THESIS TITLE: Relationship Quality and Familism as Predictors of Positive and Negative Outcomes in Filipino-American Caregivers

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Relationship Quality and Familism as Predictors of Positive and Negative Outcomes in Filipino-American Caregivers

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Abstract

The proportion of adults aged 65 and over is projected to increase from 13% (40.2 million) to 19% (72 million) of the U.S. population by the year 2030 (Vincent & Velkoff, 2010), with over seven million of these older adults expected to have Alzheimer’s disease (Alzheimer’s Association, 2011). Providing care for an elderly relative has been found to be associated with a number of both positive and negative outcomes. The purpose of the present study was to examine predictors of these outcomes in Filipino-American dementia caregivers. It was hypothesized that objective burden (i.e., functional impairment, memory and behavior problems) would be positively correlated with subjective burden and depressive symptoms. It was also hypothesized that relationship quality would be negatively correlated with subjective burden and depressive symptoms, and positively correlated with caregiver satisfaction, after controlling for objective burden. In addition, it was predicted that familism would moderate these relationships such that the associations would be stronger when familism was high. Thirty caregivers completed surveys on their caregiving experiences. Pearson correlations, hierarchical multiple regression analyses, and moderated regression analyses were used to test the hypotheses. Results indicated that greater care-recipient functional impairment was related to greater caregiver satisfaction and more depressive behavior exhibited by care-recipients was related to greater depressive symptoms in caregivers. Relationship quality was not significantly related to subjective burden, depressive symptoms, or caregiver satisfaction after controlling for objective burden measures. However, familism moderated the association between relationship quality and depressive symptoms such that the relationship was stronger when familism was low. For caregivers low in familism, it appeared that relationship quality was important in predicting caregiver outcomes, while for those high in familism, relationship quality was not relevant.
Relationship Quality and Familism as Predictors of Positive and Negative Outcomes in Filipino-American Caregivers

The population of the United States is growing older and more ethnically diverse. According to U.S. census projections, the population of adults aged 65 and older will increase from 40.2 million (13%) in 2010, to over 70 million (19%) by 2030. By 2050, 42% of the older adult population will be ethnic minorities (Vincent & Velkoff, 2010). In particular, the Asian American population has been growing more rapidly than the rate of the general population and this growth is expected to continue. Asian Americans are projected to grow from 3% to 9% of the older adult population by 2050 (Barnes & Bennett, 2002). As our population ages, people of all ethnicities are living longer with debilitating illnesses, including dementia. In 2011, there were approximately 5.2 million older adults in the U.S. suffering from Alzheimer’s disease. This number may increase to as many as 16 million by the year 2050 (Alzheimer’s Association, 2011). As the older adult population with dementia increases, so do the demands for informal care.

Informal unpaid caregivers, usually children or spouses, are individuals who take care of aging family members or friends who can no longer take care of themselves. There are an estimated 14.9 million informal caregivers of dementia patients in the U.S. (Alzheimer’s Association, 2011). Research has shown that caregivers experience a high incidence of physical and mental health problems, and these negative caregiver outcomes are exacerbated in caregivers providing for a person with a diagnosis of dementia (Etters, Goodall, & Harrison, 2008). Specific outcomes differ by ethnic group; these differences may be due in part to cultural differences regarding elder care (Aranda & Knight, 1997). For example, research has indicated that African American caregivers tend to report less burden and
depressive symptoms and more caregiving benefits than White caregivers. Hispanic caregivers also report more caregiving benefits than do White caregivers. (Pinquart & Sorenson, 2005). Findings on Asian American caregivers have been mixed: some studies find that Asian American caregivers are more depressed than White caregivers, but some studies report the opposite (Janevic & Connell, 2001). Cultural values that stress the importance of family ties and expectations that family members should take care of their elders may play a role in these differential outcomes. Given the rapidly growing population of ethnically diverse older adults and caregivers, it is critical that researchers better understand how cultural values may relate to caregiver outcomes within specific ethnic groups.

This thesis focuses on one ethnic group that has failed to garner much attention in research: Filipino-Americans. Filipino-Americans make up a largely understudied group who are often subsumed into an “Asian” category when included in research. Although many Filipinos hold values similar to those of other Asian subgroups, there are significant differences between cultures. It is important to examine this group separately rather than assuming that findings from one group will generalize to another (Nadal, 2004; Tuason, Taylor, Rollings, Harris, & Martin, 2007). Better understanding the factors involved in caregiving for Filipino-Americans, including cultural factors, will allow researchers to design appropriate interventions and support services for this growing population of informal caregivers.

This paper examines how cultural values of Filipino caregivers, as well as the quality of the caregiving relationship, are associated with the appraisal of the caregiving experience and how this appraisal relates to caregiver outcomes. First, a general stress and coping framework and the relationship between stressors, appraisals, and outcomes is explored. This framework is
then expanded to look specifically at caregiving samples and examines both the positive and negative outcomes caregivers experience as a consequence of the caregiver role. Second, the quality of the relationship the caregiver shares with the care-recipient is considered as a factor predicting caregiver outcomes. Finally, cultural values are considered as they may come into play for minority caregivers; specifically, the role of familism and filial piety as potential protective factors is explored.

**Stress and Coping Model**

The model most commonly used to illustrate the caregiver experience is the stress and coping model proposed by Lazarus and Folkman (1984). In this model a person evaluates potential stressors, determining whether they are relevant (primary appraisal), and if so, whether he/she has sufficient resources available to deal with the stressor (secondary appraisal), see Figure 1.

![Stress and Coping Model Diagram](image)

*Figure 1. The stress and coping model.*

Primary appraisal refers to evaluation of the personal relevance of a situation, as well as whether it is likely to exert harm or benefit (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Stress is defined as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p. 19). Stress can arise from a variety of sources, including acute catastrophic events (e.g., natural disasters), as well as everyday occurrences, or changes in the environment that are chronic (e.g., a job loss).
Once personal relevance is established, secondary appraisal operates to evaluate the availability of potential coping strategies that may help to manage the situation such that harm is minimized. If the person determines that he/she has adequate resources and coping strategies available to deal with stressors, the feelings of stress are decreased. However, if these resources are deemed insufficient, feelings of stress can result and may persist until the person is able to either solve the problem or more effectively manage the situation. Research has shown that when predicting outcomes of stressors, the way that stressful situations are appraised seems to be more important than the actual stressor itself; people faced with similar obstacles react in different ways depending on their evaluation of the situation (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). This has certainly been true in studies of caregiving for the elderly (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991).

An adaptation of the stress and coping model was created to help explain caregiver stress and feelings of burden (Pearlin, Mullan, Semple, & Skaff, 1990). During the primary appraisal process, the individual determines whether a stressor exists. Stressors can be of two types. Primary stressors originate directly from the situation at hand, while secondary stressors arise from efforts to meet the demands posed by primary stressors (Pearlin et al., 1990). In this model, primary stressors consist of the objective burdens placed on a caregiver as a result of the care-recipient’s functional or cognitive impairments. The assistance required in activities of daily living (ADLs; e.g., eating, bathing, and dressing) and instrumental activities of daily living (IADLs; e.g., medication management, transportation), in addition to the cognitive and behavioral changes in the care-recipient, are examples of primary stressors. Behavior problems such as wandering, agitation, and disruptive behaviors can occur frequently in those with
dementia and, given the progressive nature of dementia, primary stressors are chronic and not likely to recede or dissipate over time.

These primary stressors can lead to secondary stressors as caregivers attempt to manage the situation. For example, as caregivers are required to spend more time providing care, they may find they have less time to spend with their spouse or children, and may also find that their social life with friends suffers due to a lack of available time. They may also experience strain at work if caregiving duties and employment responsibilities conflict. Additionally, taking on caregiving duties while becoming less involved in other areas of life can result in a loss of a sense of identity outside the caregiving role. Caregivers who deal with these problems may become especially stressed (Alspaugh, Stephens, Townsend, Zarit, & Greene, 1999; Gaugler, Davey, Pearlin, & Zarit, 2000). Collectively, the primary and secondary stressors may lead caregivers to feel overwhelmed. The way in which caregivers appraise these stressors can have an impact on caregiving outcomes, and it is important to explore the nature of these outcomes.

