THE INFLUENCE OF CULTURAL VALUES ON THE INFORMAL
CAREGIVING EXPERIENCE OF DEPENDENT OLDER ADULTS

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THE INFLUENCE OF CULTURAL VALUES ON THE INFORMAL CAREGIVING EXPERIENCE OF DEPENDENT OLDER ADULTS

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ABSTRACT

Throughout the caregiving literature, few researchers have incorporated both positive aspects of care and cultural values in a comprehensive stress and coping model aimed at understanding the subjective caregiving experience. More recently, Knight and Sayegh (2010) proposed a revised Sociocultural Stress and Coping Model (SSCM) that postulates cultural beliefs and values to have a major impact on social support, coping strategies, burden, and depression. In the current study, 83 informal caregivers of dependent older adults completed measures of cultural values (i.e., cultural justifications and feelings of familism), burden, positive aspects of care, social support, coping styles, and depression. A mediation versus moderation hypotheses structure was used to examine caregiving components that influence the relationship between cultural values and depressive symptomology. Out of the 8 proposed hypotheses, results indicated a) burden levels mediated the relationship between lower cultural justifications and higher depression levels, b) an increased use of social support moderated the relationship between lower cultural justifications and higher depression levels, and c) familism did not predict depression levels but significantly predicted positive aspects of care and caregiver burden. The examination of cultural beliefs salient to the caregiving experience as well as the positive subjective appraisals of the caregiving role warrants further investigation as the population of informal caregivers increase both in size and diversity.
ACKNOWLEDGEMENTS

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CHAPTER I

STATEMENT OF THE PROBLEM

As the population steadily ages, the number of older adults living with multiple chronic ailments that impair their ability to care for themselves will also increase (Knight & Sayegh, 2010). As this need for care to assist the chronically ill rises, more and more individuals will be taking on the role as informal caregiver, making it a common experience (Pinquart & Sörensen, 2003). Moreover, becoming an informal caregiver of a dependent older adult can impact a multitude of areas within one’s life (e.g., finances, social relationships, psychological and physical well-being) and may be influenced by an individual’s cultural upbringing and justifications for taking on the role. Originally, caregiver research focused on typical caregiver burdens (e.g., financial, social, physical, psychological), related outcomes (e.g., increase in depressive symptoms, lower quality of life), and group differences (e.g., male versus female, dementia caregiver versus non-dementia caregiver). However, more recently there has been a focus on the positive experiences and outcomes of caregiving, offering an optimistic perspective on a role that had once been characterized as a burdensome life transition (Carbonneau, Caron, & Desrosiers, 2010; Hilgeman, Allen, DeCoster, & Burgio, 2007; Roff, Burgio, Gitlin, Nichols, Chaplin, & Hardin, 2004; Tarlow, Wisniewski, Belle, Rubert, Ory, & Gallagher-Thompson, 2004). Although this positive perspective has received more recent attention in the caregiving literature, to date little empirical research exists that applies this
perspective to sociocultural framework. Many current theoretical frameworks focus on stressors and strains accompanied by the caregiving role. However, the inclusion of positive aspects and cultural components has been suggested to provide better insight into the rationalizations of both uplifts and burdens associated with caring for an impaired older adult. Building upon this gap in the literature, the current study incorporated positive aspects of care into a revised version of the Sociocultural Stress and Coping Model (SSCM; Aranda & Knight, 1997). During the evolution of the SSCM, Aranda and Knight (1997) originally proposed that caregiver and care receiver characteristics impacted a caregiver’s level of burden, which therefore influenced overall caregiver well-being. Additionally, social support components and coping styles may have mediated the relationship between burden and well-being (See Figure 1). These pathways have since been revised as more research has been conducted exploring how culture influences typical caregiving experience variables.

The novel component of the sociocultural framework is the inclusion of cultural values that have been proposed to influence a caregiver’s coping style and social support components, which therefore impact a caregiver’s well-being. Cultural components can include a variety of measures that examine a caregiver’s cultural beliefs about giving back to the family, level of obligation or duty to take on responsibility of an ill loved one, and cultural upbringings and backgrounds that shape the caregiving experience. However, previous researchers that have examined cultural differences in the caregiving role have strictly looked at group differences by race, not truly measuring the cultural components associated with the reasons to provide care to a loved one (Dilworth-Anderson, Williams, & Gibson, 2002). The SSCM is different in that it does not strictly
use race or group membership as a proxy for culture, but instead highlights the importance of including measures that evaluate cultural beliefs and values pertaining to the caregiving role regardless of one’s race or ethnicity. Although innovative, only a limited number of researchers have used this model as a foundation for their work, which has led to modest supporting evidence of the proposed original model relationships.

![Diagram of Sociocultural Stress and Coping Model](image)

Figure 1. Original hypothesized pathways of the Sociocultural Stress and Coping Model, adapted from Aranda and Knight (1997).

Therefore, the current paper aimed to further the evidence behind the SSCM and test revised purported relationships by including culturally relevant measures that identified components of a caregiver’s cultural values, beliefs, and justifications to

---

1 The Sociocultural Stress and Coping Model was originally proposed by Aranda and Knight (1997). However, over the years there have been many revisions and added and/or removed relationships. To gain a better understanding of the progression of this model and where the current paper stands in terms of the proposed model, the next few figures (Figure 3 and 4) will show how the model has been revised and ultimately how the current author proposed the sociocultural framework that guided this study.
provide care to a dependent older adult. Due to the limited research completed on the currently existing cultural measurements, exploratory factor analyses were performed to understand how the culturally sensitive items factored in the current sample of caregivers. It is important to note that not all members of a cultural group hold the same belief systems and there is evidence of variability within cultural groups pertaining to the reasons for providing care (Goodenough, 1999). Moreover, looking past race, the current study has strictly focused on within group variability among the model components (e.g., culture, burden, positive aspects of care) in a convenient sample of caregivers of impaired older adults. As suggested by Mahoney, Cloutterbuck, Neary, and Zhan (2005) the concept of ethnicity and culture may not be generalizable even within a certain racial population. Subsequently, although much of the literature still remains focused on group differences between racially diverse caregivers, race has become an outdated categorization of caregivers as cultural and genetic diversities have increased within modern societies and have influenced how individuals facilitate care to loved ones.

It is with this notion that informal primary caregivers (i.e., individuals providing unpaid care for a dependent older adult for 8 or more hours per week), no matter their cultural background or race, were included in the current sample to report on their overall experiences as caregivers and subsequently evaluated through a culturally sensitive lens. Additionally, as the main goal was not to make sense of differences between caregivers of various ailments, the main purpose was to understand how cultural values impact the overall justifications to provide any type of unpaid primary care or assistance to a loved one in need; ultimately, understanding how that would potentially shape the overall caregiving experience. To account for potential differences among caregivers of different
The Caregiving Experience

As noted, the focus of this project is on the caregiving experience within a sociocultural context that examines influential life factors (e.g., social support, cultural values) that may shape the subjective accounts of taking care of a dependent older adult. In general, the informal caregiving role has been identified in the literature as “a transformation in the direction, amount, and necessity of help previously exchanged by family members – from more reciprocal to more unilateral, and with increasing amounts
of assistance required for the survival of the care recipient” (Seltzer & Li, 1996, p. 614).

When evaluating the lives of informal caregivers (e.g., individuals who are not paid or compensated to provide care), Pearlin (1992) conceptualized this role as a career that involves numerous transitions characterized by varying levels of stressors and strains as well as positive buffering influences (e.g., social support). This “career” may be an expected or unexpected life transition that requires a caregiver to maintain a certain level of responsibility for the care of another human being. Caregivers may take on primary, secondary, or tertiary roles in the provision of care to a dependent older adult. More specifically, primary caregivers typically take on the highest level of responsibility regarding the care of a loved one, performing the greatest amount of care-related tasks. Secondary caregivers may provide care concurrently with the primary caregivers and tertiary caregivers may provide care in specialized tasks (e.g., yard work); however both secondary and tertiary caregivers have lower levels of responsibility for care-related tasks and decision-making compared to the primary caregiver (Dilworth-Anderson, Williams, & Cooper, 1999). For the goals of the current paper, we have focused on the evaluation of the primary caregiver’s subjective experience.

When deciding who will provide care, many families organize the structure of care differently according to the amount of available and willing potential caregivers within the care receiver’s network. This network is likely to be affected by familial relationships (e.g., marital status, number of children), living arrangements (e.g., intergenerational household, single person household), and cultural backgrounds (Burton et al., 1995). As suggested by Pyke and Bengston (1996), families may create collectivistic or individualistic systems of care to address the needs of the dependent
older adult, which may ultimately be influenced by cultural beliefs and values. Still, throughout the caregiving literature, there remains an elevated focus on the care-related issues and demands placed on the primary caregiver to better understand the burdens and uplifts associated with the caregiving role. Therefore, the current study will focus on the experience of primary caregivers (e.g., individuals who perform the greatest amount of care-related tasks for 8 or more hours per week), providing care to a dependent older adult in relation to their cultural values and level of positivity and burden associated with the caregiving role.

To date, the majority of informal primary caregivers consist of spouses, daughters, or daughters-in-law (Willyard, Miller, Shoemaker, & Addison, 2008). The transition into the primary caregiving role can be understood through age norms that are prescribed by a kin network in which typical role acquisitions and behaviors are associated with the ordering and sequencing of familial role transitions (e.g., who is expected to take care of a sick family member) (Burton, 1996). Naturally, spouses are often the first individuals to assume the role of primary caregiver. Conversely, when a spousal caregiver is not feasible, due to absence or personal impairments, adult children frequently take on caregiving responsibilities for their dependent parent(s). When comparing the caregiving experiences of spouses and adult children, Pinquart and Sörensen (2011) found that spousal caregivers reported having smaller informal support networks, provided more care hours per week, perceived their physical health to be worse, and experienced more depressive symptomology than adult children caregivers. On the other hand, adult children caregivers tend to experience more role conflicts within their family and career relationships, leading to an increased risk for role overload and
burden (Barber & Pasley, 1994). Overall, taking on the role of caregiving may pose potential issues within a caregiver’s life regardless of one’s relationship to the care receiver; whether these differences actually influence a caregiver’s well-being and outlook on life is what truly matters. Therefore, it is important to note that although group differences have been noted between adult children and spousal caregivers, researchers have rarely looked at culture to explain these disparities. For example, instead of simply attributing caregiving differences to the position held in the family (e.g., child versus spouse), cultural justifications to provide care and a sense of familism may be more influential when explaining levels of burden and positive aspects of care.

Familial perceptions about illness and aging along with motivations to provide care have long been rooted in cultural beliefs and values (Dilworth-Anderson, Burton, & Turner, 1993). Throughout family structures, cultural upbringings help shape opinions and decision-making surrounding the provision of care to a dependent older family member. Within the past couple of decades, progress has been made in recognizing the need for cultural research within the caregiving role (Dilworth-Anderson et al., 2002; Dilworth-Anderson et al., 2004; Knight & Sayegh, 2010). However, there is still a limited amount of studies that have taken on cultural frameworks to illuminate the relationship between cultural motivations to provide care and caregiver well-being (Quinn, Clare, McGuinness, & Woods, 2012). Existing literature that has examined cultural components have found mixed results regarding the pathways and relationships between culture and caregiving characteristics. For example, Lawton, Rajagopal, Brody, and Kleban (1992) reported that when compared to European American caregivers, African American caregivers’ more strongly identified with traditional cultural values.
that encouraged providing care to older dependent family members which lead to African American caregivers expressing their role as less burdensome and intrusive. Conversely, Dilworth-Anderson and colleagues (2004) found that cultural justifications had a curvilinear effect on African American caregivers’ well-being, meaning very strong and very weak cultural motivations were more predictive of poor psychosocial health. These findings suggest that cultural beliefs and values may have both a positive and negative influence on caregiving outcomes depending on the level of duty, sense of obligation, and family expectations tied to the role of caregiver. In order to understand these relationships further, the current study was driven by a culturally relevant model (i.e., The Sociocultural Stress and Coping Model) that emphasized the associations between culture and familism with the psychosocial health of caregivers. More specifically, the current study not only focused on positive and negative aspects of care, but also how cultural norms, expectations, values, and feelings of reciprocity and obligation may have promoted a positive appraisal of the caregiving role and potentially influenced a caregiver’s psychosocial well-being.

**The Sociocultural Stress and Coping Model for Caregivers**

Although it has been documented that the provision of care may pose a potential threat to a caregiver’s mental and physical health (Stephens & Zarit, 1989), positive aspects and cultural beliefs may also shape the caregiving experience (Hilgeman et al., 2007; Roff et al., 2004). In order to understand these interrelated components of the caregiving role, various frameworks have been developed to conceptualize the process of providing care to a dependent older adult. Originally grounded in work by Lazarus and Folkman (1984), a stress and coping paradigm (See Figure 2) has been the backbone for
many theoretical models of caregiving (e.g., The Stress Process Model for Caregivers; Pearlin et al., 1990).

![Diagram of Care Recipient Characteristics, Caregiver Burden, Caregivers’ Health]

Figure 2. The common core paradigm for stress and coping models for caregivers.

Typically, these models postulate that the process of coping mediates the effects and evaluations of a stressful situation, which ultimately influences an individual’s well-being. More specifically, the majority of stress and coping models for caregivers focus on: a) background variables of the caregiver (e.g., age, gender, socioeconomic status); b) primary and secondary stressors (e.g., strains from the result of taking care of an impaired dependent individual); c) appraisals of the caregiving experience (e.g., burden levels); d) mediators that may buffer or exacerbate the effects of caregiving (e.g., coping strategies, social support); and e) how the role of caregiving may affect an individual’s overall well-being (e.g., depression, quality of life, anxiety). Very few models incorporate a cultural component aimed at examining the role of familism and cultural justifications to provide care for a dependent older adult (Knight & Sayegh, 2010). In addition to race and ethnicity, culture encompasses the broader set of beliefs and values that make up one’s worldview. Familial roles, responsibilities, and perceptions about illness and aging are a few of the issues that, together with race and ethnicity, help form beliefs about and motivations for caregiving. Therefore, it is imperative that researchers include cultural
components in addition to the demographic variable of race to help illuminate the cultural context of the caregiving role.

Original theoretical attempts to understand cultural differences in caregiving experiences were derived from the disadvantaged minority group model (Markides, Liang, & Jackson, 1990). This model combined elements of an individual’s socioeconomic status and minority status to represent cultural disadvantages in the caregiving role. In other words, these three combined roles (e.g., ethnic minority, low socioeconomic status, and a caregiver) would predispose an individual to a life of hardships and multiple stressors. However, more recent research has challenged this model, as being an ethnic minority caregiver may not directly lead to excessive burden or poor well-being (Dilworth-Anderson et al., 2002). Instead, researchers have found that African American caregivers typically report lower levels of burden than European American caregivers due to factors such as the ability to positively appraise the caregiving role and higher levels of religiosity (Connell & Gibson, 1997).

To understand caregiving through a cultural lens, Aranda and Knight (1997) examined Hispanic American caregivers to exemplify and propose a stress and coping framework in terms of ethnicity and culture. Aranda and Knight (1997) postulated that ethnicity and culture play a significant role in how a caregiver adapts to the process of providing care to a dependent older adult. It was suggested that Hispanic American caregivers tended to perceive their caregiving responsibilities (e.g., feeding, dressing) as more burdensome when compared to other culturally diverse caregivers (e.g., African American, European American). However, the Hispanic kinship network acts as an important source of informal support for dependent older adults, and also helps buffer the
strains of caregiving. For example, when compared to the general older adult population, Mexican Americans, Cuban Americans, and Puerto Ricans living in the U.S. were found to rely more heavily on informal sources of support after being released from the hospital then organized formal services such as assisted home care aid (Commonwealth Fund Commissions, 1989). Aranda and Knight (1997) also highlighted how cultural beliefs regarding the nature, course, and treatment of specific illnesses may have a significant effect on the caregiving experience. More specifically, Hispanic American caregivers may have decreased access to information on prevention options, pathology of the disease, diagnosis, and management of symptoms, which may be heavily influenced by pre-existing cultural values surrounding the nature of illness and aging. With this focus on cultural values and the caregiving role, Aranda and Knight (1997) advocated the use of a theoretical framework that incorporated aspects of acculturation, familism, and cultural upbringings into the caregiving experience. Thus, in the core of the sociocultural framework, ethnicity and culture are evaluated within the stress and coping process in terms of: a) characteristics of the caregiver (e.g., age, relationship to care receiver); b) the demands of caregiving; c) the appraisal of caregiving as burdensome; d) the use of different coping strategies (e.g., active, emotion-focused); and e) well-being outcomes (e.g., depression, quality of life). Overall, Aranda and Knight (1997) guided cultural research in an appropriate direction as previous studies typically overlooked the degree in which cultural and ethnic minority differences were experienced in the caregiving role.

Building off of this conceptual framework, Knight, Silverstein, McCallum, and Fox (2000) employed the Sociocultural Stress and Coping Model to examine African American and non-African American caregivers’ mental health outcomes. Knight and
colleagues (2000) used structural equation modeling to understand the direct and indirect pathways between a caregiver’s ethnicity, appraisal of burden, emotion-focused and active coping, and emotional distress. Exposing the complexity and multidirectionality of the model pathways, Knight and colleagues (2000) found that although African American caregivers reported less burden appraisal, they also reported greater use of emotion-focused coping which indirectly increased levels of emotional distress. In other words, African American caregivers did not think the responsibility of care was highly burdensome, however they reported the use of emotion-focused coping (e.g., attempt to reduce distressing emotions related to the caregiving situation), which actually led to higher levels of emotional distress associated with the role. African American caregivers in this sample also tended to be younger and reported poorer subjective health, which may have compounded emotional distress levels and the use of emotion-focused coping strategies instead of instrumental or problem-focused coping approaches. Although Knight et al. (2000) furthered the literature on the SSCM, they solely examined ethnic differences in terms of race and did not include measures of cultural values and familism to understand how one’s ethnic upbringing may shape perceptions of caregiving.

Taking this limitation into consideration, McCallum, Flynn Longmire, and Knight (2007) used the SSCM as a guide to examine differences in African American and European American female dementia caregivers in terms of cultural values, appraisals of caregiving, care recipient characteristics, coping styles, and health outcomes. Including a measure of familism (i.e., mutual support with strong feelings toward family goals and values) allowed for analysis of mean differences between groups in terms of cultural values, highlighting the reinterpretation of ethnicity on stress and coping within the
model. McCallum and colleagues (2007) found that African American caregivers scored significantly higher on the familism measure and reported poorer subjective physical health than European American caregivers. Although understanding differences in familism within the caregiving role is needed, strictly evaluating mean differences does not provide a clear picture of the relationships between the variables proposed in the Sociocultural Stress and Coping Model. Instead, researchers need to evaluate how these variables relate to the caregiving process (e.g., do higher levels of familism lead to poorer subjective health?). Taking it one step further, the current study examined the relationships between familism, cultural justifications, and depression and elucidated potential mediators and moderators of the relationship. For example, do levels of social support mediate the relationship between culture and well-being?

Building again on the SSCM, Knight and Sayegh (2010) proposed an updated version of the model (See Figure 3), as a result of a surge in cultural examinations and meta-analytic reviews of the caregiving role (e.g., Dilworth-Anderson et al., 2002). A once idealized and proposed relationship between familism operating through appraisals of caregiving as less burdensome, showed mixed evidence in the literature (Janevic & Connell, 2001). Originally, researchers believed that cultural components would act as positive buffers within the caregiving experience, leading to less strain and distress. However, associations between familism, caregiver burden, and related outcomes have been found to be not significant in studies examining African American or European American caregivers, (Kim, Knight, & Flynn Longmire, 2007), as well as Korean caregivers (Chun, Knight, & Youn, 2007). Still, researchers have postulated that higher levels of familism may have negative connotations for caregivers, meaning familism
measurements may tap into negative feelings of obligation and duty to the caregiving role, leading to more strain and distress (Losada et al., 2006). For example, the oldest daughter may be expected to provide care to her aging parents out of feelings of obligation and duty, rationalizing this decision as having little to no choice. This daughter may then view her responsibility as primary caregiver through either obligatory undertones or feelings of giving back to her family. Instead of cultural upbringings having positive implications toward caregiver well-being, evidence has been building for a significant relationship between cultural values operating through coping strategies and social support when associated with well-being outcomes (Sayegh & Knight, 2010). So, instead of the said daughter’s cultural upbringing directly affecting her well-being; her cultural values and feelings of familism may instead influence her social network (e.g., use of informal versus formal support) and coping strategies (e.g., religious coping versus instrumental coping), which therefore affect her overall well-being (e.g., depression, quality of life). Therefore, Knight and Sayegh (2010) proposed a revised model, bringing the Sociocultural Stress and Coping Model up to date in terms of the literature surrounding cultural differences in caregiving (Figure 3).

Figure 3. Revised Sociocultural Stress and Coping Model (Knight & Sayegh, 2010).
Within this updated model, Knight and Sayegh (2010) proposed levels of burden to have a direct effect on coping style, social support, and well-being. Care recipient characteristics are proposed to have a direct effect on burden levels and cultural values are also hypothesized to have direct effects on coping style and social support, which have effects on a caregiver’s well-being. Based on this updated model, the current study used the revised SSCM to hypothesize the effects of burden, cultural justifications, familism, coping styles, and social support on depression. The current study also included positive aspects of caregiving within the model; a component of the caregiving experience that has yet to be included within the Sociocultural Stress and Coping Model.

More specifically, with the mixed evidence surrounding the influence of culture, we also highlighted how cultural justifications and familism may potentially impact levels of burden, positive aspects of care, and depression. For example, will higher levels of familism lead to more burden, increasing depression or will higher levels of cultural justifications lead to more positive aspects of care, decreasing depression?

