likely to be depressed.

It appears that because of female caregivers' assumed caregiver role and the larger number of caregiving tasks that they are responsible for, female caregivers are more likely than males to experience emotional conflicts resulting from each role. That is, female caregivers may be more vulnerable to strain than male caregivers not because of the number of roles per se, but because of the complex physical and cognitive demands resulting from multiple roles.

Spouse as caregiver. When looking at different dimensions of caregiver burden, Caserta et al. (1996) significantly predicted "time dependence burden" and "developmental burden" based on whether caregivers were spouses of a care recipient. In this study, spouse caregivers were more likely to experience both time dependence burden and developmental burden. Time dependence burden represents "time demands and restrictions that caregiving can impose on caregivers" (Caserta et al., 1996, p. 22). Developmental burden that spouse caregivers experience is explained as follows:
Spouses could be more susceptible to feeling ‘off time’ as a result of their caregiving situation. The expectations that they had for this particular point in their life most likely involved their husband or wife. For instance, plans of looking forward to spending retirement years together were replaced by a lifestyle devoted to caring for one who is functionally deteriorating and in need of a growing amount of attention. Adult children, however, may not experience the same sense of finality and disruption of future plans when caring for an impaired parent (Caserta et al., 1996, p. 31).

**Caregivers’ health.** Caregivers’ physical health is also related to strain that they experience. Since caring for an older person involves heavy tasks, caregivers who are not in good shape may suffer increased strain because of the heavy caregiving tasks and low levels of stamina (Draper et al., 1995).

**Social support and social interaction.** Research shows that social support for caregivers is related to decreased levels of strain (e.g., Coen et al., 1997; Harper & Lund, 1990). If caregivers have families and friends who offer emotional and instrumental support to them, caregivers’ strain is likely to be lessened. On the other hand, a lack of social support may worsen caregivers’ strain, since caregiving tasks are their responsibilities alone. In addition to social support that caregivers may receive, opportunities for social interaction are also related to decreased levels of caregiver strain. Kramer (1997), for
example, examined strain levels of husbands who cared for their wives with dementia. She found that husbands suffered from less strain if they were satisfied with their opportunities for social interaction. Draper et al. (1995) also note that a decreased level of social participation negatively affects caregivers' psychological health. As the previous studies show, social interaction seems to buffer caregiver strain, and social isolation could exacerbate caregiver strain. In this sense, the finding, which will be discussed shortly, that caregivers who co-reside with a care recipient experience more strain than those who don't makes sense, since these caregivers have fewer opportunities to take time off from caregiving, go outside, and get involved with others.

**Caregiving satisfaction.** The more caregivers feel satisfied with their role as caregivers, the less strain they experience (Caserta et al., 1996). To be more specific, "developmental burden," which was discussed earlier, and "emotional burden" can be significantly predicted by a lower level of caregiving satisfaction (Caserta et al., 1996). It appears that caregivers need to gain satisfaction from the caregiving experience in order to buffer their strain, especially if they are spouses of, or co-reside with, a care recipient.
Education. When investigating strain of husbands caring for their wives, Kramer (1997) found no difference in strain levels between those with higher education and those with lower education. Of interest, however, is the finding that husbands with higher education viewed the caregiving experience as less rewarding or satisfying than those with lower education. To put it another way, although higher education was not directly related to caregiver strain per se, it did affect the way caregivers thought of their caregiving experience. Kramer (1997) interprets this result in the following way: husbands with higher education are probably used to being in a position requiring intellectual work. Now they play a different role as a caregiver, and they might not find their new role as rewarding as the old position which they were in at work (Kramer, 1997).

**Caregiving Living Arrangements**

**Residential settings.** Caregivers who co-reside with a care recipient experience more strain than those who don’t because the care recipient interrupts caregivers’ daily routines. These caregivers also experience strain because of limited socialization. It is difficult for caregivers to go out with their friends or invite them to the caregivers’ house. Further, caregivers who live with the care recipient report experiencing strain due to the financial burden of
caregiving (Kosberg et al., 1990).

**Respite Services**

These previous studies demonstrate that caregiving conditions that create strain on caregivers are complex, and there appears to be no single best way to handle the strain they experience. However, one of the documented ways to reduce strain levels is the use of respite services (e.g., Gräsel, 1997; Kaye & Kirwin, 1990). Based on the idea that caregivers also need to be cared for, respite services have drawn attention in the literature. Defined as “a service or group of services that provides caregivers temporary periods of relief and rest away from the patient” (Lawton, Brody, & Saperstein, 1989, p.8), respite services are expected not only to give caregivers time for work and other activities, but to refresh them by reducing physical and mental burdens.

Respite services take different forms: inpatient respite care, in-home care, and adult day care.

**Inpatient respite care.** Inpatient respite care can be used by caregivers when they go on a trip (Belsky, 1997), undergo a medical procedure, or just take time off from caregiving (Mace & Rabins, 1999). While inpatient respite care takes different forms such as nursing homes, adult homes, and foster homes (Hegeman, 1993; Mace & Rabins, 1999), skilled nursing facilities (e.g., nursing homes)
account for 40% of the respite services (Hegeman, 1993). Services that inpatient respite care provides include medical care, personal hygiene, recreation, and religious services (Hegeman, 1993). Elders using inpatient respite services have opportunities to enjoy stimulating recreation and socialization (Hegeman, 1993). At the same time, however, those who are confused may be distressed by these changes in their environment (Mace & Rabins, 1999).

Inpatient respite care has been designed to help caregivers continue caregiving for an extended period of time (Angel & Angel, 1997) and delay institutionalizing a care recipient (Lawton et al., 1989). Hegeman (1993) points out, however, that some caregivers consider inpatient respite care as a step toward institutionalization, and that it’s not the purpose of inpatient respite care to encourage caregivers to place a care recipient in nursing facilities permanently.

**In-home respite care.** Professionals who visit and provide services to caregivers and care recipients include homemakers, home health aides, paid companions, nurses, and social workers (Mace & Rabins, 1999). In-home respite care is useful when caregivers or care recipients are sick and cannot go outside (Mace & Rabins, 1993), or when they prefer having someone come to the house (Hegeman, 1993). While one-on-one in-home respite services are more likely to meet
individual needs than inpatient respite care and adult day care, there are some drawbacks in in-home respite services. First, care recipients have fewer opportunities for recreation and socialization (Mace & Rabins, 1999). Second, since in-home respite care is provided privately, it is more difficult to assess the quality of services provided to caregivers and care recipients (Hegeman, 1993). And third, in-home respite care can be highly expensive because it is covered by Medicare only if it’s needed for rehabilitative purposes (Belsky, 1997).

Adult day care. Referring to the National Institute on Adult Daycare, Von Behren (1989) describes adult day care as a community-based group program designed to meet the needs of functionally impaired adults through an individual plan of care. It is structured and comprehensive, providing health, social, and related support in a protective setting during any part of a day, but less than 24-hour care (p. 14).

There are approximately 4000 adult day care centers in the U.S. (The National Council on Aging, 1999). Although adult day care was originally planned to aid older people, caregivers also benefit from adult day care. While elders avoid social isolation by attending adult day care, caregivers can take time off from caregiving tasks (Angel & Angel, 1997). Adult day care offers the elderly a place to make friends and participate in group activities. Even if
the elderly are no longer capable of managing daily activities such as dressing and bathing, they can still enjoy stimulating activities (Mace & Rabins, 1999). A major problem associated with adult day care is transportation. Some adult day care centers provide transportation. If they don’t, caregivers need to drop off and pick up a care recipient at adult day care (Hegeman, 1993; Mace & Rabins, 1999).

**Effects of respite services on caregivers.** How effective are respite services in reducing caregiver strain? How are these respite services evaluated by their users?

After using inpatient respite care, the majority of caregivers in a study by Miller and Goldman (1989) reported that they had felt comfortable with having respite care staff care for their older relative. The caregivers also reported that the inpatient respite care gave them time to relax. Further, most of the caregivers indicated their willingness to use the inpatient respite care again. In Gräsel’s (1997) review on inpatient respite care, it is noted that inpatient respite services are successful in easing caregivers’ strain and depression. Gräsel (1997) mentions that caregivers’ strain levels are kept lower only when caregivers are using inpatient respite care, and that the strain levels go higher again when they have an older
relative back home. It is worth pointing out, however, that inpatient respite care does contribute to reducing caregivers' strain, and that the temporal relief they receive from inpatient respite care could presumably prevent caregivers from burnout in the long run.

According to Kaye and Kirwin (1990), adult day care is also successful as respite care. Caregivers in their study had a high opinion of the adult day care services they were using, and their strain levels became lower than before they started using adult day care.

It appears that caregivers experience reduced strain by using respite services. But is it still true when caregivers are compared to those in a control group? Montgomery and Borgatta (1989) made a comparison between a control group and an experimental group. Caregivers in the experimental group were eligible to use inpatient respite, in-home respite care, and adult day care during 12 months of this study. The results revealed that after the experiment was completed, caregivers in the experimental group reported significantly lower levels of strain than did those in the control group.

These prior studies show that respite care could effectively help caregivers buffer strain. As Gräsel (1997) shows, it is possible that caregiver strain is only
temporarily alleviated when caregivers are actually using respite services. In the long run, however, respite services seem especially likely to benefit elderly caregivers by preventing them from becoming mentally or physically ill. According to prior studies (Caserta, Lund, Wright, & Redburn, 1987; Shope, Holmes, Sharpe, Goodman, Izenzon, Gilman, & Foster, 1993), these respite services are the most needed among a variety of community services (e.g., home-delivered meals, transportation, legal assistance, medical assessment, support groups, respite services etc.).

