The Gendered Health Effect of Intimate Task Performance on Spousal Caregivers

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Thesis submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Science
In
Sociology

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May 1, 2023

Blacksburg, Virginia

Keywords: spousal caregiving, stress, health, Alzheimer's disease, incontinence, bodily autonomy, gender

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Abstract

Caregiving research on heterosexual couples suggests that though husbands and wives generally perform the same care tasks for their spouses, wives report higher levels of mental stress, depression, and general frustration (Swinkles et al., 2017; Polenick & DePasquale 2019). Caregiving literature is unclear on why a gender difference exists regarding stress or burden when husbands and wives are largely performing the same tasks. Using gender relations theory, this study considers whether the performance of intimate tasks create different levels of emotional stress and overall health outcomes for older, heterosexual husbands and wives caring for a spouse with Alzheimer's or related dementias. Intimate tasks (ITs) refer to tasks that likely infringe on the bodily autonomy of the care receiver and include dealing with incontinence and assisting with bathing/showering. To explore this, I conducted logistic regressions using the 2015 and 2020 "Caregiving in the U.S." surveys from the AARP. My results showed IT performance has a negative effect on the stress and overall health of both husbands and wives, but comparatively there is no consistent gender difference in effect. Additional analysis found that when separating the Its, dealing with incontinence had a more negative effect on emotional stress while assisting with bathing/showering had a more negative effect on health outcomes.

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General Audience Abstract

Older spousal caregivers are responsible for completing many different tasks to properly care for their spouse. Husbands and wives typically approach completing these tasks in different ways. Husbands tend to focus strictly on completing the care tasks, while wives tend to additionally factor in their husband's emotions. Care tasks can include things such as managing medications, taking over household chores, or more intimate tasks like dealing with urinary and bowel movements or assisting with bathing. This study considers whether there is a gender difference in the effect of intimate task performance between older caregivers that care for a spouse with Alzheimer's disease or dementia. My findings show that completing these intimate tasks negatively affects husbands and wives' emotional stress levels and overall health. When separating the two intimate tasks, dealing with urinary and bowel movements were more likely to affect levels of emotional stress. Alternatively, assisting with bathing or showering was more likely to affect overall health.

Acknowledgements

I would like to thank my committee chair, Dr. Calasanti for her consistent encouragement and academic guidance throughout the entire process of this thesis. She has been an incredible chair and advisor over my two years of graduate school. I would also like to thank Dr. Zhu and Dr. King for their valuable advice and support. Thank you and congratulations to my cohort -- I wish you all the best! I would like to especially thank Thomas Miller and Taylor McElwain for keeping me sane and always making me laugh after a long day. Finally, I would like to thank my immediate and extended family, friends, and David for cheering me on every single day. I love you all! I dedicate this thesis to my grandma, who is not here to read this, but would be very proud.

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Chapter 1: Literature Review

Spousal Caregiving

Caregiving is demanding work that requires caregivers to complete many kinds of tasks for the care receiver. This work can be even more difficult if the care receiver has Alzheimer's disease or dementia, as this condition presents behavioral issues as well as the need for physical care (Sheehan et al., 2021). Informal caregivers (untrained, nonprofessional caregivers), play a significant role in providing care for the older adult population and often care for long periods of time (Chen et al., 2015). They commonly find themselves responsible for completing ADL tasks (activities of daily living) and IADL tasks (instrumental activities of daily living). The former includes helping the care recipient with bathing, toileting, eating, and similar personal care tasks. The latter includes helping the care recipient with transportation, finances, laundry, and other tasks needed to maintain independence (AARP 2020). On average, spouses perform five more IADLs than non-spousal caregivers, which is comparatively higher than all other caregivers. Additionally, spousal caregivers also find themselves in a higher-intensity caregiving category than any other caregiver group (AARP 2020).

Given established marital norms, spouses are the preferred caregiver of choice of both caregivers and care receivers (Calasanti & Bowen 2006). Statistically, ninety-one percent of informal spousal caregivers are the primary caregiver for their partner (AARP 2020). Spouses tend to provide care for their spouses for various reasons including love, duty, marital bond, or necessity (Rykkje & Tranvåg 2019). Further, the reasons husbands and wives say that they provide care tend to be more similar than different. For example, married men and women both report that their caregiving emerges from their feelings of love, reciprocity, and marital commitment (Calasanti 2006). Though both men and women view women as natural caregivers,

an equal amount of research suggests that husbands and wives provide the same amount and type of care for their spouses (Sharma et al., 2016).

Due to the nature of the relationship, spousal caregivers are likely to live in the same household as the care recipient (AARP 2020). Partly due to the direct proximity and the duty to care for one another, spousal caregivers provide 35.3 hours a week for their partner. This is higher than any other caregiving relationship, with the next closest being 20.9 hours a week when caring for a parent or a parent-in-law (AARP 2020). From work hours alone, spousal caregiving can take a great toll on husbands and wives both physically and emotionally. The demanding work can also create significant financial strain for some couples or families, especially if a spouse were forced to leave the workforce to provide care (AARP 2020). But more so, given that most spousal caregivers are older and thus already out of the labor market, living on the limited income that often accompanies retirement reduces the options one has for respite, and thus finances can be strained (Greenfield et al., 2018).

Caring for Spouses with Alzheimer's Disease

Dementia is an overarching category that indicates a decline in cognitive ability that affects one's ability to perform daily activities of life. Alzheimer's disease (AD) is the most common type of dementia (Kumar et al., 2018), though it is relatively rare on its own and is typically found in conjunction with other dementias (Alzheimer's Association 2022). The disease is incurable and attacks one's cognitive functions, including language, logic, reasoning, judgment, comprehension, and memory (AA 2022). The decline in these cognitive functions can also lead to drastic behavioral changes, including an inability to perform motor tasks, activities of daily activities, and engage in social interactions (Kumar et al., 2018). Early stages of Alzheimer's disease begin with slight to severe memory issues, and by the final stages of

Alzheimer's disease, patients can be entirely dependent on their caregiver for most of their daily activities (Andreakou et al., 2016).

