

The Association of Attachment Style and Perceptions of Caregiver Experience

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THE ASSOCIATION OF ATTACHMENT STYLE
AND PERCEPTIONS OF CAREGIVER EXPERIENCE

by

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A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of Sciences
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at the University of Central Florida
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ABSTRACT

This research examines caregiver experiences as they relate to attachment style. The overarching hypothesis is that perceptions of the caregiver role differ depending on the degree of avoidance and anxiousness in the caregiver's attachment style. Caregiver response was measured in the areas of filial obligation, work reduction, perceived control, caregiver burden, depressive symptomatology, and preparedness for caregiving. The final sample consisted of 150 caregivers who identified as the primary caregiver for a parent over the age of 65. This sample was recruited using Mechanical Turk, an online survey distribution tool. The survey was created online with Qualtrics software. Data were analyzed using SPSS software, and procedures primarily focused on correlational and descriptive statistics. The results revealed several significant correlations between attachment style and caregiver burden as well as depression, supporting the hypothesis that attachment style is associated with differences in perception of the caregiver experience. This research is motivated by the increasingly urgent need for caregiver support through financial aid, counseling services, and cohesive healthcare options.

TABLE OF CONTENTS

INTRODUCTION	1
METHODOLOGY	5
Participants.....	5
Materials	5
Procedure	8
RESULTS	10
DISCUSSION.....	12
APPENDIX A: MODIFIED PARENT ATTRIBUTION TEST	16
APPENDIX B: TABLES	20
REFERENCES	24

LIST OF TABLES

Table 1 – Descriptive data for the sample and key variables	21
Table 2 – Correlation Matrix	22
Table 3 – Correlations of the PAT and mPAT with key variables of interest	23

INTRODUCTION

Informal caregiving is described as living assistance that is provided by family members and friends, rather than trained healthcare professionals. While informal caregiving can be a deeply meaningful role for many, it can also be a hardship for families who are less apt to handle the financial strain and emotional stresses of the job. According to Feinberg, Reinhard, Houser, & Choula (2011), the average American caregiver is a working woman around 50 years of age, who spends approximately 20 hours per week providing care. It is estimated that there were 61.6 million adults in this position in 2009 (Feinberg et al., 2011). A recent study estimates the value of informal caregiving during that year to be a staggering \$450 billion in the United States (Feinberg et al., 2011). Most concerning are caregivers of older adults with dementia, an extremely debilitating syndrome which affects about 12 million people worldwide, with annual costs per patient in the U.S. estimated at \$57,000 (Burns & Iliffe, 2009). The caregivers of those with dementia experience escalating challenges as their family member's cognition and independence decline rapidly with age (Burns & Iliffe, 2009). This stress, according to MacNeil et al. (2010), may lead to potentially harmful behavior on the part of the caregiver, endangering the wellbeing of both the caregiver and the recipient, or a premature transition to long-term care options such as nursing homes and assisted living facilities (Paulson & Lichtenberg, 2011). Given the anticipated growth of the aging population, there exists a growing concern that the nation will struggle with the financial burden imposed by spiraling long-term care costs (Feinberg et al., 2011). Using the knowledge gained by these studies, the societal benefits of individualized caregiver support become obvious.

Many who provide care to a parent are motivated by filial obligation, or kinship obligation, a culturally reinforced duty to care for one's parents (Rossi & Rossi, 1990). Fulfilling the culturally-defined role of caregiver often conflicts with other roles, such as that of employee or financial provider. Despite the fact that this commitment takes a toll akin to a second job on the caregiver's other responsibilities, caregivers are left in a far worse condition financially. The weight of this responsibility is best demonstrated in the need to spend the caregiver's own savings and income in order to sufficiently care for the loved one (Feinberg et al., 2011). The obligation to provide care is often strong enough that the caregiver feels the need to reduce the time they spend working, if it is financially viable. This conflict between the livelihood of the caregiver and the care recipient was studied by Stephens, Franks, and Townsend (1994), who found that the stress accumulated from women's responsibilities as caregivers, mothers, employees, and spouses, can be harmful to their overall well-being. Fortunately, caregiver support groups are an increasingly common source of assistance to such individuals and their families, providing counseling and developing healthy coping strategies, which has been shown to reduce caregiver depression (Burns & Iliffe, 2009). The caregiving community is a crucial element of a well-functioning society. By increasing caregiver support efforts, encouraging education and counseling for informal caregivers, and working to better understand how individual differences relate to caregiving outcomes, the community can work as a whole toward its improvement.