Underutilization of Respite Services

Despite documented need and effectiveness of respite services, however, prior studies have pointed out an underutilization of community services, including the respite services described above (Caserta et al., 1987; Lawton et al., 1989; Montgomery & Borgatta, 1989). As for adult day care, it is reported that "85% of the day care centers in the United States were operating below capacity at an average of 66% capacity" (Weissert et al., 1990, cited in Cohen-Mansfield et al., 1994, p. 23). As Caserta et al. (1987) point out, respite services are most needed by elderly caregivers, but this doesn't necessarily indicate that these caregivers make good use of such services.

Why is it that many caregivers choose not to use
respite services? Researchers have looked at different factors of underutilization. Some factors relate to the respite services themselves: e.g., availability, accessibility, and quality of programs. Other factors relate to the caregivers and care recipients: e.g., care recipients’ refusal, characteristics of caregivers and care recipients, caregivers’ attitudes, and knowledge about services.

These factors are reviewed in the following sections. Some of these data are based on large-scale assessments of community services in general (e.g., home-delivered meals, transportation, legal assistance, medical assessment, support groups, respite services etc.), while others are based exclusively on respite services. However, both types of literature are worth reviewing since information in each will presumably contribute to a better understanding of the consistent finding that caregivers don’t make good use of respite services in spite of their burdens.

**Availability and appropriateness.** Some types of community services are much less available in rural areas than in urban areas, including caregiver support groups, homemaker services, adult day care, and respite care (Shope et al., 1993). When referral agencies were asked what kind of services were most needed in their community to aid
dementia patients and their families, 52% of the agencies identified respite care as most needed; 36% adult day care; 16% support groups and in-home care (Shope et al., 1993). Even when certain community services exist in an area, they may not meet caregivers' or older people's needs. In the study by Cohen-Mansfield et al. (1994), for example, some caregivers, who considered using adult day care, decided not to use it because programs seemed inappropriate for a care recipient's level of functioning. That is, caregivers perceived that the care recipient was more frail or her dementia had progressed more than other participants'. On the other hand, some caregivers reported that other participants were too impaired compared to an older relative. Cohen-Mansfield et al. (1994) also note that caregivers in their study decided not to use adult day care because of language and cultural differences between their care recipient and other participants. Thus, for the elderly of minority groups, community services are presumably less accessible. Furthermore, another study (Beisecker et al., 1996) reports that even when adult day care is available, it may not be open when caregivers most need it.

Accessibility. Some caregivers choose not to use community services due to their cost and a lack of transportation (Beisecker et al., 1996; Cohen-Mansfield et
Interestingly, however, users are more likely than nonusers of adult day care to express a concern about cost (Beisecker et al., 1996).

**Quality.** In one study, there was a significant, positive relationship between quality of respite care perceived by caregivers and their utilization of that service (Kosloski & Montgomery, 1993). Caregivers may not use community services because they are not satisfied with staff of the services, the ratios of staff to care recipients, or the nutritional value of the meals provided (Beisecker et al., 1996).

**Reaction of care recipients.** Cohen-Mansfield et al. (1994) found that some caregivers in their study chose not to use adult day care because their care recipient didn’t want to attend. Some care recipients didn’t want to attend adult day care because they had a bad impression of adult day care based on when they had attended such a center before. Another study states that 26.2% of caregivers found their care recipient reluctant to use respite services (Looman & Deimling, 1991, cited in Rudin, 1994). Caregivers in the study by Beisecker et al. (1996) expressed a concern for their care recipient and said that he “wouldn’t be happy” or he “wouldn’t stay.”

**Characteristics of caregivers and care recipients.**
Caregivers' age is one of the characteristics related to use of community services. Beisecker et al. (1996) found that younger caregivers were more likely to use adult day care. They argue that this may be because younger caregivers were more likely to be employed and couldn’t leave their care recipient alone, or because younger caregivers were more able to afford adult day care due to their earnings. In the study by Caserta et al. (1987), caregivers were more likely to use community services when they cared for more impaired elderly or when they experienced more burden. Surprisingly, Kosloski and Montgomery (1993) report that caregivers' health is not significantly related to their use of respite care.

**Attitudes.** Recent research has begun to investigate the relations between caregivers' personal attitudes toward caregiving and their utilization of community services. Some caregivers believe that it is their responsibility to provide care to their old family members (Cohen-Mansfield et al., 1994) and that “no one else can do that job” (Beisecker et al., 1996, p. 442). Some caregivers also prefer informal care to community services (Collins, Stommel, King, and Given, 1991) and are concerned with other family members' opinions regarding using community services (Beisecker et al., 1996; Collins et al., 1991). Further, Graham (1989)
notes that using adult day care makes caregivers feel guilty, and therefore they are reluctant to use the service. As Cohen-Mansfield et al. (1994) suggest, women especially may assume personal responsibility to care for their older parents or husbands. Older women, in particular, might care for their relatives out of obligation because of their traditional role as care providers. Furthermore, it is pointed out that caregivers of particular ethnic or cultural groups may feel especially obligated by their cultural values regarding family caregiving (Holmes, Teresi, & Holmes, 1983, cited in Collins et al., 1991).

Knowledge. Finally, underutilization of community services may also be understood through a lack of knowledge about those services available to caregivers. It is obvious that caregivers cannot seek community services unless they are aware that such services exist. Fortinsky and Hathaway (1990) asked “active caregivers” (i.e., those who were currently caring for their older relatives) and “former caregivers” (i.e., those who used to care for their older relatives) about types of information and services that were important for them at the time of diagnosis of their older relatives with Alzheimer’s disease. Seventy-two percent of the active caregivers and 86% of former caregivers reported that written information on Alzheimer’s disease was
"extremely important" at the time of diagnosis. Fortinsky and Hathaway (1990) argue that these caregivers expressed the strong need to be educated and informed regarding the disease and community services, and that the caregivers were not satisfied with the amount of information that they received from health professionals at the time of diagnosis. As Fortinsky and Hathaway (1990) show, it is apparent that information and knowledge play a fundamental role in a caregiving process.

The importance of knowledge in utilizing community services is also reported by Beisecker et al. (1996). They investigated caregivers' perceived benefits of, and barriers to, using adult day care. Among caregivers who had never used adult day care, 17% reported that a lack of information was a barrier to using adult day care. On the other hand, 20% of those who had used adult day care reported that their knowledge was a "motivator" for using adult day care (p. 442). These data indicate that knowledge played a critical role in the caregivers' decision to use adult day care.

At the same time, however, previous research also reports that many elderly caregivers don't use community services in spite of their knowledge about the services. Caserta et al. (1987), for example, studied factors related to utilization of community services. They argue that the
relationship between caregivers' knowledge and utilization of services is "moderate at best" (p. 213), and that caregivers' use of services is not always influenced by their knowledge. Gonyea and Silverstein (1991) make a similar comment on the relationship between caregivers' knowledge and the use of services:

... despite the high levels of both cognitive and functional impairment experienced by ... Alzheimer's victims, the use of formal services by their families was extremely limited. ... despite knowledge of community resources, families do not often choose to use these services. While service knowledge was the strongest predictor of families' utilization of services, it explained only four percent of the total variance in use (pp. 52 - 53).

That is, even when caregivers report having knowledge of community services, a large number of caregivers don't actually try services that they know exist.

Issues Regarding Knowledge about Services

It is clear that there is a relationship between caregivers' knowledge of services and their utilization of community services. But why is it that caregivers' knowledge doesn't necessarily lead to a high utilization rate? Apparently, a number of factors contribute to caregivers' utilization of services, and knowledge is just one of them. Therefore, it is not adequate to try to explain utilization of services merely by assessing caregivers' knowledge. As
discussed earlier, becoming informed of older relatives’ conditions and knowing what kinds of assistance is available to caregivers are fundamental steps for effective caregiving.

Thus, it appears that while basic knowledge of services is a start, we need to examine specific aspects of knowledge that are related to the use of services. Two issues regarding caregivers’ knowledge and utilization of services are: 1) definition of “knowledge” and 2) the relationship between caregivers’ knowledge about respite care and caregivers’ attitudes toward using community services.

Definition of “knowledge.” Prior research has failed to clarify to what extent caregivers know about different types of community services. Questions such as “do you know any community service available in your area?” or “name services which you know are available in your area” (Caserta et al., 1987), or “do you know if fourteen different types of services (on a list) are available in your community?” (Gonyea & Silverstein, 1991) do not adequately analyze how much caregivers are informed of community services. Although they may have heard of such services, it is not clear whether caregivers fully understand the purpose of these community services, beyond being able to recognize the names of such services. That is, the questions asked in the
previous studies are easier for caregivers to answer than questions that require in-depth descriptions of services. Earlier studies note that caregivers may find it difficult to recognize which service is appropriate for older people at different levels of functioning (Beisecker et al., 1996; Gonyea & Silverstein, 1991). These studies imply that caregivers actually don’t understand the purpose and developmental characteristics of different types of services, and therefore they are not motivated to use these services. Consequently, the fact that a high percentage of caregivers report knowing about community services might overestimate their actual knowledge and understanding of these services.

Krout’s (1983) review of the literature on older people's knowledge and utilization of community services makes a similar point: “distinguishing between awareness of a program and knowledge of it” is necessary (p. 155). Therefore, although prior studies of utilization (e.g., Caserta et al., 1978; Gonyea & Silverstein, 1991) argue that caregivers’ knowledge doesn’t always lead to a high utilization rate, it is likely that the studies have failed to make the distinction between awareness and knowledge. That is, without differentiating awareness from knowledge, when underutilization of community services is explained as
lack of knowledge, researchers may actually mean lack of awareness.