Caring for a spouse with Alzheimer's is strenuous work (Vellone et al., 2008). The decline in cognitive and subsequent behavioral functions often causes those with AD to struggle with both ADLs and IADLs, which requires more caregiving time than is necessary for non-AD care receivers (Karg et al., 2018). The intense care work that is required for those with AD creates high amounts of stress, frustration, and fatigue, as well as poor physical and emotional health for the caregiving individual and family, regardless of their gender (Llanque et al., 2016). Sheehan et al. (2021) determined that caregivers for dementia patients experience more caregiving stressors and perform more care tasks than caregivers for non-dementia patients. Another study found that caregivers for AD patients suffer from higher levels of cognitive decline due to care stress than non-AD caregivers (Dassel et al., 2017). Caregivers of those with dementia were found more likely to suffer from higher amounts of caregiver burden and lower levels of quality of life (Brodaty 2009). Additionally, caregivers of family members with AD were found unsatisfied with both the quantity and quality of the formal support available to them (Raivio et al., 2007).

Gender Division of Tasks and Housework

Both men and women commonly find themselves responsible for ADL tasks and IADL tasks in addition to household labor (AARP 2020). Household labor is conceptualized as unpaid tasks performed to satisfy the needs of family members or to maintain the home and family possessions (Lachance-Grzela & Bouchard 2010). Gendered housework labor is important to consider when conceptualizing the daily work of informal spousal caregivers. Previous research has divided household tasks into two groups: routine tasks and intermittent tasks. The former

refers to ongoing and time-consuming tasks, such as laundry, cooking, or cleaning up after meals; tasks that can be completed but are never truly finished. The latter refers to tasks that are done on occasion and are more flexible, such as household repairs, car maintenance, and yard work. These intermittent tasks are non-routine and are completed on a need-be basis (Batalova & Cohen 2002; Bartley et al., 2005). Normative gender ideologies shape the domestic tasks that men and women typically find themselves most commonly performing within the household. Literature on the division of household labor finds that routine tasks are more often completed by women, while intermittent tasks have been classified as masculine, and more often completed by men (Batolova & Cohen 2002; Bartley et al., 2005; Kan et al., 2011).

West and Zimmerman (1987) define gender as both an outcome of various social arrangements that legitimate a fundamental division in society. They also argue that while doing gender is unavoidable, individuals may instead be able to *redo* gender in order to create new interactions where people are able to do gender in ways that extend outside of their assigned gender roles (West & Zimmerman 1987, 2009). However, while redoing gender is possible, it is not the norm. Kan et al (2011) determined that while trends in paid and unpaid work overtime show a slow convergence of women's and men's work patterns, women still do the bulk of routine housework and family care, while men have disproportionately increased their contributions to non-routine domestic work. Specifically, men have increased the amount of domestic work they perform (Kan et al., 2011) and contribute more time to childcare, though the bulk of their domestic work is spent on less routine types of chores such as DIY tasks and shopping (Coltrane 2009; Kan et al., 2011). Women on the other hand, remain largely in charge of routine domestic and housework, particularly cleaning, cooking, and laundry (Kan et al., 2011). Though the gap is slowly closing, ultimately the gender division of domestic labor

generally remains consistent. Sayer (2005) finds an emergent gender gap in leisure time, particularly to men's advantage.

Gender and Spousal Caregiving

Caregiving literature focuses a great deal on the gendered similarities and differences of the care process and experience. Due to their longer life expectancies, women are more likely to provide spousal care than men (Markson & Hollis-Sawyer 2000; Xiong et al., 2020). In addition to performing the same kinds of tasks, men and women generally provide the same quality of care as well (Langner & Furstenberg 2020). However, when it comes to developing caregiving approaches or strategies for completing care tasks, men and women have been found to do so in similar but also different ways, producing different caregiving experiences (Arbel et al., 2019). Men have been found to adopt a managerial strategy when it comes to completing tasks, meaning their idea of success depends on whether they have mastered a care task (Yee & Schulz 2000; Calasanti 2006; Ludwig 2007; Robinson et al., 2014). Meanwhile, women adopt a more holistic approach to caregiving tasks. They approach tasks more empathetically, completing tasks while also prioritizing the well-being and autonomy of their spouse throughout the care process (Calasanti 2006). Due to their gendered caregiving approaches, there is an added layer of emotion work that wives often must navigate that husbands do not (Thomer et al., 2015). Wives perform emotion work even when they themselves are sick, whereas husbands tend to either view emotion work as unnecessary or fail to perform emotion work successfully (Thomer et al., 2015). Women's holistic caregiving strategy wherein they seek to address the "whole person," in conjunction with emotion work, may contribute to women's higher levels of stress and guilt when caring for family members with AD (Xiong et al., 2020).

Caregiving burden includes feelings of extreme stress, frustration, guilt, depression, anxiety, or physical strain (Macguire et al., 2016; Swinkels et al., 2018). Past research largely finds that women, particularly wives, suffer more negative effects of caregiving, such as stress, depression, frustration, or guilt, than men/husbands (Poysti et al. 2012; Pennig & Wu 2015; Swinkels et al., 2018). That is not to say that men do not experience caregiver burden or stressors. Though in fewer amounts than women, men experience caregiver burden as well, particularly in the form of emotional and financial stress (Swinkels et al., 2019; Lopez-Anuarbe & Kohli 2019). Past research has also found that male caregivers tend to have less access to forms of social support, a factor that increases caregiver burden (Lopez-Anuarbe & Kohli 2019). It is necessary to note that female caregivers are over-reported in comparison to male caregivers; a bias that may actively affect reported patterns in spousal caregiving research (Greenwood & Smith 2015).

Gender relations and the gender division of labor play an important role in understanding the different kinds of approaches that husbands and wives adopt (Calasanti 2010). To explain these differences, scholars have turned to feminist theories of gender relations. Specifically, Calasanti (2010) argues that men's and women's approaches to care are embedded in their own gender identities, therefore, they develop different strategies and experience care differently. The gender division of labor influences gender repertoires, that is, men's and women's identities, skills, and resources. Thus, it prepares men and women to be more familiar with performing certain tasks for their spouses. Men and women behave in ways that reflect and reinforce these identities and draw on their skills and resources accordingly (Campbell & Martin-Matthews 2003). For example, wives identified their work as caregivers as an extension of their typical gender labor work, meaning that much of their caregiving tasks aligned with the work they were

performing at home and for their spouse prior to any diagnosis (Calasanti 2006). Because the gender division of labor influences the care strategies that men and women develop, it is worth examining the intricacies of the caregiving process that may result in varied caregiving outcomes.