Caregiver burden, which is strongly correlated with filial obligation (Cicirelli, 1993), has been described as the overall effect of caregiving in the areas of physical, psychological, social, and financial demands (Pinquart & Sörensen, 2003). In particular, two conclusions of Pinquart and Sörensen's (2003) exhaustive meta-analysis of the caregiving literature are noteworthy here. First, because care recipient impairment has a strong positive correlation to caregiver burden

(Pinquart & Sörensen, 2003), it can be assumed that caregivers of people with dementia are dealing with noticeably high amounts of burden. Second, Pinquart and Sörensen (2003) found that caregiver depression correlates positively with cognitive impairment of demented adults. The danger here is that the accumulation of burden and depression will contribute to caregiver burn-out, resulting in transfer of the recipient to a residential long-term care. Unfortunately, relatively little is known about the relationship between depression and filial obligation among informal caregivers.

Yet another motivation for caregiving is caregiver attachment. Attachment theory states that children seek care from parental figures by displaying distinct attachment behaviors (Heard & Lake, 1997). However, this can be extended to adults through the concept of attachment style. Attachment style describes individual differences in tendencies to seek emotional support from a person with whom there is a shared attachment bond (Rholes & Simpson, 2004). These inclinations may be more avoidant, which is usually perceived as aloof and overly independent, or anxious, which may be described as insecure and overly dependent upon others. The healthy alternative here is secure attachment, which maintains low levels of both avoidance and anxiousness. What is of interest here is the fact that an acutely individualized trait, stemming mainly from past experiences, has serious implications on current and future relationships. This is extremely useful in examining caregiving relationships and the reasons adult children choose to provide for their parents, beyond the motivations of filial obligation. A study by Karantzas, Evans, and Foddy (2010) revealed that attachment avoidance is negatively associated with children's willingness to provide care, potentially leading to earlier transfer to long-term care facilities. It also concluded that attachment anxiety and filial obligation were positively correlated (Karantzas et al., 2010). Attachment style also influences caregiver preparedness in that individuals who possess anxious

attachment styles are less likely to prepare adequately for caregiving responsibilities, and more secure individuals have greater confidence in their preparations (Sörensen, Webster, & Roggman, 2002). With these contributions, it is clear that attachment style influences motivation to provide care and may influence the provision of care itself.

The unifying theoretical basis for the proposed research is that caregivers with different degrees of avoidant and anxious attachment styles will differ in their responses to their parents' long-term care needs. The hypotheses examined by this study are as follows: a higher degree of attachment anxiety will positively correlate with a greater sense of filial obligation, lower degrees of anxiety will associate with higher perceived control, and avoidance will be positively correlated with caregiver burden and greater depressive symptomatology, and negatively correlated with preparedness and perceived control.

METHODOLOGY

Participants

The sample for this study consisted of people who currently provide care for a parent who has either been diagnosed with dementia, or experienced cognitive impairment resulting from stroke. Recruitment took place via the online data collection tool, Mechanical Turk, which allows users from around the world to participate in surveys for monetary compensation. For this research, participation was limited to users within the United States.