**The Current Study**

As noted previously, the primary purpose of this paper is to apply the Sociocultural Stress and Coping Model as a framework in understanding the caregiving experience. A novel addition into the Sociocultural Stress and Coping Model is the incorporation of positive aspects of care. Positive components of the caregiving experience have been identified as feelings of usefulness, appreciation, importance, meaning, and the strengthening of relationships. Although much research has focused on the burdens of providing care, it is important to know that taking on the provision of care
for a loved one is not always completely burdensome and can still be appraised through joy and uplifts. By including this novel component within the Sociocultural Stress and Coping Model, our goal was to address both positive and negative aspects of care and elucidate how culture potentially influenced both aspects of the caregiving experience as well as social support and coping strategies. Another goal of the proposed paper was to understand the factor structure of the culturally driven constructs included for measurement. More specifically, preliminary exploratory factor analyses on the Cultural Justification for Caregiving scale (Dilworth-Anderson et al., 2005) were conducted to understand item-level loadings and potential factor structures of this measure of culture.

Figure 4. Proposed Sociocultural Stress and Coping Model framework of the current study. *Note.* The dashed lines represent new proposed relationships that have been explored in the current paper, as detailed studies have yet to examine the relationship between Cultural Values and Positive Aspects of Care, and there is still mixed evidence surrounding the relationship between Caregiver Burden and Cultural Values.
After analyzing the factor structure of the cultural measures, we conducted mediated and moderated regression analyses to explore the following relationships: 1) Do positive aspects of care mediate or moderate the relationship between cultural values and depression? 2) Does burden mediate or moderate the relationship between cultural values and depression? 3) Do coping styles mediate or moderate the relationship between cultural values and depression, and if so, what coping styles are more salient to this relationship? and 4) Does social support mediate or moderate the relationship between cultural values and depression, and if so, what types of support are more salient to this relationship? A mediation and moderation approach allowed us to explore the different components of the proposed Sociocultural Stress and Coping Model and the relationships between the hypothesized effects. Ultimately, we aimed to investigate how cultural components relate to caregiver depression and if there are any potential mediators and moderators as guided by the proposed sociocultural framework.

The theoretical basis for this study is derived from both established literatures on cultural differences among caregivers and growing literatures on the sociocultural framework. Evidence for the current model is drawn from the current literature on the Sociocultural Stress and Coping Model (Aranda & Knight, 1997; Knight & Sayegh, 2010; McCallum et al., 2007) as well as the current literature surrounding positive aspects of the caregiving role (Hilgeman, Allen, DeCoste, & Burgio, 2007), caregiver burden, and culture (Dilworth-Anderson et al., 2002). As suggested by Carbonneau, Caron, and Desrosiers (2010), a conceptual model that incorporates positive aspects of the caregiving role could lead to a better understanding of the caregiving experience and shed a new light on the interrelatedness of burden, coping, and support. More
importantly, research within this field is pointing towards the identification of specific values that are associated with both the positive and negative outcomes of providing care to a loved one (Knight & Sayegh, 2010). Taking this next step into consideration, the proposed study garnered further insight into the lives of caregivers of dependent older adults through a sociocultural framework that honed in on both positive and negative aspects of the provision of care.
CHAPTER II

LITERATURE REVIEW

The following sections provide a general overview of the caregiving experience, beginning with a summary of how past researchers have examined cultural justifications for caregiving and familism. Evidence surrounding cultural differences within the caregiving role will also be included, along with a review of the existing cultural caregiving literature that is relevant to our investigation of the sociocultural aspects of caregiving. Additionally, we will review related research on the appraisal of burden, positive aspects of care, coping styles, social support, and caregiver well-being outcomes. This literature will provide support for the use of a sociocultural caregiving model within a stress and coping framework.

Cultural Components in the Caregiving Role and Experience

Throughout the past couple of decades, researchers have created a surge in racial, ethnic, and cultural studies focusing on the hardships and uplifts of caring for a dependent older adult (Connell & Gibson, 1997). Race and ethnicity are characterized by how an individual identifies with a particular group (e.g., African American, Caucasian). Culture is described as the characteristics of a specific group including but not limited to language, traditions, beliefs, values, art, food, religion, and social habits. Through cultural belief systems, individuals are able to figure out social solutions to
individual, family, and community problems. Culture has therefore become a fundamental part of an individual’s adaptability, acting as an effective buffer for difficult situations and a way to subjectively appraise the world. The act of caregiving essentially takes place in a cultural context, as it is shaped by who is likely to become an informal caregiver and defines the meaning of caregiving (Fry, 1990). Cultural values along with the family structure influence who will become a caregiver, which reflect the familial norms surrounding living arrangements at the end of life, beliefs about the medical field, and perceptions about aging and illness. In result, caregiving is a cultural system that revolves around feelings and understandings of dependency, obligation, and reciprocity. The relationship between a caregiver and care receiver are conditioned upon cultural values and a sense of dependency that is inherent in every relationship (Fry, 1990).

Previous studies have typically used race or a caregiver’s ethnic group membership as a proxy for examining cultural values and have therefore concluded differences in the caregiving experience based solely on race (Sayegh & Knight, 2010). However, as suggested by Dilworth-Anderson and colleagues (2004), these group differences lack cultural depth, as many studies typically do not include measures of cultural values, justifications, or familism. Still, these group differences identify a variety of caregiving components that may garner support when re-evaluated in terms of cultural values and beliefs as well as race.

Cultural Justifications and Familism. When evaluating race and culture, race typically includes phenotypical and social characteristics of a group, such as identifying as European American, whereas culture may be defined as a system of beliefs, customs, and shared symbols that shape both individual and group behavior (Dilworth-Anderson,
Brummett, Goodwin, Williams, Williams, & Siegler, 2005). More specifically, within the caregiving context, cultural justifications (e.g., meaning and expression based on an individual’s cultural background that direct caregiving behaviors) may structure how and why an individual provides care to an impaired family member. Furthermore, familism is operationalized as “a cultural value that refers to strong identification and solidarity of individuals with their family as well as strong normative feelings of allegiance, dedication, reciprocity, and attachment to their family members, both nuclear and extended” (Knight & Sayegh, 2010, p.7). Combined, these influential factors may shape the caregiving experience in terms of effective coping strategies, use of formal and informal support, and the ability to appraise the role as positive or negative. Perceptions about chronic illnesses, familial roles, and responsibilities are a few of the caregiving components that, together with race, help form attitudes or beliefs about the caregiving role.

As suggested by Dilworth-Anderson and associates (1993), researchers need to be aware of the ‘larger cultural landscape’ that allows for the development and understanding of the belief systems, values, and behaviors of culturally diverse groups. A caregiver’s cultural frame may incorporate not only current caregiving experiences, but also inherent characteristics (e.g., coping styles), previous experiences (e.g., familial interactions), and beliefs held by fellow cultural group members (Goodenough, 1999). Moving beyond the use of race as a predicting and identifying variable, researchers have developed measures aimed at understanding components of cultural justifications, values, familism, and filial obligation (Dilworth-Anderson et al., 2005). Together these components of culture capture a more in depth view into the lives of caregivers.
In an exploration of culture and health, Dilworth-Anderson and colleagues (2004) found that very strong and very weak cultural justifications for caregiving were predictive of poor psychosocial health over time in a sample of African American caregivers. This study also aided in the beginning development of a cultural measure that was geared towards understanding culture within a caregiving sample of impaired older adults, the Cultural Justifications for Caregiving Scale [CJCS]. A year later, in a sample of African American and European American caregivers, Dilworth-Anderson and colleagues (2005) supported the use of the CJCS with both groups, conducting factor analyses. They found that African Americans had stronger cultural justifications for providing care when compared to European Americans. Results also indicated an inverse relationship between educational level and cultural justifications, meaning caregivers who had higher levels of education scored lower on the CJCS.

To date, a limited number of studies have used the CJCS to understand cultural components in the caregiving role and have found conflicting factor structures. For example, in Dilworth-Anderson and colleagues’ work (2004; 2005) there was evidence of a single latent cultural justifications factor. In a sample of culturally diverse grandparents, Yancura (2012) adapted the measure to understand justifications for raising grandchildren and found a two-factor model (i.e., Custom and Responsibility) best fit the data. Powers and Whitlatch (in press) examined the CJCS in a sample of African American and European American dementia caregivers and found that items loaded onto two factors representing feelings of Duty and Reciprocity. Given these divergent results, it is important to evaluate the reliability and factor structure of this measure within a cultural caregiving context.
Another aspect of culture that has been included in caregiving research is familism. Originally founded in work with the Hispanic culture, familism has been identified as a core characteristic in many cultural minority families. In 1987, Sabogal, Marin, Otero-Sabogal, Marin, and Perez-Stable categorized three basic dimensions of familism: 1) familial obligations, 2) perceived support from the family, and 3) family as referents. Using a sample of 452 Hispanics and 227 European Americans, Sabogal and colleagues (1987) examined the effects of acculturation on aspects of familism and found that the attitudes of persons with high levels of acculturation tended to report higher levels of familism (i.e., perceived support from the family) than those of European American participants.

A commonly studied component of familism is collectivism versus individualism, with Western cultures typically exhibiting individualistic tendencies, whereas Eastern cultures are presumed to be more collectivistic (Segall, Lonner, & Berry, 1998). As described by Kim, Knight, and Flynn Longmire (2007), familism has been identified as a form of collectivism that may improve the lives of family caregivers. In general, when compared to European American caregivers, African American caregivers have been found to report higher levels of collectivistic attitudes towards social support. For instance, Dilworth-Anderson and McAdoo (1988) reported that African American families primarily operate within an extended kin network, creating stronger intergenerational social ties within a multigenerational household. In a sociocultural caregiving context, McCallum (2002) found that African American caregivers reported stronger levels of familism and more strongly attributed the caregiving role as a familial duty when compared to European American caregivers. In a study on the role of
familism in stress and coping processes among African American and European American dementia caregivers, Kim and colleagues (2007) hypothesized that African American caregivers would report higher levels of familism, which would indirectly lead to lower levels of burden. Familism was measured through the use of the Bardis (1959) 16-item familism scale that emphasized family goals, common property, and mutual support. They also hypothesized that higher levels of familism would be associated with more use of active coping (i.e., problem-focused) and less use of avoidant coping (i.e., emotion-focused). Through the use of path modeling, Kim and colleagues (2007) actually found that familism was influenced by education levels rather than ethnicity (e.g., highly educated participants had higher levels of individualism). In all reported models, after controlling for education, higher levels of familism increased the use of avoidant coping (e.g., denial and avoidance of the caregiving situation), which in turn led to poorer mental and physical health. None of the reported models exhibited an association between familism and active coping. Initially, it had been assumed that cultural components influenced outcomes in a positive manner and cultural beliefs and values would operate primarily by influencing the subjective appraisals of caregiving as burdensome. However, the results of Kim and associates (2007) study show that aspects of familism may have negative connotations within the caregiving role and may influence a caregiver’s ability to affectively cope with the stressors and strains.

Kim and colleagues (2007) further suggested that the use of the Bardis (1959) familism scale overly represented broad dimensions of negative feelings of familism instead of positive feelings about providing family support. Therefore, taking this limitation into consideration, Sayegh and Knight (2010) used the 14-item Sabogal and
colleagues (1987) familism scale to explore the effects of familism on the mental and physical health of family caregivers. The Sabogal et al. (1987) familism scale differs from the Bardis (1959) familism scale because it includes aspects of familism that measure both behavioral and attitudinal aspects of familism. More specifically, the Sabogal et al. (1987) familism scale highlights the perception of obligation to provide emotional and financial support to family members, the expectations to receive sufficient instrumental and emotional support from family members, and the view of family members as attitudinal and behavioral referents. In addition to familism, Sayegh and Knight (2010) also measured feelings of cultural justifications as measured by the 10-item CJCS and 2-items from the Traditional Caregiving Ideology (TCI) subscale of the Lawton Caregiving Appraisal measure (Lawton, Kleban, Moss, Rovine, & Glicksman, 1989). When both scales were combined, an exploratory factor analysis revealed a 12-item factor (i.e., Cultural Justification).

Building off of Kim and colleagues (2007) study, Sayegh and Knight (2010) predicted that in their sample of African American and European American family dementia caregivers: 1) higher scores on the Familial Obligation factor would lead to more use of avoidant coping, resulting in poorer mental and physical health outcomes, 2) higher scores on the Expected Support from the Family factor would lead to more use of active coping, resulting in better mental and physical health outcomes, and 3) higher scores on the Cultural Justification factor would lead to higher levels of active coping, resulting in better mental and physical health outcomes. Through the use of path modeling, Sayegh and Knight (2010) found only Familial Obligations to detrimentally affect mental and physical well-being through the use of avoidant coping. Expected
Support from the Family factor did not have any effect on health outcomes for the tested sample. Interestingly, the Cultural Justification factor was associated with both avoidant and active coping, meaning high levels of Cultural Justification values may motivate caregivers to use both active and avoidant coping mechanisms (e.g., high levels of perceived distress and strain lead to the use of multiple coping strategies; Lazarus & Folkman, 1984). More importantly, Sayegh and Knight (2010) also found that ethnicity was not associated with Cultural Justification, meaning both European American and African American caregivers were similarly motivated to culturally provide care to a dependent family member. This finding contradicts previous research that has found African American caregivers to significantly feel stronger and score higher than European American caregivers on the CJCS (Dilworth-Anderson et al., 2005). With mixed literature surrounding the associations between cultural components and the caregiving experience, future research is needed to help clarify these relationships and move the sociocultural caregiving field further. Furthermore, the literature may contain mixed evidence because many researchers have only examined culture in terms of between group differences (e.g., comparing European American versus African American caregivers). Therefore, the current study examined within group variability on cultural components to eliminate previous issues with comparing ethnic groups.

**Cultural Differences in Caregivers of Dependent Older Adults.** By the year 2050, the 65 and older population is projected to increase to 20% of the total U.S. population, with older European Americans doubling and African American older adults quadrupling in size (U.S. Bureau of the Census, 2000). With this older population growth, it is imperative to understand the cultural components surrounding a now fairly
normative age-graded experience such as caring for a dependent older adult. In a review of the literature, Dilworth-Anderson and colleagues (2002) highlighted the variability in caregiving experiences and outcomes across racial and ethnic groups. Through the synthesis of 59 published articles, Dilworth-Anderson et al. (2002) concluded that various components of the caregiving experience might be affected or attributed by an individual’s ethnic background and cultural upbringings. Building off of the previous statement, the following paragraphs will further illustrate ethnic and cultural differences found in caregivers of dependent older adults.

Social Support

In general, the distress associated with the primary caregiving role has postulated to be ameliorated through supportive networks of family and friends (Zarit, Orr, & Zarit, 1985). Numerous studies have reported benefits to a caregiver’s well-being through the receipt of informal support (e.g., Pinquart & Sörensen, 2007). When evaluating social support differences, caregiving minority groups tend to have a more diverse group of extended social relations than majority caregivers (Cox, 1993). It has been noted that having a larger support system may help ease the burden of care and diffuse the responsibilities and stress associated with care-related tasks. For example, Smerglia, Deimling, and Baressi (1988) explored a sample of European American and African American caregivers and found that not only did African American caregivers report a greater number of proximate siblings as sources of additional care, but African American caregivers were also more likely than European American caregivers to report a friend or neighbor as a very important helper. In a qualitative study, Sterritt and Pokorny (1998) found that female African American caregivers ranked God as their first source of
informal social support, followed by family, friends, and neighbors, with formal services placed last. Similarly, Wood and Parham (1990) examined female caregivers and found that African American caregivers were more likely to include God as part of their informal social support system than European American caregivers. These findings add to the literature that supports a more extensive social support network in African American caregiving situations, but these mean and qualitative comparisons do not specifically address the cultural justifications behind social support networks.

Other researchers have found African American and European American caregiver’s social support networks to be similar when compared to noncaregiving counterparts. For example, Haley and colleagues (1995) found that African American and European American caregivers had similar social support networks, were equally dissatisfied with the quality of their social support, reported decreased visitation with others, and expressed lower levels of social activity and participation than their noncaregiving controls. Likewise, Cox (1999) found that European American and African American caregivers had very similarly structured social support networks, although European American caregivers in this sample reported more dissatisfaction with support from their networks.

More importantly, findings regarding the directionality of effects between cultural values (i.e., familism and cultural justifications) and social support across different ethnic groups have been mixed. For example, in a sample of African American and European American caregivers, Shurgot and Knight (2005) found that caregivers who reported higher levels of familism (e.g., sense of obligation) were significantly less likely to perceive their available social support as positive and beneficial. However, it is still
unclear how cultural values may operate through social support to affect a caregiver’s well-being. Therefore, guided by the Sociocultural Stress and Coping framework, the current study examined these relationships further and explored how familism and cultural justifications to provide care influenced social support and potentially affected a caregiver’s depression symptomology.

Coping Styles

As suggested by Knight and Sayegh (2010), the use of different coping styles can affect a caregiver’s stress process when finding both effective and ineffective strategies to deal with stressful situations linked to the provision of care. In general, research has found that active coping styles, such as planning, may decrease the negative effects of caregiver strains and stressors on well-being. Maladaptive coping styles, such as avoidant coping, may worsen caregiver outcomes (e.g., depressive symptomology, life satisfaction) due to the utilization of disengagement or denial to decrease overwhelming feelings of burden and distress associated with the caregiving experience. In the evaluation of racial differences in coping styles, African American and European American caregivers use different effective coping styles to match the subjective burdens associated with care. Some studies have found that through the encouragement of positive reappraisals of the caregiving experience, African American caregivers tend to cope with the difficulties of caring for a loved one with prayer, faith in God, and religion (Dilworth-Anderson et al., 2002). For example, Wykle and Seagull (1991) found that 80% of African American caregivers reported prayer, faith, and religion as their special way of coping with the difficulties of caregiving; whereas European American caregivers did not mention prayer, faith, or religion as coping strategies and instead relied on the
acceptance of changes, problem solving, and help from professionals. Although a small sample size ($n = 40$), this was a starting point for understanding coping differences among ethnically diverse caregivers.

In a larger sample of 303 African American caregivers, Dilworth-Anderson, Boswell, and Cohen (2007) collected qualitative data using open-ended questions to assess caregivers’ values, views, and beliefs surrounding the role of spirituality within their caregiving experience. Four thematic domains were identified throughout the qualitative coding analysis: a) strength from spiritual beliefs to endure caregiving responsibilities, b) duty to fulfill caregiving role and/or feelings of reciprocity, c) acts of faith such as praying and believing God was in control to help perform caregiving tasks, and d) feelings of gratification such as joy, love, and fulfillment from the caregiving role. Findings also indicated that although majority of the caregivers attended church, they did not receive tangible support from their place of worship. Instead, by fulfilling the caregiving role and honoring the needs of the dependent older adults in the family, African American caregivers relied on their spiritual beliefs as a foundation of strength and gratification to perform their caregiving duties.

Although much of the literature has focused on ethnic group differences in coping styles through the use of religion or spirituality, little research has been implemented to examine the influence of cultural values and justifications on coping strategies. Many studies use race as a predicting variable in the use of specific coping strategies. For example, in a sample of 123 European American and 74 African American primary caregivers, Haley and colleagues (1996) found that African American caregivers reported lower levels of approach coping and higher levels of avoidance coping than did European
American caregivers. Although a good starting point, these results do not indicate why these differences may occur within culturally diverse caregivers. Moreover, in order to understand these associations between race and coping, we need to take one step further and include measures of cultural values to appreciate these potential cultural differences. Unfortunately, of the few studies that have evaluated this relationship and its effects on caregiver well-being, the findings are mixed.

Traditionally, researchers have hypothesized cultural values and beliefs to have a positive effect on the use of effective coping styles, which would indirectly increase caregiver well-being. However, through the use of existing measures of cultural justifications and familism (e.g., CJCS, Bardis familism scale, Sabogal familism scale), this relationship has intermittently been supported. For example, Kim and colleagues (2007) originally hypothesized that higher levels of familism would relate to higher levels of active coping, increasing caregiver well-being. Instead, Kim et al. (2007) found that higher levels of familism were related to increased levels of avoidant coping strategies, which negatively affected physical and mental health outcomes in both African American and European American caregivers. Conversely, one study performed by Chun (2004) on Korean caregivers found that filial piety was significantly associated with active-cognitive coping strategies, which in turn reduced depressive symptomology.

Although this literature is sparse, it emphasizes how cultural values and beliefs can potentially impact other constructs within the caregiving stress and coping process. It has been suggested that future research should explicate the relationships between culture, coping, and caregiver outcomes as this may provide important insight into the foundation of differences among caregivers (Knight & Sayegh, 2010).
Appraisals of the Caregiving Role

With the growing number of older adults living with chronic conditions in the U.S. population, it is assumed that approximately 80% to 85% of help provided to dependent older adults will be afforded by informal support such as adult children and spouses (Pinquart & Sörensen, 2003). The caregiving role has been described as one that may be accompanied by stressors and strains, which may negatively impact an individual’s well-being (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995). However, other researchers have postulated that caregiving may include feelings of joy and satisfaction, which may positively impact a caregiver’s experience (Kramer, 1997). Together, both negative and positive appraisals have been identified within the caregiving literature.

Caregiver Burden. Throughout the past three decades, a plethora of studies have documented the effects of caregiver burden throughout the caregiving experience (Connell & Gibson, 1997; George & Gwyther, 1986; Hughes, Giobbie-Hurder, Weaver, Kubal, & Henderson, 1999; Novak & Guest, 1989). Caregiver burden has been characterized as the overall impact pertaining to social, psychological, financial, and physical demands of the caregiving role and responsibilities (George & Gwyther, 1986). More importantly, many researchers have evaluated specific stressors associated with the levels of caregiver burden and depressive symptomology. For example, aspects of the care receiver’s impairments such as behavioral problems (e.g., disruptive and aggressive behavior associated with dementia-related illnesses), physical impairment (e.g., issues with activities of daily living and instrumental activities of daily living), and level of cognitive impairment (e.g., memory deficits) have been associated with caregiver
distress. In a review of the burden literature, Bedard, Pedlar, Martin, Malott, and Stones (2000) found that in 74% of the studies included for review, care receiver behavioral problems exhibited the strongest relationship with caregiver burden (e.g., higher amounts of behavioral issues lead to higher amounts of burden) when compared to physical or cognitive impairments. It has been suggested that caregivers may tolerate physical and cognitive deficits better than behavioral issues because problematic behavioral issues (e.g., aggressiveness, abusiveness) may leave the caregiver feeling helpless or upset when he or she is not able to successfully manage behavioral fluctuations (Ory, Hoffman, Yee, Tennstedt, & Schulz, 1999).