Gender and Intimate Tasks

As previously stated, caregiving tasks are broken down into ADL and IADL tasks which are performed by both men and women. Sheehan et al. (2021) identified both ADL and IADL tasks as major caregiving stressors. Certain ADL tasks are unique in the fact that they require forms of assistance that may infringe on the bodily autonomy of the care recipient and are more personal in nature. Specifically, I find that the tasks of dealing with incontinence and assisting with bathing/showering are the more likely tasks to infringe on the bodily autonomy of a care recipient. Incontinence is a fairly common problem for older adults that caregivers must assist with (Cassells & Watt 2003). Though the fact that it is common does not make it any less difficult of a task to manage. Preliminary qualitative evidence suggests that wives in particular identified dealing with incontinence as a major issue in their relationship with their spouse, as well as a major source of frustration and stress (Calasanti 2006). While husbands did not enjoy such tasks, their problem-oriented approach allowed them to view the work as something that simply needed to get done, rather than a major relational or emotional roadblock (Calasanti 2006).

Bowel movements, toileting, bathing, and showering are all tasks that are completed on one's own for the large majority of an able-bodied person's life. The sudden dependency on a spouse for completing such tasks turn those private tasks into a semi-public task out of necessity. Control over own's own body is stripped from the care receiver, and the caregiver is in turn

handed power over their spouse's bodily autonomy, whether they like it or not. Thus, the definition of an intimate task does not only include bodily autonomy, but it also acknowledges the change from a personal, private task to a public task.

Previous research also indicates that this difference in perception of the same toileting tasks may be due to women's tendency to grieve the relationship more than the husband (Rose & Bruce 1995; Calasanti 2006). The sudden dependency on a spouse for such imperative personal care tasks shifts the power dynamics within the relationship, as well as decreases intimacy between husband and wife (Cassells & Watt 2003). Given gender relations in traditional heterosexual marriages, the loss of bodily autonomy symbolized a larger downward shift in status when the husband required toileting assistance; it signaled the loss of their husbands as partners and of the marital relationship as it had existed (Calasanti 2006). Therefore, the performance of a care task that alters the bodily autonomy of the care recipient would be more likely to cause more stress for wives who care for their husbands than husbands who care for their wives.

While there is preliminary evidence that suggests that dealing with incontinence negatively affects wives' stress levels, there is little to no evidence that this is true for assistance with bathing/showering. Notably, caregiver literature does suggest that men are more willing to use coercive measures to get this done than women, given the latter's tendency to not want to take away autonomy (Calasanti and King, 2007). While this finding does not claim that bathing/showering assistance is identified as a stressor by caregivers, it does imply that there is an effect on the bodily privacy and autonomy of the care receiver when the task must be performed. Therefore, the task of bathing assistance falls under the category of intimate tasks, while also creating potential avenues for gendered caregiving experiences.

For the purpose of this study, tasks that infringe on the bodily autonomy of a care recipient are referred to as "intimate tasks" or "ITs" for short. Assessing the nature of both IADL and ADL tasks, two fulfill this qualification: dealing with incontinence/toileting and assisting with bathing/showering. As previously stated, there is preliminary qualitative evidence that suggests toileting tasks are experienced very differently by wives and husbands. However, the research did not determine the effect that bathing and showering assistance had on husbands' and wives' experiences of caregiving or levels of stress. Nonetheless, the nature of both tasks reflects potential changes in bodily autonomy, shifting the control that a care receiver has over their own body when they still maintain the individual power to care for themselves.

Health Effects of Spousal Caregiving

High feelings of burden and stress, as well as physical complications, are common for caregivers (Oldenkamp et al., 2016). Despite the reported negative effects of spousal caregiving, spouses did not regret their choice to provide care for their partner and preferred doing so over sending them to a care institution, which speaks to the marital bond as a strong care motivation (Calasanti 2006). M. Powell Lawton (1991) proposed that care can have a mixed-valence effect, where a caregiver can experience negative effects of caregiving while also feeling positively towards their decision to provide care for a family member. However, the majority of spousal caregivers note that their caregiving experience produced more negative than positive effects. Penning and Wu (2016) found that when comparing spousal caregiving to other forms of caregiving (parent-child, peer-peer, sibling-sibling, and other family members), that spousal caregiving was the most stressful.

A great deal of caregiving literature observing gendered health differences identifies that female caregivers report more negative mental health outcomes than male caregivers. For

instance, Schulz et al., (2003) found that wives reported lower life satisfaction levels when compared to husbands. Another study found that wives experienced more emotional difficulty and felt more overwhelmed by task overload and higher levels of perceived stress than husbands (Polenick & DePasquale 2019). Wives also suffer from higher levels of stress, depression, and anxiety derived from the caregiving experience than husbands (Kim et al., 2006; Pinquart & Duberstein 2005; Langer 2003). Li et al. (2012) found that beyond experiencing more mental health problems, wives also experienced lower physical health.

Although husbands do report distress while caregiving, they do so in lower amounts than wives (Kim et al., 2006). Yet, they are obviously not immune to the strenuous work of caregiving. Men caring for a spouse with dementia found it difficult to both see their wives suffer from the condition and to master certain care tasks, such as clothing or maintaining their wives' appearance (Rykkje & Tranvåg 2019). Husbands' reluctance to utilize their forms of social support hindered their experience of caregiving as their wives' condition worsened (Rykkje & Tranvåg 2019). Another study on mental health found that husbands often did not consider themselves ready to take over the predominantly female role of housework when caring for their wives. Yet, they still noted an overall feeling of satisfaction with the caregiving work that they had completed (Lopez-Hartmann et al., 2012). This finding dovetails with the notion that men find satisfaction in their abilities to complete caregiving tasks regardless of how prepared they feel. It also speaks to male caregivers' tendency to derive caregiver satisfaction through the completion of tasks themselves (Calasanti 2010).

Physical labor is a genuine obstacle for older adult caregivers, regardless of pre-existing conditions of their own (Bruhn & Rebach 2014; Queen et al., 2019). Not all caregiving tasks are physically laborious, but caregivers do experience levels of physical strain (AARP 2020).

Research has found a direct correlation between older adult caregivers and physical strain. The more hours of care that older adults provide for their spouses, the less leisure time they have available to them, which negatively affects their mental health while increasing their physical strain (Nieboer et al., 1998). Those who feel they do not have a choice in providing care, typically spousal caregivers, are more likely to report higher levels of physical strain from caregiving (AARP 2020). Because spousal caregivers are more likely than non-spousal caregivers to experience a chronic illness of their own while providing care, there are many physical obstacles to overcome while also juggling their spouse's needs (Navaie-Waliser et al., 2002; Polenick and DePasquale 2019). Spousal caregivers can often neglect their own physical needs while providing care, putting themselves at a higher risk for morbidity or mortality (Gallant & Connell 1997; Zivin & Christakis 2007). Wives in particular found that physical impairments prevented them from not only caring for themselves but negatively affected their ability to care for their spouse, specifically when it came to tasks that required a certain level of physical strength (Calasanti 2006). Many men suffer from heart problems, arthritis, and other chronic conditions that also hinder their ability to care for their wives (Calasanti 2006). Pre-existing physical conditions prior to the diagnosis of their spouse further intensify the physical and mental caregiving burden (Pinquart & Sorensen 2011; Polenick & DePasquale 2019).