The final sample included the grown children of late-life adults with diagnosed dementia or cognitive impairment after stroke. The participants in this study identified as the primary caregiver to the recipient, with the parent being at least 65 years of age. A total of 184 participants provided responses to the survey, and 150 of those participants provided valid and usable responses. The remaining 34 participants were excluded for A) having attempted to access the survey multiple times using varying responses to screening questions, or B) failing to respond correctly to any one of four validity items throughout the survey instrument.

Materials

Demographic information - Participants will be asked to provide basic demographic information. Among these are age, gender, race, educational background, occupational information, and caregiving history. The occupational information will be useful in determining any reduction of working hours or changes in employment status. Participants will indicate whether any such changes were a direct cause of caregiving priorities. They will also describe their caregiving responsibilities and how much time the role demands of them. Items indicating financial status and sleep habits will be included in order to determine whether the role produces strain on

caregiver finances and health. Finally, items indicating birth order and number of siblings will help to establish background for filial obligation and preparedness measures.

Attachment - In order to measure the degree to which participants experience anxious and avoidant attachment styles, we made use of a Revised Adult Attachment Scale (Collins, 1996). This measure consists of 18 items describing relationship qualities. Participants used a 5-point Likert scale to determine to what extent the statements are characteristic of them, 1 being “Not at all characteristic of me,” and 5 being “Very characteristic of me.” Scores calculated for each of three dimensions: close, depend, and anxiety; may range from 6 to 30, with higher scores indicating higher comfort with closeness (close dimension), sense that one can depend on others (depend dimension), and concern of abandonment (anxious dimension), respectively. In this study, attachment avoidance is indicated by low levels of the close and depend dimensions. Each of these sections has a Cronbach’s alpha of at least .78 (Collins, 1996).

Filial obligation - Caregiver’s degree of perceived filial obligation was assessed using Cicirelli’s (1993) Obligation Scale. This scale consists of seven items reflecting perceived obligation to assist in giving care for a parent. Each item possesses a 5-point Likert scale, 1 meaning “I strongly disagree,” and 5 meaning “I strongly agree.” Scores may range from 7 to 30, with a higher score indicating a greater sense of obligation to help. This scale maintains a Cronbach’s alpha between .71 and .73. Validity of this scale is suggested by moderate correlations (.62 and .52, respectively) with Seelbach and Sauer’s (1977) scale of Filial Expectancy, which measures filial responsibility expectations, and Cicirelli’s (1993) measurement of obligation motives among caregivers.

Perceived control - Perceived control refers to the amount of control one feels over a given challenging situation, and how likely he or she is to refrain from blaming the care recipient

for the outcome. This was measured using two versions of the Parent Attribution Test (PAT; Bugental, 2011). Half of the participants completed the PAT in its original form. The other half completed the PAT modified specifically to reflect relationships between the participant and the parent (See Appendix A). The PAT consists of two scenarios: a positive interaction and a negative interaction between a child and a caregiver. A questionnaire is provided for each scenario (6 and 12 items, respectively). Items consist of a factor to which one might attribute the outcome of the scenario (e.g. “what kind of mood you were in that day”). Each item has a 7-point Likert scale, allowing the participant to indicate the importance of the item to the hypothetical outcome, 1 being “Not at all important” and 7 being “Very important.” This measure has a test-retest reliability coefficient (r) of .61 (Bugental, 2011).

Caregiver burden - Burden in this population was measured using the Caregiver Burden Inventory (Novak & Guest, 1989). This measure consists of statements indicating burden in the constructs of time dependency, emotional health, development, social relationships, and physical health. Participants will rate the frequency of the statements describing their actual feelings for each of the 24 items on a 5-point Likert scale, ranging from 0 as “Never,” to 4 as “Nearly Always.” Scores can range from 0 to 96 with higher scores indicating a greater instance of burden. Novak and Guest (1989) found the internal consistency reliability of each of the constructs of this scale to be valued at or above .73.