When evaluating overall burden levels in spousal and adult child caregivers, Pinquart and Sörensen (2011) found no mean differences. However, when burden was broken down into various subcomponents, spousal caregivers reported higher levels of physical burden, relationship burden, and financial burden than did adult children caregivers. It is therefore important to not only evaluate potential differences in care receiver impairments but also caregiver characteristics and how they may impact the appraisal of the caregiving role as burdensome.

In terms of racial differences in the appraisal of the caregiving role as burdensome, much of the evidence is mixed due to relatively small, nonrepresentative, convenience samples of caregivers (Connell & Gibson, 1997; Pinquart & Sörensen, 2005). Some studies have found that minority caregivers show an increased risk of burden and negative well-being outcomes (e.g., elevated levels of depression) due to both the stress of caregiving and a decrease in key resources (e.g., income, education) (Pearlin et al., 1990). In alignment with the disadvantaged minority group model (Markides,
Liange, & Jackson, 1990), researchers once argued that caregivers from non-majority cultures suffered double stressors from being a part of a disadvantaged ethnic group (e.g., lower SES) and taking on the stressful role of caregiving. Other studies have shown that minority caregivers may exhibit higher levels of well-being and report less burden when compared to majority caregivers (e.g., European Americans), due to positive reappraisals, better structured informal care networks, and reliance on religion and spirituality (Dilworth-Anderson et al., 2002). For example, when compared with European American caregivers, ethnic minority caregivers are more likely to provide greater amounts of informal care (Mui, 1992), are more likely to report unmet needs associated with the provision of care (Wykle & Segal, 1991), but are also less likely to be depressed (Dilworth-Anderson et al., 1999), or feel burdened by the caregiving role (Knight et al., 2000).

In relation to the Sociocultural Stress and Coping Model, Knight and Sayegh (2010) believe that many factors can mitigate the relationship between characteristics of the care receiver (e.g., behavioral disturbances), characteristics of the caregiver (e.g., cultural values) and a caregiver’s subjective appraisal of the provision of care as burdensome. Such factors that influence one’s culture and the above relationship may include social support and various coping strategies employed by the caregivers to alleviate the burdens and stress associated with the caregiving role and responsibilities. However, many studies that have postulated cultural differences between groups have primarily used ethnicity or race as predicting variables of caregiver burden. As noted in previous statements throughout this proposal, using race as a proxy to represent culture is
a methodological limitation and constrains our knowledge on the value and impact of culture within the caregiving role.

As proposed by Knight, Robinson, Flynn Longmire, Chun, Nakao, and Kim (2002) greater attention needs to be placed towards understanding cultural values and beliefs within a stress and coping process that evaluates components of caregiver burden. For instance, it has been naturally assumed that individuals who report higher levels of familism and cultural justifications would view caring for a dependent older adult as a normal part of family life, which would lead to lower levels of subjective burden. Conversely, individuals who come from individualistic upbringings and hold little cultural values for providing care might view the role of caregiving as a disruption, leading to higher levels of subjective burden. To exemplify these general statements, Aranda and Knight (1997) found that higher levels of familism were associated with lower levels of burden in a sample of Hispanic caregivers. However, many researchers who expected familism to have a buffering effect on a caregiver’s emotional distress and burden level ended up finding the opposite, as familism may tap into negative feelings of obligation and duty. For example, in a sample of Korean caregivers, Youn, Knight, Jeong, and Benton (1999) found that higher levels of familism did not lead to lower levels of burden or depression and instead Korean caregivers who scored high on familism exhibited higher levels of depression, burden, and anxiety when compared to European American caregivers. Similarly, Knight et al. (2002) found that higher levels of familism values were associated with higher depression scores and burden levels in a sample of Japanese American caregivers. Rozario and DeRienzis (2008) also found that
stronger feelings of familism predisposed female African American caregivers to higher levels of psychological distress.

Although it may seem appropriate to attribute positive meaning to cultural components, the literature surrounding culture and appraisal of the caregiving role as burdensome has been mixed. To date, researchers seem to point towards a negative relationship between familism and burden and even a nonsignificant relationship at times. Additionally, little research has examined how positive feelings of reciprocity may relate to subjective feelings of burden. In one known study of cultural motives for caregiving, Del-Pino-Casado, Frias-Osuna, and Palomino-Moral (2011) evaluated a sample of Spanish informal caregivers of older adults (n=1,284) and found that feelings of balanced reciprocity (i.e., expectation of a fair return of support with an undefined future date) had a negative association with subjective burden, meaning higher levels of reciprocity potentially created a protective effect on subjective burden. Del-Pino-Casado and colleagues (2011) also found that caregivers reporting higher levels of obligation reported more subjective burden, although this relationship was not statistically significant.

Therefore, future research should include not only feelings of familism but also cultural justifications and motivations to provide care, which will help elaborate upon the relationship between culture and burden within a sociocultural caregiving context (Knight et al., 2002).

**Positive Aspects of Care.** Throughout the caregiving literature, researchers and clinicians have been preoccupied with burdens and problems surrounding the provision of care to a dependent older adult. Although an important aspect of the caregiving experience (as outlined in the previous section of this paper), positive aspects of care
have more recently been identified as a crucial component of the caregiving experience (Carbonneau et al., 2010; Hilgeman et al., 2007; Roff et al., 2004). Previous studies have operationally defined positive aspects of care [PAC] through a variety of terms including levels of satisfaction (e.g., appraisal of their caregiving experiences as satisfactory), pleasures and rewards within the caregiving role, and enjoyment and uplifts (e.g., daily events that may produce feelings of happiness or joy) (Carbonneau et al., 2010; Tarlow et al., 2004). Recognition of positive aspects of care initially came about from qualitative subjective reports of caregiver’s who described the provision of care as a role that led to greater closeness in relationships, an increased feeling of pride in the caregiving role, improvement in self-worth, and the enhancement of pleasure, warmth, and meaning throughout the caregiving experience (e.g., Archbold, 1983; Motenko, 1989). Farran, Keane-Hagerty, Salloway, Kupferer, and Wilken (1991) also found that in a sample of 94 caregivers, 90% qualitatively reported that they valued positive aspects of the provision of care to a loved one. This also highlights how a caregiver may experience both negative and positive emotions throughout the same caregiving situation, making burden and PAC not mutually exclusive. Therefore, attention to PAC may highlight a strength-based perspective that helps researchers and clinicians identify areas of continued growth and gains within the caregiving role (Kramer, 1997).

Grounded in work by Folkman (1997), the Stress and Coping Model has been a guide to understand how positive subjective appraisals of the caregiving experience may relate to positive and negative emotional outcomes. In a sample of caregivers of HIV partners, Folkman (1997) found that 99.5% of caregivers (N = 1,794) were able to identify positive meaning of their caregiving role and often used positive coping
strategies such as infusing ordinary events with positive meaning, problem focused coping, positive reappraisal, and spiritual beliefs and practices. Similarly, Hilgeman et al. (2007) found that caregivers who reported more positive aspects of caregiving such as deriving satisfaction, enjoyment, rewards, and benefits from the caregiving relationship, also reported less burden, depression, and better overall subjective well-being and health. In a review of 14 studies that measured PAC, Tarlow and colleagues (2004) found that positive aspects were frequently reported to positively correlate with older caregivers (e.g., Picot, 1995), satisfaction with social support and the use of problem-solving coping strategies (e.g., Kramer, 1997), and overall better health of the caregiver (e.g., Motenko, 1989).

To date, positive aspects of care have been infrequently incorporated into conceptual models evaluating the caregiving experience (Carbonneau et al., 2010). Although studies have demonstrated that more positive aspects (e.g., closer relationship with the care receiver, rewards and gratifications) are associated with greater subjective well-being and fewer depressive symptoms (Pinquart & Sörensen, 2004), researchers have rarely applied this to a theoretical model that examines both negative and positive aspects of care as well as cultural components of the caregiving experience. This is a crucial next step in the caregiving literature as there has been a building amount of evidence that supports potential cultural differences in the amount of positive aspects of care (Hilgeman et al., 2007). For example, Hilgeman and colleagues (2007) found racial differences in the amount of PAC reported by European American and African American caregivers. African American caregivers typically reported higher levels of PAC compared to European American caregivers, with religiosity mediating this relationship.
However, as suggested by Knight and Sayegh (2010), in order to understand the ups and downs of the caregiving experience we must look past group differences and evaluate the relationships between the caregiving role and cultural components. Knight and Sayegh (2010) further suggested that a comprehensive model that examines both positive and negative effects on caregivers’ outcomes would create a more complete picture of the caregiving role. Therefore, the current study extended the Sociocultural Stress and Coping Model by adding positive aspects of care into the model and evaluated the relationship between culture and a caregiver’s ability to find positive meaning in the caregiving role (Figure 4).

Moreover, a next step in the research process is to include cultural measures to understand if culture is the underpinning reason for these differences in a caregiver’s ability to positively appraise the role and find satisfaction and joy in giving care. For example, we may turn our attention towards the work done by Lawton and associates (1992) on the dynamics of caring for older adults with dementia among African American and European American families. Including a subscale of traditional caregiving ideology (e.g., “A strong reason for providing care is to be true to family traditions”), Lawton et al. (1992) found that African American caregivers showed higher levels of traditional ideology; however, this path was not significant in predicting levels of help given by the caregiver or levels of caregiver satisfaction and burden. Conversely, for European American caregivers, caregiving ideology was significantly related to levels of caregiving satisfaction (e.g., higher levels of traditional ideology related to greater caregiver satisfaction). Although African American caregivers exhibited favorable caregiving experiences based on mean evaluations (e.g., less depressed and burdened),
both European American and African American caregivers who reported more time spent in the caregiving role (e.g., completing care-related tasks) also simultaneously reported higher levels of caregiver satisfaction and burden which influenced the caregiver’s positive and negative affect. Although this finding may seem counterintuitive (e.g., how can an individual find high levels of satisfaction and burden within the same role?), it supports previous literature on the benefits of emotional complexity and the ability to positively appraise chronic stressors (e.g., caregiving).

Although a good start, little research has followed in Lawton and colleagues’ (1992) footsteps in evaluating the relationship between cultural caregiving ideologies and positive aspects of care. However, there has been a growing literature base that suggests meaning and motivations in the caregiving role promote successful coping and positive appraisals throughout the caregiving experience. In order to find positive aspects within the caregiving role, Quinn, Clare, McGuinness, and Woods (2012) proposed that caregivers might find meaning-making as a way to cope with the stressors of caregiving. For example, meaning may have a cognitive component (e.g., rationalizing experiences), emotional component (e.g., feelings of fulfillment), and motivational component (e.g., sustain coping by finding meaning) that together help a caregiver adapt and find redeeming qualities about providing care to an ill loved one (Quinn, Clare, & Woods, 2012). It is through these subjective perceptions of meaning that cultural motivations may help expand upon why certain caregivers are able to positively appraise the caregiving role.
Goals of Current Study

It is expected that examining cultural components within the caregiving experience will help explicate a caregiver’s ability to both positively and negatively appraise the caregiving role, report the use of coping strategies and social support, as well as subjectively evaluate their health and well-being (Dilworth-Anderson et al., 2002; Knight & Sayegh, 2010). More specifically, a theoretical framework has yet to evaluate both cultural components and positive aspects of care along with traditional components of the caregiving experience. Although previous literature has typically found African American caregivers to report greater cultural justifications for caregiving and higher levels of positive aspects of care than European American caregivers, we still do not understand the effects cultural values and beliefs may have on the stress and coping process of providing care to an ill loved one. There is also a need to understand the factor structure and reliability estimates for culturally relevant measures in a sample of primary caregivers. Identifying measures that are able to ascertain cultural values and beliefs that surround the provision of care is crucial when examining the cultural context of caregiving. Therefore, the current study has taken the steps to begin to elucidate the cultural measures that are able to identify important values that may influence a caregiver’s positive and negative outlooks surrounding his or her experience providing care to a dependent loved one.

Furthermore, the Sociocultural Stress and Coping Model was used as a guide to expand upon the existing literature surrounding cultural motivations in caregivers of dependent older adults. The model components of interest included level of burden, positive aspects of care, culture, coping styles, social support, and depression. Due to the
mixed findings surrounding how cultural components may influence the caregiving experience, multiple analysis techniques were employed to determine the relationships between cultural motivations and depression with burden, PAC, social support, and coping strategies analyzed as mediators and moderators.

In order to establish the proposed relationships as guided by the sociocultural framework, we examined both the mediating effects and tested the alternative hypotheses of moderator effects. Therefore, for each relationship examined in the current study, we tested both mediation and moderation to help understand the relationships between culture and model components in a more thorough manner. Baron and Kenny (1986) have provided a comprehensive review of the critical differences between mediator and moderator variables. A mediator variable acts as a driving force between the independent variable and outcome of interest. Mediator variables help explain how or why the relationships occur, and further explicate why a relationship may exist through a third variable. On the other hand, a moderator variable partitions the independent variable into subgroups that are better able to predict the dependent variable. Moderation is evaluated by means of interaction terms in predicting outcome variables. Taking this into account, we proposed that cultural justifications had a relationship with our outcome variable (i.e., depression) due to other mediating or moderating variables such as PAC, burden, social support, and coping styles. The research aims and specific hypotheses of the current study are delineated below.

**Research Aims.** A primary goal of this paper was to explore the factor structure of the Cultural Justifications for Caregiving Scale and Familism Scale as prior studies have suggested there may be multiple factors underlying this measure. Due to the mixed
and lacking evidence surrounding the relationship between cultural components, the appraisals of the caregiving role as positive or negative, and depression, we examined the relationship between cultural values and depression as mediated or moderated by PAC, burden, social support, and coping styles.

**Specific Hypotheses**

Hypothesis 1: Cultural justifications will impact depression, but PAC will mediate or moderate this relationship.

a. Mediation: Cultural justifications will indirectly affect depression through the mediating cause of a caregiver to report positive aspects of care.

b. Moderation: Higher levels of PAC and cultural justifications will lower depression scores in caregivers. However, if both PAC and cultural justifications are low then depression will be higher in caregivers.

Hypothesis 2: Cultural justifications will impact depression, but burden levels will mediate or moderate this relationship.

a. Mediation: Cultural justifications will indirectly affect depression through the mediating cause of a caregiver to report burden.

b. Moderation: Lower levels of cultural justifications and higher levels of burden will lead to higher depression scores in caregivers. On the other hand, stronger levels of cultural justifications and lower levels of burden will lead to lower levels of depression in caregivers.
Hypothesis 3: Cultural justifications will impact depression, but coping styles will mediate or moderate this relationship.

a. Mediation: Coping styles will mediate the relationship between cultural justifications and depression. More specifically, the use of active coping styles will mediate the relationship between cultural justifications and depression levels.

b. Moderation: Higher levels of cultural justifications will interact with the use of active coping styles, which will lead to lower depression scores. Conversely, lower levels of cultural justifications will interact with avoidant coping styles, which will lead to higher depression scores.

Hypothesis 4: Cultural justifications will impact depression, but social support will mediate or moderate this relationship.

a. Mediation: Social support will mediate the relationship between cultural justifications and depression. More specifically, the use of instrumental social support will mediate the relationship between levels of cultural justifications and levels of depression.

b. Moderation: Higher levels of cultural justifications will lead to an increase in instrumental social support, which will lower depression scores. Conversely, lower levels of cultural justifications will lead to the use of emotional support, which will increase depression scores.

Hypothesis 5: Familism will impact depression, but PAC will mediate or moderate this relationship.
a. Mediation: Familism will indirectly affect depression through the mediating cause of a caregiver to report positive aspects of care. More specifically, stronger feelings of familism and lower levels of depression may be mediated by a higher level of PAC.

b. Moderation: Higher levels of PAC and lower levels of familism will lower depression scores in caregivers. However, if PAC is low and familism is high then depression will be higher in caregivers.

Hypothesis 6: Familism will impact depression, but burden levels will mediate or moderate this relationship.

a. Mediation: Familism will indirectly affect depression through the mediating cause of a caregiver to report caregiver burden.

b. Moderation: Lower levels of familism and lower levels of burden will lead to lower depression scores in caregivers. Conversely, stronger levels of familism and higher levels of burden will lead to higher levels of depression in caregivers.

Hypothesis 7: Familism will impact depression, but coping styles will mediate or moderate this relationship.

a. Mediation: Familism will indirectly affect depression through the mediating cause of a caregiver to report the use of specific coping styles.

b. Moderation: Higher levels of familism will lead to higher levels of avoidant coping styles, which will lead to higher depression scores.
Conversely, lower levels of familism will lead to higher levels of active coping styles, which will lead to lower depression scores.

Hypothesis 8: Familism will impact depression, but social support will mediate or moderate this relationship.

a. Mediation: Social support will mediate the relationship between familism and depression. We will explore whether or not familism has an adverse impact on the use of a caregiver’s social networks through instrumental or emotional support.

b. Moderation: Higher levels of familism will lead to an increase in emotional social support, which will increase depression scores. Conversely, lower levels of familism will lead to the use of instrumental social support, which will decrease depression scores.
CHAPTER III

METHOD

Participants were recruited through a list of contacted self-identified caregivers from an already existing data set from the University of Akron. This data set used a third party sampling company (i.e., Sampling Survey International). Other recruiting techniques included online social networking resources (e.g., Facebook, Craigslist) and posting flyers around the local community (e.g., flyers placed at grocery store community bulletins in the Akron and Cleveland area). These means of recruiting participants were approved by The University of Akron Institutional Review Board (IRB). To be considered for participation in this study individuals had to: a) provide care for a dependent older adult 50 years or older for a minimum of 8 hours per week; b) and be over the age of 18. An attempt was made to oversample African American caregivers to achieve diversity within the current sample, however due to many barriers surrounding the recruitment of ethnic minorities we did not base our analysis strictly on race. Instead there was an emphasis placed on the overall cultural experience and background of caregivers regardless of their racial identity.

In total, 112 participants submitted responses both through paper packets ($n = 24$) and online ($n = 88$). However, 29 participants were removed from the analysis due to
missing data (25% or more). Therefore, the current study included data from 83 caregivers.

**Procedure**

Participation in the study involved either the receipt of a physical questionnaire packet or the completion of the survey online through the use of Qualtrics. Every participant was provided with an informed consent form that described the aims and goals of the current study (Appendix A). Potential participants identified through the third party sampling data were mailed a questionnaire packet that included the study measures as well as a postage paid envelope that was designated for return of the questionnaire packet upon completion. Participants who were recruited through other means were given the option to be mailed a packet or complete the survey online. Recruited participants were given the opportunity to enter a drawing for one of ten $50 gift certificates to the grocery store of their choice.

**Measures**

The following measures were included in the study for all caregivers and can be found in the Appendices.

**Demographics.** Caregivers provided demographic information including age, race, gender, level of education, marital status, income, overall health, religious affiliation, and levels of religiosity. Care-related information included relationship to care receiver, length of time in caregiving role, amount of hours per week providing care, type(s) of illness caring for, and if the caregiver is currently living with the care recipient. Subjective health was rated for both the caregiver and care receiver on a 4-point (1 = very poor, 2 = poor, 3 = fair, 4 = good), one-item measure that asked “Generally speaking,
how would you rate (your/the care receiver’s) present health?” The full array of demographic questions and response options can be found in Appendix B.

**Care Receiver Characteristics.** The Revised Memory and Behavior Problems Checklist was used to assess the care receiver’s memory-related issues, depressive symptomology, disruptive behaviors, instrumental activities of daily living impairment, and activities of daily living impairment (RMBPC; Teri, Truax, Logsdon, Uomoto, Zarit, & Vitaliano, 1992). This 32-item measure asks the caregiver to report how often the care receiver exhibits specific memory, emotional, task, and behavior issues during the past week on a scale as follows: 0 = never occurred, 1 = not in the past week, 2 = 1 to 2 times in the past week, 3 = 3 to 6 times in the past week, and 4 = daily or more often. Each item also asks the caregiver to report “How much did this bother or upset you when it happened” rated on a scale as follows: 0 = not at all, 1 = a little, 2 = moderately, 3 = very much, and 4 = extremely. Scores are summed for the frequency of care receiver problems and a higher score indicates a higher frequency of issues. For the purpose of this study we will be using the frequency score as a control for care receiver impairment levels. Sample items include: “for getting what day it is,” “doing things that embarrass you,” “appears sad or depressed,” “trouble preparing meals,” and “incontinence of bowel or bladder.” The RMBPC has been found to be a reliable and valid measure for the assessment of care receiver impairment. In the current study the Cronbach’s Alpha for the frequency of care receiver problems was $\alpha = 0.94$. The full item listing and response options for the RMBPC can be found in Appendix C.

**Positive Aspects of Caregiving.** The nine-item Positive Aspects of Caregiving scale was used to assess the caregiver’s mental state in the context of the caregiving
experience (Tarlow et al., 2004). Caregivers are asked to assess the perception of benefits within the caregiving role. Example statements include: providing care for the care receiver has made me feel more useful, providing care for the care receiver has given more meaning to my life. Rated on a 5-point agree/disagree scale (i.e., 1 = disagree a lot, 2 = disagree a little, 3 = agree a little, 4 = agree a lot), scores are summed with higher scores indicating more positive appraisals. The full item listing and response options for the Positive Aspects of Caregiving scale can be found in Appendix D. In the current study the Cronbach’s Alpha was 0.94.

**Caregiver Burden.** In order to assess a caregiver’s level of care burden, the Caregiver Burden Inventory was used to evaluate burden domains such as emotional and physical health as well as social relationship strains (Novak & Guest, 1989). Taking on a multidimensional approach to assessing burden levels, the Caregiver Burden Inventory is comprised of 24-items with five-subscales (i.e., time dependence burden, developmental burden, physical burden, emotional burden, and social burden). Sample statements include: He/she is dependent on me (i.e., time dependence burden), I feel that I am missing out on life (i.e., developmental burden), I’m physically tired (i.e., physical health burden), I feel angry about my interactions with him/her (i.e., emotional health burden), and I don’t get along with other family members as well as I used to (i.e., social relationship burden). Participants rate the items on a scale as follows: 0 = never, 1 = rarely, 2 = sometimes, 3 = quite frequently, and 4 = nearly always. Higher scores indicated higher levels of overall burden. The full item listing and response options for the Caregiver Burden Inventory can be found in Appendix E. The Cronbach’s Alpha for the entire scale was 0.94 and the reliability estimates for the individual subscales were as
follows: time dependent burden ($\alpha = 0.83$), developmental burden ($\alpha = 0.92$), physical burden ($\alpha = 0.88$), emotional health burden ($\alpha = 0.84$), and social relationship burden ($\alpha = 0.75$).