The Present Study

The pathways from the care recipient's needs and caregiver's primary stressors to the overall caregiver burden are different for men and women because they do not experience caregiving in the same way. Stress is a major indicator of caregiver burden, which has been found to negatively impact caregiver health outcomes (Swinkels et al., 2019; Sheehan et al., 2021). Additionally, previous research has identified that while men and women may perform

the same care task, they experienced the task differently (Calasanti 2006). Specifically, more wives than husbands experienced negative emotional reactions to tasks that infringe on the bodily autonomy of their spouse. Toileting assistance and bathing assistance falls under the category of tasks that infringe on bodily autonomy, referred to in this study as intimate tasks, or ITs. Therefore, my research question is: does gender impact the effect of IT performance on 1) emotional stress and 2) overall health? To delve deeper into this main question, I have created the following sub-research questions:

1. Does IT performance affect the stress or health of wives who perform these tasks versus wives who do not? Due to preliminary research that found dealing with incontinence to be emotionally upsetting, I hypothesize that having to perform intimate tasks will negatively affect wives who perform these more than the general process of caregiving will for non-IT performing wives. Because emotional stress can influence physical health, I believe IT performance will negatively affect both measures.
2. Does IT performance affect the stress or health of husbands who perform these tasks versus husbands who do not? While husbands have been found to experience the negative effects of caregiving burden less than wives, I believe the personal nature of intimate tasks will negatively affect the stress levels and overall health of husbands who perform them.
3. Is there a difference in the way that IT performance affects the stress or health of husbands and wives comparatively? As previously stated, wives have been found to experience more caregiver burden than husbands. I assert that intimate task performance will compound this finding and wives who perform ITs will experience more stress and worse health than husbands that perform ITs.

Thus, my independent variable is IT performance, and my dependent variables are emotional stress and overall health outcomes. There are many factors that could potentially affect the relationship between my independent and dependent variables; therefore, it is necessary to control for several different variables. Previous quantitative studies on caregiving typically control for demographic variables, SES variables, the kinds/kinds/number of tasks performed, and other various care-related factors. In my study, I will test the following control variables: race, age, education, household income, hours of care, employment, the number of ADLs, the number of IADLs, and the experience of financial and physical strain. Rombough et al. (2012) found that hours of care, education, and income affect caregiving strain. Similarly, research has found that employment or unemployment is related to feelings of stress for caregivers (Sheehan et al., 2021). Older adults are likely to experience physical strain regardless of gender due to pre-existing conditions and/or from providing care (Capistrant 2016). The experience of physical strain is found to be linked to experienced emotional strain (Wang & Nguyen 2023); therefore, it is also necessary to control for both dependent variables. Race and age are controlled to account for different demographics within my sample, though largely my sample is above 50 years old and white.

Chapter 2: Data and Methods

Data

To address my research questions, I will be using the data from the 2015 and 2020 Caregiving in the U.S. data developed by the AARP and the National Alliance for Caregiving. The studies present the experiences of unpaid family caregivers in the United States. Since the first national profile was published in 1997, the study has been replicated in 2004, 2009, 2015, and 2020. The data is collected from quantitative both online and phone surveys of caregivers

over the age of 18 that care for adults only. The online surveys were conducted with a random sample using Ipsos' probability-based, online KnowledgePanel. To supplement the random sample, additional online surveys and phone interviews were conducted to even the racial distribution. The 2015 data were collected in the year of 2014, and the 2020 data were collected in 2019.

The datasets were merged for the purposes of this study to render a large enough sample of men and women who provide care for their spouse with Alzheimer's disease or related dementias. The two questionnaires are almost identical to one another, despite a trended question in the 2020 questionnaire which consists of an additional question on Alzheimer's or dementia condition. This variable was included to ensure that all care recipients that experienced dementia-related symptoms were included in the Alzheimer's category. When merging the data sets, the respondents that answered 'yes' to the trended 2020 Alzheimer's question were included in the sample as well. Therefore, my sample includes the total number of caregivers that reported caring for someone with Alzheimer's, related dementias, memory issues, or related mental confusion.

Measures

Dependent variables

Drawing upon stress process models, Sheehan et al. (2021) identified that the caregiving experience affects caregiver's appraisals of burden, including strain, care difficulty, and forms of distress. Because wives in previous studies have identified certain care tasks as emotionally upsetting, my first dependent variable is emotional stress. Emotional stress is examined by the question, "How emotionally stressful would you say that caring for your spouse is for you?" The response options were originally rated on a scale of 1-5 from not very stressful to very stressful.

However, given the response frequency distribution from my sample, emotional stress has been redefined as (0) low to moderate stress and (1) high stress.

Caregiver burden has a negative effect on the physical and emotional health of caregivers. Previous research has indicated that caregiving can negatively impact health (Oldenkamp et al., 2016; Sheehan et al., 2021). Thus, my second dependent variable is a general measure of health outcomes for husbands and wives. This is examined by the question, "How would you say caregiving has affected your health?" The original categories for this variable were (1) improved; (2) did not change; and (3) got worse. I am more interested in reports of worsened health outcomes due to caregiving, not in those who felt their health did not change or, in very rare cases, improved. Therefore, caregiver health outcomes are defined as (0) health has not worsened and (1) health has worsened.

Independent variables

Previous research has identified that the hours of care, the condition of the care recipient, and the overall caregiving experience are major stressors that affect caregiver burden (Swinkels et al., 2019; Sheehan et al., 2021). However, many other factors can affect the likelihood that a caregiver will experience forms of caregiver burden. For the purpose of my study, I am exploring whether ITs function as a factor in creating higher levels of emotional stress and worsened health for wives more than husbands. Therefore, my independent variable is the performance of ITs by spousal caregivers.