Although past research has focused mainly on the negative aspects of caregiving, the experience can also be appraised positively. A two factor model of caregiver burden and caregiver satisfaction indicates that these concepts are not opposites on one continuum, but rather are two separate concepts that can be endorsed simultaneously (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991). Providing care for a family member with dementia involves performing or helping to perform activities of daily living and supervising the family member for safety reasons (Pearlin et al., 1990). The level of time and effort these tasks require, combined with the need to handle behavioral problems and cognitive decline, can result in a stressful situation. Moreover, the stress associated with dementia caregiving is likely to be chronic, due to the progressive nature of the disease. Caregivers report elevated levels of depression, anxiety,
physical health problems and self-reported health as compared to non-caregivers (Pinquart & Sorensen, 2003; Schulz, O’Brien, Bookwala, & Fleissner, 1995; Vitaliano, Zhang, & Scanlan, 2003). These negative outcomes have been shown to be exacerbated in caregivers caring for a person with dementia (Etters, Goodall, & Harrison, 2008). Positive outcomes associated with caregiving include finding meaning in the role and increased feelings of self-efficacy (Schulz & Sherwood, 2008). Some caregivers also experience feelings of accomplishment related to effectively dealing with the challenges of caregiving. These caregivers may show an increase in self-esteem, especially if their efforts are recognized by the care recipient or other family members (Carbonnau, Caron, & Desrosiers, 2010). Different caregivers report varying levels of both burden and satisfaction, and these differences are likely related to how the experience is appraised. The secondary appraisal of stressors may provide the key to these variable outcomes.

Both positive and negative caregiving outcomes are influenced by the ways in which caregivers evaluate the stressors involved in caregiving and the resources they perceive as available to handle those stressors. Caregivers who evaluate their experience as highly stressful and who feel that their coping resources are insufficient are likely to experience more negative outcomes, such as feelings of burden, depression, and anxiety. In contrast, caregivers who perceive the stressors as manageable using their available coping strategies may derive more satisfaction from caregiving. Two factors that may influence the way caregivers appraise the stressors inherent in caregiving are the quality of the relationship and cultural factors.

**Relationship quality**

The quality of the relationship between the caregiver and care-recipient can affect the way in which the caregiving situation is evaluated. Relationship quality is an especially important factor to examine in dementia caregivers, as cognitive losses, functional decline, and
behavioral problems associated with dementia often result in decreased reciprocity, intimacy, and communication in the relationship (Ablitt, Jones & Muers, 2009). Behavioral problems such as physical aggression, verbal outbursts, and wandering behaviors have been shown to predict poorer relationship quality (Lawrence, Tennstedt, & Assmann, 1998). Apathetic and withdrawn behaviors have also been found to be detrimental to the quality of the relationship. This may be due in part to the decrease in the number of meaningful activities in which the dyad can share as the care-recipient becomes more passive and less communicative (De Vugt et al., 2003).

Caregivers who perceive a decline in the relationship’s quality after dementia symptoms increase may find caregiving more stressful as they deal with the losses associated with the decline (Adams, McClendon, & Smyth, 2008). In contrast, those who appraise the quality of their relationship as more positive may be more likely to successfully cope with the challenges of caregiving. Thus, it is important to consider the quality of the relationship dyads shared before the onset of caregiving.

The caregiver’s perception of the quality of the relationship before caregiving duties were assumed can also influence their appraisals of the current situation which in turn, affect caregiving outcomes. Due to the changes in the relationship between caregiver and care-recipient as the disease progresses, researchers often use retrospective assessments of relationship quality before the onset of illness as a variable of interest (Ablitt, Jones, & Muers, 2009). Caregivers who had a close relationship with the care-recipient prior to the onset of dementia may evaluate the stressors they currently face in a more positive light (Williamson & Shaffer, 2001). Research has suggested that those who enjoyed a relationship of high quality before dementia diagnosis report a higher quality of life and more reward and satisfaction with caregiving, whereas those who did not have a high quality relationship prior to diagnosis may feel more burden and
resentment toward the care recipient (Quinn, Clare & Woods, 2009). These results have been found in several studies and hold after controlling for the caregiver’s level of functional impairment, severity of illness, and number of behavior problems (Kramer, 1993; Steadman, Tremont & Davis, 2007; Williamson & Schulz, 1990). Prior relationship quality may also influence depressive symptoms, with research indicating that caregivers who report a lower quality of prior relationship report more depressive symptoms, even after controlling for other factors (Adams, McClendon & Smyth, 2008; Kramer, 1993; Rankin, Haut and Keefover, 2001).

The increased feelings of burden and depression among caregivers who have a poorer quality of relationship with the care-recipient may be related to another factor: obligation.

Caregivers who provide assistance to family members with whom the relationship is not close may do so out of a sense of obligation. Research indicates that caregivers who report that obligation is a key factor in providing care also report higher levels of subjective burden (Cicirelli, 1993). Caregivers may feel that there is no way out of assuming the caregiver role, and that they are being forced to deal with a negative relationship on a regular basis. This is likely to make the provision of care more burdensome. Alternately, those who enjoy positive relationships with care receivers may see the caregiver role as an opportunity to express love and gratitude to the care-recipient and may feel a sense of accomplishment when they are able to fulfill caregiving tasks (Carbonneau, Caron, & Desrosiers, 2010). Caregivers who find meaning in the caregiver role are likely to find their caregiving duties more rewarding and appraise the experience more positively (Jones, Winslow, Lee, Burns, & Zhang, 2011). Cultural values and expectations regarding elder care can influence the meaning caregivers find in their role as well as their sense of obligation. Members of cultures that more strongly value familism may feel more obligated to provide care, regardless of the quality of the relationship (Knight et al., 2002;
Since cultural values can affect how the caregiving experience is appraised, they are an integral part of the stress and coping model.

**Cultural Factors**

Caregivers from different ethnic backgrounds hold various cultural values that may affect caregiving appraisals and outcomes; including these values in the stress and coping model can help clarify reasons for ethnic group differences. Recently, a new stress and coping model has been introduced that integrates cultural values along with factors such as coping strategies and social support as discussed in the original model (Sociocultural Stress and Coping Model; Knight & Sayegh, 2010). Knight and Sayegh (2010) propose that understanding cultural values is essential to recognizing differences in coping styles and the level of social support available to caregivers who belong to minority ethnic groups. However, combining groups of minority cultures in order to compare them is problematic because the vast heterogeneity of the different cultures is not taken into account. Knight and Sayegh (2010) emphasized the importance of exploring potential differences in caregiving by looking specifically at the values that the culture endorses, rather than automatically attributing differences between groups to ethnicity. For example, providing care for elderly family members is more normative in some cultures than others. In addition, culture can influence the decision as to which member of the family becomes the primary caregiver and how much support is received. These factors can influence the appraisal of the situation.

One salient cultural value that may affect how the caregiving experience is appraised is familism. According to Gaines et al., (1997), familism is characterized by the commitment to the value of family and family relationships and is often conceptualized along the collectivist versus individualist continuum. Ethnic minorities are seen as valuing interdependence and the needs of
the group, placing them on the collectivist end, whereas White Americans are typically characterized as valuing independence and self-preservation, values that characterize individualist ideas. However, it is important to recognize that there is much variation both within and between cultures, though some ethnic groups generally place more importance on the value of the family and increased expectations to provide care to elderly family members than others. For example, Latino caregivers are often part of large social networks consisting of immediate and extended family and there is traditionally an emphasis on the necessity of providing care for older family members (Aranda & Knight, 1997). Similarly, African American caregivers report belonging to interdependent support networks that include family members as well as fictive kin (Chatters, Taylor, & Jayakody, 1994), and tend to endorse values reflecting the need for family to provide elder care (Dilworth-Anderson et al., 2005). In addition, many Asian cultures emphasize the importance of respect for elders and filial piety, which results in an expectation to care for parents as they grow older (Knight et al., 2002). Familism is likely to influence how the caregiving experience is appraised, and differences in appraisal can affect caregiver outcomes.

Research on caregiver outcomes has been mixed regarding the potential benefits of familism. Early research suggested that caregivers who hold familistic values could benefit from reduced burden and more positive outcomes, in part because the caregiving experience may be appraised in a positive light if it is thought of as fulfilling cultural values and expectations (Aranda & Knight, 1997). A caregiver who is part of a culture that sees caring for elderly family members as expected could see the caregiving role as a normal part of life and may perceive it as less burdensome and appraise it more positively. This interpretation has been supported in some studies (Lai, 2010; Shurgot & Knight, 2004). However, other studies have found no association between familism and caregiver outcomes (Crist et al., 2009), varying associations between
familism and caregiver outcomes (Losada et al., 2006; Losada et al., 2010;), and some have even found that familism is associated with negative outcomes (Kim, Knight, & Longmire, 2007; Rozario & DeRienzis, 2008, Youn, Knight, Jeong, & Benton, 1999). In order to understand the conflicting findings of the influence of familism on caregiver outcomes, it is necessary to understand more about the concept of familism itself.

Familism is a multidimensional construct and different aspects of it can influence caregivers in different ways. Knight and Sayegh (2010) suggest that in order for familism to be understood properly it needs to be separated into the components of obligation and support. Specifically, familial obligation may have a negative impact on burden perceptions, while perceived support from family may be beneficial in ameliorating distress. Research has shown that caregivers who score higher on a scale of familial obligation report more depressive symptoms and poorer self reported physical health (Losada et al., 2010; Sayegh & Knight, 2011). Feelings of obligation can result in increased caregiver distress and an appraisal of the experience as burdensome. Furthermore, caregivers may feel guilt if their caregiving results from feelings of obligation to care for the family member rather than their own desire to provide care, and this guilt may exacerbate distress. On the other hand, caregivers who have a high quality relationship with their care-recipient could derive satisfaction from providing care to the loved one as well as from fulfilling cultural expectations regarding care. Whereas caregivers’ sense of familism and relationship quality with care-receivers may make independent contributions to caregiver outcomes, perhaps their effects are strongest when considered in combination.