Depressive symptomatology - The Center for Epidemiologic Studies - Depression (CES-D; Radloff, 1977) Scale is usually implemented for the self-reporting of depressive symptoms. This measure was used to determine how often over the course of the previous week participants experienced a multitude of feelings and behaviors, indicating lowered mood. The participants responded using a number for each item, indicating how many days during that week they

felt this way. Scores can range from a total of 0 days with symptoms, to 140, indicating the degree to which participants experienced each of the 20 items during each day of the week. Thus, a higher score indicates a higher instance of depressive symptomatology. Measures of internal consistency indicated that this measure has an alpha of .85 in the general population and .90 in the original patient sample (Radloff, 1977).

Preparedness - The Preparedness for Caregiving Scale (Zwicker, 2010) was utilized in order to measure how well prepared participants felt within the role of caregiver. The scale consists of 8 items, each presented with a 5-point Likert scale, ranging from 0 for “Not at all prepared” to 4 for “Very well prepared.” Scores may be as low as 0 and as high as 32, with higher scores indicating that the participant feels very well prepared as a provider of care to his or her parent in dealing with physical, emotional, and other essential needs. There is a 9th item in this scale requiring a written response, but it was excluded from the final survey. This measure has moderately high internal validity with reported alphas between .86 and .92 (Hudson & Hayman-White, 2006).

Procedure

The survey combined all aforementioned measures using the Qualtrics online survey software tool, in order of sensitivity. Potential participants were recruited via a research advertisement, including a brief description of the research goals on the Mechanical Turk (MTurk) website. Participation began a link to the survey on the Qualtrics website and ended with a validation code which would identify participants as having earned compensation through the MTurk system.

Before commencing the survey, each participant completed a screening page in order to determine their relationship to the care recipient and whether they met the participant-criteria of

the study. After confirming these necessary items, qualifying participants indicated their informed consent before being led to the first page of the survey and proceeding through the study. In the event that a participant did not meet the necessary criteria, they were led to a separate page indicating that their participation is appreciated, but not needed at this time. Completion of this survey required no more than one hour of the participant's time, and participants using the MTurk website were compensated in the amount of \$1.00, upon completion of the survey. This amount can be considered high for MTurk standards, but was used because of the lengthiness of the survey. This data collection took place over the course of four days.

Once the planned data collection had been achieved, it was examined using SPSS statistics analysis software. The primary statistical procedure utilized in the proposed thesis was correlational analyses. It was expected that this process, as well as obtaining descriptive statistics, would facilitate examination of the stated hypotheses. Specifically, the first hypotheses to be examined were a positive correlation between anxious attachment and filial obligation, caregiver burden, and depressive symptomatology. Secondly, negative correlations were anticipated between anxious and avoidant attachment dimensions and degree of perceived control. Finally, we expected that those with high avoidance, as well as those with high anxiousness, would lack in preparedness.

RESULTS

As seen in Table 1, the average participant in this sample was 37.1 years old ($SD = 11.3$; See Appendix B). The sample was predominantly female (65.3%), White or Caucasian (78.7%), and currently uninvolved in caregiver support groups (78.7%). Interestingly, reported income ranges were roughly consistent with census figures representing the United States population (U.S. Census Bureau, 2014). Means and standard deviations for key demographic variables are listed in Table 1.

The data collection and analysis resulted in several significant correlations. Caregiver burden was positively correlated with ADL ($r = .38, p < .001$) and IADL ($r = .38, p < .001$) disability, and depressive symptomatology ($r = .70, p < .001$). Burden was negatively associated with preparedness ($r = -.34, p < .001$). Preparedness was also negatively correlated with depressive symptomatology ($r = -.45, p < .001$), and positively correlated with filial obligation ($r = .17, p = .04$). The two healthy attachment dimensions, close attachment and depend attachment, were positively correlated ($r = .70, p < .001$). Close attachment was positively correlated with preparedness ($r = .42, p < .001$) and filial obligation ($r = .30, p < .001$), and negatively correlated with depressive symptomatology ($r = -.52, p = .001$), burden ($r = -.45, p < .001$), and anxious attachment ($r = -.63, p < .001$). In agreement with our final hypothesis, depend attachment was positively associated with preparedness ($r = .34, p < .001$), while it was negatively correlated with depressive symptomatology ($r = -.51, p < .001$), burden ($r = -.50, p < .001$), and anxious attachment ($r = -.61, p < .001$). In agreement with our first hypothesis, results showed that anxious attachment was positively correlated with caregiver burden ($r = .45, p < .001$) and depressive symptomatology ($r = .63, p < .001$), and negatively correlated with caregiver age ($r = -.23, p = .01$). Anxious attachment was negatively correlated with preparedness ($r = -.35, p < .001$). Filial