There are seven ADL tasks included in the data: (a) getting in and out of bed; (b) getting dressed; (c) getting to and from the toilet; (d) bathing and/or showering; (e) dealing with incontinence or [adult] diapers; and (f) feeding the care recipient. The ADL tasks categorized in this study as intimate tasks are (d) bathing and/or showering, and (e) dealing with incontinence

or [adult] diapers. Preliminary research (Calasanti 2006) found that wives identified dealing with incontinence as a source of stress. Further, research on husbands found that showering/bathing assistance was found to be sometimes problematic to perform but did not identify if this task was a source of stress or not. However, the extent to which husbands might have found this stressful, and whether this stress was greater or lesser than what wives experienced was not examined (Calasanti & King, 2007). Due to their infringement on bodily privacy, these tasks are labeled ITs in my study. The remaining ADL tasks do not fall under the category of ITs and are therefore excluded from my independent variable but are included in my control variable of non-intimate ADL tasks.

In order to examine the health effects that IT performance has on husbands and wives, I need to include the spouses that do not perform ITs. Thus, in my analysis I will include 1) wives that do not perform ITs; 2) wives that do perform ITs; 3) husbands that do not perform ITs; and 4) husbands that do perform ITs.

Control variables

Previous literature has identified many factors that can contribute to caregiver burden, and thus impact caregiver's health (Sheehan et al., 2021). Therefore, I will control for several variables: race, age, education, income, hours, employment, the number of IADLs performed, the number of ADLs performed, financial strain, and physical strain. As formerly mentioned, these variables were all found to affect levels of caregiver strain in some way (Rombough et al. 2012; Oldenkamp et al., 2016; Sheehan et al., 2021). Race and age are important demographics to control, though preliminary analysis reveals that my sample of older spousal caregivers largely consists of white caregivers. While the older caregivers in literature are typically aged 50 or older adults, I included one 48-year-old male in my sample to maintain a robust sample size.

Race is a crucial factor to consider when looking at caregiver experiences as the literature often finds that white caregivers report greater caregiving burden than members of minority racial and ethnic groups (Badana et al., 2019). Given the low racial variation in my sample, race is categorized into (0) non-white respondents and (1) white respondents to capture any racial differences in relation to my dependent variables. Caregivers of different ages have been found to experience caregiving differently (Nolen-Hoeksema & Ahrens 2002; Capistrant 2006; Carter et al., 2010). Age is a continuous variable and thus remains so in my study.

The remaining control variables in my study are categorical, but due to my smaller sample size, it was necessary to recode the categories into more appropriate groupings. The highest level of education received was divided into (0) those who attended high school and/or some college, compared to (1) those who graduated from college or graduate school. The number of IADLs was recoded to include (0) below half of the IADLs were performed and (1) half or more of the IADLs were performed. The number of ADLs was coded into the same categories. The employment variable remained a binary variable with (0) meaning caregivers were not employed during the time of care and (1) meaning caregivers were employed during the time of care.

Household income was recoded in several ways to test the effect of different categories. Originally, household income was a 6-category variable, but for the sake of analysis of my smaller sample I recoded household income into a 3-category variable: 1) less than $50,000; 2) between $50,000 and $99,999; and 3) $100,000 and above. Based on the unequal frequency distribution across the original categories, both financial and physical strain are categorized into (0) low to moderate strain and (1) high strain. The hours of provided care are categorized by (0) forty or fewer hours and (1) more than forty hours of care per week.

Analytic Strategy

I ran descriptive statistics to compare the characteristics of husbands and wives and the variables related to their caregiving experiences. Following the descriptive statistics, I ran bivariate and multivariate logistic regressions on the spousal group variable with the dependent variables. These tests are intended to determine the comparative relationship that IT performance has on husbands' and wives' stress and overall health when caring for a spouse. Including the spouses that do not perform ITs in my regressions allows me to compare the effect that IT performance has on both husbands and wives and comparatively between the two. The methods I have chosen are appropriate because they will allow me to predict the likelihood that IT performance predicts either emotional stress or worsened health outcomes.

Because there are many stressors that could potentially affect spousal health and burden, my control variables are controlled for in incremented groups. By limiting the control variables included in certain logistic regressions, I hope to better track the effect of each control variable on my smaller sample. After running initial regressions on my control variables, I found that employment and the number of ADLs/IADLs were never significantly related to either of my dependent variables. Thus, I did not include these variables in my final models. While race was also not significant in any logistic regressions, it was necessary to include it as a crucial general demographic measure, despite my lack of racial variation. The reason that these controls may not be significant may be in part due to my smaller sample size. Financial strain was not included in the models in my main tables (Tables 2 and 3), even though it was significantly related to the dependent variable. Caregivers who experienced high financial strain were likely to experience high emotional stress and worsened health (though the relationship was stronger when looking at

emotional stress). However, controlling for financial strain did not affect the strength or the significance of the spousal comparison groups, thus it was not included in an additional model.

Seven models were thus created using these different control variable groupings within the regression tables. Model 1 presents the simple bivariate output between one spousal group and another, prior to adding any controls. Model 2 controls for the demographic variables, race, and age. Model 3 controls for SES and demographic variables, education, income, race, and age. Model 4 adds the hours of caregiving variable to the demographic controls. Model 5 controls for all the previous control variables: race, age, education, income, and hours spent caregiving. Model 6 adds the physical strain variable to the previous control group. To summarize, Model 1 reports the bivariate analysis results; Models 2-6 report the multivariate analyses with the combinations of controls.

Chapter 3: Results

Table 1. *Descriptive Statistics for Older Adult Caregivers for Spouses with Alzheimer's and Related Dementias (n = 164)*

Variables	Husbands	Wives	p-value
N (%)	74 (45.13)	90 (54.87)	
IT-Performance *N (%)*			0.000**
Perform ITs	43 (58.11)	60 (66.67)	
Do not perform ITs	31 (41.89)	30 (33.34)	
Emotional Stress *N (%)*			0.000*
Low to moderate stress	47 (65.28)	32 (37.20)	
High stress	25 (34.72)	54 (62.80)	
Health Outcomes *N (%)*			0.000*
Did not worsen	54 (72.97)	49 (54.44)	
Worsened	20 (27.03)	41 (45.54)	
Race *N (%)*			0.005**
Non-white	5 (6.76)	24 (26.67)	
White	69 (93.24)	66 (73.33)	