**Cultural Justifications for Caregiving.** Caregivers were asked to assess their cultural reasoning for taking on the role of caregiver through the use of the Cultural Justifications for Caregiving Scale (CJCS; Dilworth-Anderson et al., 2004). The CJCS is a 10-item measure designed to assess both the caregivers’ cultural reasons for care and the cultural expectations in providing care (Appendix F). Example statements include, “I give care because of my religious and spiritual beliefs” and “I give care because my family expects me to provide care” which participants rate on a scale as follows: 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, and 4 = strongly agree. The items are then summed with higher scores representing stronger cultural reasons for caregiving. In a previous study of 169 African American and European American caregivers, the CJCS yielded a Cronbach’s Alpha of .86 (Dilworth-Anderson et al., 2005). In the current study, the Cronbach’s Alpha was 0.82.

**Familism.** The Familism scale is a 14-item measure that assesses feelings of familial obligations, perceptions of family members as reliable providers of help and support, and reports of relatives as behavioral and attitudinal referents (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). The current study used scores on the two factors of familism (Familial Obligations and Expected Support from the Family) derived from the complete measure. Therefore, the Familism scale included 9-items (i.e., six items that create the Familial Obligations factor and three items that represent the Expected Support from the Family factor). Participants rate each item on a four-point
Likert-type scale, with 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, and 4 = strongly agree. Scores can range from 9 to 36 and higher scores indicate stronger feelings of familism. Sample items include “I would help within my means if a relative told me that she/he is in financial difficulty” and “When one has problems, one can count on the help of relatives.” The current samples reliability estimate was $\alpha = 0.82$. The full item listing and response options for the Familism scale can be found in Appendix G.

**Coping Styles and Social Support.** The Brief COPE scale (Carver, Scheier, & Weintraub, 1989) was used as a measure of coping styles and types of social support (See Appendix H). The two subscales, use of emotional social support (2 items) and use of instrumental social support (2 items), represented social support in the current study. The remaining items (i.e., 24 items) were factor analyzed to identify the underlying coping styles in the current sample. For the purpose of this study, we chose to focus on the 11-items that created the avoidant coping subscale (e.g., venting, denial, substance use) and the 5-items that created the active coping subscale (e.g., active, planning). Caregivers were asked to respond to each item while focusing on their personal caregiving experience. Items are answered on the following response scale: 1 = I usually don’t do this at all, 2 = I usually do this a little bit, 3 = I usually do this a medium amount, and 4 = I usually do this a lot. Sample items include “I’ve been giving up trying to deal with it,” “I’ve been criticizing myself,” “I’ve been getting emotional support from others,” and “I’ve been accepting the reality of the fact that it has happened.” The reliability estimates for the COPE subscales used in the current study are as follows: emotional support ($\alpha =$
instrumental support ($\alpha = 0.83$), avoidant coping ($\alpha = 0.96$), and active coping ($\alpha = 0.85$).

**Depression.** The Center for Epidemiologic Studies Depression Scale (CES-D) was designed to assess depression and emotional distress (Radloff, 1977). This scale consists of 20 items that represent a depressive symptom for which subjects rate the frequency of occurrence during the past week (See Appendix I). Sixteen items measure cognitive, affective, behavioral, and somatic symptoms associated with depression, whereas four items assess positive affect. Both reliability and validity have been well-established (Devins & Orme, 1984). Responses are made on a four-point scale that range from: 0 = rarely or none of the time to 3 = most or all of the time. Sample items include “I had crying spells” and “I thought my life had been a failure.” A higher score on the scale indicates an increased amount of distress. The current study Cronbach’s Alpha was 0.89.

**Analytic Strategy**

All data was analyzed using PASW SPSS V20.0 software. Initial inspection of the data revealed that there was a small number of missing values, which appeared to be missing at random. Therefore, missing data was handled utilizing ipsative mean imputation methods outlined by Schafer and Graham (2002). This method averages the participant’s available item responses for a particular scale. Schafer and Graham (2002) recommend checking the reliability estimates (i.e., $\alpha > .70$) to make sure this method is a reasonable approach for the data at hand. The scales used in the current study ranged from .78 to .96, meeting this criteria. Internal consistency reliability estimates were calculated for each measure and fell in the acceptable to excellent range (Steiner, 2003).
To explore the factor structure of the CJCS and Familism Scale we employed exploratory factor analyses to identify the underlying factors of the included cultural measures. Exploratory factor analysis (EFA) is one of the most widely used statistical procedures in the psychological field, which allows researchers the ability to identify both item loadings and subsequent latent factor structures (Fabrigar, Wegener, MacCallum, & Strahan 1999). Tabachnick and Fidell (2007) suggest that in order to perform an EFA a minimum sample size of 50 subjects is required and a ratio of 10 subjects per item, which was achieved in the current study. In line with previous research and best practices, we performed a principal component analysis with a Varimax rotation to explore the item loadings of the CJCS and Familism Scale separately (de Winter, Dodou, & Wieringa, 2009). Performing an EFA provided better insight into the factor structure that best fit the current data of caregivers without a priori assumptions. As suggested by Knight and Sayegh (2010), there is a need to focus on the possibility of different factor structures for culturally relevant measures instead of assuming that factor structures generalize from sample to sample. Therefore, we did not perform a confirmatory factor analysis because: 1) the factor structure of the CJCS and Familism scale have only been examined in a select few studies that have reported mixed results, and 2) there is no strong hypothesis to predict the factor structures (Gorsuch, 1983).

As delineated by the main hypotheses, mediation and moderation analyses were conducted to understand the specific relationships between cultural components, appraisals of the caregiving role, coping styles, social support, and depression. Earlier accounts of assessing mediation and moderation relationships have been largely based on the causal-steps approach, first introduced by Baron and Kenny (1986). Baron and
Kenny (1986) proposed the causal-steps approach to understand if mediation occurs under the following conditions, a) there is a significant relationship between the independent and dependent variable, b) the independent variable has a significant effect on the mediator variable, and c) the mediator has a significant effect on the dependent variable while the independent variable is controlled for and therefore decreases compared to the direct main effect (i.e., $X \rightarrow Y$).

However, more recent research has suggested limitations of the aforementioned causal steps approach as suffering from high Type II error rates, lacking in power (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; MacKinnon, Lockwood, & Williams, 2004), and an undue emphasis on the relationship between the independent and dependent variable (Rucker, Preacher, Tormala, & Petty, 2011). Therefore, as suggested by Preacher and Hayes (2004, 2008), we have applied bootstrapping as the main method of examining indirect effects in our mediation analyses and examining conditional effects in our moderation analyses. **Bootstrapping** is a nonparametric resampling technique that Preacher and Hayes (2004) have recommended as the most useful and powerful procedure to obtain confidence limits for the indirect and conditional effects in question. When compared to the commonly used Sobel Test, bootstrapping has many benefits such as, 1) not assuming the shape of a distribution which can be applied to skewed or asymmetric distributions, 2) it is an effective method for small sample sizes, and 3) this procedure can now be executed quickly in statistical analysis software (Preacher & Hayes, 2004; Tabachnick & Fidell, 2007).

In brief, the bootstrapping procedure is accomplished by taking a large number of samples from the original data set (i.e., “bootstrap samples”), and computing the desired
effect (e.g., mediation or moderation) for each sample. Then, the mean, standard error, and deviations are computed for the conditional or direct effects by the specified syntax (i.e., Process in SPSS), and a 95% confidence interval is derived (Preacher & Hayes, 2004; Shrout & Bolger, 2002). With the upper and lower confidence intervals estimated, a researcher can then determine if the effects are significantly different from zero. Finally, if zero is not included in the confidence interval, a researcher can be 95% confident that the effect differs from zero at the $p < .05$ level.

In the current study, we formally assessed if the effect of cultural values on depression is either mediated or moderated by PAC, burden, social support, and coping styles. For the following hypotheses, we have conducted both a mediation and moderation analysis to examine the variables of interest through the PROCESS macro developed by Hayes (2012). This method assesses the presence of conditional effects in moderation models and indirect effects in mediation models, while applying bootstrapping to examine the confidence intervals of the resulting effects and conditions.
CHAPTER IV

RESULTS

The results are presented in four sections. In the first two sections, basic descriptive information and zero-order correlations for key study variables are presented. In the third section, the results from exploratory factor analyses used to identify the latent factor structure and item loadings of the CJCS and Familism Scale are reported. In the fourth section, a series of mediation and moderation analyses were conducted to test the main hypotheses (H1-H8) that the relationship between cultural values and depression will be mediated or moderated by PAC, burden, coping style, or social support. Results for each set of mediation and moderation analyses are therefore described for each hypothesis.

Descriptive Statistics

Eighty-four percent (84%) of the 83 caregivers were female (n = 70). Eighty-nine percent (89%) identified as white or Caucasian, about 4% identified as African American, 1% as Asian, 1% as Hispanic, 2% as “other,” and 2% identified as multiple races. The average age of caregivers was $M = 51.8$ years ($sd = 12.6$) and the average age of care receivers was $M = 77.2$ years ($sd = 11.9$). On average, caregivers reported their health as “fair” and reported care receivers health as “poor” to “fair.” Nineteen percent (19%) of caregivers were single, 49% were married, about 4% were separated, 6% were widowed,
13% were divorced, and 8% were unmarried partners. Fifty-six percent (56%) of caregivers reported earning less than $50,000 a year, 32% reported earning between $50,000 to $100,000 a year, and 12% reported earning $100,000 or more a year. Many caregivers reported taking some college classes (35%) or earning a college degree (31%), whereas 1% completed grade school, 1% completed middle school, 12% completed high school, 4% had a vocational education, 6% completed earned a post-college professional degree, and 11% earned a graduate, medical, or law degree. Twelve percent (12%) of caregivers were spouses, 61% were adult child caregivers (about 55% were daughters/daughter-in-laws and 7% were sons/son-in-laws), 8% were grandchildren, and 18% indicated a different type of relationship to the care receiver (e.g., sister, cousin).

In terms of the care receiver illnesses, the following Table 1 indicates the percentage of caregivers who reported providing care for a specific health issue. The most commonly reported health issues were high blood pressure and circulation problems, problems with walking or mobility, arthritis of problems with joints, problems with vision, heart disease, problems with hearing, and Alzheimer’s Disease/Dementia. On average, caregivers reported providing help with 20 tasks for the care receiver (\(M = 19.62; \text{sd} = 6.49; \text{Range} \ 3 - 32 \text{ tasks})). Some of the tasks reported by majority of the caregivers were providing assistance with running errands (\(n = 77; 91.7\%\)), transportation to doctor’s appointments (\(n = 74; 88.1\%\)), food shopping (\(n = 69; 82.1\%\)), help managing medications (\(n = 65; 77.4\%\)), preparing and serving meals (\(n = 67; 79.8\%\)), and cleaning the house (\(n = 74; 88.1\%\)). The previous types of tasks are indicative of instrumental activities of daily living impairment.
Table 1. Breakdown of the types of illnesses being cared for as reported by caregivers.

<table>
<thead>
<tr>
<th>Type of reported health issue</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High blood pressure or circulation problems</td>
<td>63 (75.0)</td>
</tr>
<tr>
<td>Problems walking or mobility</td>
<td>62 (73.8)</td>
</tr>
<tr>
<td>Arthritis or problems with joints</td>
<td>60 (71.4)</td>
</tr>
<tr>
<td>Problems with visions including glasses or contacts</td>
<td>56 (66.7)</td>
</tr>
<tr>
<td>Heart disease or heart problems</td>
<td>41 (48.8)</td>
</tr>
<tr>
<td>Problems with hearing including hearing aids</td>
<td>37 (44.0)</td>
</tr>
<tr>
<td>Alzheimer’s Disease/Dementia</td>
<td>32 (38.1)</td>
</tr>
<tr>
<td>Stomach or digestion problems</td>
<td>27 (32.1)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>24 (28.6)</td>
</tr>
<tr>
<td>Problems with weight including obesity</td>
<td>22 (26.2)</td>
</tr>
<tr>
<td>Chronic fatigue</td>
<td>20 (23.8)</td>
</tr>
<tr>
<td>Lung conditions such as asthma, emphysema, or chronic bronchitis</td>
<td>19 (22.6)</td>
</tr>
<tr>
<td>Stroke</td>
<td>17 (20.2)</td>
</tr>
<tr>
<td>Cancer or leukemia</td>
<td>13 (15.5)</td>
</tr>
<tr>
<td>Kidney or liver disease</td>
<td>13 (15.5)</td>
</tr>
<tr>
<td>Other issues not listed</td>
<td>12 (14.3)</td>
</tr>
<tr>
<td>Pulmonary Disease</td>
<td>8 (9.5)</td>
</tr>
<tr>
<td>Traumatic brain injury</td>
<td>7 (8.3)</td>
</tr>
<tr>
<td>Alcohol or drug problems</td>
<td>4 (4.8)</td>
</tr>
<tr>
<td>Parkinson’s Disease</td>
<td>3 (3.6)</td>
</tr>
</tbody>
</table>

Note. Frequency refers to the number of caregivers who reported providing care for a particular health issue.

In evaluation of the major study variables means (Table 2), caregivers on average reported higher levels of cultural motivations and levels of familism, low levels of depressive symptomology, moderate to high levels of positive perceptions of the caregiving role, average levels of burden, moderate levels of emotional and instrumental support, modest levels of avoidant coping and active coping, and low frequency levels of care receiver impairment.
Table 2. Properties of the Major Study Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG Age</td>
<td>81</td>
<td>51.84</td>
<td>12.62</td>
<td>20.00 – 83.00</td>
</tr>
<tr>
<td>CJCS</td>
<td>83</td>
<td>3.24</td>
<td>0.60</td>
<td>1.50 – 4.00</td>
</tr>
<tr>
<td>Familism</td>
<td>83</td>
<td>3.09</td>
<td>0.49</td>
<td>2.00 – 4.00</td>
</tr>
<tr>
<td>CES-D</td>
<td>81</td>
<td>0.86</td>
<td>0.56</td>
<td>0.00 – 2.40</td>
</tr>
<tr>
<td>PAC</td>
<td>82</td>
<td>2.96</td>
<td>0.81</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Burden</td>
<td>83</td>
<td>1.50</td>
<td>0.81</td>
<td>0.08 – 3.21</td>
</tr>
<tr>
<td>Instrumental support</td>
<td>82</td>
<td>2.65</td>
<td>0.96</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Emotional support</td>
<td>82</td>
<td>2.71</td>
<td>0.96</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Avoidant coping</td>
<td>82</td>
<td>2.80</td>
<td>1.01</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Active coping</td>
<td>82</td>
<td>2.41</td>
<td>0.85</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>RMBC – Frequency</td>
<td>82</td>
<td>1.54</td>
<td>0.84</td>
<td>0.16 – 4.00</td>
</tr>
</tbody>
</table>

Correlations

Correlations were run for all major component variables and are reported in Table 3. The age of a caregiver was negatively correlated with familism, (e.g., younger caregivers reported higher levels of familism) and positively correlated with race. Education positively correlated with care receiver impairment and emotional support, meaning higher educational attainment related to more care receiver impairment and a decrease in the amount of emotional support. The frequency of care receiver impairment was positively correlated with burden and depression. More specifically, when caregiver’s reported greater care receiver impairment they also reported higher levels of burden and depression. Cultural justifications positively correlated with familism and positive aspects of care, meaning stronger feelings of cultural motivation were related to higher feelings of familism and higher levels of PAC. Cultural justifications were also negatively correlated with burden and depression. More specifically, higher levels of cultural justifications related to lower levels of burden and depression.
Table 3. Correlation Matrix of Major Study Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CG Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. CG Education</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CG Race</td>
<td>.27*</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. RMBPC Frequency</td>
<td>-.09</td>
<td>-.30**</td>
<td>-.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CJCS</td>
<td>-.03</td>
<td>-.18</td>
<td>.20</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Familism</td>
<td>-.27*</td>
<td>.03</td>
<td>.26*</td>
<td>-.13</td>
<td>.47**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Burden</td>
<td>-.10</td>
<td>-.13</td>
<td>-.20</td>
<td>.48**</td>
<td>-.24**</td>
<td>-.27*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. PAC</td>
<td>.06</td>
<td>-.20</td>
<td>.23*</td>
<td>.00</td>
<td>.58**</td>
<td>.41**</td>
<td>-.32**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Avoidant Coping</td>
<td>.19</td>
<td>-.10</td>
<td>.07</td>
<td>.17</td>
<td>.05</td>
<td>.16</td>
<td>.06</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Active Coping</td>
<td>.20</td>
<td>-.02</td>
<td>-.07</td>
<td>.01</td>
<td>.05</td>
<td>.14</td>
<td>-.12</td>
<td>.10</td>
<td>.46**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Emo. Support</td>
<td>-.04</td>
<td>-.23*</td>
<td>-.07</td>
<td>.07</td>
<td>-.11</td>
<td>-.13</td>
<td>.16</td>
<td>-.03</td>
<td>.23*</td>
<td>.28*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Instru. Support</td>
<td>-.02</td>
<td>-.19</td>
<td>-.20</td>
<td>-.09</td>
<td>-.07</td>
<td>-.11</td>
<td>.15</td>
<td>-.11</td>
<td>.36**</td>
<td>.49**</td>
<td>.77**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. CES-D</td>
<td>-.11</td>
<td>-.09</td>
<td>-.14</td>
<td>.23*</td>
<td>-.29**</td>
<td>-.15</td>
<td>.65**</td>
<td>-.25*</td>
<td>.02</td>
<td>-.01</td>
<td>.24*</td>
<td>.22</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p < .05  **p < .01.  CG = Caregiver, RMBPC = Revised Memory and Behavior Problems Checklist Frequency, CJCS = Cultural Justifications for Caregiving Scale, PAC = Positive Aspects of Caregiving, Emo. Support = emotional social support, Instru. Support = instrumental social support, and CES-D = depression.
Additionally, familism negatively correlated with burden, meaning as a caregiver identified higher levels of familism they reported less burden. Familism also positively correlated with positive aspects of care, meaning stronger feelings of familism also related to the identification of more positive aspects of care. Burden negatively correlated with PAC (e.g., higher levels of burden lead to lower levels of PAC) and positively correlated with depression (e.g., higher levels of burden lead to higher levels of depression). Positive aspects of care negatively correlated with depression, meaning higher levels of PAC were associated with lower levels of depression. Finally, emotional support was positively correlated with depression, meaning the greater use of emotional support was associated with greater depressive symptomology.

When evaluating correlations for areas of multicollinearity, it appeared that caregiving burden was highly associated with the frequency of reported care receiver issues (e.g., memory loss, ADL assistance, problematic behaviors). As we performed the mediation and moderation analyses we took note of the standard errors (e.g., when there is high multicollinearity, the standard errors are greater) and also evaluated the confidence intervals to make sure that the relationship between our control variable (i.e., RMBC frequency) did not influence analyses that included burden (e.g., making it harder to reject the null hypotheses when multicollinearity was present). Therefore, we tried different specifications of the hypothesized models to evaluate if there were any major shifts (e.g., changes in the signs and value of effects) and centered the data as needed.

**Exploratory factor analyses**

Through the use of factor analyses we examined the psychometric properties of the Cultural Justifications for Caregiving Scale (Dilworth-Anderson et al., 2004) and
Familism scale (Sabogal et al., 1987). Due to the mixed results surrounding the factor structure of culturally driven measures, the potential latent factors were first established before the CJCS and Familism scale were used in any further analyses (i.e., mediation, moderation analyses). Although we did not use the specific factors to predict depression, we believe it was still important to explore the reliability of the cultural measures and identify potential cultural components that are salient to the caregiving experience.

**EFA for the CJCS.** In regards to the CJCS, when all factors with eigenvalues above 1.0 were included in the principal components analysis, a three-factor solution emerged from a Varimax rotation explaining for 65% of the total variance. An examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable (KMO = .781). The first factor accounted for 33.4% of the total explained variance and the second and third factor explained 16.4% and 15.7% of variance, respectively. Through exploration of set factors (i.e., 1 and 2 factor solutions) we found that the total variance explained decreased when we specified the factor structure. For example, a specified 2-factor structure analysis explained for 55% of the total variance and a specified 1-factor structure analysis explained for 42% of the total variance, meaning a 3-factor model was the best fit in terms of variance explained. To date, this is the first time a 3-factor solution has been reported for the CJCS. In Table 4 the factor loadings are reported for the 3-factor solution. Reliability estimates for each of the factors ranged from 0.84 (Factor 1) and 0.61 (Factor 2) to 0.55 (Factor 3).
Table 4: Rotated Component Matrix of CICS Items for a 3-factor solution.