To adequately assess the impact of knowledge on utilization, research studies would need to give a more specific definition of knowledge. The question to think about is, knowledge of what? Yeatts, Crow, and Folts (1992) present conceptual frameworks for social service use. According to their conceptual frameworks, knowledge is defined as “information needed by the potential client before service use will take place” (p. 25), and consists of three dimensions: *knowledge of services, knowledge of need,* and *knowledge of procedures*. Knowledge of services means that potential service users are aware that services which are targeted at them exist. Knowledge of need refers to potential service users’ perceived need to use specific services. If they don’t identify themselves as targeted, potential users, they are less likely to ask for such services. Knowledge of procedures means that potential users understand registration processes required to receive specific services (Yeatts et al., 1992).

Based on the conceptual frameworks of Yeatts et al. (1992), knowledge of respite care in the present study could be defined in several different ways. First, in order for caregivers to consider using respite care, they need to know
the contents of services ("knowledge of service content"). In the case of adult day care, for example, the followings are examples of the dimensions of services: activities, nutrition, safety, staff-to-patient ratio, transportation. Second, caregivers need to acknowledge that they need to use (or are qualified to use) a particular respite service, and they should also understand to whom different types of respite services are offered ("knowledge of need"). For instance, who can use temporary institutional respite care in what situations? And third, it is also necessary for caregivers to understand who or where they should turn to if they consider using respite services ("knowledge of procedure"). Examining knowledge about respite care using these different definitions could contribute to better understanding of the relationship between caregivers' knowledge about respite services and utilization.

**Knowledge in relation to attitudes.** As described earlier, the literature (Beisecker et al., 1996; Cohen-Mansfield et al., 1994; Collins et al., 1991; Graham, 1989) states that caregivers' attitudes toward services are important factors for underutilization. One of the missing links in the previous literature is the one between caregivers' knowledge and attitudes. Without an accurate understanding of services, caregivers may have negative
feelings toward services or perceive them in such a way that they choose not to utilize them. Therefore, it appears important to examine caregivers' attitudes, since attitudes may mediate knowledge and utilization of services.

**Summary and Purpose of Study**

Prior studies show that respite care is effective in reducing elderly caregivers' strain. Nonetheless, it is reported that caregivers don't make good use of respite care. Studies show that caregivers' knowledge about respite services doesn't necessarily lead to a high utilization rate. This may be partly due to unclear definitions of knowledge in prior studies. To adequately assess how caregivers' knowledge affects their use of respite care, studies would need to give more specific definitions of knowledge about respite care, such as knowledge of 1) service availability, 2) service content, 3) need (i.e., caregivers' perceived need to use services), and 4) procedure (i.e., registration process for services). Examining these detailed aspects of knowledge about respite care is important, since this could help us understand what information regarding respite services is more likely to motivate caregivers to utilize them. Previous studies also report that caregivers' attitudes toward using respite services are related to utilization of the services. It
seems important to investigate whether these attitudes are affected by caregivers' knowledge about respite services.

The present study explores these issues by using a sample of middle- and old-age women, who have the potential to become a caregiver for an Alzheimer's patient (AP) and to use adult day care (ADC) in the future. Given today's women's multiple roles (e.g., Martire et al., 1997; Stephens & Townsend, 1997; Stoller & Pugliesi, 1989), greater responsibility for caregiving, and higher vulnerability to strain (e.g., Horowitz, 1985; Kosberg et al., 1990; Stoller, 1983), the present study investigates what type of information about ADC is more likely to motivate, and is helpful for, these middle- and old-age women to use ADC.

Among different kinds of respite services, ADC is adopted in this study for one of its important characteristics; that is, ADC provides opportunities for elders to socialize with other ADC participants and for family caregivers to take a break from caregiving (Angel & Angel, 1997). It seems ideal in family caregiving processes that both elders and caregivers can benefit from respite services. Thus, this valuable function of ADC needs to be understood by more and more caregivers.

Specifically, the study addresses three research questions. First, is the likelihood of potential AP
caregivers' use of ADC be influenced by the type of knowledge that they have about ADC? Second, is potential AP caregivers' attitudes toward using ADC be influenced by the type of knowledge that they have about ADC? Third, is there a relationship between potential AP caregivers' attitudes toward using ADC and the likelihood of caregivers' use of ADC after they receive information about ADC?

The three hypotheses for this study are: 1) the likelihood of potential AP caregivers' use of ADC is influenced by the type of knowledge that they have about ADC; 2) potential AP caregivers' attitudes toward using ADC is influenced by the type of knowledge that they have about ADC; and 3) there is a relationship between potential AP caregivers' attitudes toward using ADC and the likelihood of caregivers' use of ADC after they receive information about ADC.
METHOD

Design

To test the first and second hypotheses, a multivariate single-factor between-subjects multi-group pretest-posttest design was used. The independent variable was type of knowledge that participants had about ADC. The first dependent variable was a difference between pre-test and post-test scores in the likelihood of participants' use of ADC. The second dependent variable was a difference between pre-test and post-test scores in participants' attitude toward using ADC.

To test the third hypothesis, a correlational design was used. The variables were 1) participants' attitude toward using ADC, and 2) the likelihood of participants' use of ADC.

Participants

Seventy-nine participants were recruited from a mid-sized university in southern California. Since younger people were unlikely to perceive caregiving as a pressing issue, participants were female students 30 years or older who were not currently caring for their older parents, spouses, or other relatives. The mean age of participants was 40.1 with a range of 30.0 to 63.0 years old. The majority of participants were Caucasian (66.7%), followed by
African American (13.9%), Hispanic or Latino (9.7%), others (4.2%), and Native American (2.8%).

Participants were recruited in two ways. A flyer briefly describing the present study along with the actual questionnaire were placed on the psychology department’s research bulletin board for students to pick up. In addition, questionnaires were also distributed in undergraduate psychology courses. Participants were asked to fill out the questionnaires and return them to the researchers. Extra course credit was available for participants.

Participants were randomly given questionnaires from the four different groups. Twenty participants ultimately comprised GROUP 1 ("availability"; mean age = 39.6 years); 19 in Group 2 ("content"; mean age = 39.5); 21 in Group 3 ("procedure"; mean age = 40.5); and 19 in Group 4 ("need"; mean age = 40.8).

Materials and Procedure

Overview. After filling out a consent form, all participants received the same "pre-test" measures: 1) a "pre-test" vignette describing a hypothetical caregiving situation followed by a questionnaire to assess the likelihood of using ADC and 2) the Community Service Attitude Inventory (CSAI; Collins et al., 1991).
Then, participants completed a background information form. The form included some non-threatening questions as well as basic information about participants, which were designed to serve as a "time lag" between the pre-test and post-test measures.

Participants in four different "treatment" groups then received the same vignette describing the hypothetical caregiving situation along with a vignette providing one of four different types of information about a hypothetical ADC center: Group 1 received a description of the ADC center with information about its availability; Group 2 with information about its service content; Group 3 with information about procedure to be able to use the ADC center; Group 4 with information about who needs to, and who is targeted to, use the ADC center. Each of these vignettes were followed by a short questionnaire that assessed the likelihood of participants' use of the ADC center. Finally, participants completed the CSAI again.

"Pre-test" measures. The pre-test vignette (Appendix A) describes a hypothetical caregiving situation in which a 50-year old woman cares for her mother who has been diagnosed with Alzheimer's disease. After participants read this vignette, they were asked to respond to two questions that
assessed the likelihood of their using ADC services in general. The two questions were: 1) "Pretend that your friend tells you about an adult day care center in town. Based on only this information, how likely is it that you, as primary caregiver for your mother, would contact an adult day care center and get more information?" and 2) "How likely is it that you would use this adult day care center?" Possible responses to each item ranged from 1 (very unlikely) to 7 (very likely). Scores for two items were summed to yield a scale score to assess the likelihood of participants' using ADC services in general. The purpose of this pretest vignette was to get a baseline measure of their likelihood of contacting and using such a facility with no other information about this facility.

Participants then completed the "pre-test" 25-item CSAI (Collins et al., 1991) (Appendix B). The original CSAI was constructed to assess caregivers' attitudes toward using community services in general (i.e., visiting nurses, home health aids, adult day care, family support) (Collins et al., 1991).

The CSAI consists of 25 items in five dimensions: 1) concern for opinions of others (6 items); 2) confidence in service system (8 items); 3) preference of informal care (4
items); 4) belief in caregiver independence (4 items); and 5) acceptance of government services (3 items). In both the pretest and posttest forms, some of the items were re-worded in such a way to be appropriate for potential, rather than actual, caregivers. For example, item 8 was changed from "I am fearful of having people from community services take care of my relative" to "I would be fearful of ..."

Possible responses ranged from 1 (strongly disagree) to 4 (strongly agree). Responses to some of the items were re-coded in such a way that high scores indicated participants' positive attitudes toward ADC services and low scores indicated their negative attitudes toward the services. The attitudes were assessed by the sum of scores of all 25 items. The possible scores could range from 25, which indicates the most negative attitudes toward ADC services, to 100, which indicates the most positive attitudes. Cronbach’s alphas in the subscales ranged from .74 to .84 in a study by Collins et al. (1991).

Participants were then asked to report demographic information such as their age and ethnicity. Participants were also given non-threatening questions which served as a time-filler between the administration of the pre-test and post-test measures (Appendix C).