The benefits or drawbacks of holding familistic values could depend on the context of the caregiving situation. One important factor to consider is the relationship between the caregiver and care recipient. Familism may interact with the quality of the relationship between caregiver
and care-recipient such that it is protective when the quality of relationship is high, but detrimental when the quality of relationship is low. Youn, Knight, Jeong, & Benton (1999), in a sample of Korean, Korean-American, and American caregivers, found that caregivers high in familism were not protected from burden, and hypothesized that these results may be due to the traditional role of daughter-in-law as caregiver combined with a relationship that is at high risk for conflict. Family members who are assigned the caregiving role because it is what is expected of them may not feel as though they have any choice in the matter and could become resentful, especially if they do not get along with the person needing care. Caregivers who provide care out of obligation rather than because of affection and love for the care-recipient may also experience shame due to the contrast between how they feel about the care recipient and what they think they “should” feel based on cultural norms, and these conflicting feelings could result in increased burden. On the other hand, caregivers who have a good relationship with the care recipient could see the provision of care as more meaningful and satisfying, and if they hold familistic values then caregiving could also be seen as a way to fulfill cultural expectations. Thus, endorsing familism when the quality of the relationship is high could prove to be beneficial. Familism could be a factor that is beneficial in some circumstances but harmful in others.

Research on cultural factors such as familism has focused on caregivers of a variety of ethnic groups, but some groups remain understudied. Cultural influences on caregiving have been quantitatively examined in Latino (Losada, Shurgot, Knight, Marquez, Montorio, Izal, & Ruiz, 2006; Montoro-Rodriguez & Gallagher-Thompson, 2009), Spanish (Losada, Marquez-Gonzales, Knight, Yanguas, Sayegh, & Romero-Moreno, 2010), African-American (Dilworth-Anderson, Brummett, Goodwin, Williams, Williams, & Siegler, 2005; Clay, Roth, Wadley, &
Haley, 2008; Kim, Knight, & Longmire, 2007), Chinese (Lai, 2010), and Korean (Kim & Lee, 2003; Youn, Knight, Jeong, & Benton, 1999) caregivers. However, the few studies examining the experiences of Filipino-American caregivers and care-recipients have been primarily qualitative in nature with small sample sizes (e.g., Jones, Zhang, Jaceldo-Siegl, & Meleis, 2002; Kimura & Brown, 2009). Results from quantitative studies examining caregivers in the Philippines (e.g., Blust & Scheidt, 1988; Varona, Saito, Takahashi, & Kai, 2007) may differ from findings on Filipino-Americans. More research is needed in order to better understand Filipino-American caregivers and their care recipients.

Cultural values stressing familistic ideas appear to be highly relevant to Filipino-American caregivers. Filipinos are typically members of clans that can include immediate and extended family members as well as godparents and good friends, and clan members have the responsibility to protect and remain loyal to the family (Cimmarusti, 1996). It is considered vital to maintain harmony within the family and provide support to other members when needed. Respect for elders is also an important family value and adult children in the Philippines are typically expected to provide care for elderly parents (Blust & Scheidt, 1988; Varona et al., 2007). These family-oriented cultural values are similar to those seen in other minority groups and Asian cultures, although it is important to examine Filipino-Americans separately rather than assuming that findings from one group will generalize to another (Nadal, 2004; Tuason, Taylor, Rollings, Harris, & Martin, 2007). It is also important to consider potential reasons for differences between cultures.

One important factor that may be involved in cultural differences between Filipino-American caregivers and those from other cultural groups is the concept of obligation to repay one’s debts. One salient Filipino core value is the concept of *utang na loob*, or debt of gratitude,
which is the need to reciprocate kindnesses (Cimmarusti, 1996). After receiving a favor, it is a cultural obligation to repay that favor, especially if it involves a family member (Blust & Scheidt, 1988). This concept becomes particularly important in the parent-child relationship, as children need to express gratitude to their parents for the ultimate kindness: bringing them into the world and raising them. Parents take care of their children when they are young, so in order to reciprocate and express their thankfulness, their children are obligated to take on the responsibility of caring for the parents as they grow older (Blust & Scheidt, 1988). Failure to take on this responsibility is socially stigmatized and is cause for shame (Varona et al., 2007). These values are related to the concept of familism and may play an important role in the Filipino-American caregiver’s appraisal of the caregiving experience.

**Present Study**

The purpose of the present study was to examine how familism and relationship quality play a role in caregiver perceptions of burden and satisfaction, specifically in Filipino-American caregivers. This study helps to fill a large research gap in the literature on Filipino-American caregivers and provide information on possible fruitful future avenues of research. The aim of the study was to examine how the quality of relationship between caregiver and care-recipient can affect caregiver well-being and to help clarify the situations in which holding familistic values can be protective or detrimental to caregivers. Previous research has demonstrated that both the pre-caregiving and current relationship quality can affect caregiver outcomes such that a better relationship predicts better outcomes (Quinn, Clare, & Woods, 2009). Caregivers who were not close to their care-recipient prior to the onset of dementia but instead provide care due to a sense of duty or obligation may appraise the experience more negatively and could be at increased risk for resentment and burden, especially if they hold familistic values. On the other
hand, caregivers who are close to their care-recipient may appraise the experience more positively and perceive less burden and more benefit from the experience. These positive experiences could be enhanced if caregiving is also seen as a way to express familistic values (see Figure 2).

**Figure 2.** The hypothesized model.

The hypotheses of the current study are:

- **H1a)** Objective burden (functional impairment) will be positively correlated with subjective burden and depressive symptoms.
- **H1b)** Objective burden (memory and behavior problems) will be positively correlated with subjective burden and depressive symptoms.
- **H2a)** Relationship quality will be negatively correlated with negative caregiver outcomes (subjective burden and depressive symptoms) after controlling for objective burden.
- **H2b)** Relationship quality will be positively correlated with caregiver satisfaction after controlling for objective burden.
- **H3a)** Familism will moderate the relationship between relationship quality and negative caregiver outcomes (subjective burden and depressive symptoms) such that these associations will be stronger when familism is high and weaker when familism is low.
H3b) Familism will moderate the relationship between relationship quality and caregiver satisfaction such that the association will be stronger when familism is high and weaker when familism is low.

**Method**

**Participants**

The participants in the study were 30 Filipino-American caregivers. All participants were over the age of 18, comfortable speaking and reading English, and providing care for an elderly relative diagnosed with dementia or related disorder. Participants were recruited in a number of ways. Flyers and informational letters were distributed throughout the community at organizations such as health clinics, caregiver resource centers, senior centers, churches, and local businesses, as well as at cultural fairs, online through social media, and through snowballing. The final sample of eligible participants was recruited through an adult day care center at which the primary investigator works \((n = 16)\), through community organizations and senior centers \((n = 8)\), through booths at cultural fairs \((n = 5)\), and through snowballing \((n = 1)\). Participants were primarily female \((n = 27)\) with a mean age of 57.21 \((SD = 13.2)\) and they were providing care for a relative with a mean age of 85.00 \((SD = 10.54)\).