obligation was positively associated with caregiver age ($r = .24, p = .003$). The results of the correlational analysis are listed in Table 2.

Scores on the PAT were positively correlated with perception of filial obligation ($r = .38, p = .001$) and caregiver age ($r = .29, p = .01$). We did not find support for our second hypothesis that perceived control would negatively correlate with anxious and avoidant attachment dimensions. By contrast, scores on the mPAT were positively correlated with close attachment ($r = .27, p = .02$) and depend attachment ($r = .25, p = .03$), and negatively correlated with anxious attachment ($r = -.25, p = .03$) and depressive symptomatology ($r = -.22, p = .05$). The results of the correlational analyses between the PAT and mPAT and key variables are listed in Table 3.

DISCUSSION

The data collection and analysis revealed support for several of the proposed hypotheses. The prominent findings were that both anxious and avoidant attachment are positively correlated with both caregiver burden and depressive symptomatology, with close and depend attachment dimensions representing low avoidance. These associations are evidence of individual characteristics having a significant association with negative perceptions of the caregiving experience. In a recent study by Vilchinsky, Dekel, Revenson, Liberman, and Mosseri (2014), it was established that caregivers with a higher degree of anxious attachment are focused on their own worries of abandonment and, as a result, are less able to cope with the burden that accompanies informal caregiving. Therefore, these caregivers are most likely to suffer from depressive symptoms along with that burden. Caregiver preparedness was positively associated with both close and depend attachment dimensions, and negatively correlated with anxious attachment. This finding supports the previously referenced study by Sörensen et al., which found those with anxious attachment styles less prepared for the caregiving role (2002). Another recent finding by Vilchinsky et al., is that the extremely stressful nature of caregiving may make it difficult even for avoidant providers to stay emotionally detached, and that avoidant attachment may therefore yield no protection from negative effects of caregiving, like burden and depression (2014). This conclusion is logical and is consistent with our findings, but further research must be done on avoidant attachment in emotionally charged situations. Indeed, better understanding the relationship of attachment style and caregiving may fundamentally alter our perceptions of the relationship between caregiving and attachment style.

Despite support for these findings, several hypotheses were not supported. In particular, it was hypothesized that anxious attachment and filial obligation would positively correlate.

Remarkably, this correlation was significant but negative instead, which opposes the study referenced by Karantzas et al. (2010). The new finding suggests that those who experience a higher degree of anxious attachment are concerned with their own abandonment, but do not necessarily feel obligated to provide care for their aging parents. Furthermore, our finding that the depend and anxious attachment dimensions were negatively correlated suggests that anxiously attached caregivers may feel they cannot depend on others. It would be interesting and clinically informative to further examine the relationship between the caregiver's accountability in providing care and their perception that others cannot be accountable. Given these contradictory findings, replication of these results is indicated. Finally, when perceived control was measured using the original PAT, no significant correlations with attachment dimensions were identified. However, scores on the mPAT significantly correlated with all three attachment dimensions (positively with close and depend attachment dimensions, and negatively with anxious attachment) and depressive symptomatology in this sample of caregivers, suggesting that this revised tool may be of particular utility when studying caregiving relationships.