"Treatment" and post-test measures. After completing
the two pre-test measures and a background information form, participants in the four different groups then received one of four different "treatment" vignettes. Given the same hypothetical scenario about caring for a mother with Alzheimer's disease, participants received one of the four treatment vignettes that contained different information about a hypothetical ADC center named "Greenmount Adult Day Care Center." Group 1 received information about "service availability" (Appendix D), Group 2 received information about "service content" (Appendix E), Group 3 received information about "procedure" (Appendix F), and Group 4 received information about "need" (Appendix G). Each of these treatment vignettes were followed by two items that assessed potential caregivers' likelihood of using "Greenmount Adult Day Care Center." The two items were: 1) "Based on only this information, how likely is it that you, as primary caregiver for your mother, would contact 'Greenmount Adult Day Care Center' and get more information?" and 2) "How likely is it that you would use 'Greenmount Adult Day Care Center'?" Scoring was done in the same way as in the pre-test. In addition to these two items, participants answered another item: "What would you, as primary caregiver for your mother, like or need to know about 'Greenmount Adult Day Care Center' besides the
information provided above?" This open-ended question was
given to participants in order to get additional information
about what participants in each group would have to know
before using ADC.

Participants then completed the CSAI again, with the
wording altered slightly to relate specifically to the
hypothetical "Greenmount Adult Day Care Center" (Appendix
H).
RESULTS

Hypotheses #1 and #2

Analytic strategy. A multivariate between-subjects ANOVA was performed to test the first and the second hypotheses. The IV was type of knowledge about ADC with four levels: "service availability" (GROUP 1), "service content" (GROUP 2), "procedure" (GROUP 3), and "need" (GROUP 4). Knowledge about service availability was defined as information obtained by potential caregivers regarding where, when, and at what cost ADC was available. Knowledge about service content was defined as information obtained by potential caregivers regarding what services and programs were offered by ADC. Knowledge about procedure was defined as information obtained by potential caregivers regarding procedures to locate ADC that they might use and procedures for registering to be able to use that service. Knowledge of need was defined as information obtained by potential caregivers regarding people with what kind of needs were targeted as potential clients of ADC.

The first DV was the difference between pre-test and post-test scores in the likelihood of using ADC. The second DV was the difference between pre-test and post-test in attitudes toward using ADC measured by the Community Service Attitude Inventory (CSAI).
For convenience, in the following sections, six abbreviated terms are used: PRE-USE, POST-USE, DIFF-USE, PRE-ATTITUDE, POST-ATTITUDE, and DIFF-ATTITUDE. PRE-USE is the score for the likelihood of using ADC in the pre-test. POST-USE is the score for the likelihood of using ADC in the post-test. DIFF-USE is the difference between the pre-test score and the post-test score in the likelihood of using ADC (i.e., \([\text{DIFF-USE}] = [\text{POST-USE}] - [\text{PRE-USE}]\)). PRE-ATTITUDE is the score for attitudes toward using ADC in pre-test. POST-ATTITUDE is the score for attitudes toward using ADC in post-test. DIFF-ATTITUDE is the difference between the pre-test score and the post-test score in attitudes toward using ADC (i.e., \([\text{DIFF-ATTITUDE}] = [\text{POST-ATTITUDE}] - [\text{PRE-ATTITUDE}]\)).

In addition, it was investigated whether there was a difference between pre-test and post-test in the likelihood of using and attitudes toward using ADC. Paired-samples t-tests were performed for the following: 1) the likelihood of using ADC in the pre-test (PRE-USE) and in the post-test (POST-USE), and 2) attitudes toward using ADC in the pre-test (PRE-ATTITUDE) and in the post-test (POST-ATTITUDE) as measured by the CSAI.

**Descriptive statistics.** The overall mean for the likelihood of using ADC was 10.77 for PRE-USE and 10.78 for
The mean difference between the pre-test and the post-test in the likelihood of using ADC (i.e., \( \text{DIFF-USE} = \text{POST-USE} - \text{PRE-USE} \)) was .01, with .350 for GROUP 1 ("availability"), -.526 for GROUP 2 ("content"), .429 for GROUP 3 ("procedure"), and -.263 for GROUP 4 ("need").

The overall mean for the CSAI was 68.39 for PRE-ATTITUDE and 68.24 for POST-ATTITUDE (Table 2). The mean difference between pre-test and post-test in the CSAI (i.e., \( \text{DIFF-ATTITUDE} = \text{POST-ATTITUDE} - \text{PRE-ATTITUDE} \)) was -.15, with -1.00 for GROUP 1 ("availability"), 1.00 for GROUP 2 ("content"), 1.10 for GROUP 3 ("procedure"), and -1.79 for GROUP 4 ("need").

**Results.** Neither the first nor the second hypotheses were supported (\( F[3, 75] = .579, p > .05 \) for the first hypothesis; \( F[3, 75] = .878, p > .05 \) for the second hypothesis) (Table 3). That is, the likelihood of participants' using ADC and their attitudes toward using ADC were not influenced by the type of knowledge about ADC.

As can be seen in Table 1, the mean scores for DIFF-USE were negative in GROUP 2 ("service content") and GROUP 4 ("need"). That is, for these two groups, even though not significant, the scores for the likelihood of using ADC were actually lower in the post-test (i.e., after receiving
information about "service content" and "need" respectively) than in the pre-test. In addition, the mean scores for DIFF-ATTITUDE were negative in GROUP 1 ("availability") and GROUP 4 ("need") (Table 2). That is, the scores for attitudes toward using ADC were lower in post-test than in pre-test for these two groups. As stated above, however, the multivariate between-subjects ANOVA showed no significant differences anywhere among the four groups in DIFF-USE nor in DIFF-ATTITUDE.

Since there were no group differences in DIFF-USE or DIFF-ATTITUDE, it was then examined whether there was a significant difference 1) between PRE-USE and POST-USE and 2) between PRE-ATTITUDE and POST-ATTITUDE, ignoring the group differences (Table 4). No significant difference was found between pre-test and post-test (Table 5).

Hypothesis #3

A bivariate correlational analysis was performed to test the third hypothesis. Two variables were POST-ATTITUDE and POST-USE. There was a positive relationship between these variables, $r (78) = .690, p < .05$; high scores on POST-ATTITUDE were associated with high scores on POST-USE.

Open-Ended Question

One of the items in the questionnaire (i.e., "What would you, as primary caregiver for your mother, like or
need to know about 'Greenmount Adult Day Care Center' besides the information provided above?" was given to participants in order to get a better understanding of the information about ADC that participants would consider important to know (Table 6). The five leading items that participants listed included the following: 1) staff (43.0%), 2) activities and entertainment (29.1%), 3) the client-staff ratio (22.8%), 4) cost and insurance (19.0%), and 5) medical attention (17.7%).
DISCUSSION

The present study examined whether different types of knowledge about ADC affected potential caregivers' likelihood of, and attitudes toward, using ADC. The issue underlying this study was that while prior studies failed to clarify caregivers' "knowledge" about respite services, the studies have concluded that caregivers' knowledge did not necessarily lead to a high utilization rate of respite services. Therefore, it was not clear 1) to what extent caregivers understood respite services or 2) if caregivers' understanding of what aspects of respite services was more likely to motivate them to use the services. The present study attempted to gain a better understanding of these issues by 1) defining "knowledge" based on four dimensions of ADC, 2) giving potential caregivers different types of information, which was considered their "knowledge," about ADC, and 3) examining whether different types of "knowledge" affected the likelihood of, and attitudes toward, using ADC.

Contrary to the predictions, the findings suggested that potential caregivers' knowledge didn't affect their likelihood of, and attitudes toward, using ADC. In the next sections, methodological and other issues related to these outcomes will be discussed.

Methodological issues that are potentially related to
The outcome of this study include 1) the number of participants in the study, 2) the “break” between pre-test and post-test measures, 3) the range of possible responses in CSAI, 4) the number of items used to assess likelihood of using ADC, and 5) participants as “potential” caregivers.

The first methodological issue concerns the number of participants in the study. It was originally intended to include a minimum of 100 to 120 participants. Since there weren’t as many participants as planned, there may not have been enough power to detect a significant difference, if any, among the groups.

The second methodological issue concerns the “break” between the pre-test and post-test measures. The pre-test was followed by a break, during which participants filled out a background information form and responded to non-threatening questions. Then the break was followed by the post-test. Since the time spent for the break was planned for approximately 5 to 7 minutes, it may not have been long enough to minimize carryover effects and effects of fatigue.

The third issue concerns the range of the Likert-type scale used in the Community Service Attitude Inventory. Each of the 25 items in the CSAI was rated via four possible responses: "strongly disagree," "disagree," "agree," and "strongly agree." It may be the case that this limited range
of possible responses might have made it difficult to find significance in the group differences.

The fourth issue concerns the number of items in the questionnaire assessing the likelihood of using ADC. The measure consisted of two items: "... how likely is it that you... would contact 'Greenmount Adult Day Care Center' to get more information?" and "How likely is it that you would use 'Greenmount Adult Day Care Center'?" The fact that there were only two items assessing the likelihood of using ADC might have put restriction on the possible range of response scores. If there had been more items in this outcomes measure, it might have increased the likelihood of finding group differences.

The fifth issue concerns the fact that participants in this study were not actual but "potential" caregivers. Since potential caregivers were probably not under the pressure of thinking about caregiving issues, this may have affected the outcomes of this study.

There were a few additional issues besides the methodological ones discussed above that could also have contributed to results for the first and second hypotheses. In the present study, information about ADC was presented as "treatment" to participants. Each group received only one of the four different types of information (i.e.,
“availability,” “content,” “procedure,” and “need”). That is, no one learned about ADC from several different angles; only fragmental information was given to participants. It is therefore possible that no matter what type of information it was, having only partial information about ADC was not helpful enough for participants to decide whether they would use ADC. Participants might have needed to evaluate ADC based on every possible dimension before they decided that it was a resource they would use. On the other hand, however, it is also plausible that some of the four types of information about ADC in this study could have been proven to be more useful for participants than other types if each one of the four vignettes contained more detailed information about ADC. The vignettes used in the study contained one to three short paragraphs, which probably wasn’t sufficient for distinguishing among the four groups in terms of the likelihood of, and attitudes toward, using ADC.