**Measures**

**Background variables.**

**Demographic information.** Participants were asked to provide their age, gender, education level, annual household income, marital status, employment status, number of hours per week spent working, and number of children living at home (see Table 1). They were also asked to provide the care-recipient’s age, gender, relationship to caregiver, education level, marital status, and place of residence (see Table 2).
Table 1  
Participant (Caregiver) Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
<th>M (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>57.21 (13.20)</td>
<td>21 – 81</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>27 (90%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3 (10%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>1 (3.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school diploma/GED</td>
<td>1 (3.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>2 (6.7%)</td>
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<td></td>
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<tr>
<td>AA/AS degree</td>
<td>5 (16.7%)</td>
<td></td>
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<tr>
<td>BA/BS degree</td>
<td>18 (60%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA or MS degree</td>
<td>3 (10%)</td>
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<tr>
<td>Annual household income</td>
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<tr>
<td>$29,999 or less</td>
<td>7 (23.3%)</td>
<td></td>
<td></td>
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<tr>
<td>$30,000 – 49,999</td>
<td>6 (20%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50,000 – 69,999</td>
<td>4 (13.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$70,000 – 99,999</td>
<td>4 (13.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>7 (23.3%)</td>
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<td></td>
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<tr>
<td>Marital status</td>
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</tr>
<tr>
<td>Married</td>
<td>22 (73.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>3 (10%)</td>
<td></td>
<td></td>
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<tr>
<td>Divorced or separated</td>
<td>3 (10%)</td>
<td></td>
<td></td>
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<tr>
<td>Widowed</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not employed</td>
<td>9 (30%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>21 (70%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>35.67 (17.53)</td>
<td>8 – 77.5</td>
<td></td>
</tr>
<tr>
<td>Number of children living at home</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>18 (60%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 2</td>
<td>10 (33.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 – 4</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2  
*Care-recipient Demographics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
<th>M (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>85 (10.54)</td>
<td>53 – 105</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7 (23.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>23 (76.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship to caregiver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>20 (66.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband</td>
<td>4 (13.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sibling</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandmother</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th grade or less</td>
<td>10 (33.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school diploma/GED</td>
<td>7 (23.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>3 (10%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA/BS degree</td>
<td>6 (20%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>6 (20%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>1 (3.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced or separated</td>
<td>1 (3.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>22 (73.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of residence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With caregiver</td>
<td>23 (76.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With another relative</td>
<td>3 (10%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In own home</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With non-relative roommates</td>
<td>2 (6.7%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Medical information.* Participants were asked to provide information on their relative’s dementia diagnosis. They were also asked who diagnosed the care-recipient, the length of time since diagnosis, and an estimate of the time before diagnosis since noticing symptoms of dementia. Types of dementia reported include dementia of an unspecified type (53.3%),
Alzheimer’s disease (23.3%), mild cognitive impairment (20%), and Lewy body dementia (3.3%). Most participants reported that a primary care doctor diagnosed the care-recipient (50%), while 13.3% received the diagnosis from a neurologist, and 10% reported that the diagnosis was confirmed by both a primary care doctor and a neurologist. The mean length of time since diagnosis was 8 years ($SD = 8.74$, range = 1 to 33 years). The mean length of time the participants reported noticing symptoms before the diagnosis was 1.36 years ($SD = 1.10$, range = .21 to 5 years).

Participants were also asked to indicate the care-recipient’s other medical diagnoses. Results indicated that many care-recipients suffered from multiple illnesses in addition to dementia; these diagnoses included hypertension (66.7%), arthritis (46.7%), diabetes (36.7%), hearing loss (33.3%), vision loss (33.3%), osteoporosis (26.7%), depression (23.3%), anxiety (16.7%), COPD (6.7%), Parkinson’s disease (6.7%), and prostate cancer (3.3%).

**Caregiving variables.** Participants were asked how many older adults for whom they were currently providing care. Almost all of the participants reported caring for one older adult (93.3%), while 6.7% reported caring for two older adults (if participants were caring for more than one adult, they were asked to focus on the one person for whom they provide the most care in order to answer the survey questions). The mean length of time that caregivers had been providing assistance to the care-recipient was 7.86 years ($SD = 6.91$, range = .25 to 27 years). Participants were asked whether they identified as a primary, secondary, or auxiliary caregiver through the following question: “A primary caregiver is the person who is most responsible for the care of an aging relative and provides the most care. A secondary caregiver is one of a number of people who provide care. An auxiliary caregiver provides occasional help to primary and secondary caregivers but does not usually make decisions regarding care. Based on these
definitions, how do you identify yourself?” Most of the participants (83.3%) identified as primary caregivers, while 16.7% identified as secondary caregivers.

**Formal social support.** The use of formal support services was assessed by providing a list of these services and asking participants to check whether the care-recipient was enrolled in any of the programs. Participants indicated that they utilized adult day care services (76.7%), in-home supportive services (60%), bus transportation (30%), caregiver support groups (10%), home health services (6.7%), and meals on wheels (3.3%).

**Informal social support.** Two questions developed by Youn, Knight, Jeong, and Benton (1999) were used in order to give a general idea of the amount of informal support that caregivers had available to them. Instrumental social support was assessed with the question, “How many people help you with the tasks of caregiving at any time (i.e., keeping an eye on the person, helping with bathing, feeding, etc.)?” The number of people providing instrumental support ranged from zero to five, with a mean of 1.54 ($SD = 1.32$). Twenty percent of the participants reported that they had no one to help them with caregiving tasks, while 60% reported that they had one to two people available to help. Emotional social support was assessed with the question, “How many people can you talk to about things related to caregiving that are difficult for you?” The number of people providing emotional support ranged from zero to eight, with a mean of 2.88 ($SD = 2.18$). Most participants reported that they had at least one person available to provide emotional support, although 13.3% reported that they had no one to talk to about difficulties with caregiving.

**Acculturation.** Acculturation is often measured using one or more proxy items (e.g., language use, language preference, interview language, generational status, or length of time in the U.S.) in lieu of a scale if the length of the survey instrument is a concern (Cruz, Marshall,
Bowling, & Villaveces, 2008; Lee, Nguyen, & Tsui, 2011). As examining acculturation was not a primary focus of the present study, proxy measures were used in order to describe the sample’s general level of acculturation. Since the participants in the present study needed to be able to complete the measures in English in order to participate, all of them were likely at least partially acculturated to the United States. In order to provide additional information on level of acculturation, participants were asked if they were born in the U.S., and if not, how many years they had lived there. The majority of the participants were born in the Philippines (90%); 10% were born in the U.S. Participants who had been born in the Philippines had lived in the U.S. for a mean of 23.6 years ($SD = 10.16$, range = 6 to 39 years), or an average of 40.75% of their life span.

Participants were also asked to indicate what language they usually speak when talking with their parents, siblings, spouse, and children by making a selection from three choices: mostly Tagalog or another Philippine dialect, mostly English, or both about the same. When conversing with parents, 76.7% of participants indicated speaking primarily in Tagalog, 6.7% reported speaking primarily in English, and 10% reported utilizing both languages equally. When conversing with siblings, 46.7% of participants indicated speaking primarily in Tagalog, 20% used primarily English, and 16.7% reported utilizing both languages equally. When conversing with a spouse, 33.3% reported speaking primarily in Tagalog, 33.3% reported speaking primarily in English, and 10% reported utilizing both languages equally. Finally, when conversing with their children, 6.7% reported speaking primarily in Tagalog, 43.4% reported speaking primarily English, and 20% reported speaking utilizing both languages equally.

**Social desirability.** Social desirability was assessed using the Marlowe-Crowne Short Form C (Reynolds, 1982). Reynolds (1982) demonstrated that the Marlowe-Crowne Short Form
C correlated strongly \((r = .93)\) with the standard 33-item Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) and so is appropriate for use when a brief scale is needed. The scale consists of 13 items rated true or false. Scale scores are obtained by adding 1 point for each question answered in the socially desirable direction with higher scores indicating higher levels of social desirability. Four participants had one to two items missing from this scale. These items were replaced with the average item score for the scale. An example of an item from this measure is, “I am always courteous, even to people who are disagreeable.” The average score for this measure was 9.75 \((SD = 2.30, \text{range} = 6 \text{ to } 13)\), and the reliability coefficient was .62. These numbers are quite different from the mean of 5.67 and reliability coefficient of .76 that Reynolds (1982) reported in his validation of the measure. Culture may play a role: there is evidence that members of collectivist cultures, including East Asian cultures, tend to score more highly on measures of social desirability than members of Western cultures, perhaps because of an increased desire to affiliate with others and a tendency for less self-disclosure (Johnson & Van de Vijver, 2002, Middleton & Jones, 2000). This possibility is important to consider when examining Filipino-American caregivers.

**Predictor variables.**

**Functional impairment.** Functional impairment (one of two measures of objective burden) was assessed using the Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) scales described in Penning (1998). Caregivers indicated the level at which their relative could perform seven ADLs (eating, dressing, grooming, walking, getting in and out of bed, bathing, and toileting) and seven IADLs (shopping, meal preparation, housework, managing money, using the telephone, getting to places beyond walking distance, and taking medications) on a 3-point scale by indicating whether the care-recipient could manage the
activity without help (scored as 1), manage the activity with help (scored as 2), or was completely unable to manage the activity (scored as 3). Item scores were summed to obtain a scale score for both ADL and IADL impairment, with higher scores indicating a higher level of impairment.

The mean level of ADL impairment was 12.57 ($SD = 3.31$, range $= 7 – 21$). Most participants indicated that their relative needed assistance with the majority of ADLs: 40% needed help with or were completely unable to perform four to six ADLs, and 33.3% needed help with or were completely unable to perform all seven ADLs. Only two participants reported that their relative was still unimpaired in performing ADLs. The mean level of IADL impairment was 17.77 ($SD = 2.90$, range $= 11 – 21$). Most participants indicated that their relative was completely unable to perform the majority of IADLs, even with assistance: 50% were unable to perform four to six IADLs, and 16.7% were unable to perform all seven IADLs. All of the remaining participants (33.3%) reported that their relative needed help to perform at least four IADLs. Scores from both scales were summed to obtain a total functional impairment score, averaging 30.33 ($SD = 5.71$, range $= 18 – 41$). In this sample, reliability coefficients were .90 for the ADL impairment, .83 for IADL impairment, and .91 for combined ADL/IADL impairment. Penning (1998) reported reliability coefficients of .90 for ADL impairment and .89 for IADL impairment, which are similar to those reported in this study.