While little previous research had been done using the PAT to examine attachment and perceived control, the results of this study show that the mPAT has potential within caregiving research. As hypothesized, perceived control associated positively with the close and depend attachment dimensions (and therefore negatively with avoidant attachment), and negatively with anxious attachment. However, given the differences in results between the PAT and the mPAT, it is unclear whether the mPAT can be considered valid at this stage. Ideally, future studies will have similar outcomes with this measure. It is possible that, given that each of the participants

provided for a parent but not necessarily a child, the mPAT was simply better suited to this sample.

Interestingly, several results were inconsistent with previous findings. For instance, contrary to Cicirelli's study (1993), filial obligation had no significant positive association with caregiver burden in this sample. However, in an earlier study by Cicirelli (1983), a negative correlation between obligation and burden was revealed. It is apparent, therefore, that the relationship between filial obligation and caregiver burden is fickle, and should be studied further to draw conclusions as to why. Also, the positive association between anxious attachment and filial obligation found by Karantzas, Evans, and Foddy in one study (2010) was not found in this analysis. Contrarily, the correlation was significantly negative. Despite these discrepancies, the main finding of the current research is an important one: individual characteristics of the caregiver have a significant relationship with their experiences of depression and burden. These variables directly influence the quality of care provided to the recipient. Therefore individual characteristics, such as attachment style, should be taken into account when evaluating the current systems of support and educational resources available to caregivers, as well as the movement towards a team-based care system for recipients, which allows communication between their informal caregivers and necessary healthcare professionals.

One possible limitation of the study is the use of financial incentives for participation. Those who did not necessarily meet criteria may have benefited from completing the survey, should they give dishonest answers during the screening portion. We attempted to maintain the integrity of the study by including several validity-based items throughout the survey. It is understood that participants who are attentive in completing the study would answer them correctly. If a participant failed to answer any of these accurately, their results were not included in the

final sample. This strategy is consistent with other commonly-used data collection procedures in the social sciences (Millton, Millton, Davis, & Grossman, 2009).

Yet another possible limitation of the study is that the sample was limited to those participants who were able to use a computer and the internet effectively. The sample was fairly highly educated, which is apparent not only by the gathered educational background information, but also by their ability to take surveys online and consistently participate in the Mturk system. Therefore, while we were able to achieve a diverse sample demographically, this sample may underrepresent caregivers with less education.

There is a general lack of agreement between various studies as to which factors influence transitions to long term care. As our study reveals, caregiver attachment style is associated with variable perceptions of the caregiving experience, and may indirectly influence the decision to make this transition. However, collaboration between the psychology and healthcare fields would be extremely useful in future research, as it could provide a thorough explanation of the nature of these different factors and which are most influential, supplementing current studies in both fields.

APPENDIX A: MODIFIED PARENT ATTRIBUTION TEST

- c. How much the recipient enjoys being around caregivers. 1 2 3 4 5 6 7
- d. How pleasant a disposition the recipient had. 1 2 3 4 5 6 7
- e. How well the day was set up in advance. 1 2 3 4 5 6 7
- f. Whether the recipient was rested. 1 2 3 4 5 6 7

The next question asks you about BAD experiences with the care recipient. Reasons for good interactions are not necessarily the same as those for unsuccessful ones. So please think about this situation without regard for the way you answered the first question.

2. SUPPOSE YOU TOOK CARE OF YOUR PARENT ONE AFTERNOON, AND THE TWO OF YOU DID NOT GET ALONG WELL. HOW IMPORTANT DO YOU BELIEVE THE FOLLOWING FACTORS WOULD BE AS POSSIBLE REASONS FOR SUCH AN EXPERIENCE?