Taken together, the findings suggest that participants as "primary caregivers" wanted to know about ADC in as much detail as possible. It doesn’t seem possible for participants to have received "too much" information. In fact, to respond to the open-ended question (i.e., "What would you, as primary caregiver for your mother, like or
need to know about 'Greenmount Adult Day Care Center' besides the information provided above?"

in the questionnaire, participants listed a variety of items that they would need to consider. Some of the items that participants listed were not in any vignettes (e.g., client-staff ratio, family visitation, state certification, safety record, emergency procedures, family support service). Participants also listed items that were mentioned in vignettes, because they needed more information on these items. For example, the vignette given to participants in GROUP 2 ("service content") included information stating that "a hot meal is served at noon." Some of these participants then indicated that they would like to know what kind of meal was served. It appears that "primary caregivers" would require a variety of detailed information about ADC before they feel secure enough to consider having ADC staff care for their loved one. Although the present study failed to show that a particular type of information on ADC was more likely than other types to motivate potential caregivers to use the service, it seems clear that 1) potential caregivers needed more detailed information about ADC than presented, and 2) a variety of information in addition to the four types of information presented in the study were important for potential caregivers to consider.
The findings from the open-ended question in the present study indicate that potential caregivers' primary concerns as to using ADC were quality and safety issues of ADC. As many as 43% of participants were attentive to the quality of staff at ADC, which included staff training, staff qualifications, staff's knowledge about Alzheimer's disease, and staff's view of elders in general. Beisecker et al. (1996) found that 44% of ADC users in their study reported the good quality of ADC staff including "staff knowledge, qualifications, empathy, and sensitivity" (p. 440) to be "benefits" of using the service. On the other hand, 35% of ADC users and 19% of non-users in their study indicated that staff's poor knowledge about Alzheimer's disease and staff's lack of "compassion" were sources of "barriers" to using ADC (p. 443). According to Miller and Goldman (1989), 26% of caregivers in their study indicated that the best aspect of using respite service was that "the relative was well cared for, safe, and comfortable" (p. 410). Although participants in these prior studies were actual caregivers, while participants in the present study were potential caregivers, both of them expressed the feeling that they needed to be sure that their relative would be cared for with respect and sincerity in a safe environment. Further, participants in the present study
indicated that they would need to know 1) whether scheduled and unscheduled family visitations and observations were allowed (15.2%), and 2) whether specific ADC settings had a record of elder abuse, lawsuits, and other complaints (11.4%). Again, it appears that both actual caregivers and those who may become caregivers in the future are very concerned for the quality and safety issues of respite care.

Since the findings of the study indicate that participants as "primary caregivers" would require a variety of detailed information on ADC, it is also necessary to pay attention to the items that only a small number of participants listed. For instance, the findings show that it was important for some participants to check the male-female ratio of clients and friendship of clients at ADC. Similarly, Cohen-Mansfield et al. (1994) found that the small number of caregivers in their study decided not to use ADC because of a language barrier or other social, racial, and cultural issues. What these findings suggest is that some family caregivers value respite services especially if their relative is able to fit in with other clients of the services and to make friends. Caregivers of minority groups in particular may need to be well informed of the nature and the demographic characteristics of ADC clients. Therefore, the process of seeking information on respite care and
searching for a suitable respite service may be more difficult and take more time for minority caregivers.

Another concern that a couple of participants expressed in the open-ended question was availability of family support services at ADC. It has been reported that support groups for caregivers are good sources of educational and emotional support (e.g., Glosser & Wexler, 1985; Zarit, Anthony, & Boutsellis, 1987). If ADC has its own family support service, it may make it easier for family caregivers 1) to keep a close contact with staff and other users of ADC, 2) to exchange information about how their older relative is doing at ADC and at home, and 3) to educate each other about aging. In one study (Martichuski, Knight, Karlin, & Bell, 1997), 22% of non-users of support groups reported that they didn’t attend support groups because of lack of respite services while attending a support group meeting. Considering this finding, a family support service within ADC seems useful and practical for family caregivers.

The present study provided participants with four different types of information about ADC, some of which were designed to contain no information about what ADC was. Therefore, some comments that a couple of participants gave in the open-ended question seemed to reflect their lack of understanding of what ADC was. These participants seemed to
confuse ADC with nursing home and inpatient respite care, despite the fact that the vignettes given to them were clearly about adult day care. Since potential caregivers in this study presumably didn’t have an immediate need of learning about respite care and they were unlikely to be concerned about it, it would be understandable even if they had no clue of what ADC was. This suggests that the concept of respite care may not be prevalent among the general public. Chances are that people don’t get to know about respite services until they actually become caregivers. In this sense, the open-ended question was meaningful, since it gives an idea of 1) what the general public (as supposed to caregivers) don’t know about ADC and respite services in general, and 2) what the general public would be concerned about as to using these services.

Previous research (Collins et al., 1991) shows that caregivers’ attitudes toward community services are related to their use of services. Similarly, in the present study, potential caregivers’ attitudes toward ADC were significantly correlated to the likelihood of using ADC. A few participants in the study indicated in the open-ended question that they wouldn’t use ADC because they didn’t trust anyone to care for their “mother.” They also noted that they were not sure if they would be able to leave her
at ADC. Consistent with prior studies (Beisecker et al., 1996; Cohen-Mansfield et al., 1994), these statements indicate that caregivers' emotions about an elderly relative affect their choice of not using respite services.
IMPLICATIONS

Implications for Practice

The fundamental issue underlying the research questions in this study is, how can we help caregivers take more advantage of respite services? This study suggests the importance of educating caregivers about respite services before they decide to use them. Educating people about respite care may be one of the most important tasks we need to do. Prior research (Miller & Goldman, 1989; Montgomery & Borgatta, 1989) stresses the importance of respite care as a prevention program, not as a crisis-oriented one. The reality is, however, many caregivers don’t seek respite services until they come to a crisis (Montgomery & Borgatta, 1989). This may be in part due to caregivers’ lack of knowledge about respite services. That is, caregivers don’t know how respite services can assist them or which respite service is most suitable for them and their older relative (Beisecker et al., 1996; Rudin, 1994). As a result, caregivers don’t use respite services until the situation forces them to seek help. Depending on the situation, it might be too late for the caregivers to use the respite services because a care recipient’s condition has worsened. Consequently, in order for caregivers to take good advantage of respite services, they need to use appropriate services.
at the right time before they come to a crisis. In this sense, not only people who are already caring for elders but middle- and old-age people who have never been caregivers need to be educated about respite services. If people are well informed of respite services, it could make caregiving experiences easier when people actually become caregivers.

When caregivers learn about respite care, they not only need information about what respite care is or where it is available, but learn about why it is necessary to take time out. This seems especially important for female caregivers who tend to assume more responsibility for caregiving and play multiple roles. Some caregivers experience a sense of responsibility (Cohen-Mansfield et al., 1994) and a sense of guilt for having their own time while their relative is cared for by someone else (Graham, 1989). These feelings discourage them from seeking outside help, and they experience high levels of strain. How will caregivers be able to conquer these feelings and learn to have their own personal time?

First of all, professionals (e.g., referral agency staff, social workers, medical personnel) need to explain respite care to both caregivers and their families. Research reviewed above suggests that some caregivers are concerned about other family members’ opinions regarding using
community services (Beisecker et al., 1996; Collins et al., 1991). Professionals should provide family members an opportunity to learn about respite care and to understand how difficult it is to be a caregiver and why she needs to take time off. If family members understand the need for using respite care, the caregiver would feel more comfortable using respite services. In some cases, family members may encourage the caregiver to take advantage of respite services.

Second, it may be helpful if professionals introduce caregivers to other caregivers who are already using respite care. Since these experienced caregivers may have gone through difficulties that new caregivers are facing, they can be good sources of information regarding caregiving and respite services. These new caregivers could learn about respite services from a user’s point of view. In fact, 16.5% of participants in the present study indicated that they would like to have references from users of ADC. Further, by realizing that other people in similar situations are using respite services, new caregivers may learn that using the services is part of the ordinary caregiving process and feel less guilty about using such services.

And third, if the media were to provide information about respite care in a more effective way, it could become
a persuasive educator not only for caregivers but for the public as a whole. The media should let the public know that for the sake of good caregiving, caregivers need to be cared for, too, and that caregivers may become burned out if they try to do everything by themselves. If the idea of respite care becomes familiar to people, they may be less likely to have negative feelings toward it. In other words, the media can be used to influence the public’s perception of respite care in such a way that people think of using it as an ordinary experience. A sense of guilt about leaving an older relative at respite care while having time off could be buffered if using respite care becomes more prevalent in the society. Cohen-Mansfield et al. (1994) argue that “societal norms may need to be changed to make day care an acceptable alternative to providing care within the family” (p. 37). Indeed, efforts need to be made to make our environment more caregiver-friendly in which caregivers, female caregivers in particular, could easily utilize respite services. Because of a sense of responsibility for caregiving and traditional caregiver roles, female caregivers may find using respite care difficult. The general public’s lack of understanding could worsen these female caregivers’ situations. Thus, we need to make our society more caregiver-friendly, and the media could play an important role in this.
Implications for Future Research

Based on the findings of this study, a few suggestions for future research are presented. First, it needs to be further explored how to define and assess caregivers' knowledge about ADC. This is important because if researchers recognize what caregivers know and don't know about ADC, professionals could more effectively educate caregivers about ADC. Applying Yeatts and colleagues' (1992) conceptual frameworks for social service use, the present study defined caregivers' knowledge about ADC based on four different dimensions. Future research could include dimensions of ADC besides the four examined here to investigate how knowledge of different dimensions of ADC predicts utilization of services. Future research could also include integrated information on ADC rather than fragmental information that was given in this study. Research also needs to explore different approaches to assessing knowledge. When doing so, it would be useful to take into account 1) what caregivers know about ADC, 2) how much they know about it, and 3) where they learned about it (e.g., from professionals, friends, families, TV, internet). Further, it would be of interest to investigate how these three interact with each other in order to predict utilization of ADC.
Second, there is more need for qualitative research to examine caregivers' understanding of ADC. The open-ended question in this study revealed individuals' unique emotions about caregiving and using ADC. Thus, methods such as open-ended questions and interviews with caregivers should not be overlooked when developing structured measures of knowledge.