Several studies have found caregiver reports of care-recipient functional ability to be accurate. Davis, Martin-Cook, Hynan, and Weiner (2006) found that the majority of caregivers reported scores of care-recipient functional ability that varied 7% or less from an objective score, and that discrepancies in scores were not due to caregiver affect, psychiatric symptoms, feelings of self-efficacy, quality of relationship with the care-recipient, or care-recipient scores on the
Mini Mental State Exam (MMSE; a measure of cognitive impairment). Cotter, Burgio, Roth, Gerstle, and Richardson (2008) found no significant differences in ratings of functional ability between caregivers, a computer-assisted direct observation system, and occupational therapists.

**Memory and behavior problems.** The second measure of objective burden used in this study was the Revised Memory and Behavior Problems Checklist (RMBPC; Teri, Truax, Logsdon, Uomoto, Zarit, & Vitaliano, 1992). The measure consists of 24 items that describe problematic behaviors typically found in dementia patients (e.g., disorientation, agitation, and crying spells) and is divided into three subscales: depressive behaviors (9 items), disruptive behaviors (8 items), and memory related problems (7 items). Participants rated the frequency of each behavior on a 5-point scale (0 = never occurred; 4 = daily or more often). The authors of the scale summed the frequency scores to establish scale scores, but in the present study the scores for each subscale and scores for the entire scale were averaged in order to make the results more easily interpretable. Higher scores indicate more problems. Two participants had missing data for some items on the scale, with no more than two items per subscale missing. The missing items were replaced with the average of the subscale to which the item belonged. The original measure also includes a reaction scale, in which caregivers report how upset they were in response to each behavior (which can be utilized as an indicator of subjective burden), but this scale was not used in the present study. An example of an item in the depression subscale is “Crying and tearfulness,” an example of an item from the disruption subscale is “Engaging in behavior that is potentially dangerous to self or others,” and an example of an item from the memory problems subscale is “Asking the same question over and over.” The mean score for the depression factor was 1.15 (SD = .78, range = 0 to 2.89, α = .82), the mean score for the disruption factor was 1.06 (SD = .85, range = 0 to 3.00, α = .83), and the mean score for the
memory problems factor was 2.84 ($SD = .94$, range = 1.00 to 4.00, $\alpha = .86$). The mean score for the entire scale was 1.62 ($SD = .71$, range = .38 to 2.96, $\alpha = .91$).

Teri et al. (1992) examined the reliability and validity of this measure and its three subscales (depression, memory-related problems, and disruption) by administering the measure to caregivers of patients with and without dementia. It was found that the depression subscale correlated positively with Hamilton Depression Rating Scale scores and diagnoses of depression but not with MMSE scores, and the memory-related problems subscale correlated significantly with MMSE scores and diagnoses of dementia but not with depression. These findings support concurrent and discriminant validity of the measure. Johnson, Wackerbarth and Schmitt (2000), with a sample size of 952, verified Teri et al.’s (1992) proposed 3-factor structure and reported a reliability coefficient of .85 for the problem frequency scale.

**Quality of relationship.** Relationship quality was assessed using the Positive Affect Index (Bengtson & Schrader, 1982). The Positive Affect Index is a 10-item scale that assesses subjective feelings of understanding, respect, trust, affection, and fairness in a family relationship. Items are rated on a 6-item scale (1 = not at all; 6 = extremely), and are summed to calculate a total score, with higher scores indicating higher relationship quality. The present study used this measure to assess current relationship quality as well as a modified version to assess relationship quality prior to the dementia diagnosis. The modified version of the PAI for the prior relationship consisted of the scale items rewritten in the past tense, and participants were given the following instructions: “Please think about the relationship you shared with your relative BEFORE he or she was diagnosed with dementia or another memory disorder. Answer the following questions using the scale below.” The unmodified version of the PAI for the current relationship immediately followed the prior relationship scale. Participants were given
the following instructions: “Now we’d like for you to think about the relationship you CURRENTLY share with your relative. Please answer the following questions using the scale below.” Both current and prior relationship quality were assessed because the relationship may have changed after the onset of dementia symptoms and / or caregiving responsibilities. An example of an item from the prior relationship scale is, “How well did you feel your relative understood you?” An example of an item from the current relationship scale is, “How well do you feel your relative understands you?” The mean for the prior relationship scale was 51.46 ($SD = 7.65$, range $= 29$ to $60$, $\alpha = .94$), and the mean for the current relationship scale was 47.33 ($SD = 9.06$, range $= 32$ to $60$, $\alpha = .93$). Two participants did not complete the prior relationship scale and so were not included in analyses involving that variable.

The scale was developed using a sample consisting of three generations of family members and has since been used shown to be reliable among participants of various age groups (Bengtson & Schrader, 1982; Bishop & Martin, 2011). Items load highly on one factor and internal consistency has been reported to range between .83 and .96 (Bengtson & Schrader, 1982), which is consistent with the alpha levels reported in this study.

**Moderating Variable.**

**Familism.** Familism was assessed using a 10-item scale constructed by Gaines et al. (1997) that measures the degree to which participants endorse familistic values. Items are rated on a 5-item scale (1 = strongly disagree; 5 = strongly agree), and are averaged to obtain a final score. Higher scores indicate higher levels of familism. An example of an item from this scale is, “To this day, my parents’ teachings serve as my best guide to behavior.” The mean familism score in this study was 4.40 ($SD = .79$, range $= 1.3 – 5.0$, $\alpha = .96$), with the majority of the sample reporting high levels of familism. Gaines et al. (1997) reported that in the initial sample,
African Americans, Asian Americans, and Latinos scored higher on this measure than white participants, and familism was positively correlated with a measure of ethnic identity. The items loaded onto one factor and internal consistency was reported at .88 (Gaines et al., 1997).

**Outcome variables.**

*Subjective burden.* Subjective burden was assessed using the Zarit Burden Interview (ZBI; Zarit, Orr, & Zarit, 1985). Participants rated 22 items that assess the frequency of various feelings of caregiving stress and strain using a 5-point scale (0 = never; 4 = nearly always). Frequency scores are summed to obtain a total score, with higher scores indicating higher levels of subjective burden. Four participants had one to three missing items on this scale; these items were replaced with the average scale score. An example of an item from this scale is, “I feel that my relative is dependent on me.” Participants reported a mean burden level of 35.31 (SD = 16.19, range = 2.33 to 67). The reliability coefficient for this sample was .92.

The ZBI is the most widely used of the burden measures in the caregiving literature, and has been found to correlate positively with other measures of burden and negatively with quality of relationship (Hébert, Bravo, & Préville, 2000). Hébert et al. (2000) reported that caregiver age, gender, marital status, language, and employment status did not significantly affect ZBI scores, while care-recipient behavior problems and caregiver depression score were positively associated with burden scores. According to Hébert et al. (2000), internal consistency has rated from .85 to .92, which is consistent with the reliability found in the present study. Previous studies assessing burden in dementia caregivers have found mean burden scores of 20.59 (Bédard et al., 2001), 22.4 (Hébert et al., 2000), 27.9 (Higginson, Gao, Jackson, Murray, & Harding, 2010), and 33.59 (Zarit, Todd, & Zarit, 1986). The mean level of burden in this study was high in comparison to the means in these studies.
Depression. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) is a 20-item scale assessing the frequency of depressive symptoms in the past week, and is frequently used in caregiving studies (Roth, Ackerman, Okonkwo, & Burgio, 2008). Items are rated on a 4-point scale (0 = rarely or none of the time [less than 1 day]; 3 = most or all of the time [5-7 days]). Scores are summed, with higher scores indicating more depressive symptoms. One participant had seven items missing from this scale and so was not included in the analyses involving depressive symptoms. Two participants were missing one item from the scale; these items were replaced with the average scale score. An example of an item from this scale is, “I felt that everything I did was an effort.” The mean scale score was 10.21 (SD = 6.46, range = 1 to 28). Five participants (16.7%) appeared to be at risk for clinical depression as they had scores exceeding the recommended cutoff score of 16. Reliability was adequate at .75, but differed from Radloff’s (1977) report of good internal consistency at .85 to .90. Radloff (1977) found good evidence for validity of this measure as it was consistent with other self-report measures of depression and clinical ratings of depression.