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I give care because of my religious and spiritual beliefs.</td>
<td>0.55</td>
<td>0.12</td>
<td>0.03</td>
</tr>
<tr>
<td>I give care because by giving care to elderly dependent family members, I am giving back what has been given to me.</td>
<td>0.81</td>
<td>-0.13</td>
<td>0.14</td>
</tr>
<tr>
<td>I give care because it strengthens the bonds between me and them.</td>
<td>0.89</td>
<td>0.03</td>
<td>0.16</td>
</tr>
<tr>
<td>I give care because I was raised to believe care should be provided within the family.</td>
<td>0.71</td>
<td>0.41</td>
<td>0.09</td>
</tr>
<tr>
<td>I give care because I feel as though I am being useful and making a family contribution.</td>
<td>0.84</td>
<td>0.22</td>
<td>0.17</td>
</tr>
<tr>
<td>I give care because I was taught by my parents to take care of the elderly dependent family members.</td>
<td>0.28</td>
<td>0.66</td>
<td>0.39</td>
</tr>
<tr>
<td>I give care because it is what my people have always done.</td>
<td>0.52</td>
<td>0.63</td>
<td>0.19</td>
</tr>
<tr>
<td>I give care because my family expects me to provide care.</td>
<td>-0.06</td>
<td>0.74</td>
<td>-0.03</td>
</tr>
<tr>
<td>I give care because it is my duty to provide care to elderly dependent family members.</td>
<td>0.08</td>
<td>0.10</td>
<td>0.78</td>
</tr>
<tr>
<td>I give care because it is important to set an example for the children in the family.</td>
<td>0.16</td>
<td>0.07</td>
<td>0.83</td>
</tr>
</tbody>
</table>

| Eigenvalues | 3.34 | 1.64 | 1.57 |
| Percentage of total variance | 33.37 | 16.36 | 15.74 |
| Number of test measures | 5 | 3 | 2 |

Note. Boldface loading indicates items falling into each factor.

After taking a closer look at the item loadings for each factor, the essence of cultural motivations seems to be broken down into three belief systems. Factor 1 consisted of 5-items that revolved around the caregiver’s own personal experience and belief system (e.g., “my religious and spiritual beliefs,” “strengthens the bond between me and them,” “I am giving back what has been given to me”), which was combined to form the Personal Motivations Factor. Three items in the second factor addressed
cultural beliefs tied to family values and the structure of care for older relatives (i.e., “taught by my parents to take care of elderly dependent family members,” “what my people have always done,” “family expects me to provide care”), and were combined to form the Familial Motivations Factor. Finally, Factor 3 included 2-items that tapped into feelings of obligation and duty to provide care (i.e., “it is my duty to provide care,” “important to set an example for the children in the family”), which was considered the Obligatory Motivations Factor.

**EFA for the Familism Scale.** In regards to the Familism Scale, when all factors with eigenvalues above 1.0 were included in the principal components analysis, a three-factor solution emerged from a Varimax rotation explaining for 71% of the total variance. An examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable (KMO = .742). The first factor accounted for 43.4% of the total explained variance and the second and third factor explained 13.9% and 13.8% of variance, respectively. Through exploration of set factors (i.e., 1 and 2 factor solutions) we found that the total variance explained decreased when we specified the factor structure. For example, a specified 2-factor structure analysis explained for 57% of the total variance and a specified 1-factor structure analysis explained for 43% of the total variance, meaning a 3-factor model was the best fit in terms of variance explained. To date, this is the first time a 3-factor solution has been reported for the Familism Scale. In Table 5 the factor loadings are reported for the 3-factor solution. Reliability estimates for each of the factors ranged from 0.83 (Factor 1) and 0.72 (Factor 2) to 0.56 (Factor 3).
Table 5: Rotated Component Matrix of Familism Items for a 3-factor solution.

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>One should have the hope of living long enough to see his/her grandchildren grow up.</td>
<td>0.59</td>
<td>0.13</td>
<td>0.29</td>
</tr>
<tr>
<td>When someone has problems, s/he can count on help from his/her relatives.</td>
<td>0.90</td>
<td>0.23</td>
<td>0.07</td>
</tr>
<tr>
<td>When one has problems, one can count on the help of relatives.</td>
<td>0.92</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>One can count on help from his/her relatives to solve most problems.</td>
<td>0.75</td>
<td>0.21</td>
<td>0.05</td>
</tr>
<tr>
<td>I would help within my means if a relative told me that she/he is in financial difficulty.</td>
<td>0.19</td>
<td>0.63</td>
<td>0.51</td>
</tr>
<tr>
<td>Aging parents should live with their relatives.</td>
<td>0.17</td>
<td>0.81</td>
<td>0.04</td>
</tr>
<tr>
<td>A person should share his/her home with uncles, aunts or first cousins if they are in need.</td>
<td>0.39</td>
<td>0.74</td>
<td>-0.07</td>
</tr>
<tr>
<td>One should make great sacrifices in order to guarantee a good education for his/her children.</td>
<td>0.25</td>
<td>-0.27</td>
<td>0.80</td>
</tr>
<tr>
<td>One should help economically with the support of younger brothers and sisters.</td>
<td>0.04</td>
<td>0.41</td>
<td>0.74</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eigenvalues</th>
<th>Percentage of total variance</th>
<th>Number of test measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.90</td>
<td>43.36</td>
<td>4</td>
</tr>
<tr>
<td>1.26</td>
<td>13.96</td>
<td>3</td>
</tr>
<tr>
<td>1.24</td>
<td>13.78</td>
<td>2</td>
</tr>
</tbody>
</table>

Note. Boldface loading indicates items falling into each factor.

After examining the item loadings for each factor, beliefs of familism were structured into three separate forms of giving back to the family. Factor 1 consisted of 4-items that dealt with social support from relatives and living long enough to witness the growth of the family (e.g., “when one has problems, s/he can count on help from his/her relatives, “one can count on help from his/her relatives to solve most problems,” “living long enough to see his/her grandchildren grow up”), which were combined to form the Familial Expectations Factor. Three items in the second factor addressed helping out older family members in need (e.g., “I would help within my means if a relative told me
that she/he is in financial difficulty,” “Aging parents should live with their relatives,” “A person should share his/her home with uncles, aunts, and first cousins if they are in need”), and were combined to form the Compassionate Care Factor. Finally, Factor 3 included 2-items that tapped into helping future generations both financially and educationally (i.e., “One should make great sacrifices in order to guarantee a good education for his/her children,” “One should help economically with support of younger brothers and sisters”), which was considered the Generativity Factor.

**Mediation and Moderation Analyses**

**Hypothesis 1.** Our first hypothesis predicted that a caregiver’s level of PAC would mediate or moderate the relationship between cultural justifications and depression. After controlling for age, race, education, and care receiver impairment, we found no evidence of PAC acting as a significant mediator or moderator. More specifically, although the total effect model was significant \([R^2 = 0.15, F_{(5,69)} = 2.48, p = 0.04]\), cultural justifications significantly predicted depression levels \([b = -0.27, se = 0.11, p = 0.01]\) and cultural justifications significantly predicted PAC levels \([b = 0.64, se = 0.13, p = .001]\), the indirect effect was not significant \([LL = -0.21, UL = 0.05]\). Since the bootstrapped confidence intervals contained zero, we had to accept the null hypothesis that PAC does not mediate the relationship between cultural justifications and depression.

Likewise, we did not find evidence of moderation as the interaction between PAC and the CJCS did not significantly add to the model \([R^2_{\text{change}} = 0.001, F_{(1,67)} = 0.06, p = 0.91]\) and there were no statistically significant transition points within the observed
range of PAC as a moderator. Although the CJCS was significantly positively correlated with PAC ($r = .58, p = .001$), it did not conditionally influence levels of depression.

**Hypothesis 2.** For our second prediction, we tested the competing hypothesis that a caregiver’s level of burden would either mediate or moderate the relationship between cultural justifications and depressive symptomology. First, burden was ruled out as a significant moderator. Although the model was significant [$R^2 = 0.46, F(7,68) = 8.33, p = 0.001$], the interaction between CJCS and burden did not significantly add to the variance accounted for [$R^2_{\text{change}} = 0.0004, F(1,68) = 0.05, p = 0.82$]. Though we did not find evidence of a conditional effect (i.e., there were no statistical significance transition points within the observed range of caregiver burden, the interaction term burden by CJCS was not significant), we did find a significant indirect effect for mediation (See Figure 5). More specifically, mediation analyses based on 10000 bootstrapped samples using bias-correct and accelerated 95% confidence intervals (Preacher & Hayes, 2004) showed that controlling for the effect of age [$b = -0.01, se = 0.01, p = 0.26$], race [$b = -0.04, se = 0.05, p = 0.39$], education [$b = -0.03, se = 0.04, p = 0.56$], and care receiver impairment [$b = 0.12, se = 0.08, p = 0.13$], cultural justifications had a significant total effect on depression [$TE = -0.27, se = 0.11, p = 0.01$], and a significant indirect effect on depression via caregiver burden [$IE = -0.14, se = 0.06, LL = 0.28, UL = -0.03$]. As exhibited by the lower and upper 95% confidence intervals, zero is not included in the indirect effect, meaning the indirect effect is significantly different from zero at $p < .05$ (e.g., we reject the null hypothesis that there is no indirect mediational effect). More specifically, caregivers who indicated stronger feelings of cultural justifications were less
likely to report burden, and through lower levels of burden, less likely to report depressive symptomology.

Figure 5. Mediation model for the CJCS predicting depression via caregiver burden. Note. * $p < .05$ ** $p < .01$. $\beta_a$ = the standardized beta coefficient of the IV predicting the mediator while controlling for covariates. $\beta_b$ is the beta for the mediator predicting the DV with the IV and covariates controlled for. $\beta_c$ is the coefficient for the IV when the mediator and controls are in the equation, and $\beta_d$ is the coefficient for the IV when the controls are in the equation but the mediator has not been entered.

**Hypothesis 3.** Mediation analyses were used to test if coping styles significantly mediated the relationship between cultural justifications and depression. A separate analysis was run for both active coping and avoidant coping styles. Active coping was not a significant mediator as evidenced by the indirect effect of cultural justifications on depression [$\text{IE} = 0.001, \text{se} = 0.01, \text{LL} = -0.02, \text{UL} = .04$]. The confidence intervals contained zero leading to the acceptance of the null hypothesis. Similarly, cultural justifications did not have a significant indirect effect on depression via avoidant coping [$\text{IE} = .00, \text{se} = .01, \text{LL} = -.02, \text{UL} = .02$].

Moderation analyses were used to investigate whether the relationship between cultural justifications and depression was stronger for caregivers with varying active and avoidant coping levels. We did not find evidence of moderation for active coping as the
interaction between CJCS and active coping did not significantly add to the model \[R^2_{\text{change}} = 0.02, F_{(1,68)} = 1.80, p = 0.18\]. Likewise, we did not find evidence of moderation for avoidant coping because the interaction was not significantly accounting for variance when predicting depression levels as evidenced by the R-square increase due to the interaction term \[R^2_{\text{change}} = 0.03, F_{(1,68)} = 2.66, p = 0.11\].

**Hypothesis 4.** To test the meditational model of social support as a mediator of the relationship between cultural justification and depression we examined both emotional support and instrumental support indirect effects. Mediation was determined to be significant if the 95% Bias Corrected and accelerated confidence intervals for the indirect effect did not include 0 (Preacher & Hayes, 2004; Preacher et al., 2007). For emotional support, results based on 10000 bootstrapped samples indicated that although the total effect of cultural justifications on depression was significant \[TE= -0.27, SE= 0.11, p= .01\] and the direct effect was significant \[DE = -0.25, SE = 0.11, p= .02\], the indirect effect of cultural justifications predicting depression via emotional support was not significant \[IE = -0.03, SE = 0.03, LL = -0.12, UL = 0.01\]. Therefore, emotional support did not mediate the relationship between cultural justifications and depression.

Similarly, instrumental support was not a significant mediator in the relationship between cultural justifications and depression. Again, although the total effect of cultural justifications on depression was significant \[TE= -0.27, SE= 0.11, p= .01\] and the direct effect was significant \[DE = -0.26, SE = 0.11, p= .02\], the indirect effect of cultural justifications predicting depression via instrumental support was not significant \[IE = -0.01, SE = 0.02, LL = -0.08, UL = 0.02\]. Therefore, instrumental support did not mediate the relationship between cultural justifications and depression.
Conversely, when we tested social support as a moderator in the relationship between cultural justifications and depression we found significance. Results showed that controlling for the effect of age \( b = -0.01, \text{se} = 0.01, p = 0.32 \), race \( b = -0.04, \text{se} = 0.05, p = 0.37 \), education \( b = -0.02, \text{se} = 0.05, p = 0.78 \), and care receiver impairment \( b = 0.08, \text{se} = 0.08, p = 0.28 \), the interaction between cultural justifications and emotional support was significant \( b = -0.23, \text{se} = 0.11, p = .04 \), accounting for a significant increase in the \( R^2 \) \( R^2 \text{change} = 0.05, F_{(1, 68)} = 4.06, p = 0.04 \). The total model \( R^2 = .23 \), meaning the model predicted 23% of the variance in depression. More specifically, at “high” and “very high” levels of emotional support there is a non-zero conditional effect, 95% CIs [-0.65, -0.14] and [-0.84, -0.17], respectively (See Table 6 and Figure 6). At a “mean,” “low,” and “very low” level of emotional support there is not a conditional effect, 95% CIs [-0.39, 0.06], [-0.34, 0.23], and [-0.29, 0.63], respectively. Therefore, we find a conditional effect of cultural justifications on depression at “high” and “very high” levels of emotional support use. Supporting part of our hypothesis, we found that as caregivers report “high” usage of emotional support and “very low” and “low” levels of cultural justifications, they tend to report higher levels of depressive symptomology. Likewise, when caregivers reported “very high” usage of emotional support and “very low” and “low” levels of cultural justifications they reported higher levels of depressive symptomology.
Table 6. Conditional effect of cultural justifications on depression via specific levels of emotional support.

<table>
<thead>
<tr>
<th>Emotional Support (M)</th>
<th>Effect</th>
<th>SE</th>
<th>LL95</th>
<th>UL95</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY LOW</td>
<td>.172</td>
<td>.232</td>
<td>-.291</td>
<td>.634</td>
</tr>
<tr>
<td>LOW</td>
<td>-.054</td>
<td>.141</td>
<td>-.335</td>
<td>.228</td>
</tr>
<tr>
<td>MEAN</td>
<td>-.166</td>
<td>.111</td>
<td>-.389</td>
<td>.056</td>
</tr>
<tr>
<td>HIGH</td>
<td>-.392</td>
<td>.127</td>
<td>-.646</td>
<td>-.138</td>
</tr>
<tr>
<td>VERY HIGH</td>
<td>-.505</td>
<td>.166</td>
<td>-.836</td>
<td>-.174</td>
</tr>
</tbody>
</table>

Note. SE = standard error, LL95 = lower confidence interval, UL95 = upper confidence interval.

Figure 6. Conditional effect of CJCS on depression at different levels of emotional support.

When evaluating instrumental support, results indicated that controlling for the effect of age \( [b = -0.01, se = 0.01, p = 0.40] \), race \( [b = -0.03, se = 0.05, p = 0.55] \), education \( [b = -0.03, se = 0.04, p = 0.56] \), and care receiver impairment \( [b = 0.07, se = 0.07, p = 0.32] \), the interaction between cultural justifications and instrumental support was significant \( [b = -0.32, se = 0.11, p = .01] \), accounting for a significant increase in the
R² [R² change = 0.09, F(1,68) = 8.34, p = 0.01]. The total model R² = .26, meaning the model predicted 26% of the variance in depression. More specifically, at “mean,” “high,” and “very high” levels of instrumental support there is a non-zero conditional effect, 95% CIs [-0.41, -0.01], [-0.81, -0.26], and [-1.05, -0.34], respectively. At a “low” and “very low” level of emotional support there is not a conditional effect, 95% CIs [-0.30, 0.20] and [-0.15, 0.70], respectively. Therefore, we find a conditional effect of cultural justifications on depression at “mean,” “high,” and “very high” levels of instrumental support use (See Table 7 and Figure 7). Originally, we predicted that higher levels of cultural justifications and lower levels of depression would be moderated by higher use of instrumental support. However, we found that as caregivers reported “average,” “high,” and “very high” usage of instrumental support and “very low” and “low” levels of cultural justifications, they also reported elevated levels of depression. For example, if a caregiver scores low on the CJCS and higher on the CES-D, this relationship was moderated by higher usage of instrumental support.

Table 7. Conditional effect of cultural justifications on depression via specific levels of instrumental support.

<table>
<thead>
<tr>
<th>Instrumental Support (M)</th>
<th>Effect</th>
<th>SE</th>
<th>LL95</th>
<th>UL95</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY LOW</td>
<td>.274</td>
<td>.212</td>
<td>-.149</td>
<td>.698</td>
</tr>
<tr>
<td>LOW</td>
<td>-.048</td>
<td>.126</td>
<td>-.299</td>
<td>.203</td>
</tr>
<tr>
<td>MEAN</td>
<td>-.210</td>
<td>.103</td>
<td>-.414</td>
<td>-.005</td>
</tr>
<tr>
<td>HIGH</td>
<td>-.532</td>
<td>.137</td>
<td>-.806</td>
<td>-.259</td>
</tr>
<tr>
<td>VERY HIGH</td>
<td>-.694</td>
<td>.180</td>
<td>-1.052</td>
<td>1.335</td>
</tr>
</tbody>
</table>

Note. SE = standard error, LL95 = lower confidence interval, UL95 = upper confidence interval.
Hypothesis 5. For our fifth hypothesis, we examined the relationship between familism and depression as either being mediated or moderated by PAC. After controlling for age, race, education, and care receiver impairment, we found no evidence of PAC acting as a significant mediator or moderator. More specifically, familism did not significantly predict depression levels \( b = -0.09, \text{se} = 0.14, p = 0.53 \) and PAC marginally predicted depression levels \( b = -0.18, \text{se} = 0.10, p = 0.07 \). The total effect model was not significant \( R^2 = .08, F(5,69) = 1.18, p = .33 \), but it is interesting to note that familism and education significantly predicted PAC \( R^2 = .33, F(5,69) = 6.75, p = .001 \). More specifically, higher levels of familism predicted higher levels of PAC and higher levels of education predicted lower levels of PAC.
In examination of a moderation effect, we did not find PAC to significantly moderate the relationship between familism and depression. Again, although we found PAC to marginally predict depression levels \([b = -0.20, se = 0.10, p = 0.06]\), familism did not significantly predict depression \([b = 0.07, se = 0.17, p = 0.68]\) and the interaction term was not accounting for a significant amount of variance once added into the model \([b = -0.09, se = 0.17, p = 0.60]\). The addition of the interaction term did not significantly increase the variance accounted for \([R^2_{change} = 0.004, F(1,67) = 0.28, p = 0.60]\).

**Hypothesis 6.** For our sixth hypothesis, we examined the relationship between familism and depression as either being mediated or moderated by a caregiver’s burden. Our analyses suggested that burden was not an appropriate mediator or moderator for the relationship between familism and depression. After controlling for age, race, education, and care receiver impairment, familism did not significantly predict depression levels \([b = -0.09, se = 0.14, p = 0.54]\), however burden significantly predicted depression levels \([b = 0.52, se = 0.08, p = 0.001]\). Although the total effect model was not significant \([R^2 = 0.08, F(5,70) = 1.22, p = 0.31]\), it is interesting to note that familism and care receiver impairment significantly predicted burden levels \([R^2 = 0.32, F(5,70) = 6.51, p = 0.001]\). More specifically, higher levels of familism and lower care receiver impairment predicted lower levels of burden.

In examination of a conditional effect, we did not find evidence of moderation. Even though the model was significant \([R^2 = 0.47, F(7,68) = 8.49, p = 0.001]\), burden was the only significant predictor \([b = 0.51, se = 0.08, p = 0.001]\) accounting for majority of the variance and the interaction between burden and familism did not significantly add to the model \([R^2_{change} = 0.01, F(1,68) = 1.81, p = 0.18]\). Additionally, there were no
statistically significant transition points within the observed range of burden as a moderator, as all of the 95% confidence intervals contained a zero-effect.

**Hypothesis 7.** For H7, we predicted that coping styles would impact the relationship between familism and depression. First, mediation analyses were used to test if coping styles significantly mediated the relationship between familism and depression. A separate analysis was run for both active coping and avoidant coping styles. Active coping was not a significant mediator as evidenced by the indirect effect of familism on depression \[IE = 0.004, \text{se} = 0.04, \text{LL} = -0.07, \text{UL} = .09\]. The confidence intervals contained zero leading to the acceptance of the null hypothesis (i.e., active coping did not significantly mediate the relationship between familism and depression). Similarly, familism did not have a significant indirect effect on depression via avoidant coping \[IE = .001, \text{se} = .02, \text{LL} = -.03, \text{UL} = .06\].

Moderation analyses were used to investigate whether the relationship between familism and depression was stronger for caregivers with varying active and avoidant coping levels. We did not find evidence of moderation for active coping as the overall model was not significant \[R^2 = 0.08, F_{(7,68)} = .85, p = 0.55\] and the interaction between familism and active coping did not significantly add to the model \[R^2\text{change} = 0.02, F_{(1,68)} = 1.80, p = 0.18\]. Likewise, we did not find evidence of moderation for avoidant coping because the overall model was not significant \[R^2 = 0.09, F_{(7,68)} = .92, p = 0.49\] and the interaction between familism and avoidant coping did not significantly add to the model \[R^2\text{change} = 0.01, F_{(1,68)} = 0.48, p = 0.49\].

**Hypothesis 8.** For H8, we predicted that type of social support would impact the relationship between familism and depression. First, mediation analyses were used to test
if social support significantly mediated the relationship between familism and depression. A separate analysis was run for both emotional support and instrumental support. When evaluating the relationship between familism and depression via emotional support, the total effect model was not significant \([R^2 = 0.08, F(5,70) = 1.22, p = 0.31]\). Therefore, emotional support was not a significant mediator as evidenced by the indirect effect of familism on depression \([IE = -0.04, se = 0.05, LL = -0.18, UL = .02]\). The confidence intervals contained zero leading to the acceptance of the null hypothesis (i.e., emotional support did not significantly mediate the relationship between familism and depression).

Similarly, familism did not have a significant indirect effect on depression via instrumental support as the total effect model was not significant \([R^2 = 0.08, F(5,70) = 1.22, p = 0.31]\) and the indirect effect contained a zero-effect \([IE = -0.01, se = 0.03, LL = -0.12, UL = .03]\).