Age of caregiver, *M (SD)*	78 (8.25).	75 (8.25)	0.008**
Education *N (%)*			0.003**
High school & some college	28 (37.84)	54 (60)	
College graduate/graduate school	46 (62.16)	36 (40)	
Household Income *N (%)*			0.243
Less than $50k	23 (31.08)	32 (35.56)	
50k to $99,999	28 (37.84)	34 (37.78)	
100k and over	23 (31.08)	24 (26.66)	
Caregiving Hours per Week *N (%)*			0.000*
40 hours or less	36 (48.65)	33 (36.67)	
41 hours or more	38 (51.35)	57 (63.33)	
Physical Strain *N (%)*			0.000***
Low to moderate strain	59 (79.73)	50 (55.55)	
High strain	15 (20.27)	40 (44.45)	
Employment *N (%)*			0.363
Yes	9 (12.16)	13 (14.77)	
No	65 (87.84)	75 (85.23)	
IADL task performance *N (%)*			0.507
Less than half of tasks	8 (10.81)	12 (13.33)	
Half or more of tasks	66 (89.19)	78 (86.67)	
ADL task performance *N (%)*			0.000***
Less than half of tasks	39 (52.70)	49 (54.44)	
Half or more of tasks	35 (47.30)	41 (45.56)	

+ p < .1 * p < .05 ** p < .01 *** p < .001
p-value from chi-square tests; the p-value for age is from a t test, because you used age as a continuous variable.

Table 1 presents the descriptive statistics for the independent, dependent, and control variables for my sample. The first column in the table identifies the variable in question, as well as its categories. The second and third columns present the variable frequencies and percentages of my spousal caregiver sample. The final column displays the chi-square p-values for the

relevant variables compared to the spousal group, which determines whether a significant relationship exists; a t-test was run for the ag variable. The first row of the table displays my sample population and percentage. The total sample of husbands and wives caring for a spouse with Alzheimer's or related dementias is 164, which consists of 74 husbands and 90 wives. The second row breaks down my spousal sample by IT performance. The majority of both husbands and wives perform ITs, though around 30 husbands and wives do not.

The third and fourth rows in my table present the descriptive statistics for my dependent variables: emotional stress and health outcomes. According to the table, the majority of wives experience high emotional stress, and the majority of husbands experience low to moderate emotional stress. In terms of health outcomes, more husbands and wives reported their health did not worsen. However, the percentage difference for wives is less than 10%, whereas the percentage difference for husbands is around 45%. There is little race variation in my sample, given that most of my sample is white. The non-white distribution for husbands is particularly small, with only 5 men in this category. Because age is a continuous variable, I ran a t-test to compare the means of the groups. I provided the means and standard error for age by gender. The mean age for husbands is 78 years old while the mean age for wives is 75 years old.

In terms of the highest level of education achieved, 62% of the husbands in my sample have graduated from college or graduate school, while 60% of the wives have graduated from high school or attended some college. Household income was recoded into 3 categories, though they are all fairly distributed for the most part. Interestingly, there is still a substantial number of spouses earning over 100k a year despite the majority of caregivers being over age 70. In terms of hours of care, the majority of both husbands and wives perform over 40 hours of care or more per week for their spouse. This is not entirely surprising considering that many late-stage

Alzheimer's patients require intense care. While the majority of both the husbands and wives reported experiencing low to moderate physical strain, once again the percentage difference is much smaller for the wives than for the husbands. In terms of employment, the majority of husbands and wives in my sample are not employed which is not surprising due to their older age. The majority of spouses also perform at least half of the IADL tasks or more, which is also not surprising. Because spousal caregivers are often the primary caregiver, they would be likely to perform many of the IADL tasks. However, the spousal breakdown of ADL task performance is fairly even.

As previously stated, the p values are a result of chi-square tests run on the sample variable and the listed variables in Table 1. The only p values that are not significant are those for household income, employment, and IADL tasks. Due to the smaller sample size, the p-values utilized in this study are .1, .05, .01, and .001.

Bivariate and Multivariate Logistic Regressions

Bivariate and multivariate regression outputs were analyzed to identify the relationships between IT performance and the dependent variables. The results are presented in Tables 2 and 3 and include four spousal groups: wives that perform ITs, husbands that perform ITs, wives that do not perform ITs, and husbands that do not perform ITs. My research questions consider whether IT performance has an effect on wives, husbands, and overall, comparatively by gender. This requires me to conduct logistic regressions within the four spousal groups to fully grasp the impact that IT performance has on the dependent variables. The stress and health of wives that perform ITs must be compared to the stress/health of husbands that perform ITs. But in order to understand the effect that ITs have on wives alone, I must compare wives that perform ITs with wives that do (and likewise for husbands).

In Tables 2 and 3 (as well as all additional tables), the primary spousal group that is being compared to another group is listed first, with its reference group in parentheses next to it. The odds ratio for that relationship is presented across the seven models. The odds ratios for the control variables are included below the spousal comparisons, with the categories of the variable below it.

Emotional Stress (Table 2)

Table 2. *Odds Ratios for Logistic Regression Models Predicting Emotional Stress*

Variables (Reference Group)	M1	M2	M3	M4	M5	M6
Wives/ITs (Husbands/ITs)	3.5**	3.07*	2.4*	2.8*	2.4*	1.6
Wives/ITs (Wives/Non-ITs)	2.8*	2.6**	3.2*	2.08**	2.7+	1.8
Husbands/ITs (Husbands/Non-ITs)	2.0	2.09	1.86+	.51	2.3	1.9
Wives/Non-ITs (Husbands/Non-ITs)	2.5*	2.43+	2.5	.35+	2.05	1.7
Race *White (Non-White)*		1.25	.94	1.29	.99	1.2
Age		.93**	.93**	.93**	.93**	.94*
Education *College/Grad (H.S./some college)*			.27**		.30*	.35+
Income *Less than $50k* *50k to $99,999* *100k and over*			1.6+		1.6+	1.98*
Hours *40+ hours (Less than 40 hours)*				1.77	1.44	1.38
Physical Strain *High strain (Low to moderate)*						15.16***

+ p < .1 * p < .05 ** p < .01 *** p < .001

My research questions consider whether gender impacts the effect of IT performance on emotional stress or overall health. To address this, I first examine whether the performance of IT tasks creates greater emotional stress for wives and husbands versus those who do not perform these tasks. I then explore whether such task performance has differential effects across wives and husbands. Regarding emotional stress, I hypothesized that wives that perform ITs would experience more stress than wives that did not. I hypothesized the same effect for husbands. Finally, I hypothesized that wives who performed IT tasks would experience more stress than would similarly husbands. To address these questions, I conducted logistic regressions for emotional stress levels, the outcomes of which are presented in Table 2. As noted in my analytic strategy, the six models presented control for different combinations of variables to track the impacts on the dependent variables. Table 2 presents the relationships between emotional stress and IT performance in spousal caregivers.