Caregiving satisfaction. The Positive Aspects of Caregiving scale (Tarlow et al., 2004) is a 9-item measure that assesses positive experiences with the caregiving role. Items are rated on a 5-point scale (1 = disagree a lot; 5 = agree a lot), and items are summed to obtain the scale score. An example of an item from this scale is, “Providing help to my relative has made me feel good about myself.” The mean satisfaction score was 39.03 (SD = 7.75, range = 9 to 45; α = .96), with the majority of the sample reporting high levels of satisfaction. Validity of the scale has been established through positive correlations with the well-being subscale of the CES-D, self-reported health, and satisfaction with social support, and internal reliability has been reported at .89 (Tarlow et al., 2004).
Procedure

Participants received information about the study through community organizations, senior centers, and local businesses. Participants who were interested in participating contacted the researcher through telephone or email, and were asked initial questions in order to establish eligibility for the study. A total of 56 potential participants contacted the researcher, and 39 (70%) met eligibility requirements and expressed interest in participating. Of those who met requirements, 77% completed the survey. Data collection lasted approximately 12 months. Participants were given the option to participate in the study either by filling out a paper and pencil questionnaire or completing the survey online through Surveymonkey. This option was given in an attempt to make it easier for caregivers (who typically have very busy schedules) to participate in whatever way was most convenient for them, and maximize the total number of participants. The survey usually took about 20 minutes to complete.

Participants who opted to complete a paper and pencil survey \((n = 24)\) were given a survey packet either in person or through the mail. The packet contained an introductory letter explaining the study, consent forms, and a survey labeled with a survey ID number. Participants signed a consent form and completed the survey at a time and place of their convenience. Once they had completed the survey, they returned the packet to the researcher either in person or through the mail. Participants were then given a copy of a debriefing letter that included a list of caregiver resources. Participants were given reminders approximately two and four weeks after receiving the survey if they had not yet returned it.

Participants who chose to participate online \((n = 6)\) visited the Surveymonkey website at a time and place of their convenience, where they read an introductory letter explaining the study and were asked to provide informed consent. Once they gave their consent to participate in the
study, participants completed the questionnaire on the SurveyMonkey website. Participants were able to take as much time as they needed to complete the survey. After completion of the survey, participants were directed to a final page that contained the debriefing letter and list of resources for caregivers.

Participants were told that the purpose of the study was to examine issues pertaining to Filipino-American caregivers and their family members with dementia, but the specific goals and hypotheses of the project were withheld. After data collection and analyses were complete, a full debriefing with a summary of the results of the study were sent to participants who had indicated that they wanted to receive this information. Participants were entered into a drawing for a $25.00 gift card to Target in order to thank them for their participation. After data collection was complete, one survey ID number was chosen randomly through the random number generator at random.org. The researcher contacted the participant who matched the selected survey ID and mailed the gift card to the participant.

Results

Preliminary Analyses

Prior to conducting the main analyses, the data were examined in order to check that statistical assumptions were met. Normality was checked by using the one sample Kolmogorov-Smirnov (K-S) test and by examining the distributions of the variables through histograms. Results of K-S tests indicated that all study variables (social desirability, ADL impairment, IADL impairment, total ADL/IADL impairment, memory and behavior problems, the three memory and behavior problems subscales, quality of prior relationship, quality of current relationship, familism, subjective burden, depressive symptoms, and satisfaction) were normally distributed, $p > .05$. However, visual inspection of histograms revealed two variables that
appeared to be non-normally distributed: the distributions of familism and caregiver satisfaction scores were negatively skewed, with most participants scoring highly on these measures. Transformations were attempted in an effort to decrease skewness, but none were effective. Given that these variables are likely also skewed in the population, transforming these variables may not have been appropriate anyway, so the original non-transformed variables were used in subsequent analyses. Linearity and homoscedasticity were tested by examining scatterplots of the correlations between the predictor and outcome variables. These assumptions appear to have been met because the relationships appeared linear and it did not appear that the strength of the relationships between the variables was different at the low, medium, and high levels of the variables. The independence of observations assumption was met because participants completed the surveys independently and there was no reason to believe any one observation would affect any other observation.

In order to assess whether participants who completed the survey online ($n = 6$) differed from participants who completed the survey on paper ($n = 24$), Mann-Whitney tests were conducted (nonparametric tests were necessary due to the unequal sample sizes and variances of the two groups). Results indicated that participants who completed the survey online were significantly younger ($Mdn = 48.5$) than those who completed it on paper ($Mdn = 60$; $U = 30.0$, $p < .05$). This finding is not surprising, because younger participants were probably more comfortable using a computer than older participants. There was no evidence that online and paper participants differed on any of the other study variables, $p > .05$.

In order to assess whether social desirability could have influenced participants’ responses to survey questions, correlations between social desirability and the other study variables were run. Social desirability was significantly negatively related to subjective burden
(r = -.47, p < .01), indicating that participants who endorsed higher levels of social desirability reported less burden. Social desirability was not correlated with any of the other study variables, p > .05.

Finally, since some participants (n = 16) were recruited from the adult day health care center at which the researcher works, independent samples t-tests were run in order to establish whether there were any significant differences between these participants and participants recruited elsewhere. Results showed that participants recruited at the researcher’s workplace reported significantly fewer memory and behavior problems (M = 1.26, SD = .64) than those who were recruited elsewhere (M = 2.02, SD = .56, p < .01). They also reported fewer depressive symptoms (M = 7.27, SD = 2.57) than those recruited elsewhere (M = 13.36, SD = 7.88, p < .05). Finally, participants recruited at the researcher’s workplace reported less subjective burden (M = 29.36, SD = 15.05) than those recruited elsewhere (M = 42.11, SD = 15.15, p < .05). All other comparisons were not significant, p > .05. One potential explanation for these findings is that participants recruited from the researcher’s workplace may have wished to present themselves and their relatives in a more positive light, because they have a previous relationship with the researcher. The researcher emphasized that survey answers would remain anonymous and confidential but this assurance may not have been enough to deter participants from giving socially desirable answers. In order to determine whether social desirability might be related to the findings, the relationships between social desirability and the three variables were examined separately for the two groups. In all three cases, the correlations between social desirability and the variables of interest were stronger for the participants recruited outside of the researcher’s workplace, providing evidence that these findings were not due to increased social
desirability bias in the group recruited from the researcher’s workplace. This issue will be addressed further in the discussion section.

**Hypothesis Testing**

**Hypothesis One.** The first hypothesis predicted that measures of objective burden (functional impairment, memory and behavior problems) would be positively correlated with subjective burden and depressive symptoms. In order to test Hypothesis 1a, bivariate correlations were used to correlate functional impairment as measured by the total ADL/IADL score with subjective burden and depressive symptoms. Functional impairment was not significantly correlated with subjective burden ($r = -.15, p = .43$) or with depressive symptoms ($r = -.17, p = .39$). Therefore, Hypothesis 1a was not supported. In order to test Hypothesis 1b, correlations between memory and behavior problems and subjective burden and depressive symptoms were examined. The total memory and behavior problems score was not significantly correlated with subjective burden ($r = .27, p = .14$), or with depressive symptoms ($r = .31, p = .09$). However, the depressive behaviors subscale of the memory and behavior problems checklist was significantly correlated with caregiver depressive symptoms ($r = .39, p < .05$). This finding indicates that participants who were caring for relatives who exhibited depressive behaviors reported higher levels of their own depressive symptoms. Therefore, Hypothesis 1b was partially supported.

Although a prediction was not made on the direction of the relationship between objective burden and caregiver satisfaction, these relationships were examined through the use of bivariate correlations. The total functional impairment score was not significantly related to caregiver satisfaction ($r = .35, p = .06$). However, caregivers who provided more help with
ADLs to their relatives reported more satisfaction with their role ($r = .45, p < .01$). Memory and behavior problems were not significantly related to caregiver satisfaction ($r = -.22, p = .25$).

**Hypothesis Two.** The second hypothesis predicted that relationship quality would be negatively correlated with subjective burden and depressive symptoms (Hypothesis 2a) and positively correlated with caregiver satisfaction (Hypothesis 2b). In the first step of testing this hypothesis, bivariate correlations between the relationship quality measures and caregiver outcomes were examined. Current relationship quality was not related to subjective burden ($r = -.32, p = .08$), depressive symptoms ($r = -.07, p = .72$), or satisfaction ($r = .31, p = .09$). Prior relationship quality was not related to subjective burden ($r = -.32, p = .10$), but was significantly related to depressive symptoms ($r = -.43, p < .05$) and caregiver satisfaction ($r = .44, p < .05$) at the bivariate level. These results indicate that caregivers who reported a higher quality relationship with their relative before the dementia diagnosis reported fewer depressive symptoms and increased satisfaction with caregiving. In order to examine whether these relationships were still significant after controlling for objective burden, hierarchical multiple regression analyses were run. Planned analyses involving current relationship quality and subjective burden were excluded due to the lack of significant zero-order relationships found between these variables.

First, a hierarchical multiple regression analysis was run in order to test the hypothesis that prior relationship quality would still be negatively related to depressive symptoms after controlling for objective burden. Additional assumptions for the regression analysis were tested by examining histograms and scatterplots of the regression standardized residuals. A histogram of depressive symptoms residuals appeared approximately normal, and the mean of the residuals was very near 0. The scatterplot of this data indicated that the errors appeared homoscedastic.
The tolerance values (.87) in the final model indicated no problems with multicollinearity. Given that the only measure of objective burden related to depressive symptoms was the depressive behaviors subscale of the memory and behavior problems checklist, this variable was entered in the first step of the analysis as a control variable. Prior relationship quality was entered in the second step. Results indicated that although the overall model was significant, $F(2, 24) = 3.84, p < .05, R^2 = .24$, prior relationship quality was not a significant predictor of depressive symptoms after controlling for depressive behaviors ($b = -.28, t (24) = -1.72, p = .10$). Hypothesis 2a was not supported.