Moderation analyses were used to investigate whether the relationship between familism and depression was stronger for caregivers with varying emotional and instrumental support levels. We did not find evidence of moderation for emotional support as the overall model was not significant \([R^2 = 0.15, F(7,68) = 1.68, p = 0.13]\) and the interaction between familism and emotional support did not significantly add to the model \([R^2 \text{change} = 0.02, F(1,68) = 1.93, p = 0.17]\). Likewise, we did not find evidence of moderation for instrumental support because the overall model was not significant \([R^2 = 0.14, F(7,68) = 1.53, p = 0.17]\) and the interaction between familism and instrumental support did not significantly add to the model \([R^2 \text{change} = 0.03, F(1,68) = 2.62, p = 0.11]\).
CHAPTER V

DISCUSSION

Guided by a revised Sociocultural Stress and Coping Model (Sayegh & Knight, 2010), the current study explored the relationship between cultural values and depression as influenced by typical caregiving stress and coping variables (i.e., social support, coping styles, burden). A novel addition to the sociocultural framework, positive aspects of care, was also included as a variable of interest, as many researchers do not look at burden and positivity in tandem. Additionally, due to the lack of extensive research examining caregivers’ cultural beliefs about their roles as possible explanations for outcomes (Rozario & DeRienzis, 2008), we examined how cultural justifications and feelings of familism may directly influence depressive symptomology and/or whether they can be mediated or moderated by burden levels, positive aspects of care, coping styles, and social support. The results provide new insights on the cultural values that are salient to the caregiving experience and impact psychosocial outcomes. In conjunction with examining mediation versus moderation hypotheses for each proposed relationship, we also conducted exploratory factor analyses to identify the latent factor structures of the CJCS and Familism scale. Based on the EFA findings, the factor structures highlight the cultural complexities within the measures and improve upon our understanding of cultural values and beliefs within the caregiving role.
Discussion of Results

In an effort to facilitate understanding of the results, similar hypotheses will be discussed together and may therefore be out of order. Additionally, to highlight the diversity of cultural values and beliefs, the factor analyses results will be discussed first.

**Exploratory Factor Analyses.** The purpose of the factor analyses was to further evaluate the factor structure of the Cultural Justifications for Caregiving Scale and the Familism Scale for a sample of caregivers of dependent older adults. Previous studies have typically examined group differences in item loadings for racial groups (e.g., Yancura, 2012); however, in the current study an examination of cultural motivations in a general sample of caregivers consisting of a Caucasian majority was pursued because heterogeneity acknowledgment of cultural values within a Caucasian sample of caregivers has rarely been done.

In regards to the CJCS, previous researchers have found a one-factor model (i.e., Cultural Justifications; Dilworth-Anderson et al., 2005) and two-factor model (i.e., Reciprocity and Duty; Powers & Whitlatch, 2014) to be the best fit for culturally diverse caregivers. Our attempts to replicate these findings were unsuccessful as we identified a three-factor solution as the best fit for the current sample of caregivers. With the emergence of a three-factor model, we found that items loaded onto a Personal Motivations Factor, Familial Motivations Factor, and Obligatory Motivations Factor. Although only 10-items, the CJCS in short, is able to tap into three critical areas of cultural justifications that caregivers may use to rationalize and support their beliefs surrounding the caregiving role. Previous investigators have similarly identified areas of giving back to the family and obligation to the caregiving role (Clarke, 2000; Neufeld &
Harrison, 1998) and have suggested that cultural values may buffer against the stress and strains associated with the provision of care (Kim et al., 2007).

Interestingly, the emergence of a Personal Motivations factor (see Table 4 for items) may be unique for a predominantly Caucasian caregiving sample due to the importance of individualism (e.g., perceiving gains from the caregiving role) and maintaining other life roles (e.g., parent, employee). These items tap into personal belief systems surrounding not only personal views on religion, but also personal gains in the bond between caregiver and care receiver, the feeling of being useful and making a family contribution, and giving back what has previously been given to the caregiver. Although cultural values and expectations may be linked to collectivistic tendencies (e.g., traditional ideologies of providing care for family members; roles and care guided by the collective well-being of the family), caregivers may also identify individualistic gains, as supported by the Personal Motivations factor, that enable them to positively appraise the caregiving role and potentially raise their personal threshold for burden appraisals (Knight & Sayegh, 2010). For example, caregivers from the Baby Boomer generation (i.e., people born between 1946-1964) may make caregiving decisions based on the resources they currently have, demands that are placed on them from other roles (e.g., work, parenting), and their own sense of reward and compensation from helping a family member (Fingerman, Pillemer, Silverstein, & Suitor, 2012). In the current sample, caregivers may be allocating their resources based on their own personal values, motivations, and personal gains, rather than solely relying on the traditional belief that one should help ill family members.
Additionally, the Familial Motivations and Obligatory Motivations factors may comprise items that encapsulate how cultural values guide one to take on the caregiving role or force an individual to become a caregiver against their willful choice (Cheng, Lam, Kwok, Ng, & Fung, 2013). Kohli (2005) suggests that reciprocity and filial support imply that individuals who received support and care from family members earlier in development will reciprocate that support and care later in life. Majority of the caregivers in the current sample were adult children (e.g., daughters), which may be reflected in the Familial Motivations factor as these adult child caregivers may have formed close emotional bonds with their dependent parents and therefore exhibit altruistic behaviors when providing primary care (Silverstein, Conroy, Wang, Giarrusso, & Bengtson, 2002). It may be of interest to add items to the CJCS that reflect specific emotional bonds between family members (e.g., “I give care because of the close emotional bonds I have developed with dependent family members”) and also reflect the caregiving role as a personal or group choice (e.g., “I give care because I have personally made the choice to become a caregiver”). This may help diversify our knowledge about the cultural components important in the caregiving experience. For example, Rozario and DeRienzis (2008) asked African American caregiving women to rate how well each of the following items fit with their beliefs about the caregiving role: 1) I was picked by my family as a child to provide care for all my family members, 2) I honestly never thought about doing anything else with my life other than working and providing care for others in my family, 3) All of my choices about life revolve around my responsibilities to provide care, and 4) My family expected me to provide care for them. Although these items were based strictly on the beliefs and values of multigenerational African American
families (Burton, 1996), it may be of use to build on these items and generalize them to other populations within a sociocultural caregiving context to examine cultural values in other samples of caregivers.

Similar to the CJCS, we explored the factor structure of the Familism scale. Losada and colleagues (2008) suggested that knowing the factor structure of the Familism scale will help researchers to better understand the relationship of familism components to stress and coping variables in sociocultural models of caregiving, which will help clarify the role of cultural beliefs throughout the caregiving experience. Therefore, an EFA was performed on the Familism scale, which also yielded a three-factor solution. The Familism scale used in this study was originally developed by Sabogal et al. (1987) who found that the 9-items (included for measurement in the current study) loaded onto two factors (i.e., six items that create the Familial Obligations factor and three items that represent the Expected Support from the Family factor). Conversely, in the current study, the 9-items loaded onto three factors, which were identified as the Familial Expectations factor, Compassionate Care factor, and Generativity factor (See Table 5 for specific items). Although much research has focused on Spanish and Hispanic caregivers’ levels of familism (e.g., Cox & Monk, 1993; John, Resendiz, & De-Vargas, 1997; Losada et al., 2006), it is important to understand how feelings of familism can be generalized to other ethnic or racial groups that may also have familial roots related to the provision of care within the family.

As noted by Rozario and DeRienzis (2008) studies examining the structure and impact of familism in exclusively European American caregiving samples are rare. Many may even look past the influence of familism in a predominantly White sample, as
many comparative approaches ignore the heterogeneity that may exist within groups. However, in the current sample we not only found variance in the scores on the Familism scale, but we also found evidence of specific factors that may be unique to a predominantly European American sample of caregivers of dependent older adults. More specifically, we found that factors centered on expected social support, as suggested by original work by Sabogal et al. (1987), and a sense of compassionate care and overall concern for the well-being of both younger and aging generations. Although we did not replicate the two-factor structure, our three-factor solution again points out the complexities that may exist in a heteronomous sample of caregivers.

In a sample of 135 Spanish dementia caregivers, Losada and colleagues (2008) attempted to confirm the overall model fit for the Familism scale. They found that with the deletion of some items the fit and reliability indices were acceptable. More importantly, Losada et al. (2008) found no significant interrelationships between the familism factors, which were suggested as an indication of complexity and multidimensionality within the Familism scale. However, if a researcher seeks to measure a belief system such as familism, one might assume that factors within the scale would need to exhibit a significant relationship to support the continuity of the concept and latent factor structure. In the current study we found that all three familism factors were highly correlated with one another. This difference may also be due to the samples previously explored in each study. The current sample explored the factor structure of predominantly Caucasian caregivers of dependent older adults and Losada et al. (2008) examined a sample of Spanish dementia caregivers. These differences may not only be
within the cultural background (e.g., Spanish versus European American) but also the specificity of the care receiver illness (e.g., dementia versus general dependency).

In sum, both the CJCS and Familism scale were reliable measures of cultural values and beliefs for a sample of caregivers of dependent older adults suffering from a variety of illnesses, impairments, and limitations. Currently in the literature, there is a need to develop and validate cultural measures that capture relevant dimensions of the sociocultural caregiving experience (Dilworth-Anderson et al., 2002; Knight & Sayegh, 2010; Losada et al., 2008). Future research that explores these cultural components may advance the current measures and scales that exist by a) creating new items that may further cover cultural intricacies, b) conducting factor analyses that aim to find a parsimonious factor structure that is applicable to both a general population of caregivers and a specific caregiving situation (e.g., dementia versus cancer), and c) use established cultural measures to ascertain how they may influence both the subjective experience of providing care as well as critical caregiving outcomes. Therefore, the evaluation of specific subscales as predictive of certain caregiving variables may be of interest to future researchers. For example, in a preliminary check of the bivariate correlations between familism and CJCS factors and the main variables in the current study, there were two significant correlations worth taking note. The Generativity factor from the Familism scale positively correlated with avoidant coping strategies, meaning higher feelings of generativity led to higher usage of avoidant coping. Also, the Familial Expectations factor from the Familism scale negatively correlated with instrumental support, meaning higher feelings of filial obligation was associated with lower usage of instrumental social support. These correlations may provide insight into the negative components of cultural
values as they are related to negative coping styles and less reliance on instrumental support. A closer look into a caregiver’s cultural beliefs as measured by specific subscales may be warranted in future studies when predicting specific coping style or social support use. Once factor structures are established for cultural measures, researchers may choose to evaluate the predictive validity of specific types of cultural beliefs.

**Mediation versus Moderation.** Moving on to the mediation and moderation analyses, we have documented many results worthy of discussion. For our first hypothesis we predicted that positive aspects of care would either mediate or moderate the relationship between cultural justifications and depression and more specifically, higher levels of PAC would be beneficial and buffer the negative effects of depression. In our fifth hypothesis we predicted that PAC would mediate or moderate the relationship between familism and depression; predicting that higher levels of PAC would mitigate the deleterious effects of feelings of obligation towards the caregiving role and depressive symptomology. Although previous studies have found that the presence of more positive aspects of care (e.g., closer relationship with the care receiver) were associated with fewer depressive symptoms and greater subjective well-being in caregivers (Pinquart & Sörensen, 2004; Williams, 2005), the current results do not support these associations between PAC and depression. Although there was a significant negative correlation between PAC and CES-D scores ($r = -.25$, $p < .05$), positive appraisals of the caregiving situation did not indirectly or conditionally influence the relationship between cultural justifications and depression.
This result is surprising, since PAC has been documented to affect levels of depressive symptomology (Tarlow et al., 2004). For example, in an intervention study, Hilgeman and colleagues (2007) found PAC to uniquely predict variance in depression beyond other variables included in the model (e.g., care recipient cognitive status). They concluded that higher values of PAC would enable caregivers to find greater meaning and sustain the coping process throughout the caregiving experience and as a result show better emotional outcomes across time (Hilgeman et al., 2007). Conversely, Kinney and Stephens (1989) found that uplifts (e.g., caregiving satisfactions) were related to greater depression levels in a sample of Alzheimer’s caregivers, as these caregivers’ also reported higher intensity of care. The current finding, although surprising, could be due in part by the low levels of depression scores reported by this sample of caregivers as evidenced in central tendency scores (M = 0.86, SD = 0.56, Range = 0.00 – 2.40).

Caregivers who are more willing and motivated to participate in a research study may not exhibit elevated or clinical levels of depression as measured by the CES-D. This floor effect and lack in variability may have influenced the significant effect that PAC and familism had on depression levels (Wang, Zhang, McArdle, & Salthouse, 2009). It is also important to note that PAC may also influence other caregiving outcomes that were not evaluated in the current study (e.g., life satisfaction, well-being).

Although we found that PAC did not act as a significant mediator or moderator in both hypotheses, we did find that cultural justifications, familism, and education significantly predicted levels of PAC. Higher levels of both familism and cultural justifications predicted higher levels of PAC, whereas higher educational attainment predicted lower levels of PAC. Higher levels of education relating to lower levels of
PAC have been previously documented (e.g., Picot, 1995) and have been explained by an increase in role captivity, higher obligation and feelings of duty to provide care, as well as role strains. Picot, Debanne, Namazi, and Wykle (1997) found that African American and European American caregivers with more education reported fewer perceived rewards than caregivers who had less education. Kim and colleagues (2007) also found that more educated caregivers reported higher levels of individualism, which indirectly affected perceived burden levels as higher. Therefore, highly educated caregivers who report lower levels of cultural motivation may not identify with or go against their families’ traditional caregiving ideology about who should provide care to aging relatives and may find the caregiving role more intrusive (Dilworth-Anderson et al., 2002).

Consistent with the choice and social exchange theory proposed by Nye (1979), this finding demonstrates that highly educated caregivers might perceive a greater cost to their careers, income, and personal life and thus report fewer rewards and positive aspects of care.

To shed more light on the predictability of PAC, it may be of use to explore other relationships and associations held by PAC as guided by the SSCM in future studies. For example, does culture mediate or moderate the relationship between education and PAC? Pinquart and Sörensen (2004) have also found that positive aspects of care (e.g., enrichment of the caregiving experience) were positively related to subjective well-being (e.g., life satisfaction), while stressors and strains (e.g., role captivity, burden levels) were more highly related to depression. Future researchers may choose to evaluate these relationships further to examine the importance and effects of PAC within the caregiving experience and also how they relate to a variety of caregiving outcomes.
In this study, it was first believed that familism would tap into negative components of cultural values (e.g., obligatory duties) and therefore produce a deleterious effect on the caregiving process, but instead it was found that stronger feelings of familism were related to more positive aspects of care. Although this finding may not be completely unexpected, previous studies have found familism to negatively impact coping styles and caregiver mental and physical health (e.g., Kim et al., 2007). In further exploration of the effects of familism and PAC, some researchers have found elements of familism to positively relate to the stress and coping process (Stuckey, Neundorfer, & Smyth, 1996). For example, Lawton and colleagues (1992) examined the role of traditional caregiving ideology (e.g., aspects of familism and taking care of one’s own) and found that traditional ideology was unrelated to depression and positive affect for both European American and African American caregivers. However, Lawton et al. (1992) found that caregiving ideology was positively related to caregiving satisfaction among European American caregivers only, supporting the findings of the current study, as familism significantly predicted PAC but did not predict depression levels. Furthermore, in a study by Cohen et al. (2002), 73% of caregivers reported they had positive feelings toward at least one aspect of their subjective caregiving experience, including the satisfaction of meeting a familial obligation and providing quality of life to a loved one, which positively impacted their subjective well-being. Although PAC did not act as a significant mediating or moderating variable between cultural values and depression nor did it predict depression levels in the current study, it is clear that positive aspects of care need to be included as a main component in both research studies and theoretical frameworks (Boerner, Schulz, & Horowitz, 2004). Therefore, as suggested in
the previous paragraph, PAC may need to be examined at different points in the sociocultural model to find the true impact it has on the caregiving experience. More specifically, PAC may influence different feelings of burden that are particular to the caregiving role (e.g., financial, social, emotional burden), instead of influencing global depression scores. Further research is warranted to understand the inclusion of PAC into the SSCM.

In accordance with the current study’s findings, it is unmistakable that cultural values and beliefs influence a caregiver’s ability to positively appraise the caregiving situation. However previous researchers have typically tried answering the questions, why does race influence PAC and what variables might help explain the relationship between race and PAC (Roff et al., 2004)? Although an important part of the caregiving process, it is imperative to examine how a caregiver’s cultural upbringing and belief system relate to positivity within the caregiving role, and if that relationship impacts outcome variables (Rapp & Chao, 2000). In the current study, we were able to elucidate this reoccurring research interest further with the use of culturally relevant measures, as previous researchers have used the categorical variable of race (Haley et al., 1996; Wykle & Segall, 1991) and have reported simple group differences (e.g., African American caregivers report higher levels of PAC) with minimal cultural rationalizations and explanations.

As suggested by Foley, Tung, and Mutran (2002) many researchers have also ignored the role of family values and beliefs in explorations of negative caregiving outcomes. It is with the previous notion that the current study aims were to further the paths from cultural values to caregiver outcomes by explicitly examining the effects of
cultural beliefs on depression via caregiver burden. Our second and sixth hypotheses predicted that burden would act as a mediating and/or moderating variable between culture and depression. Results supported H2 but not H6 as burden was only a significant mediator between CJCS and depression, and not between familism and depression. We found that lower levels of CJCS and higher levels of depression were mediated by higher levels of burden, meaning when caregivers did not identify strongly with cultural motivations they also reported higher levels of burden and depression. Conversely, higher levels of CJCS and lower levels of depression were significantly mediated by lower levels of reported caregiver burden. This finding has been supported in previous studies evaluating the relationship between cultural motivations and caregiver burden. For example, del-Pino-Casado and colleagues (2011) found that their measure of reciprocity (i.e., “The care recipient is very grateful and it gratifies and compensates me”) significantly predicted levels of subjective burden such that caregivers who had stronger feelings of reciprocity also reported lower levels of burden. Interestingly, Dilworth-Anderson and colleagues found that caregivers who reported very weak and very strong cultural justifications over time experienced the highest amount of distress compared to caregivers who reported moderate feelings of cultural justifications. This curvilinear effect highlights the heterogeneity of caregiving samples in relation to cultural motivations to provide care and emphasizes the importance of measuring cultural values in the sociocultural context of caregiving.

Another explanation for our findings has been postulated by Guberman Lavoie, Blein, and Olazabal (2012) who suggested an explanation concerning not only generational differences, but also the resistance towards solely identifying as a primary
caregiver and relinquishing other life roles. They point out that Boomers and younger generations are characterized as demanding, individualistic, and focused on self-realization and in result less likely to identify with their familial commitments, cultural norms, and obligations to care for dependent older family members. The focus on the self has essentially made the role of caregiving a much harder transition for individuals who may juggle occupational and social roles and also feel less culturally motivated to provide care. This phenomenon may therefore support the association in the current study between weaker cultural motivations and higher depression via an increased amount of burden.

Although we did not find evidence of mediation or moderation between familism and depression via burden, we did find that familism and the care receiver’s impairment significantly predicted burden levels. Even though we originally predicted stronger feelings of familism to be related to higher levels of burden and depression as documented in previous sociocultural studies (e.g., Rozario & DeRienzis, 2008), some researchers still propose familism as a cultural value that may act as a protective factor against negative consequences of caregiving (Coon et al., 2004). Our results support this opposing viewpoint as stronger feelings of familism significantly predicted lower levels of burden.

In evaluation of the current literature surrounding familism, many studies have found mixed or null results (e.g., Losada et al., 2006). In the current study, it is important to note that although burden and depression are highly correlated, familism only significantly predicted levels of burden and not depression. This finding suggests that a caregiver’s filial responsibilities may only influence the subjective experiences explicitly
related to the caregiving role and may not influence a global measure of psychological well-being. The aforementioned relationship (i.e., stronger feelings of familism predicted lower levels of burden) has been acknowledged in other studies of ethnically diverse caregivers. For example, Shurgot and Knight (2004) found a significant and negative association between values of familism and burden, meaning higher levels of familism led to lower levels of caregiver burden. Similarly, Losada and colleagues (2006) found familism to be linked with lower burden levels in Hispanic caregivers from the United States, while also finding a negative and significant association between familism and depression in Spanish caregivers. As much of the familism literature has both originated from and evaluated the effects in Hispanic, Latino, and Spanish caregivers, it is important to understand how this value of filial responsibility may play a significant role in the lives of caregivers from other ethnic backgrounds. The current study has explored the relationship between familism in a sample of predominantly European American caregivers, and has successfully documented the positive effects of familism on burden despite the lack of support for the proposed hypotheses. Since familism did not significantly predict depression, it is obvious why burden levels could not successfully mediate or moderate the null relationship. This null relationship draws attention to the influence familism may have on the cultural caregiving experience. Unlike the CJCS, familism may consist of values that are engrained in a caregiver before they ever even enter the caregiving situation. Researchers may also choose to focus on particular subscales of familism that may better address the associations between familial obligation, compassionate care, and generativity with caregiving outcomes. Additionally, familism may be a better predictor when considered as a demographic variable or
previously existing belief structure that may influence caregiving specific variables (e.g., positive aspects of care, burden). An exploration of where feelings of familism are better suited within the SSCM is recommended.

Another component of the caregiving process that was examined was coping styles. Two of the hypotheses (H3 and H7) postulated that the relationship between cultural values and depression would be mediated or moderated by coping styles. After the conduction of a factor analysis, the Brief COPE items factored onto two factors: an avoidant coping factor and an active coping factor. These particular coping styles have been of interest in the caregiving literature and have been associated with positive and negative caregiving outcomes (Dilworth-Anderson et al., 2002; Kim et al., 2007). The sociocultural stress and coping framework (Aranda & Knight, 1997) suggests that the use of ineffective coping styles will result in negative psychological and physical health outcomes when caregivers appraise their role as more burdensome. Building off of this framework and the findings from Kim et al.’s (2007) study, we hypothesized that higher cultural justifications would be mediated or moderated by active coping styles leading to lower depression scores and stronger feelings of familism would be mediated or moderated by avoidant coping styles leading to higher depression scores. Other studies have also shown that active coping (e.g., problem solving, planning) may lead to fewer depressive symptoms in caregivers of individuals with dementia (Haley, Levine, Brown, & Bartolucci, 1987), whereas avoidant coping styles (e.g., denial, disengagement) may lead to worse emotional and psychological outcomes (Papastavrou, Kalokerinou, Papacostas, Tsangari & Sourti, 2007; Powers, Gallagher-Thompson, & Kraemer, 2002).
Unfortunately, we did not find support for either hypothesis as coping styles did not significantly mediate or moderate the relationship between culture and depression.