- a. How unpleasant a disposition the recipient had. 1 2 3 4 5 6 7
- b. Whether the recipient was tired or not feeling well. 1 2 3 4 5 6 7
- c. Whether you really enjoy the recipient's company that much. 1 2 3 4 5 6 7
- d. Whether or not this was a bad day for the recipient, e.g., whether it was raining and he or she couldn't spend time outdoors. 1 2 3 4 5 6 7
- e. Whether you used the wrong approach. 1 2 3 4 5 6 7
- f. The extent to which the recipient was stubborn and resisted your efforts. 1 2 3 4 5 6 7
- g. How you get along with the recipient in general. 1 2 3 4 5 6 7

- h. What kind of mood you were in that day. 1 2 3 4 5 6 7
- i. How physically uncomfortable your parent was. 1 2 3 4 5 6 7
- j. How little effort the recipient made to take an
interest in what you said or did. 1 2 3 4 5 6 7
- k. The extent to which you were not feeling well
that day. 1 2 3 4 5 6 7
- l. Whether or not this was a bad day for you in
general. 1 2 3 4 5 6 7

APPENDIX B: TABLES

Table 1 – Descriptive data for the sample and key variables

	Mean (SD) or %
Age	37.1 (11.3)
% Female	65.3%
Education	
High school graduate or GED recipient	12.0%
Some College	32.0%
Associate's Degree	16.7%
Bachelor's Degree	32.7%
Higher Degree (Master's or Doctorate)	6.7%
Income	
\$0-25,000	19.3%
\$26-50,000	42.7%
\$51-75,000	23.3%
\$76-100,000	10.7%
>\$100,000	4.0%
Race	
White or Caucasian	78.7%
Black or African American	10.0%
Latino/a or Hispanic	4.0%
Pacific Islander or Hawaiian	0.7%
Asian	2.7%
Native American or Alaskan Native	2.0%
Multiracial or Other	2.0%
% Currently in caregiver support groups	21.3%
ADLs	15.1 (5.6)
IADLs	5.4 (2.3)
CESD	21.2 (13.4)
CG Burden	23.5 (13.5)
CG Preparedness	19.0 (6.1)
Attachment - Close	3.4 (.9)
Attachment - Dependent	2.9 (.9)
Attachment - Anxiety	2.4 (1.1)
Filial Obligation	30.0 (4.6)
PAT Score	1.5 (3.9)
mPAT Score	1.7 (5.2)

Table 2 – Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11
1. Age	1.00										
2. Gender	.24**	1.00									
3. ADL	.09	.02	1.00								
4. IADL	.00	.18*	.38**	1.00							
5. CESD	-.13	.06	.38**	.32**	1.00						
6. CG Burden	-.03	.13	.38**	.38**	.70**	1.00					
7. Preparedness	.05	.01	-.17*	.02	-.45**	-.34**	1.00				
8. Att. Close	.12	.06	-.19*	.01	-.52**	-.45**	.42**	1.00			
9. Att. Depend	.05	-.03	-.14	-.02	-.51**	-.50**	.34**	.70**	1.00		
10. Att. Anxious	-.23**	-.01	.15	.01	.63**	.45**	-.35**	-.63**	-.61**	1.00	
11. Obligation	.24**	.15	.10	.14	-.12	-.05	.17*	.30**	.08	-.27**	1.00

2-tailed.

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Table 3 – Correlations of the PAT and mPAT with key variables of interest

	PAT	mPAT
Age	.29*	.04
Gender	.27*	.04
Education	-.16	-.10
Income	-.12	-.06
ADLs	-.01	-.07
IADLs	-.83	.02
CESD	-.19	-.22*
CG Burden	.09	-.13
CG Preparedness	.13	.20
Attachment - Close	.12	.27*
Attachment - Depend	-.09	.25*
Attachment - Anxious	-.18	-.25*
Filial Obligation	.38**	.07

2-tailed.