A second hierarchical multiple regression analysis was run in order to test the hypothesis that prior relationship quality would still be positively related to caregiver satisfaction after controlling for objective burden. Additional assumptions for the regression analysis were tested by examining histograms and scatterplots of the regression standardized residuals. A histogram of caregiver satisfaction residuals appeared approximately normal, and the mean of the residuals was very near 0. The scatterplot of this data indicated that the errors appeared homoscedastic. The tolerance values (.93) in the final model indicated no problems with multicollinearity. Given that the only measure of objective burden related to caregiver satisfaction was ADL impairment, this variable was entered in the first step of the analysis as a control variable and prior relationship quality was entered in the second step. Although the overall model was significant, $(F(2, 25) = 5.68, p < .01, R^2 = .31)$ prior relationship quality was not a significant predictor of caregiver satisfaction after controlling for ADL impairment ($b = -.36, t (25) = 2.00, p = .06$). Hypothesis 2b was not supported.

**Hypothesis Three.** Hypothesis three predicted that familism would moderate the relationships between relationship quality and caregiver outcomes such that these associations
would be stronger when familism was high and weaker when familism was low. Two moderated regression analyses were conducted in order to test this hypothesis: the first tested the hypothesis that familism would moderate the relationship between relationship quality and depressive symptoms, and the second tested the hypothesis that familism would moderate the relationship between relationship quality and caregiver satisfaction. The planned analysis that predicted subjective burden was excluded due to the lack of a significant zero-order association between relationship quality and subjective burden. Additional assumptions for these regression analyses were tested by examining histograms and scatterplots of the regression standardized residuals. Histograms of the residuals appeared approximately normal, and the mean of each set of the residuals was very near 0. Scatterplots data indicated that the errors appeared homoscedastic. In both moderated regression analyses, data was centered to resolve issues with multicollinearity, and tolerance values were acceptable in the analyses using centered data (all > .45).

It was hypothesized that familism would moderate the relationship between relationship quality and depressive symptoms such that the relationship would be stronger in participants endorsing high levels of familism. The depressive behaviors subscale of the memory and behavior problems checklist was entered in the first step of the analysis as a control; prior relationship quality (the predictor) and familism (the moderator) were entered in the second step, and the multiplicative term was entered in the third step. Results indicated that the overall model was significant, $F(4, 22) = 3.22, p < .05, R^2 = .37$. In the final model, prior relationship ($b = -.23, t(22) = -1.26, p = .22$), and familism ($b = 2.38, t(22) = 1.20, p = .24$) were not significant predictors of depressive symptoms. However, a significant multiplicative effect was found between prior relationship and familism ($b = .25, t(22) = 2.10, p < .05$). Simple slopes revealed that the association between prior relationship quality and depressive symptoms was strongest
for those low in familism, \(Y_{low} = -.447X + 7.579\), while a much weaker relationship between the variables was found for those high in familism, \(Y_{high} = -.029X + 11.495\); see Figure 3). These results provide evidence that familism did act as a moderator, although the moderation was the reverse of what was hypothesized: the association between relationship quality and depressive symptoms was stronger in those who endorsed lower levels of familism. For those who reported higher levels of familism, there did not appear to be a strong correlation between relationship quality and depressive symptoms. Hypothesis 3a was not supported.

![Figure 3. Simple slopes of prior relationship quality predicting depressive symptoms for high and low levels of familism.](image)

It was also hypothesized that familism would moderate the relationship between relationship quality and caregiver satisfaction such that a stronger relationship would be found in participants with high levels of familism. ADL impairment was entered in the first step of the analysis as a control variable; prior relationship quality (the predictor) and familism (the moderator) were entered in the second step, and the multiplicative term was entered in the third step. Results indicated that the overall model was significant, \(F(4, 23) = 9.45, p < .01, R^2 = .62\). Analyses revealed that familism accounted for a significant proportion of the variance in caregiver satisfaction \((b = 3.94, t(23) = 2.14, p < .05)\). Prior relationship \((b = -.03, t(23) = -.19, p = .85)\) was not a significant predictor of satisfaction. There was a nearly significant
multiplicative effect found between prior relationship and familism ($b = -.22$, $t (23) = 2.04$, $p = .05$), which was probed with simple slopes. However, results of the analysis of simple slopes revealed that the strength of the association between relationship quality and caregiver satisfaction was very small and appeared to be similar for those low in familism ($Y_{low} = -.004X + 39.24$) and those high in familism ($Y_{high} = -.04X + 39.94$). Therefore, Hypothesis 3b was not supported. The small X coefficients in these equations appear to coincide with the results of analyses examining Hypothesis 2b, which revealed that prior relationship quality was not a significant predictor of caregiving satisfaction. Instead, it appeared that there was a significantly positive main effect for familism on satisfaction.

Discussion

The purpose of this project was to examine factors that predict both positive and negative caregiving outcomes in Filipino-American caregivers. Specifically, objective burden and relationship quality were investigated as possible predictors of subjective burden, depressive symptoms, and caregiver satisfaction. The concept of familism was also explored as a factor that could potentially influence the associations between relationship quality and the outcome variables. The results demonstrated that some measures of objective burden were related to caregiver outcomes: care-recipient depressive behaviors were positively correlated with caregiver depressive symptoms, and ADL impairment was positively correlated with caregiver satisfaction. The quality of the relationship before the dementia diagnosis was negatively related to depressive symptoms and positively related to caregiver satisfaction at the bivariate level, but these associations became nonsignificant after controlling for objective burden. Finally, familism was shown to moderate the association between relationship quality and depressive
symptoms in a different way than was predicted: the relationship between these variables was stronger in those endorsing lower levels of familism.

One of the findings of this study revealed that the care recipient’s functional impairment was not associated with negative caregiver outcomes, and in fact was significantly related to a positive outcome: satisfaction with caregiving. It was expected that caregivers who provided more assistance with ADLs and IADLs would report increased feelings of subjective burden and more depressive symptoms due to the greater amount of objective burden associated with caring for a relative with greater functional impairment, as found in previous studies (Pearlin 1990, Etters, Goodall, & Harrison, 2008). However, even when simultaneously endorsing feelings of subjective burden, it is also possible for caregivers to appraise the responsibilities and tasks associated with caregiving in a positive way (Lawton, 1991). The finding that increased functional impairment is associated with greater caregiver satisfaction provides evidence for the idea that caregivers can derive benefit from providing care for their relative. For example, some caregivers may think that helping their relative with tasks is a way to express their love and appreciation, and may feel fulfilled when they are able to successfully provide that help. It is noteworthy that only ADL, not IADL, impairment predicted satisfaction. Perhaps the hands-on care involved in providing assistance with tasks such as bathing and grooming allows caregivers to find more meaning and accomplishment in their role. Providing this type of care could feel more personal and intimate, and caregivers could feel closer to their relatives than they might when providing help with IADLs such as shopping and housework. Although there was no association found between functional impairment and subjective burden in the present study, there is evidence in the literature that increased functional impairment is associated with increased levels of both caregiving satisfaction and subjective burden (Lawton, 1991). It would
be interesting for future research to repeat these analyses in a larger sample to test whether Filipino-American caregivers also report increased levels of these outcomes simultaneously.

A second measure of objective burden was also examined in this study: memory and behavior problems. It was hypothesized that higher scores on the entire memory and behavior problems checklist would be associated with negative caregiver outcomes, but these correlations, although in the predicted direction, were not significant. This finding is surprising given the strong evidence in the literature supporting the relationship between dementia related behavior problems and negative caregiver outcomes (Gaugler, Davey, Pearlin, & Zarit, 2000, Zarit, Femia, Kim, & Whitlach, 2010). It is possible that the small sample size in the present study did not provide adequate power to detect significant effects. Although the relationships between memory and behavior problems and the outcome variables were not significant, they were of moderate size ($r = .27$ for subjective burden, $r = .31$ for depressive symptoms) and would likely have been significant in a larger sample. Results did show a significant relationship between the depressive behaviors subscale of the memory and behavior problems checklist and caregiver depressive symptoms. These results indicated that caregivers who were caring for a relative who exhibited more depressive behaviors reported more depressive symptoms themselves. This finding is consistent with previous research (Brodaty & Luscombe, 1998, Schulz et al., 2008).