Despite the current lack of support for coping styles mediating or moderating the relationship between cultural values and depression, previous work has established the importance of multidimensional coping strategies within the caregiving situation (Pruchno, Burant, & Peters, 1997; Pruchno & Resch, 1989). Overall, emotion-focused coping has been identified as a common coping style in caregivers of chronically ill dependent adults (e.g., dementia). This type of caregiving situation tends to be long-term and usually progressive in nature, therefore emotion-focused strategies that concentrate on minimizing distress and strain seem to be the ideal coping style. However, previous researchers have found mixed results regarding the efficacy of emotion-focused coping on caregiving outcomes (e.g., depression, positive affect). The current study may not have emphasized the traits of emotion-focused coping enough to find a significant effect for the current sample. Instead, the focus of avoidant coping (e.g., distraction, venting, denial) and active coping (e.g., planning, taking action) may not have captured the appropriate coping styles that would influence the current sample of caregivers’ relationship between culture and depressive symptomology. Shaw and colleagues (1997) also note that due to the common property of coping subscales covarying to a large degree, it may become difficult to differentiate effective from ineffective coping styles in a sample of caregivers. Therefore, it is important to include other caregiving components, such as cultural values and motives, to distinguish the effect of coping styles on caregiving outcomes.
Another reason that coping may not have been a strong intervening variable is that although the COPE scale (Carver, 1997) has been validated in samples of caregivers (e.g., Kim et al., 2007), it may be more useful to develop specific coping scales that are explicitly established for the assessment of caregivers and highlight the behavioral and emotional aspects of coping strategies used in the provision of care. For example, Pruchno and colleagues (1997) set out to identify and develop a coping scale that was not inherently confounded with distress and applicable to the demands of caregiving. This scale emphasized emotion-focused coping, acceptance, and instrumental-focused coping. In a sample of multigenerational households providing care to a disabled older relative, Pruchno et al. (1997) found that emotion-focused coping was associated with more depression, whereas instrumental coping strategies were related to greater positive affect.

Additionally, Corcoran (2011) suggests that the clarification of caregiver typologies (e.g., balancing of demands, advocating the well-being of the care receiver) will help establish the interrelated and complex concepts of caregiving style, cultural values, and coping strategies. Since caregiving is viewed as a “cultural activity,” effective and ineffective coping strategies may depend in part by existing sociocultural beliefs about caregiving (Quinn, Clare, & Woods, 2010). More specifically, how caregivers successfully cope with stressors and strains and work to promote positive aspects of care may reflect a more dynamic process than what we can inherently study and capture through a singular quantitative measure. Also, studying coping styles at one point in time provides only a snapshot of the caregiving career and may need to be addressed through patterns of behavioral and cognitive responses over time (Corcoran, 2011).
Another component of the caregiving process that was explored was social support. It has been suggested that there is a need to understand whether one kind of social support or a combination of multiple types, mediates or moderates a caregiver’s distress levels (Thompson, Futterman, Gallagher-Thompson, Rose, & Lovett, 1993). Taking this into consideration, we sought to explore the relationship between cultural values and depression as explained by the use of emotional support and/or instrumental support. Based on the sociocultural stress and coping framework, two of our hypotheses (H4 and H8) predicted that cultural values would be mediated or moderated by the use of different types of social support. More specifically, we predicted that stronger cultural justifications would be related to the use of instrumental support reducing depression levels, whereas stronger feelings of familism would be mediated or moderated by the use of emotional support increasing depression levels.

Out of the 8 models tested for the two social support hypotheses, results indicated that the use of emotional and instrumental support significantly moderated the relationship between cultural justifications and depression. A conditional effect was supported as caregivers who reported higher use of both emotional and instrumental support and lower levels of CJCS subsequently reported higher levels of depression. It appears that caregivers who did not identify strongly with cultural justifications to provide care depended on a high amount of support from others. Although we did not measure the perceived adequacy of that support, one might presume that although there was a high amount of reported emotional and instrumental support, that support may not have been perceived as helpful and elevated a caregiver’s depressive symptomology.

Unlike hypothesis four, we did not find support of hypothesis eight as familism
did not significantly predict depression levels and was also not related to the type of social support in question. Still, it is important to note that this singular time point captured the social support resources that were being currently received and sought out by the caregiver. Social support is a process that ebbs and flows as caregiver needs change and the availability of support changes. Future researchers may choose to examine the relationship between familism, social support, and caregiver outcomes over time as well as other aspects of social support (e.g., informational support, esteem support, social integration) that better characterize the influence of familism on caregiving outcomes (Young & Kahana, 1995).

While it was first hypothesized that the type of social support would have a differential effect on the relationship between cultural justifications and depression, instead it was found that both types of support moderated the relationship in a similar manner. The relationship between lower CJCS and higher depression scores was moderated by higher reported usage of both instrumental and emotional support. A lack of cultural motivation may lead a caregiver to rely on others for more intense levels of support throughout the provision of care, which may have an adverse impact on a caregiver’s well-being and impede their sense of adequacy for the caregiving role. Less culturally motivated caregivers may also appraise their role as more burdensome and find less satisfaction with their perceived available support (Vitaliano, Russo, Young, Teri, & Maiuro, 1991) or find that support received is actually not supportive or helpful towards the provision of care (Bass, Tausig, & Noelker, 1988). For example, Shurgot and Knight (2005) found that cultural values were inversely associated with perceived positive social support, which in turn was inversely related to burden levels; meaning caregivers who
reported higher feelings of individualism and obligation were less likely to perceive their social support as positive from friends and family members, which elevated their feelings of burden.

Traditional caregiving literature has focused on the protective benefits of social support and the reduction of distress by means of support (Zarit, Orr, & Zarit, 1985). Following suit, several studies have reported that the receipt of social support from friends and family members can diminish the negative consequences of caregiving (e.g., Barusch & Spaid, 1989; Dilworth-Anderson et al., 2002; Pinquart & Sörensen, 2007). In the current study, an elevated usage of instrumental and emotional support was only helpful for caregivers who also reported stronger cultural motivations to provide care for a dependent family member. To date, this relationship has typically been evaluated in Asian and Asian American caregiving samples (Knight & Sayegh, 2010). Two studies (e.g., Chun, Knight, & Youn, 2007; Kim & Knight, 2008) have found a positive association between cultural values and the use of social support among Asian caregivers, however the subsequent effect on caregiving outcomes is still unclear.

Furthermore, the current study has taken one step closer to disentangling the relationship between cultural values and depression via social support. It appears that cultural justifications are a stronger predictor of a caregiver’s depression levels and are moderated by both instrumental and emotional social support. However, higher usage and dependency on social support is only beneficial in lowering depressive symptomology for caregivers who also have strong cultural motivations to provide care. It is evident that further research examining the relationship between cultural values and caregiving outcomes is warranted, as well as the potential intervening effects of different
types of social support, perceived adequacy of support, and satisfaction with social support.

**General Discussion**

One of the major strengths of this study is the use of a sociocultural stress and coping framework to guide analyses. This is an improvement on past research with caregivers, whose frameworks were limited to the use of race as a proxy for cultural values and beliefs (Knight & Sayegh, 2010). Despite documented differences between African American caregivers and European American caregivers (see Dilworth-Anderson et al., 2002), many studies have relied on the demographic race variable to explain these differences instead of including measures of cultural motivations and feelings of filial responsibility (Choi, 1993; Young & Kahana, 1995). Through the use of a sociocultural framework like the SSCM, researchers are able to conceptualize the importance and placement of cultural values in the stress and coping process of caregivers.

Another strength of this research is the results supporting and furthering pre-existing as well as additional pathways within the SSCM. Due to mixed findings surrounding the associations between culture and main caregiving components, we aimed to explore the significant effects of two distinct cultural concepts. As predicted, cultural justifications significantly predicted depression and this relationship was mediated by subjective appraisals of burden and moderated by the usage of emotional and instrumental social support. However, the addition of PAC as a competing mediator and moderator was not supported in the analyses. Instead, it was found that even though PAC did not influence the relationship between cultural justifications and depression, both cultural components significantly predicted levels of PAC in caregivers. More
specifically, stronger feelings of cultural justifications and familism were predictive of greater PAC. Even though PAC did not interplay among the caregiving process as expected, it still maintains an important part of the sociocultural framework. The current findings suggest a revision of model relationships as the addition of PAC and exploration of familism and cultural justifications have furthered our working knowledge of cultural values within the caregiving experience as guided by the SSCM framework. Therefore, the addition of PAC into the SSCM is warranted, however future researchers should ascertain the relationship PAC has with other stress and coping variables (e.g., coping styles, social support) and caregiving outcomes (e.g., life satisfaction, quality of life).

It should also be noted that the cultural measures employed in this study were explored through factor analyses and exhibited complex cultural structures. Both the CJCS and Familism scale demonstrated adequate internal consistency, reliability, and construct validity. However, this study was the first to document a three-factor solution for the 10-item CJCS and three-factor solution for the 9-item Familism scale. One potential explanation is that the current sample was predominantly European American. Previous work on cultural values has overlooked the ability of European Americans to identify with particular cultural beliefs and values, as well as the potential to be culturally motivated to provide care for a dependent older family member (Knight & Sayegh, 2010). In a way, researchers who have evaluated African American versus European American caregivers have utilized the white majority as a control for understanding cultural differences. Is it therefore safe to assume that the majority of caregivers who do not identify as an ethnic minority do not prescribe to familial beliefs and cultural values about who should provide care and why? Evaluating intra-individual differences among
caregivers may be the key to discovering cultural principles surrounding the provision of care, which may help researchers look past racial identity as a deciding factor of whether or not caregivers are viewed as culturally diverse. Although the current sample was not racially diverse, it is still apparent that this sample of caregivers identified specific cultural values and beliefs as reported in their strong cultural motivations and feelings of familism. In other words, even when a researcher is not interested in race as a predictor or comparing two ethnic groups, it is still important to include a measure of cultural values to evaluate the impact culture may potentially have on the caregiving situation. As pointed out by Choi (1993), if cultural norms and societal expectations are presumed to impact family roles and the provision of care to dependent family members, it is crucial that the cultural context of caregiving be included as a primary domain in the caregiving stress and coping process no matter the race and ethnic background of the caregiver.

Limitations

The current study is limited by a number of factors. First, the data were collected using self-report measures, introducing the potential for common method bias. Although self-reports offer a way to access a caregiver’s own personal experience, there are still disadvantages. For example, there are potential validity problems such as the inaccurate recall of caregiving events and the potential for untruthful reporting (Schwarz, 1999). This behavior may have impacted how the current caregivers’ reported feelings of positivity and burden, consequently reporting through rose-colored glasses (e.g., reporting higher PAC and lower burden). Caregivers may also over- or under-estimate care receiver impairment and problematic behaviors, as they may be unlikely to have detailed representations of the behavioral instances stored in their memory and instead
blend frequencies into a general representation of the impairment behaviors (Bradburn, Rips, & Shevell, 1987). Additionally, the cross-sectional nature of this data only provides a snapshot of the caregiving process. Future researchers may choose to not only evaluate the caregiving experience longitudinally, but also include objective measures to understand the physical and psychological consequences of care in addition to the subjective appraisals of care (Dilworth-Anderson et al., 2002).

Participants were also recruited through a convenient sampling procedure, which resulted in a primarily European American caregiving sample. Although the intentions were not to understand ethnic differences among caregivers, it would have been useful to represent ethnically diverse caregivers in the sample while controlling for race in all subsequent analyses. As much of the literature has examined group differences between European American and African American caregivers (Dilworth-Anderson et al., 2002), these potential group differences may impact the pathways and relationships upheld in the SSCM and warrant future attention. Therefore, further data collection will focus on achieving additional survey responses from ethnically diverse caregivers.

Although the current sampling procedure aimed to recruit enough participants to maintain a sample of 100 caregivers, participants had to be removed for substantial missing data, which lowered the total sample size down to 83. Individuals who filled out the paper packets were more likely to complete the entire survey, whereas caregivers filling out the survey online were prone to skip questions more often. The inability to compensate every caregiver for their time and participation may have also swayed their dedication to completing the survey as well as the lack of rapport built into a single measurement collection method (Dilworth-Anderson & Williams, 2004). Even though
statistical significance and support was found for some of the hypotheses, a larger and more representative caregiving sample may have provided more adequate grounds for the surfacing of additional significant effects within the mediation and moderation models. Furthermore, it has been suggested that caregivers who participate in research and intervention studies may volunteer and provide responses in a systematically different way than caregivers not interested in research participation and noncaregiving samples (Toseland & Rossiter, 1989). Cross-cultural studies that do not have non-caregiving controls ultimately end up measuring the variables of interest (e.g., burden, PAC) among different groups of caregivers (e.g., African American versus European American caregivers), instead of the differential impact of caregiving on those variables (Janevic & Connell, 2001). Therefore, to reduce selection bias and attribute the effects of culture based on the caregiving role, it may prove to be beneficial to add a control group of non-caregivers to compare results to, instead of solely focusing on racial differences and comparisons (Knight, Lutzky, & Macofsky-Urban, 1993).

Additionally, the use of a general sample of caregivers of dependent older adults may posit difficulties when generalizing the results to specific care receiver illness types. Many studies have evaluated the differential experiences of caregivers providing care to individuals with dementia (e.g., Zarit, Orr, & Zarit, 1985), family members suffering from cancer (e.g., Clipp & George, 1993), frail older adults (e.g., Mui, 1995), and even “terminal” dependent family members on hospice (e.g., Phillips & Reed, 2009). However, the current study did not focus on one particular type of care receiver illness and instead evaluated the amount of tasks being cared for and symptomology of the care receiver to explain the level of dependency. Although this evaluation allowed for the
control of care receiver dependency, the results were not able to disentangle the effect of specific care receiver impairments. For example, the null findings pertaining to coping styles and PAC may have actually been significant mediators or moderators if there were large enough subsamples to evaluate caregivers of individuals with dementia versus caregivers of frail older adults. Therefore, further research is warranted to examine the SSCM as it pertains to caregivers of particular ailments.

Another limitation of the current study was the evaluation of one caregiving outcome. The sociocultural components were only evaluated in terms of their relationship with caregiver depressive symptomology. Although depression is used as a common outcome variable (Dilworth-Anderson et al., 2002), feelings of familism, levels of PAC, and coping styles may not necessarily relate to depression and instead relate to other caregiving outcomes such as quality of life, well-being, or life satisfaction (Sayegh & Knight, 2010). Future research should evaluate the hypothesized effects of the current study for a variety of caregiving outcomes to further the application of the SSCM.

**Future Directions and Implications**

As the current study is the first to date which empirically tests the differential effects of cultural justifications and familism on depression levels via social support, coping styles, burden, and the novel addition of PAC, it offers many avenues for future research in this area. This study offers support for part of the SSCM, yet also has shown which areas of the model need to be modified to better fit the data. Further research confirming the pathways between the sociocultural context variables will add additional validity to the revised Sociocultural Stress and Coping Model. It should also be noted that this study tested only specific forms of social support, coping styles, and
accumulative burden as potential mediators and moderators of the relationship between cultural values and depression. On top of instrumental and emotional social support, researchers may choose to evaluate both structural changes to a caregivers network (e.g., amount of close friends and family members) as well as functional aspects of social support (e.g., perceived control over supportive behaviors, perceived adequacy of received support) to further understand the impact support may have on culture and caregiver outcomes (Thompson et al., 1993; Young & Kahana, 1995). As noted in a previous section, coping styles may be comprised of complex strategies that a caregiver uses on a daily basis (Shaw et al., 1997). To only evaluate the effectiveness of active and avoidant coping styles limits one’s knowledge base about the coping mechanisms employed while providing care to a loved one (Pruchno et al., 1997). Thus, future research should explore different types of support in addition to emotional and instrumental support as well as coping styles that specifically relate to the caregiving process. Additionally, it may also be advantageous to examine different conceptualizations of burden (e.g., financial burden, relationship burden, emotional burden) to further explicate the relationship between cultural values and caregiver outcomes.

Researchers may also consider revising pathways of Knight and Sayegh’s (2010) Sociocultural Stress and Coping Model such that it may better correspond to the framework and model pathways receiving empirical support here. For example, in the original SSCM, Knight and Sayegh (2010) proposed that cultural variables would not influence burden levels and burden levels would not relate to cultural values. In the current study there is evidence to support the indirect effect of burden on the relationship
between cultural justifications and depression. Also, the addition of PAC into the model added significant pathways from cultural justifications and familism to levels of PAC. Future researchers may opt to examine these important pathways by means of structural equation modeling (SEM). The use of more sophisticated statistical analyses including both SEM and more complex conditional and indirect effect models (e.g., mediated moderation) will help to further the usefulness and applicability of a sociocultural framework. If using SEM, a researcher could not only test the reliability of the observed caregiving variables (e.g., burden, PAC), but also evaluate the structural model of the SSCM by examining the interrelations among the latent constructs (e.g., cultural beliefs and values) and observable variables (Schreiber, Stage, King, Nora, & Barlow, 2006). Instead of testing the hypothesized model relationships separately like the current study analyses, SEM techniques would allow future researchers the ability to test the model fit as a whole, while specifying and constraining model parameters to examine chi-square and goodness-of-fit indexes (Hox & Bechger, 2002). The iterative process of modifications and model constraints will help to improve the fit and pathways within the sociocultural framework as warranted by theoretical findings and caregiving research results like the current findings.

Many study efforts have overlooked the cultural insights regarding provision of care and the impact that cultural norms may have on caregiving outcomes (Dilworth-Anderson et al., 2002; Knight & Sayegh, 2010). The current study has emphasized the inclusion of culturally relevant measures to assess cultural norms for providing care to a dependent loved one. With a growing importance to understand cultural beliefs about caregiving, researchers may be more inclined to include a measure such as the CJCS or
Familism scale within their research design and data collection (Powers & Whitlatch, 2014). Although the CJCS and Familism scale are admirable for their brevity, future researchers may also choose to develop the scales further by adding items or combining elements of familism and cultural justifications to produce a singular measure with varying factor structures.

Powers and Whitlatch (2014) have also suggested the need for qualitative studies to explore the cultural underpinnings that exist in the lives of caregivers either by focusing on particular ethnic groups or care receiver illness types. Qualitative results may therefore aid in the development of cultural items for quantitative caregiving measures. Just as ethnic differences have been documented in the study of cultural values and beliefs, there may be evidence of dissimilarities between caregivers of individuals with dementia, caregivers of individuals with cancer, or caregivers of frail older adults. In other words, qualitative studies should not solely focus on different ethnic groups, but highlight different care receiver illness types to further explain the influence of culture on the caregiving experience. For example, Mahoney and colleagues (2005) found striking qualitative similarities across African American, Chinese, and Latino caregivers of individuals with dementia. However they suggested they may have found different results if they were evaluating diverse caregivers of different illnesses. More specifically, they found that there were many similar stigmatizations and normalizations about a family member suffering from Alzheimer’s disease (e.g., memory loss is a normal part of old age, diagnosis evaluation services were lacking, formal care responsiveness was problematic), which influenced the provision of care for all three ethnic caregiving groups. An ethnic minority caregiver’s beliefs and cultural attitudes
toward certain illnesses, such as dementia, may be perceived more devastating or negative compared to a family member suffering from frailness or cancer (Mahoney et al., 2005).

Additionally, it may be useful to examine the trajectories of cultural motivations to provide care in younger generations that have been exposed to the individualistic culture within the United States (Fingerman et al., 2012). For example, do younger African American and European American caregivers still maintain traditional caregiving ideologies despite the influence of mainstream culture? To answer this question, Young and Kahana (1995) have suggested that researchers focus on cultural pluralism to help understand cultural differences among caregivers that report more tolerance for caregiving roles and subsequently cope with the burdens of caregiving in an effective manner.

Paucity still exists in the explanation of culturally linked caregiving attitudes and their association with caregiving behavior (Mahoney et al., 2005). Future research should focus on how a caregiver’s cultural beliefs and emphasis on elder care may be reflected in caregiving behaviors and activities for different subgroups of caregivers (e.g., spouse caregivers, adult child caregivers, ethnic minority caregivers). For example, although a caregiver may report filial responsibilities and obligations to the caregiving role, does this reflect in their care towards the dependent family member as more or less effective and genuine, and are they making informed decisions about the provision of care? Recently, Chettih (2012) brought to light the issues surrounding cultural competence in health care decision-making, pointing out that both family caregivers and
health care professionals need to be aware of their own cultural beliefs or biases to
guarantee high quality care to a dependent older adult.

Based on the current findings and improvement of the SSCM (e.g., inclusion of
positive aspects of care), there are many applications of a sociocultural framework. First,
asociocultural perspective highlights the importance of finding culturally appropriate
ways to communicate both verbally and nonverbally with research participants, clients, or
patients (Chettih, 2012). A failure to create a welcoming atmosphere of respect and
safety to share caregiving information may result in a mistrust or lack of communication
between a researcher or formal care provider and a caregiver and care receiver dyad
(Karel, 2007). Second, a cultural competence framework has been applied in the medical
field to use a caregiver’s cultural beliefs and practices as a resource to promote optimal
health and care provision (Kagawa-Singer & Kassim-Lakha, 2003). This raises the
question, why has a cultural framework not been used in psychosocial interventions for
the caregiving dyad? It has been recognized that a caregiver may have culturally
appropriate religious and spiritual beliefs about the provision of care (e.g., belief in
miracles) that may appear inappropriate to researchers or medical professionals and effect
assessments and evaluations (Chettih, 2012). Including a culturally sensitive approach
would help researchers become aware of their own biases and belief systems and
ultimately improve the application and implementation of an intervention. Additionally,
this framework and the inclusion of both cultural values and PAC may help researchers
develop interventions that aim to alleviate burden by using cultural components to
increase positive reappraisals of the caregiving role.