The first model displays the odds ratio for the bivariate regressions across the spousal caregiving groups. Wives that perform ITs are more likely to experience emotional stress than wives that do not perform ITs (2.8) and husbands that perform ITs (3.5). Additionally, wives that do not perform ITS are more likely to experience stress than husbands that do not perform ITs (2.5). The odds ratios show that comparatively, IT performance increases the likelihood that wives will experience stress more than husbands (3.5 compared to 2.5). While Model 1 does not include any controls, we see that wives, in general, are more likely than husbands to experience high emotional stress, and IT performance exacerbates this likelihood. Wives that do not perform ITs also experience more stress than husbands that do not perform ITs, which strengthens my argument that IT performance has a negative effect on wives' stress levels.

Model 2 presents regression outputs when controlling for the demographic variables, race, and age. In Model 2, we see that wives who perform ITs are still more likely to experience more stress than husbands that perform ITs and wives that do not. While the significance of the relationship has increased between wives and decreased between husbands and wives that perform ITs, the likelihood for both has slightly decreased (3.07 and 2.6). This means that controlling for age weakens the comparative spousal relationship. Similarly, wives that do not perform ITs as still more likely to experience higher stress than husbands that do not. The odds ratios comparing spouses and IT/non-IT performance are very similar, which indicates that IT performance plays a minimal, but still influential role in spousal stress. According to the .93 odds ratio, we see that older caregivers are slightly less likely than younger caregivers to experience high emotional stress.

It is important to note that there is an unequal racial distribution across my sample, shown in Table 1. Only 5 husbands fall in the category of non-white, which may explain why race is not found to have a significant relationship to emotional stress in any of the models. Race does not impact my dependent variable in any of the models, likely due to the small frequency distribution in the husband category (with only 5 non-white husbands in my sample).

Model 3 presents the regression output when controlling for age, race, education, and income (demographic and SES variables). The bivariate outputs for the spousal groups are similar to Model 2. However, wives that perform ITs are 3.2 times more likely to experience high emotional stress than wives that do not perform ITs. This odds ratio has slightly increased from Model 2, which means the SES variables affect the relationship between wives' stress more than demographic variables. Wives that perform ITs are 2.4 times more likely to experience high emotional stress than husbands that perform ITs, which is a slight decrease from Model 2.

Interestingly, the odds ratio comparing husbands that perform ITs and do not perform ITs is 1.86 which means that IT performance has a slight negative effect on husbands' stress. Thus, for this combination of control variables, IT performance has an apparent effect on husbands as well as wives when compared with their non-IT-performing spousal counterparts. There is no longer a significant difference in the emotional stress levels of husbands and wives that do not perform ITs.

Model 3 also indicates there once again is no racial variation in stress levels once again. The odds ratio for the age variable is identical to the odds ratio in Model 3, so older caregivers are still less likely to experience high emotional stress than middle-aged caregivers. Caregivers who attain higher levels of education are more likely to experience high stress (.27). Additionally, the higher the income, the more likely a caregiver is to experience high emotional stress (1.6).

Model 4 presents the regression outputs when controlling for race, age, and hours of caregiving per week. Previous research has found that hours of provided care tend to directly affect caregiver burden; therefore, hours of care are controlled in Model 4 along with previously controlled demographic variables. Wives that perform ITs are 2.08 times more likely to experience high stress than wives that do not perform ITs. This differential percentage has decreased which means that controlling for hours of care negatively affects the strength of this relationship. A significant relationship between spouses that perform ITs has emerged again in Model 4, however, finding that wives who perform ITs experience higher stress than husbands who engage in ITs. Though the hours of care variable are not significant, we see that older caregivers are still less likely to experience high emotional stress (.93).

Model 5 presents the regression outputs when controlling for race, age, education, income, and hours. This model incorporates all the demographic, SES, and task-related variables in one regression. Wives that perform ITs are also 2.4 times more likely than husbands that perform ITs to experience high emotional stress – the significance of this relationship has not changed. The odds ratios in Model 5 show that wives that perform ITs are 2.7 times more likely to experience emotional stress than wives that do not. Though the odds ratio has increased from Model 4, the strength of the relationship has decreased. Controlling for this number of variables has slightly weakened the strength of this relationship. Older caregivers, those with higher education, and those with a higher income are all more likely to experience high emotional stress. Model 5 overall shows that IT performance negatively affects the emotional stress levels of wives, but there is no evidence to point to a gender difference in the impact.

Model 6 controls for all the previous variables, but additionally controls for physical strain. In terms of control variables, age, income, and physical strain show a spousal difference in stress levels. Once again, older caregivers are less likely to experience high emotional stress, as well as those with a higher income. In terms of physical strain, the odds ratio is quite high at 15.16. This means that caregivers who experience high levels of physical strain are very likely to experience high emotional stress. There is no significance between any spousal group, which means that the more controls are added the less likely my hypotheses are supported.

Separating the Intimate Tasks

In my literature review, I noted that there was preliminary evidence that dealing with incontinence was emotionally troubling for wives that had to perform the task. Although there was little evidence that the same would be the case for bathing assistance, the closeness in nature of the two ADL tasks led me to categorize both as intimate tasks. To achieve greater clarity on

the issue, and to allow for the possibility that these two tasks have different impacts, I conducted additional analysis to determine the impact that each intimate task had on the dependent variables. Tables 3 and 4 display the impact that each individual IT has on emotional stress levels.

Table 3. *Odds Ratios for Logistic Regression Models Predicting Emotional Stress;* ***IT = dealing with incontinence***

Variables (Reference Group)	M1	M2	M3	M4	M5	M6
Wives/IT (Husbands/IT)	2.61+	.61	1.7	1.8	1.6	1.2
Wives/IT (Wives/Non-IT)	3.2*	3.2*	3.4*	2.8+	3.1*	2.5
Husbands/IT (Husbands/Non-IT)	4.1**	5.4**	5.7**	4.9**	5.2**	3.7*
Wives/Non-IT (Husbands/Non-IT)	3.4**	3.3**	2.8*	3.3**	2.8*	1.9
Age		.91***	.91***	.91***	.91***	.92**
Education *College/Grad (H.S./some college)*			.31**		.34*	.36+
Income *Less than $50k* *50k to $99,999* *100k and over*			1.66+		1.65+	2.09*
Physical Strain *High strain (Low to moderate)*						13.89***

+ p < .1 * p < .05 ** p < .01 *** p < .001

Table 3 presents the odds ratios from the regression results looking only at the effect of dealing with incontinence on emotional stress levels. Across Models 1-5, wives that deal with incontinence are more likely to experience high emotional stress than wives that do not deal with incontinence. This supports preliminary research that wives are emotionally affected by

performing this task. Overall, dealing with incontinence seems to affect wives that perform this task more than wives that do not. However, wives that do not deal with incontinence are similarly more likely (in strength and significance) to experience high stress when compared to husbands that do not deal with incontinence. This suggests that although gender still impacts overall stress levels, dealing with incontinence compounds this stress, which is why we see that wives who perform this task experience more stress than wives that do not. Interestingly, husbands that deal with incontinence were found to experience higher stress than husbands that did not deal with incontinence across all six models. This suggests that dealing with incontinence affects the stress levels of husbands as well. The findings on age, education, income, and physical strain remain the same when looking at both ITs and emotional stress when just looking at the relationship between dealing with incontinence and emotional stress.