Third, while the focus of the present study was on ADC, research also needs to include other respite services (e.g., inpatient respite, in-home respite). It is likely that unique characteristics of each service make a difference in 1) caregivers' attitudes toward and understanding of services, and 2) definition and assessment of knowledge about services. In addition, future research could make a comparison among different respite services as to what aspect of each service is more likely to attract caregivers and motivate them to use it.

Finally, it may be helpful to look at how prevalent the concept of respite care is among not only caregivers but the general public. As discussed earlier, the general public's understanding of respite care may make it easier for caregivers to use it. In addition, if people are informed of what respite care is and how it works, it could make caregiving experience easier and help them feel in control when they actually become caregivers. Therefore, future
research could include the general public as well as caregivers to investigate how they understand and perceive respite care.
CONCLUSION

Taking care of older parents is now considered one of the normative life events during middle age (Brody, 1995). Yet, it is unlikely that current middle-aged caregivers and old-aged care receivers would have thought decades ago that adult children’s caregiving would become a normative experience, since these old-aged and middle-aged generations are the first ones who have made adult children’s caregiving one of the normative life events in middle age. Sheehan and Donorfio (1999) report that few mothers in their study expected to live so long that they would become dependent on their children. Half of daughters in Pohl, Boyd, and Given (1997) had never figured that their mother would require their care.

Given increasing life expectancy and the growing population in old age today, younger generations of expectations for caregiving may be different from older ones’. On a social level, the younger generations might be concerned about elder care. On a personal level, however, it may be still difficult for younger generations to view caregiving as a pressing issue when their own parents require no care yet. How many women, in particular, would say that their future plan includes caregiving as well as marriage, child bearing, career, and retirement? Probably
not many would. Thus, it is likely that it will be long before the idea of "caregiving as a normative life event" will be shared by the majority of women. Pohl et al. (1997) suggest:

Currently we lack interventions and subsequent evaluations that prepare women and families for caregiving. We need to consider an expansion of our concept of "family planning" to include the later years of life, with programs that address the complex needs of caregivers, the recipients of care and their families (p. 147).

To play roles such as wife, mother, and employee, women have been provided education, support, and resources. Women's caregiver role, too, needs long-term preparation which takes into account women's life cycles.
APPENDIX A: Vignette in “Pre-Test”

Vignette for a Hypothetical Caregiving Situation and Questionnaire for the Likelihood of Using Adult Day Care

Below is a vignette describing a scenario of a hypothetical caregiving situation. Please read the vignette carefully.

Pretend that you are a 50-year old mother who goes to school and also has a part-time job. You live with your husband and your 75-year-old mother. Your husband works full time and stays home on weekends. One of your children and your sister live nearby, and your other two children live in different cities. Since your mother was diagnosed with Alzheimer’s disease one year ago, you have been the primary caregiver for her.

Alzheimer’s disease causes symptoms such as intellectual impairment, memory loss, mood change, and difficulties in moving. Your mother has been showing some of these symptoms since the time of the diagnosis. Although she can still communicate with others and move by herself, she now suffers from some memory loss and occasional confusion. In addition, she now needs help with tasks that she used to be able to manage herself, such as cooking and cleaning.

You, as primary caregiver for your mother, need to supervise her so that she doesn’t cause problems or get injured. When you have to leave home for school and work, you usually have your sister come over to care for your mother. When she is not available, you ask a friend, neighbor, or child living nearby to watch your mother. However, it is sometimes hard to find someone to stay home with her. In such a case, you have to stay home from work or school.
Please answer the following questions.

1) Pretend that your friend tells you about an adult day care center in town. Based on only this information, how likely is it that you, as primary caregiver for your mother, would contact this adult day care center and get more information? Please circle one of the responses below.

Very unlikely | Unlikely | Somewhat unlikely | Neutral | Somewhat likely | Likely | Very likely
1 | 2 | 3 | 4 | 5 | 6 | 7

2) How likely is it that you would use this adult day care center? Please circle one of the responses below.

Very unlikely | Unlikely | Somewhat unlikely | Neutral | Somewhat likely | Likely | Very likely
1 | 2 | 3 | 4 | 5 | 6 | 7
**APPENDIX B: CSAI in “Pre-Test”**

**Community Service Attitude Inventory**

The following is a list of statements that some people use to describe their feelings about the use of adult day care services in caring for their relative.

Please circle the answer that best describes how much you agree or disagree with the statement. WE ARE INTERESTED IN YOUR OPINION EVEN IF YOU HAVE NOT ACTUALLY USED ADULT DAY CARE SERVICES.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) People outside my family would think less of me if I used services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2) My family would think less of me if I used services for my mother’s care.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3) My family would prevent me from using services for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4) Families should not use services to care for a relative with Alzheimer’s disease.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5) I would not want others to know my mother has Alzheimer’s disease.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6) My family would support my use of services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7) People from services could take care of my mother as well as I can.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8) I would be fearful of having people from services take care of my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9) I would trust people from services take care of my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10) People from services would follow my directions in caring for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11) It would be hard to trust someone from services to care for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12) People from services might be better at caring for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>---</td>
<td>---------------</td>
<td>-------</td>
<td>----------</td>
<td>------------------</td>
</tr>
<tr>
<td>13</td>
<td>I would worry about my mother’s safety when someone else is taking care of her.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>Services might have better idea about caring for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>I would rather use services than ask for help from family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>I would rather use services than ask for help from friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>I would rather ask my family for help than use services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>I would rather ask my friends for help than use services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>I would be proud of being able to care for my mother with little help from services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>I believe in the idea that families should care for their own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>I think I should care for my mother without help from services.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>I would feel good about using services to help care for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>It would not be the community’s responsibility to help me find ways to care for my mother.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24</td>
<td>I would use more services if the community would provide more assistance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25</td>
<td>I believe the community should support more services to help families care for persons at home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
APPENDIX C: Background Information Form

Background Information Form

Please answer the following questions about yourself as fully as possible.

1) Your age: _________ years old

2) Your class (check one): _________ Undergraduate
___________ Graduate

3) Your current marital status (check one):
___________ Single
___________ Married
___________ Separated
___________ Divorced
___________ Widowed

4) Ethnicity (check one): _________ Caucasian
___________ African American
___________ Hispanic or Latino
___________ Asian American
___________ Native American
___________ Other (please specify): ___________

5) Approximate number of hours you work per week: _________ hours per week

6) Number of siblings you have: ___________

7) Have you ever been a caregiver for your older relatives? (check one):
___________ Yes
___________ No

If yes, have you ever used any of the following services? (check all that apply):

___________ Information and referral service
___________ Adult day care
___________ Paid home health aide
___________ Nursing home
___________ Short-stay nursing home respite
___________ Hospice service

8) Your major: ___________
9) Your minor (if any): ____________

10) How many psychology courses have you taken so far? ___

11) Expected graduation date: ____________

12) Academic subjects that you like besides your major: ____________

13) Academic subjects that you don’t like: ____________

14) What is your career goal? ____________

15) How long does it take you to commute to this university? ____________

16) How often do you use the university’s computer rooms per week? (Check one):

Never
1 - 2 times
3 - 4 times
5 times or more

17) Do you have a computer of your own at home? (Check one):

Yes
No

If yes, how often do you use your computer at home per week? (Check one):

Never
1 - 2 times
3 - 4 times
5 times or more

18) Do you have an e-mail account? (Check one):

Yes
No

If yes, who do you talk to via e-mail? (Check all that apply):

Friends
Professors
Children
Siblings
Parents
Other (Please specify): ____________
19) Do you have children in your home? (Check one):
   ________________ Yes
   ________________ No

20) If your parents are alive, approximately how often do you get to see them per year? (Check one):
   ________________ 0 - 1 time
   ________________ 2 - 3 times
   ________________ 4 times or more

21) If you have siblings, approximately how often do you get to see them per year? (Check one):
   ________________ 0 - 1 time
   ________________ 2 - 3 times
   ________________ 4 times or more

22) What do you like to do in your free time? ________________

23) What is your major source of information in general? (Check one):
   ________________ Newspaper
   ________________ TV
   ________________ Magazine
   ________________ Internet
   ________________ Radio
   ________________ Other (Please specify):
   ___________________
APPENDIX D: Vignette for "Service Availability"

Vignette for a Hypothetical Caregiving Situation
and an Adult Day Care Center and Questionnaire
for the Likelihood of Using Adult Day Care

Below is a vignette describing a scenario of a hypothetical
caregiving situation. Please read the vignette carefully.

Pretend that you are a 50-year old mother who goes
to school and also has a part-time job. You live
with your husband and your 75-year-old mother.
Your husband works full time and stays home on
weekends. One of your children and your sister
live nearby, and your other two children live in
different cities. Since your mother was diagnosed
with Alzheimer’s disease one year ago, you have
been the primary caregiver for her.