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Finally, including a measurement like the CJCS or Familism scale may create this type of awareness and better facilitate an intervention based on the caregivers cultural values (Powers & Whitlatch, 2014). Some mental health providers have advocated the use of a Cultural Assessment Interview Protocol, known as CAIP, to be used when working with clients belonging to majority and minority ethnic groups (Geiger, 2007). The CAIP helps a professional understand a variety of culturally important caregiving components such as attitudes toward helping, cultural identities, family structure and expectations, acculturation levels, experiences with bias and stereotypes, as well as spiritual and religious beliefs. All of the CAIP assessment components are incorporated into a client summary that is then used to inform care and diagnoses, treatment, and care conceptualizations (Chettih, 2012). This type of assessment may be useful in an intervention that focuses on in depth cultural components of a caregiving dyad. Ultimately, this will help researchers and mental health providers understand how they rate on a continuum of cultural incompetence (e.g., ignorance) to cultural awareness and sensitivity (e.g., competence), and reaching cultural proficiency (e.g., integrating cultural awareness into practice) (Wells, 2000).

**Conclusion**

The current study’s focus on cultural values surrounding the provision of care has furthered the understanding and need of a sociocultural framework and approach in the caregiving literature. We have taken the mixed findings from previous studies and capitalized on identifying mediators and moderators of the relationships between cultural values and depression to contribute to theory development by explaining how and why the relationship between culture and outcomes occur. The inclusion of PAC into the
SSCM helped to re-emphasize the positivity that may exist in a role that has typically been characterized as burdensome and difficult. As expected, the direct measurement and study of cultural beliefs and values has revealed a complex and dynamic side of the caregiving experience. Further, the current study has taken a conscious step in the right direction to evaluate the effects of cultural values and positive aspects of care as postulated by a revised version of the Sociocultural Stress and Coping Model. However, there is still a need for a more nuanced evaluation of cultural components that capture both positive and negative effects on caregiving outcomes. Therefore, it is suggested that the inclusion of a more exhaustive, multidimensional instrument to assess both caregiving ideologies and behaviors should be employed to understand the relationships held between the SSCM variables. As suggested by the Administration on Aging (2001) researchers should maintain cultural sensitivity when conducting studies on the provision of informal and formal care. This can be achieved by preserving an awareness of how culture shapes participants beliefs, values, and worldviews, while acknowledging and respecting cultural differences.
REFERENCES


APPENDICES
APPENDIX A

INFORMED CONSENT

Before agreeing to participate in this research study, please read the following explanation. This statement describes the purpose, procedures, benefits, risks, discomforts, and precautions of our study.

Introduction and Procedures
My name is Sara Powers, and I am a graduate student at the University of Akron. I am interested in how your role as caregiver for a dependent older adult affects your overall well-being. In order to better understand how your experiences as a caregiver affect your well-being, I am asking you to please assist me in my research by taking the time to participate in this study. Your responses will help researchers better understand how caregivers’ experience impact their overall well-being. This study will consist of a demographic questionnaire, several surveys and short answer questions. It will take approximately 90 minutes to complete.

Exclusions
Only those at least 18 years of age and older who are currently caring for an older adult aged 50 and over, for 8 or more hours per week are allowed to participate in this study.

Voluntary Participation
Your participation in this research is completely voluntary. It is your choice whether you participate or not. You may decide to stop taking the survey at any time and you can choose not to answer any question(s) without penalty.

Risks/Benefits
There is a risk that you may share some personal information or that you may feel uncomfortable answering some of the questions. You do not have to answer any question if you feel the question(s) are too personal or if it makes you uncomfortable.

Incentives
There will be a drawing for ten $50 gift certificates to the grocery store of your choice. To enter the drawing, please complete your name and address at the end of this packet.
Confidentiality
Your personal information will only be recorded for the purposes of participating in the drawing. Your personal information will **not** be connected to your survey responses.

Who to Contact
If you have any questions, please contact either of the following:

Sara Powers
smp72@zips.uakron.edu

Dr. Toni Lynn Bisconti
tb33@uakron.edu / 330-972-6618

This proposal has been reviewed and approved by the University of Akron Institutional Review Board. If you wish to find out more about the IRB, contact 330-972-7666.

Statement of Consent:
Continuing on to the next page indicates that you have read and understood the information provided above, have had an opportunity to ask questions, are over 18 years of age, and agree to participate in this research study.

Internet Option:
If you prefer, you can access and complete the survey online. This study is available by typing https://akron.qualtrics.com/SE/?SID=SV_4Vdgj2IxYEkFzFP into your web browser.
APPENDIX B

DEMOGRAPHIC QUESTIONS

Demographic Questionnaire (Please print)

1. Gender (circle one): Female Male

2. Relationship Status (circle one):
   Single Widowed
   Married Divorced
   Separated Unmarried Partners

3. Date of Birth (DD/MM/YYYY): ____/____/_______ Age: _____

4. Race (please circle all that apply):
   White
   Black and/or African American
   Native American or Aleutian Islander/Eskimo
   Asian or Pacific Islander
   Hispanic or Latino
   Other (please specify): _______________________

5. What is your total household income (circle one)?
   Less than $10,000 $60,000 to $69,999
   $10,000 to $19,999 $70,000 to $79,999
   $20,000 to $29,999 $80,000 to $89,999
   $30,000 to $39,999 $90,000 to $99,999
   $40,000 to $49,999 $100,000 to $149,999
   $50,000 to $59,999 $150,000 or more

6. Do you live (please circle all that apply):
   Alone With a Sibling
   With Spouse or Partner With a Friend
   With Children Other (please specify): __________
7. Level of Education (circle one):
   - Grade School (grades 1-6)
   - Middle School (grades 7-9)
   - High School (grades 10-12)
   - Vocational Education
   - Some College Classes
   - College Degree
   - Post College Professional Degree
   - Graduate, Medical or Law Degree

8. Career Status (circle all that apply):
   - Homemaker
   - Unemployed
   - Full-Time
   - Unable to Work
   - Student
   - Part-Time
   - Retired

9. What is your religious affiliation (please circle one):
   - Protestant
   - Catholic
   - Jewish
   - Other (please specify):_____________________________

10. Generally speaking, how would you rate your present health? (Please circle one of the following descriptions)
    - Good
    - Fair
    - Poor
    - Very Poor

11. Do you provide unpaid care to a dependent older adult that is 50 or older? YES   NO

12. Who do you care for (circle one):
    - Wife/Partner
    - Husband/Partner
    - Mother
    - Father
    - Other (please specify):___________
    - Father-in-law
    - Grandmother
    - Grandfather
    - Mother-in-law

13. What is your relationship to the care receiver (circle one):
    - Wife/Partner
    - Husband/Partner
    - Daughter
    - Daughter-in-law
    - Son
    - Son-in-law
    - Granddaughter
    - Grandson
    - Other (please specify):___________

14. Do you have primary responsibility for the care of your relative? In other words, are you the person who is most responsible for organizing, managing, and/or supervising the care of your relative?
    - YES
    - NO

    a. If you indicated NO, would you consider yourself a secondary caregiver? Please explain the caregiving situation.
14. What is the race of the care recipient (please circle all that apply):
   - White
   - Black and/or African American
   - Native American or Aleutian Islander/Eskimo
   - Asian or Pacific Islander
   - Hispanic or Latino
   - Other (please specify): _______________________

15. When did you first begin to provide care for the care recipient:
   - Month:______________ Year:_________

16. How many hours per week do you provide care to the care recipient:
   - Hours:______________

17. Below is a list of health problems. Please circle if your relative has any of these ongoing or chronic health problems (circle all that apply):
   - Heart disease or heart problems YES NO
   - High blood pressure or circulation problems YES NO
   - Arthritis or problems with his/her joints YES NO
   - Cancer or leukemia YES NO
   - Alzheimer’s Disease/Dementia YES NO
   - Parkinson’s Disease YES NO
   - Lung condition such as asthma, emphysema, or chronic bronchitis YES NO
   - Pulmonary Disease YES NO
   - Problems with vision including glasses or contacts YES NO
   - Problems with hearing including hearing aids YES NO
   - Diabetes YES NO
   - Kidney or liver disease YES NO
   - Alcohol or drug problems YES NO
   - Stomach or digestion problems YES NO
   - Problems with walking or mobility YES NO
   - Stroke YES NO
   - Problems with weight including obesity YES NO
   - Traumatic brain injury YES NO
   - Chronic fatigue YES NO
   - Other (please specify): _______________________________________________

18. Where does your relative currently live (circle one):
   - His/Her home
   - Your home
   - Someone else’s home
   - Nursing home
   - Other (please specify):________________________
APPENDIX C

REVISED MEMORY AND BEHAVIOR PROBLEMS CHECKLIST

(Teri et al., 1992)

The following is a list of problems that care recipients sometimes have. Please indicate if any of these problems have occurred, and if so, how often. If these problems have occurred, how much has this bothered or upset you when it happened? Use the following scales for the frequency of the problem and your reaction to it. Please read the description of the ratings carefully. Please answer all the questions below. Please choose a number from 0-9 for both frequency and reaction.

Frequency Ratings:  
0 = never occurred  
1 = not in the past week  
2 = 1 to 2 times in the past week  
3 = 3 to 6 times in the past week  
4 = daily or more often  
9 = don’t know/not applicable

Reaction Ratings:  
0 = not at all  
1 = a little  
2 = moderately  
3 = very much  
4 = extremely  
9 = don’t know/not applicable

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1. Asking the same question over and over.</td>
<td></td>
</tr>
<tr>
<td>2. Trouble remembering recent events (e.g., items in the newspaper or on TV).</td>
<td></td>
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<tr>
<td>3. Trouble remembering significant past events.</td>
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</tr>
<tr>
<td>4. Losing or misplacing things.</td>
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<tr>
<td>5. Forgetting what day it is.</td>
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<tr>
<td>6. Starting, but not finishing, things.</td>
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<tr>
<td>7. Difficulty concentrating on a task.</td>
<td></td>
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<tr>
<td>8. Destroying property.</td>
<td></td>
</tr>
<tr>
<td>9. Doing things that embarrass you.</td>
<td></td>
</tr>
<tr>
<td>10. Waking you or other family members up at night.</td>
<td></td>
</tr>
<tr>
<td>11. Talking loudly and rapidly.</td>
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</tr>
<tr>
<td>12. Appears anxious or worried.</td>
<td></td>
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<tr>
<td>13. Engaging in behavior that is potentially dangerous to self or others.</td>
<td></td>
</tr>
<tr>
<td>14. Threats to hurt oneself.</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>15.</td>
<td>Threats to hurt others.</td>
</tr>
<tr>
<td>16.</td>
<td>Aggressive to others verbally.</td>
</tr>
<tr>
<td>17.</td>
<td>Appears sad or depressed.</td>
</tr>
<tr>
<td>18.</td>
<td>Expressing feelings of hopelessness or sadness about the future (e.g., “Nothing worthwhile ever happens,” “I never do anything right”).</td>
</tr>
<tr>
<td>19.</td>
<td>Crying and tearfulness.</td>
</tr>
<tr>
<td>20.</td>
<td>Commenting about death of self or others (e.g., “Life isn’t worth living,” “I’d be better off dead”).</td>
</tr>
<tr>
<td>21.</td>
<td>Talking about feeling lonely.</td>
</tr>
<tr>
<td>22.</td>
<td>Comments about feeling worthless or being a burden to others.</td>
</tr>
<tr>
<td>23.</td>
<td>Comments about feeling like a failure or about not having any worthwhile accomplishments in life.</td>
</tr>
<tr>
<td>24.</td>
<td>Arguing, irritability, and/or complaining.</td>
</tr>
<tr>
<td>25.</td>
<td>Trouble dressing.</td>
</tr>
<tr>
<td>26.</td>
<td>Trouble bathing or showering.</td>
</tr>
<tr>
<td>27.</td>
<td>Incontinent of bowel or bladder.</td>
</tr>
<tr>
<td>28.</td>
<td>Difficulty feeding self or needs help.</td>
</tr>
<tr>
<td>29.</td>
<td>Trouble preparing meals.</td>
</tr>
<tr>
<td>31.</td>
<td>Difficulty doing household chores.</td>
</tr>
<tr>
<td>32.</td>
<td>Difficulty managing money or needs help.</td>
</tr>
</tbody>
</table>

Items 1-7: Memory-related Problems  
Items 8-16: Disruption  
Items 17-24: Depression  
Items 25-28: Activities of Daily Living  
Items 29-32: Instrumental Activities of Daily Living
APPENDIX D

POSITIVE ASPECTS OF CAREGIVING SCALE

(Tarlow et al., 2004)

Some caregivers say that, in spite of all the difficulties involved in giving care to a family member with memory or health problems, good things have come out of their caregiving experience too. Please go over a few of the good things reported by some caregivers and report how much you agree or disagree with these statements.

1 = Disagree a lot
2 = Disagree a little
3 = Neither agree nor disagree
4 = Agree a little
5 = Agree a lot

Providing help to the care receiver has…

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>Made me feel more useful.</td>
</tr>
<tr>
<td>2</td>
<td>Made me feel good about myself.</td>
</tr>
<tr>
<td>3</td>
<td>Made me feel needed.</td>
</tr>
<tr>
<td>4</td>
<td>Made me feel appreciated.</td>
</tr>
<tr>
<td>5</td>
<td>Made me feel important.</td>
</tr>
<tr>
<td>6</td>
<td>Made me feel strong and confident.</td>
</tr>
<tr>
<td>7</td>
<td>Given more meaning to my life.</td>
</tr>
<tr>
<td>8</td>
<td>Enabled me to learn new skills.</td>
</tr>
<tr>
<td>9</td>
<td>Enabled me to appreciate life more.</td>
</tr>
<tr>
<td>10</td>
<td>Enabled me to develop a more positive attitude toward life.</td>
</tr>
<tr>
<td>11</td>
<td>Strengthened my relationships with others.</td>
</tr>
</tbody>
</table>
APPENDIX E

CAREGIVER BURDEN INVENTORY

(Novak & Guest, 1989)

Choose the number that best represents how often the statement describes your feelings as a caregiver.
0 = Never
1 = Rarely
2 = Sometimes
3 = Quite Frequently
4 = Nearly Always

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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>He/she needs my help to perform many daily tasks</td>
</tr>
<tr>
<td>2</td>
<td>He/she is dependent on me</td>
</tr>
<tr>
<td>3</td>
<td>I have to watch him/her constantly</td>
</tr>
<tr>
<td>4</td>
<td>I have to help him/her with many basic functions</td>
</tr>
<tr>
<td>5</td>
<td>I don't have a minute's break from his/her chores</td>
</tr>
<tr>
<td>6</td>
<td>I feel that I am missing out on life</td>
</tr>
<tr>
<td>7</td>
<td>I wish I could escape from this situation</td>
</tr>
<tr>
<td>8</td>
<td>My social life has suffered</td>
</tr>
<tr>
<td>9</td>
<td>I feel emotionally drained due to caring for him/her</td>
</tr>
<tr>
<td>10</td>
<td>I expected that things would be different at this point in my life</td>
</tr>
<tr>
<td>11</td>
<td>I'm not getting enough sleep</td>
</tr>
<tr>
<td>12</td>
<td>My health has suffered</td>
</tr>
<tr>
<td>13</td>
<td>Care giving has made me physically sick</td>
</tr>
<tr>
<td>14</td>
<td>I'm physically tired</td>
</tr>
<tr>
<td>15</td>
<td>I feel embarrassed over his/her behavior</td>
</tr>
<tr>
<td>16</td>
<td>I feel ashamed of him/her</td>
</tr>
<tr>
<td>17</td>
<td>I resent him/her</td>
</tr>
<tr>
<td>18</td>
<td>I feel uncomfortable when I have friends over</td>
</tr>
<tr>
<td>19</td>
<td>I feel angry about my interactions with him/her</td>
</tr>
<tr>
<td>20</td>
<td>I don't get along with other family members as well as I used to</td>
</tr>
<tr>
<td>21</td>
<td>My care giving efforts aren't appreciated by others in my family</td>
</tr>
<tr>
<td>22</td>
<td>I've had problems with my marriage (or other significant relationship)</td>
</tr>
<tr>
<td>23</td>
<td>I don't get along as well as I used to with others</td>
</tr>
<tr>
<td>24</td>
<td>I feel resentful of other relatives who could but do not help</td>
</tr>
</tbody>
</table>
APPENDIX F

CULTURAL JUSTIFICATIONS FOR CAREGIVING SCALE

(Dilworth-Anderson et al., 2004)

Please indicate your feelings on the following scale while answering the questions listed below.

1 = strongly disagree
2 = somewhat disagree
3 = somewhat agree
4 = strongly agree

I give care because:

1. It is my duty to provide care to elderly dependent family members.
2. It is important to set an example for the children in the family.
3. I was taught by my parents to take care of the elderly dependent family members.
4. Of my religious and spiritual beliefs.
5. By giving care to elderly dependent family members, I am giving back what has been given to me.
6. It strengthens the bonds between me and them.
7. I was raised to believe care should be provided in the family.
8. It is what my people have always done.
9. I feel as though I am being useful and making a family contribution.
10. My family expects me to provide care.
APPENDIX G

FAMILISM SCALE

(Sabogal et al., 1987)

Please indicate your feelings on the following scale while answering the questions listed below.

1 = strongly disagree
2 = somewhat disagree
3 = somewhat agree
4 = strongly agree

1. One should make great sacrifices in order to guarantee a good education for his/her children.
2. One should help economically with the support of younger brothers and sisters.
3. I would help within my means if a relative told me that she/he is in financial difficulty.
4. One should have the hope of living long enough to see his/her grandchildren grow up.
5. Aging parents should live with their relatives.
6. A person should share his/her home with uncles, aunts or first cousins if they are in need.
7. When someone has problems, s/he can count on help from his/her relatives.
8. When one has problems, one can count on the help of relatives.
9. One can count on help from his/her relatives to solve most problems.

Items 1-6: Familial Obligations Factor
Items 7-9: Support from the Family Factor
APPENDIX H

BRIEF COPING ORIENTATIONS TO PROBLEMS EXPERIENCED INVENTORY

(Carver, 1997)

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. The following questions ask you to indicate what you generally do and feel when you experience stressful events throughout your caregiving experience. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress within the caregiving role. Please treat each item separately from every other item and know that there are no right or wrong answers. Please consider your caregiving experience when answering each item.

1 = I usually don’t do this at all
2 = I usually do this a little bit
3 = I usually do this a medium amount
4 = I usually do this a lot

1. I’ve been concentrating my efforts on doing something about the situation I’m in.
2. I’ve been taking action to try to make the situation better.
3. I’ve been trying to come up with a strategy about what to do.
4. I’ve been thinking hard about what steps to take.
5. I’ve been turning to work or other activities to take my mind off things.
6. I’ve been doing something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.
7. I’ve been saying to myself “this isn’t real.”
8. I’ve been refusing to believe that is has happened.
9. I’ve been using alcohol or other drugs to make myself feel better.
10. I’ve been using alcohol or other drugs to help me get through it.
11. I’ve been giving up trying to deal with it.
12. I’ve been giving up the attempt to cope.
13. I’ve been saying things to let my unpleasant feelings escape.
14. I’ve been expressing my negative feelings.
15. I’ve been trying to see it in a different light, to make it seem more positive.
16. I’ve been looking for something good in what is happening.
17. I’ve been making jokes about it.
18. I’ve been making fun of the situation.
19. I’ve been accepting the reality of the fact that it has happened.
20. I’ve been learning to live with it.
21. I’ve been trying to find comfort in my religion or spiritual beliefs.
22. I’ve been praying or meditating.
23. I’ve been criticizing myself.
24. I’ve been blaming myself for things that happened.
25. I’ve been getting emotional support from others.
26. I’ve been getting comfort and understanding from someone.
27. I’ve been getting help and advice from other people.
28. I’ve been trying to get advice or help from other people about what to do.

Items 1-2: Active Coping
Items 3-4: Planning
Items 5-6: Self-Distraction
Items 7-8: Denial
Items 9-10: Substance Abuse
Items 11-12: Behavioral Disengagement
Items 13-14: Venting
Items 15-16: Positive Reframing
Items 17-18 Humor
Items 19-20: Acceptance
Items 21-22: Religion
Items 23-24: Self-Blame
Items 25-26: Use of Emotional Social Support*
Items 27-28: Use of Instrumental Social Support*

*These scales were used to represent social support in the current study.
APPENDIX I

CENTER FOR EPIDEMIOLOGICAL STUDIES - DEPRESSION

(Radloff, 1977)

Below is a list of ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

1 = Rarely or none of the time (less than 1 time)
2 = Some or a little of the time (1-2 days)
3 = Occasionally or a moderate amount of time (3-4 days)
4 = Most or all of the time (5-7 days)

1. I was bothered by things that usually don’t bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people dislike me.
20. I could not get “going.”
APPENDIX J

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER
January 2, 2014

Sara Powers
6816 Parkgate Oval
Seven Hills, Ohio 44131

From: Sharon McWhorter, IRB Administrator

Re: IRB Number 20131205 “Understanding the Caregiving Experience through a Sociocultural Stress and Coping Framework”

Thank you for submitting your Exemption Request for the referenced study. Your request was approved on December 16, 2013. The protocol represents minimal risk to subjects and matches the following federal category for exemption:

☐ Exemption 1 – Research conducted in established or commonly accepted educational settings, involving normal educational practices.

☒ Exemption 2 – Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior.

☐ Exemption 3 – Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under category 2, but subjects are elected or appointed public officials or candidates for public office.

☐ Exemption 4 – Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.

☐ Exemption 5 – Research and demonstration projects conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine public programs or benefits.

☐ Exemption 6 – Taste and food quality evaluation and consumer acceptance studies.

Annual continuation applications are not required for exempt projects. If you make changes to the study’s design or procedures that increase the risk to subjects or include activities that do not fall within the approved exemption category, please contact me to discuss whether or not a new application must be submitted. Any such changes or modifications must be reviewed and approved by the IRB prior to implementation.

Please retain this letter for your files. This office will hold your exemption application for a period of three years from the approval date. If you wish to continue this protocol beyond this period, you will need to submit another Exemption Request. If the research is being conducted for a master’s thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Cc: T. Bisconti – Advisor
Cc: Valerie Gellizen – IRB Chair

☒ Approved consent form/s enclosed