Managing depressive behaviors such as tearfulness, hopelessness, and negative remarks could be difficult, especially for dementia caregivers who are likely to encounter repeated episodes of care-recipient distress. Caregivers who feel depressed themselves may feel powerless and find it difficult to try to address their relative’s depressive behaviors. Research has shown that behavioral interventions can be helpful in ameliorating depressive symptoms in both caregivers and care-recipients (Teri, Logsdon, Uomoto, & McCurry, 1997). It would be useful for future
research to focus more on the potentially reciprocal relationship between caregiver and care-
recipient depressive symptoms in order to help alleviate symptoms for both members of the
dyad.

In addition to measures of objective burden, quality of relationship was also tested as a
predictor variable. In this study, prior relationship quality was significantly associated with
caregiver outcomes, but current relationship quality was not. The relationships between current
relationship quality and subjective burden \( (r = -.32) \) and satisfaction \( (r = .31) \) were of moderate
size and may have been significant in a larger sample. Previous studies have shown that high
quality of both prior and current relationship is consistently associated with decreased negative
outcomes and increased positive outcomes in caregivers, even after controlling for objective
burden (Ablitt, Jones, & Muers, 2009, Quinn, Clare, & Woods, 2009). However, the negative
association between prior relationship quality and depressive symptoms and the positive
association between prior relationship quality and caregiver satisfaction were no longer
significant after objective burden was taken into account. Prior relationship quality was no
longer a significant predictor of depressive symptoms once the depressive behaviors subscale
had been entered as a control. For caregivers who assist relatives with more depressive
behaviors, the positive contribution of a high quality prior relationship with the relative may not
be enough to overcome their own depressive feelings. In fact, depressive behaviors could be
even more upsetting to the caregiver if the prior relationship was of high quality, because they
would have to witness the suffering of a person with whom they were very close. In addition,
prior relationship quality was no longer a significant predictor of caregiver satisfaction after
ADL impairment had been entered as a control. The contribution of a high quality prior
relationship did not appear to significantly add to the satisfaction caregivers already felt when
providing more assistance with ADLs to the relative. This makes sense, since it is probable that caregivers who derived satisfaction out of providing help to their relatives were closer to their relative to begin with. In this sample, objective measures of burden explained more variance in the outcome variables than the quality of the relationship.

Finally, familism was investigated in order to see whether it moderated the relationship between relationship quality and caregiver outcomes. It was thought that caregivers with high levels of familism would experience more depressive symptoms and less satisfaction than those low in familism if the relationship quality was low, because caregivers might feel more obligation to provide care while at the same time feel more resentment toward the care-recipient. Caregivers who endorse high levels of familism may feel as if caregiving is their duty and that providing care to their relative is a way to conform to cultural expectations. However, if the quality of the relationship is poor, these expectations to provide care could come into conflict with negative feelings about the care-recipient. It was hypothesized that this conflict could result in increased negative outcomes. However, participants who reported high levels of familism tended to report a similar amount of depressive symptoms regardless of the quality of relationship. Also, there was no evidence that familism moderated the association between prior relationship and satisfaction; in fact, there was no evidence for a significant association between relationship quality and satisfaction at all when familism was included in the analysis. Instead, familism had a significantly positive relationship with caregiving satisfaction. These results show that, for caregivers high in familism, the quality of the relationship did not appear to be significantly related to caregiving outcomes. Caregivers who endorse high levels of familism may not be at risk for suffering the detrimental effects of low relationship quality, but they also may not gain the protective benefits of high relationship quality. For caregivers who report high
levels of familism, the successful fulfillment of caregiving duties appears to be more important in predicting positive outcomes than the quality of the relationship with their relative.

It was hypothesized that caregivers with low levels of familism would experience fewer depressive symptoms and more satisfaction than those with high levels of familism if the quality of the relationship was low. Caregivers low in familism would likely still feel stressed due to the poor quality of the relationship, but may not feel as culturally obligated to provide care and so would not experience the conflict between expectations and feelings about the care-recipient described previously. It was found that for those endorsing low levels of familism, there appeared to be a significant relationship between relationship quality and depressive symptoms. Caregivers low in familism reported more depressive symptoms when the quality of relationship was low and fewer depressive symptoms when the quality of the relationship was high. For those who report low levels of familism, relationship quality could be a more important predictor of outcomes because these caregivers are not gaining any satisfaction out of fulfilling familistic expectations. Results from the second moderated regression analysis, in which familism was found to have a significantly positive relationship with caregiving satisfaction lend support to these ideas.

Overall, the findings of the study provide information on several factors that are involved in caregiver outcomes. It was shown that the provision of more assistance with ADLs was related to increased satisfaction, while increased care-recipient depressive behaviors were related to increased depressive symptoms. These measures of objective burden explained more variance in outcomes than relationship quality, which was not a significant predictor of caregiver outcomes in the overall sample after objective burden was controlled. Finally, it was shown that for caregivers high in familism, relationship quality did not appear to be a relevant factor in
predicting caregiver outcomes, while for those low in familism, the quality of the prior relationship appeared to be an important predictor of depressive symptoms.

**Limitations and Strengths**

It is important to examine the limitations and strengths of the study when considering the results. One significant limitation is that the small sample size limited the power of the study. It would have been desirable to have a larger sample size in order to provide adequate power to detect significant effects; this could explain why the hypothesized relationships between some variables were not significant. The fact that moderate effect sizes were found for many of these relationships supports this idea. However, small sample sizes are typical of dementia caregiving studies (Schulz & Martire, 2004). Dementia caregivers are often very busy juggling the demands of caregiving with other responsibilities, such as employment and childcare, and may not feel as if they have enough time to participate in a research study.

Another limitation of the study is that the self-report measures could be inaccurate or influenced by caregiver bias. First, the scale used to assess depressive symptoms may not have been entirely successful in capturing depressive feelings. Research has shown that members of collectivistic cultures, including Asian cultures, are less likely to disclose psychological symptoms of depression and tend to report more somatic symptoms (Tsai & Chentsova-Dutton, 2002). Perhaps future studies could include a measure of depression that focuses more on these somatic symptoms in order to gain a more complete understanding of depression in Filipino caregivers. In addition, caregivers may be biased when reporting on the care-recipient’s level of functioning or inaccurate when asked to remember the quality of the relationship before the dementia diagnosis. Previous research has shown some evidence for social desirability bias when caregivers report on their own feelings of burden (O’Rourke, Haverkamp, Rae, & Tuokko,
In the present study, social desirability was significantly negatively related to subjective burden, indicating that participants could have underreported their feelings of burden in order to answer the questions in a socially desirable way. This could be one reason why none of the hypothesized relationships between predictor variables and the measure of subjective burden were significant. However, due to the low reliability of the social desirability scale, this interpretation must be made with caution. Also, many participants were recruited from the researcher’s workplace, which could have resulted in bias. An alternative explanation for the findings that participants from the researcher’s workplace reported fewer problems than those who were not could be that utilization of the adult day care service was beneficial for both caregivers and care-recipients. This explanation is supported by previous research demonstrating a decrease in reported behavior problems for those enrolled in day care (Gaugler, Jarrott, Zarit, Stephens, Townsend, & Greene, 2003). Care-recipients could benefit from the structured activities at the center, which could lead to fewer behavior problems, while caregivers could benefit from the respite made possible by their relative’s attendance, which could lead to lessened feelings of stress and strain.

Although there were several limitations to the present study, there were also strengths. This study helps to fill a gap in the literature on the experiences of Filipino-American caregivers. Much of their experiences remain unexplored, but this study is a good first step in providing some quantitative data to add to the knowledge base. This is also the first known study to examine the concept of familism as a potential moderating variable in the association between relationship quality and caregiver outcomes. Although the effects of familism were different than hypothesized, there was still some evidence that examining this variable in future research, especially in Filipino-Americans, might be useful.
Another strength of the study was the focus on patients with dementia and memory problems. Caregivers who assist relatives with memory problems deal with complex and unique situations and this study was able to shed light on some of these experiences. Caregivers were also given the option of participating either online or on paper at their convenience and the length of the survey was limited to take about 20 minutes in an effort to increase the number of participants in the study. Psychometrically sound measures were used in order to increase the validity of the findings.

**Conclusion**

This study contributes to our knowledge on predictor variables that may impact both positive and negative outcomes in Filipino-American caregivers. Future studies with increased power could attempt to replicate some of the findings in the study, while at the same time testing whether the other hypothesized relationships might be significant in a larger sample of participants. It would also be helpful to explore in more detail what kinds of specific caregiving tasks lead to feelings of satisfaction in Filipino-American caregivers, and the reasons why helping with ADLs might lead to more satisfaction. Future research could also benefit from an exploration of ways to decrease depressive symptoms in both caregivers and their relatives, as these feelings may contribute to each other and appear to be highly relevant to the experience of Filipino-American caregivers. Finally, the relationships between prior relationship quality, familism, and caregiver outcomes should be explored further. Variables that are relevant to the Filipino-American caregiving experience and that can predict outcomes among Filipino caregivers should be identified so that appropriate interventions may be designed in order for caregivers to minimize negative outcomes and maximize their positive experiences.
References