Alzheimer’s disease causes symptoms such as
intellectual impairment, memory loss, mood change,
and difficulties in moving. Your mother has been
showing some of these symptoms since the time of
the diagnosis. Although she can still communicate
with others and move by herself, she now suffers
from some memory loss and occasional confusion. In
addition, she now needs help with tasks that she
used to be able to manage herself, such as cooking
and cleaning.

You, as primary caregiver for your mother, need to
supervise her so that she doesn’t cause problems
or get injured. When you have to leave home for
school and work, you usually have your sister come
over to care for your mother. When she is not
available, you ask a friend, neighbor, or child
living nearby to watch your mother. However, it is
sometimes hard to find someone to stay home with
her. In such a case, you have to stay home from
work or school.
Please read a short description of a community service below and answer the following questions.

"Greenmount Adult Day Care Center" is located within 20 miles of your house. It is open 7:30 a.m. to 6:00 p.m., Monday through Saturday. Daily charge for the service is $40.00. However, if an elderly participant is eligible for Medi-Cal, the service is provided for free of charge.

1) Based on only the information given above, how likely is it that you, as primary caregiver for your mother, would contact "Greenmount Adult Day Care Center" to get more information? Please circle one of the responses below.

<table>
<thead>
<tr>
<th>Very unlikely</th>
<th>Unlikely</th>
<th>Somewhat unlikely</th>
<th>Neutral</th>
<th>Somewhat likely</th>
<th>Likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

2) How likely is it that you would use "Greenmount Adult Day Care Center"? Please circle one of the responses below.

<table>
<thead>
<tr>
<th>Very unlikely</th>
<th>Unlikely</th>
<th>Somewhat unlikely</th>
<th>Neutral</th>
<th>Somewhat likely</th>
<th>Likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

3) What would you, as primary caregiver for your mother, like or need to know about "Greenmount Adult Day Care Center" besides the information provided above? Please write in a space below.
APPENDIX E: Vignette for “Service Content”

Vignette for a Hypothetical Caregiving Situation and an Adult Day Care Center and Questionnaire for the Likelihood of Using Adult Day Care

Below is a vignette describing a scenario of a hypothetical caregiving situation. Please read the vignette carefully.

Pretend that you are a 50-year old mother who goes to school and also has a part-time job. You live with your husband and your 75-year-old mother. Your husband works full time and stays home on weekends. One of your children and your sister live nearby, and your other two children live in different cities. Since your mother was diagnosed with Alzheimer’s disease one year ago, you have been the primary caregiver for her.

Alzheimer’s disease causes symptoms such as intellectual impairment, memory loss, mood change, and difficulties in moving. Your mother has been showing some of these symptoms since the time of the diagnosis. Although she can still communicate with others and move by herself, she now suffers from some memory loss and occasional confusion. In addition, she now needs help with tasks that she used to be able to manage herself, such as cooking and cleaning.

You, as primary caregiver for your mother, need to supervise her so that she doesn’t cause problems or get injured. When you have to leave home for school and work, you usually have your sister come over to care for your mother. When she is not available, you ask a friend, neighbor, or child living nearby to watch your mother. However, it is sometimes hard to find someone to stay home with her. In such a case, you have to stay home from work or school.
Please read a short description of a community service below and answer the following questions.

Services of “Greenmount Adult Day Care Center” are provided by a staff which includes recreational therapists, a social worker, a dietitian, and nurses. Elderly participants of the center, who are mentally or physically impaired, receive entertainment and stimulating activities such as games, exercise, reminiscence, music and gardening. A hot meal is served at noon. A van service is available for those who need transportation to get to the center.

1) Based on the information given above, how likely is it that you, as primary caregiver for your mother, would contact “Greenmount Adult Day Care Center” to get more information? Please circle one of the responses below.

2) How likely is it that you would use “Greenmount Adult Day Care Center”? Please circle one of the responses below.

3) What would you, as primary caregiver for your mother, like or need to know about “Greenmount Adult Day Care Center” besides the information provided above? Please write in a space below.
APPENDIX F: Vignette for “Procedure”

Vignette for a Hypothetical Caregiving Situation and an Adult Day Care Center and Questionnaire for the Likelihood of Using Adult Day Care

Below is a vignette describing a scenario of a hypothetical caregiving situation. Please read the vignette carefully.

Pretend that you are a 50-year old mother who goes to school and also has a part-time job. You live with your husband and your 75-year-old mother. Your husband works full time and stays home on weekends. One of your children and your sister live nearby, and your other two children live in different cities. Since your mother was diagnosed with Alzheimer’s disease one year ago, you have been the primary caregiver for her.

Alzheimer’s disease causes symptoms such as intellectual impairment, memory loss, mood change, and difficulties in moving. Your mother has been showing some of these symptoms since the time of the diagnosis. Although she can still communicate with others and move by herself, she now suffers from some memory loss and occasional confusion. In addition, she now needs help with tasks that she used to be able to manage herself, such as cooking and cleaning.

You, as primary caregiver for your mother, need to supervise her so that she doesn’t cause problems or get injured. When you have to leave home for school and work, you usually have your sister come over to care for your mother. When she is not available, you ask a friend, neighbor, or child living nearby to watch your mother. However, it is sometimes hard to find someone to stay home with her. In such a case, you have to stay home from work or school.
Please read a short description of a community service below and answer the following questions.

You are trying to find out what kind of outside assistance is available to care for your mother. You are calling referral agencies such as county or state department on aging and Alzheimer’s Association, in order to decide what kind of help you should seek and which community service providers you should contact. One of the staff of these referral agencies suggests that you should try to use adult day care and gives you a phone number of “Greenmount Adult Day Care Center.”

According to the referral agency staff, at “Greenmount Adult Day Care Center,” an initial assessment of each elderly applicant is conducted by the center staff in order to determine whether the applicant is eligible to attend the center. Therefore, if you decide to use the day care center, you and your mother will be asked to visit the center for this initial assessment. The staff will ask you about your mother’s medical history, her current condition, a name and phone number of her doctor, and a payment plan. You will also be asked what your mother likes to do. You and your mother will have chance to look around the center during the initial assessment. After the initial assessment, the staff will decide whether your mother is eligible to attend the day care center.

After talking to the referral agency staff, you are now deciding whether you should call “Greenmount Adult Day Care Center.”

1) Based on only the information given above, how likely is it that you, as primary caregiver for your mother, would contact “Greenmount Adult Day Care Center” to get more information? Please circle one of the responses below.

<table>
<thead>
<tr>
<th>Very unlikely</th>
<th>Unlikely</th>
<th>Somewhat unlikely</th>
<th>Neutral</th>
<th>Somewhat likely</th>
<th>Likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
2) How likely is it that you would use "Greenmount Adult Day Care Center"? Please circle one of the responses below.

- Very unlikely
- Unlikely
- Somewhat unlikely
- Neutral
- Somewhat likely
- Likely
- Very likely

3) What would you, as primary caregiver for your mother, like or need to know about "Greenmount Adult Day Care Center" besides the information provided above? Please write in a space below.
APPENDIX G: Vignette for “Need”

Vignette for a Hypothetical Caregiving Situation and an Adult Day Care Center and Questionnaire for the Likelihood of Using Adult Day Care

Below is a vignette describing a scenario of a hypothetical caregiving situation. Please read the vignette carefully.

Pretend that you are a 50-year old mother who goes to school and also has a part-time job. You live with your husband and your 75-year-old mother. Your husband works full time and stays home on weekends. One of your children and your sister live nearby, and your other two children live in different cities. Since your mother was diagnosed with Alzheimer’s disease one year ago, you have been the primary caregiver for her.

Alzheimer’s disease causes symptoms such as intellectual impairment, memory loss, mood change, and difficulties in moving. Your mother has been showing some of these symptoms since the time of the diagnosis. Although she can still communicate with others and move by herself, she now suffers from some memory loss and occasional confusion. In addition, she now needs help with tasks that she used to be able to manage herself, such as cooking and cleaning.

You, as primary caregiver for your mother, need to supervise her so that she doesn’t cause problems or get injured. When you have to leave home for school and work, you usually have your sister come over to care for your mother. When she is not available, you ask a friend, neighbor, or child living nearby to watch your mother. However, it is sometimes hard to find someone to stay home with her. In such a case, you have to stay home from work or school.
Please read a short description of a community service below and answer the following questions.

"Greenmount Adult Day Care Center" offers group activities for elderly participants who are mentally or physically impaired. Attending the center is a good way for elderly participants to socialize and get stimulation. Even when they are no longer capable of managing daily activities such as dressing and bathing, they can still enjoy the stimulation of group activities and recreation. Although a variety of elders come to the center, those who are in the late stages of Alzheimer's disease or who have severe disabilities are not suitable for attending the center.

The center is also helpful for those family caregivers who need more time to do other things than caring for older relatives. While older relatives attend the center, family caregivers can go to work, run errands, or take a break from a caregiving task. Having older relatives attend the center helps caregivers continue to care for their older relatives at home as long as possible.

1) Based on only the information given above, how likely is it that you, as primary caregiver for your mother, would contact "Greenmount Adult Day Care Center" to get more information? Please circle one of the responses below.

2) How likely is it that you would use "Greenmount Adult Day Care Center"? Please circle one of the responses below.
3) What would you, as primary caregiver for your mother, like or need to know about "Greenmount Adult Day Care Center" besides the information provided above? Please write in a space below.
APPENDIX H: CSAI in "Post-Test"

Community Service Attitude Inventory

The following is a list of statements that some people use to describe their feelings about the use of adult day care services in caring for their relative.

Please circle the answer that best describes how much you agree or disagree with the statement. WE ARE INTERESTED IN YOUR OPINION EVEN IF YOU HAVE NOT ACTUALLY USED ADULT DAY CARE SERVICES.