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

REFERENCES

- AARP Public Policy Institute. (2011). *Valuing the invaluable: 2011 update - The growing contributions and costs of family caregiving*. Washington, DC: Feinberg, L., Reinhard, S. C., Houser, A., & Choula, R.
- Bugental, D. (2011). *Parent attribution test*. Retrieved from <http://labs.psych.ucsb.edu/bugental/daphne/PARENT%20ATTRIBUTION%20TEST.manual.2011.pdf>
- Burns, A., & Iliffe, S. (2009). Dementia. *BMJ*, *338*, 405-409. doi:10.1136/bmj.b75
- Cicirelli, V. G. (1983). Adult children's attachment and helping behavior to elderly parents: A path model. *Journal of Marriage and the Family*, *45*, 815– 822.
- Cicirelli, V. G. (1993). Attachment and obligation as daughters' motives for caregiving behavior and subsequent effect on subjective burden. *Psychology and Aging*, *8*, 144-155.
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, *71*, 810-832.
- Heard, D., & Lake, B. (1997). *The challenge of attachment for caregiving*. London: Routledge.
- Hudson, P. L., & Hayman-White, K. (2006). Measuring the psychosocial characteristics of family caregivers of palliative care patients: Psychometric properties of nine self-report instruments. *Journal of Pain and Symptom Management*, *31*(3), 215–228.
- Karantzas G. C., Evans L., & Foddy, M. (2010). The role of attachment in current and future parent caregiving. *Journal of Gerontology: Psychological Sciences*, *65B*(5), 573-580. doi:10.1093/geronb/gbq047

- MacNeil, G., Kosberg, J. I., Durkin, D. W., Dooley, W. K., DeCoster, J., & Williamson, G. M. (2010). Caregiver mental health and potentially harmful caregiving behavior: The central role of caregiver anger. *The Gerontologist, 50*(1), 76-86. doi:10.1093/geront/gnp099
- Millon, T.; Millon, C.; Davis, R.; Grossman, S. (2009). *MCMII-III Manual* (Fourth ed.). Minneapolis, MN: Pearson Education, Inc.
- Novak, M., & Guest, C. (1989). Application of a multidimensional caregiver burden inventory. *The Gerontologist, 29*(6), 798-803.
- Paulson, D., & Lichtenberg, P. A. (2011). Effect of caregiver family status on care recipient symptom severity and caregiver stress at nursing home intake. *Clinical Gerontologist, 32*(2), 132-143. doi:10.1080/07317115.2011.539518
- Pinquart, M., & Sörensen, S. (2003). Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: A meta-analysis. *Journal of Gerontology: Psychological Sciences, 58B*(2), 112-128.
- Radloff, L. S. (1977). *The CES-D scale: A self-report depression scale for research in the general population* (NIMH Publication No. 01-03). West Publishing Co.
- Simpson, J. A., & Rholes, W. S. (1998). *Attachment theory and close relationships*. New York: The Guilford Press.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Walter de Gruyter, Inc.
- Seelbach, W., & Sauer, W. (1977). Filial responsibility expectations and morale among aged parents. *The Gerontologist, 17*, 421-425.

- Sörensen, S., Webster, J. D., & Roggman, L. A. (2002). Adult attachment and preparing to provide care for older relatives. *Attachment & Human Development*, 4(1), 84-106. doi: 10.1080/14616730210123102
- Stephens, M. A. P., Franks, M. M., & Townsend, A. L. (1994). Stress and rewards in women's multiple roles: The case of women in the middle. *Psychology and Aging*, 9(1), 45-52.
- U.S. Census Bureau (2014). Income and poverty in the United States: 2013. Retrieved from [http://www.census.gov/content/dam/Census/library/publications/2014/demo/p60-249.pdf].
- Vilchinsky, N., Dekel, R., Revenson, T. A., Liberman, G., & Mosseri, M. (2014, August 11). Caregivers' burden and depressive symptoms: The moderational role of attachment orientations. *Health Psychology*. Retrieved from [http://dx.doi.org/10.1037/hea0000121]
- Zwicker, D. (2010). Preparedness for Caregiving Scale. *Try This: Best Practices in Nursing Care to Older Adults*, 1(28).