1) People outside my family would think less of me if I used "Greenmount Adult Day Care Center."

2) My family would think less of me if I used "Greenmount Adult Day Care Center" for my mother’s care.

3) My family would prevent me from using "Greenmount Adult Day Care Center" for my mother.

4) Families should not use "Greenmount Adult Day Care Center" to care for a relative with Alzheimer’s disease.

5) I would not want others to know my mother has Alzheimer’s disease.

6) My family would support my use of "Greenmount Adult Day Care Center."

7) People from "Greenmount Adult Day Care Center" could take care of my mother as well as I can.

8) I would be fearful of having people from "Greenmount Adult Day Care Center" take care of my mother.

9) I would trust people from "Greenmount Adult Day Care Center" to take care of my mother.

10) People from "Greenmount Adult Day Care Center" would follow my directions in caring for my mother.
11) It would be hard to trust someone from "Greenmount Adult Day Care Center" to care for my mother.

12) People from "Greenmount Adult Day Care Center" might be better at caring for my mother.

13) I would worry about my mother's safety when someone else is taking care of her.

14) "Greenmount Adult Day Care Center" might have better idea about caring for my mother.

15) I would rather use "Greenmount Adult Day Care Center" than ask for help from family.

16) I would rather use "Greenmount Adult Day Care Center" than ask for help from friends.

17) I would rather ask my family for help than use "Greenmount Adult Day Care Center."

18) I would rather ask my friends for help than use "Greenmount Adult Day Care Center."

19) I would be proud of being able to care for my mother with little help from "Greenmount Adult Day Care Center."

20) I believe in the idea that families should care for their own.

21) I think I should care for my mother without help from "Greenmount Adult Day Care Center."

22) I would feel good about using "Greenmount Adult Day Care Center" to help care for my mother.

23) It would not be the community's responsibility to help me find ways to care for my mother.
24) I would use more services if the community would provide more assistance.

25) I believe the community should support more services to help families care for persons at home.
APPENDIX I: Table 1

Means for PRE-USE\(^a\), POST-USE\(^b\), and DIFF-USE\(^c\)

<table>
<thead>
<tr>
<th>GROUP</th>
<th>n</th>
<th>PRE-USE</th>
<th>POST-USE</th>
<th>DIFF-USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1 (&quot;Availability&quot;)</td>
<td>20</td>
<td>9.90</td>
<td>10.25</td>
<td>.350 (SD = 2.92)</td>
</tr>
<tr>
<td>GROUP 2 (&quot;Content&quot;)</td>
<td>19</td>
<td>11.16</td>
<td>10.63</td>
<td>-.526 (SD = 3.58)</td>
</tr>
<tr>
<td>GROUP 3 (&quot;Procedure&quot;)</td>
<td>21</td>
<td>10.00</td>
<td>10.43</td>
<td>.429 (SD = 1.99)</td>
</tr>
<tr>
<td>GROUP 4 (&quot;Need&quot;)</td>
<td>19</td>
<td>12.16</td>
<td>11.89</td>
<td>-.263 (SD = 2.16)</td>
</tr>
<tr>
<td>(\bar{X})</td>
<td></td>
<td>10.77</td>
<td>10.78</td>
<td>.012 (SD = 2.70)</td>
</tr>
</tbody>
</table>

a) PRE-USE: Score for the likelihood of using ADC in the pre-test.
b) POST-USE: Score for the likelihood of using ADC in the post-test.
c) DIFF-USE: The difference between the pre-test score and the post-test score in the likelihood of using ADC.
\[\text{DIFF-USE} = \text{POST-USE} - \text{PRE-USE}.\]
## APPENDIX J: Table 2

### Means for PRE-ATTITUDE, POST-ATTITUDE, and DIFF-ATTITUDE

<table>
<thead>
<tr>
<th>GROUP 1 (&quot;Availability&quot;)</th>
<th>n</th>
<th>PRE-ATTITUDE</th>
<th>POST-ATTITUDE</th>
<th>DIFF-ATTITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>66.45</td>
<td>65.45</td>
<td>-1.00 (SD = 7.83)</td>
</tr>
<tr>
<td>GROUP 2 (&quot;Content&quot;)</td>
<td>19</td>
<td>69.84</td>
<td>70.84</td>
<td>1.00 (SD = 6.94)</td>
</tr>
<tr>
<td>GROUP 3 (&quot;Procedure&quot;)</td>
<td>21</td>
<td>66.33</td>
<td>67.43</td>
<td>1.10 (SD = 6.76)</td>
</tr>
<tr>
<td>GROUP 4 (&quot;Need&quot;)</td>
<td>19</td>
<td>71.26</td>
<td>69.47</td>
<td>-1.79 (SD = 5.57)</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td>68.39</td>
<td>68.24</td>
<td>-.15 (SD = 6.82)</td>
</tr>
</tbody>
</table>

a) PRE-ATTITUDE: Score for attitude toward using ADC in the pre-test.
b) POST-ATTITUDE: Score for attitude toward using ADC in the post-test.
c) DIFF-ATTITUDE: The difference between the pre-test score and the post-test score in attitudes toward using ADC.

\[ \text{DIFF-ATTITUDE} = \text{POST-USE} - \text{PRE-USE} \]
APPENDIX K: Table 3

Multivariate Between-Subjects ANOVA for DIFF-USE\textsuperscript{a} and DIFF-ATTITUDE\textsuperscript{b}

<table>
<thead>
<tr>
<th>DV</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIFF-USE</td>
<td>12.873</td>
<td>3</td>
<td>4.291</td>
<td>.579 (p &gt; .05)</td>
</tr>
<tr>
<td>DIFF-ATTITUDE</td>
<td>123.210</td>
<td>3</td>
<td>41.070</td>
<td>.878 (p &gt; .05)</td>
</tr>
</tbody>
</table>

IV: GROUP

a) DIFF-USE: The difference between the pre-test score and the post-test score in the likelihood of using ADC.

b) DIFF-ATTITUDE: The difference between the pre-test score and the post-test score in attitudes toward using ADC.
APPENDIX L: Table 4

Mean Scores for PRE-USE\(^a\), POST-USE\(^b\), PRE-ATTITUDE\(^c\), and POST-ATTITUDE\(^d\)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-USE</td>
<td>10.77</td>
<td>2.79</td>
</tr>
<tr>
<td>POST-USE</td>
<td>10.78</td>
<td>3.13</td>
</tr>
<tr>
<td>PRE-ATTITUDE</td>
<td>68.39</td>
<td>8.84</td>
</tr>
<tr>
<td>POST-ATTITUDE</td>
<td>68.24</td>
<td>10.74</td>
</tr>
</tbody>
</table>

a) PRE-USE: Score for the likelihood of using ADC in the pre-test.
b) POST-USE: Score for the likelihood of using ADC in the post-test.
c) PRE-ATTITUDE: Score for attitudes toward using ADC in the pre-test.
d) POST-ATTITUDE: Score for attitudes toward using ADC in the post-test.
APPENDIX M: Table 5

Paired-Samples T-Tests for a) PRE-USE^a and POST-USE^b
and b) PRE-ATTITUDE^c and POST-ATTITUDE^d

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-USE / POST-USE</td>
<td>-.013</td>
<td>2.70</td>
<td>78</td>
<td>-.042 (p &gt; .05)</td>
</tr>
<tr>
<td>PRE-ATTITUDE / POST-ATTITUDE</td>
<td>.15</td>
<td>6.82</td>
<td>78</td>
<td>.198 (p &gt; .05)</td>
</tr>
</tbody>
</table>

a) PRE-USE: Score for the likelihood of using ADC in the pre-test.
b) POST-USE: Score for the likelihood of using ADC in the post-test.
c) PRE-ATTITUDE: Score for attitudes toward using ADC in the pre-test.
d) POST-ATTITUDE: Score for attitudes toward using ADC in the post-test.
## APPENDIX N: Table 6

**Items That Participants Would Want to Know Regarding ADC and Percentage of Participants Who Listed The Items**

1. **Staff (e.g., staff training; qualifications of staff; staff's view of elders; staff’s philosophy of care)**  .......... 43.0%
2. **Activities / Entertainment**  .......... 29.1%
3. **Client-staff ratio**  .......... 22.8%
4. **Cost / Insurance**  .......... 19.0%
5. **Medical attention (e.g., medications; training of doctors and nurses)**  .......... 17.7%
6. **Meal / Snack**  .......... 16.5%
7. **References from users (i.e., elders and their families)**  .......... 16.5%
8. **Family visitation / observation**  .......... 15.2%
9. **Safety record**  .......... 13.9%
10. **State certification / Social agency ratings**  .......... 12.7%
11. **Facilities (e.g., cleanliness; equipments)**  .......... 11.4%
12. **Record history of problems (e.g., abuse; lawsuits; complaints)**  .......... 11.4%
13. **Emergency procedures**  .......... 10.1%
14. **Concerns of “mother” (e.g., “Would she like ADC?”; “Would she be able to wear her own clothes?”; “Would she have her own room?”)**  .......... 10.1%
15. **Hours of operation**  .......... 7.6%
16. **Openness / Flexibility**  .......... 7.6%
17. **Transportation**  .......... 5.1%
18. **Therapy / Treatment plan**  .......... 5.1%
19. **Family support service**  .......... 2.5%
20. **Personal hygiene**  .......... 1.3%
21. **Male-female ratio of clients**  .......... 1.3%
22. **Friendship of clients**  .......... 1.3%
1 The treatment vignettes were constructed based on California Department of Aging (1999), Hegeman (1993), Jasper (1993), Mace and Rabins (1999), Martico-Greenfield (1993), and the National Council on the Aging (1999).
REFERENCES