Table 4. *Odds Ratios for Logistic Regression Models Predicting Emotional Stress;* ***IT = bathing/showering assistance***

Variables (Reference Group)	M1	M2	M3	M4	M5	M6
Wives/IT (Husbands/IT)	4.4**	4.09**	3.5*	3.7*	3.4*	2.3
Wives/IT (Wives/Non-IT)	2.9*	2.6+	3.04*	2.01	2.4	1.3
Husbands/IT (Husbands/Non-IT)	1.3	1.2	1.3	1.02	1.1	.68
Wives/Non-IT (Husbands/Non-IT)	2.05	1.8	1.5	1.9	1.5	1.2
Race *White (Non-White)*		1.26	1.00	1.31	1.05	1.38
Age		.93**	.93**	.93**	.93	.94*
Education *College/Grad (H.S./some college)*			.32*		.36*	.44
Income *Less than $50k* *50k to $99,999*			1.65+		1.64+	2.00*

100k and over						
Hours						
40+ hours (Less than 40 hours)				1.81	1.54	1.64
Physical Strain						
High strain (Low to moderate)						16.73***

+ p < .1 * p < .05 ** p < .01 *** p < .001

When looking at the effect for caregivers that assist with bathing/showering as an intimate task, we see that there is an apparent gender difference from Model 1 through Model 5 (Table 4). Wives that assist with bathing/showering are more likely to experience high emotional stress than husbands that assist with this task. Though the relationship becomes weaker when controlling for more variables, it is still significant through Models 1-5, which is more than any other spousal relationship. In Models 1-3, we see that wives that assist with bathing/showering experience high stress more than wives that do not assist with this task. But adding more controls diminishes this relationship. These results suggest that gender impacts the effect of showering/bathing assistance, with wives, in general, being more influenced negatively than husbands. For the most part, age, income, education, and physical strain are all significant in this table as well, across the six models.

Health Outcomes (Table 5)

Table 5. *Odds Ratios for Logistic Regression Models Predicting Health Outcomes*

Variables (Reference Group)	M1	M2	M3	M4	M5	M6
Wives/ITs (Husbands/ITs)	2.8*	2.2+	2.2+	2.09	2.1	1.6
Wives/ITs (Wives/Non-ITs)	6.5***	6.6***	6.7***	5.7**	5.7**	4.8*
Husbands/ITs (Husbands/Non-ITs)	2.7+	2.9+	2.9+	2.7+	2.5	2.06
Wives/Non-ITs (Husbands/Non-ITs)	1.2	.96	.95	.97	.96	.72
Race						

White (Non-White)	.92	.90	.91	.91	.93
Age	.94*	.94*	.94*	.94*	.96
Education *College/Grad (H.S./some college)*		.90		.98	1.22
Income *Less than $50k* *50k to $99,999* *100k and over*		1.13		1.12	1.21
Hours *40+ hours (Less than 40 hours)*			1.40	1.42	1.24
Physical Strain *High strain (Low to moderate)*					6.09***

+ p < .1 * p < .05 ** p < .01 *** p < .001

My second research question considers whether gender impacts the effect of IT performance on the health outcomes of spousal caregivers. I hypothesized that wives and husbands that perform ITs would still experience worsened health than the spouses that do not. I further asserted that in comparison, wives that performed ITs would experience worse health than husbands that performed ITs. To address these expectations, I performed the following logistic regressions, the outcomes of which are presented in Table 5 with the same format of models.

Model 1 indicates that prior to adding any controls, IT performance has an apparent effect on a spouse's health. Wives that perform ITs are more likely to experience worsened health than wives that do not perform ITs as well as husbands that do. Further, husbands that perform ITs are also found more likely to experience worsened health than husbands that do not. This model overall shows that prior to any controls, IT performance has a negative effect on husbands and wives, but a much stronger effect on wives based on the odds ratios. There is no

significant difference between husbands and wives that do not perform ITs in terms of health outcomes across any models in this table. However, because of the existing relationship between spouses that do perform ITs, we can assume that the impact of IT performance differs by gender, at least in the earlier models.

Model 2 presents the odds ratios from the logistic regression when controlling for race and age. Wives are still found more likely to experience worsened health than husbands that perform ITs, but the odds ratio has decreased from 2.8 to 2.2. Wives are also found more likely once again to experience worsened health than wives that do not perform ITs, and the odds ratio has only slightly increased from 6.5 to 6.6, meaning controlling for demographics does not largely affect this relationship any differently. A similar finding exists when comparing husbands that perform ITs and husbands that do not. The former is still more likely to experience worsened health than the latter, and the odds ratio has barely changed 2.7 to 2.9). There is no racial difference in spousal health outcomes, likely due to the little racial variation. Additionally, older caregivers are less likely to experience worse health than middle-aged caregivers (.94).

Model 3 controls for race, age, education, and household income. Because education and household income are not significant, the significant relationships found in this model are almost identical to the odds ratios in Model 3. However, gender does not appear to impact IT performance in this model, or any of the following models in this table due to the lack of relationship between husbands and wives that perform ITs. Thus, gender appears to impact the effect of IT performance on health but only when controlling for race and age or excluding all controls. Once more controls are added, gender does not impact the effect of IT performance.

Model 4 controls for race, age, and hours of caregiving per week. The odds ratio from Model 3 to Model 4 also remain similar. Wives that perform ITs are still more likely to

experience worse health than wives that do not perform ITs – though the strength and significance of the relationship has weakened slightly when controlling for hours of care. Husbands that perform ITs are also still more likely to experience worsened health than husbands that do not, and while the odds ratio has changed from 2.9 back to 2.7, the significance is the same. There is no longer a significant impact between husbands and wives that perform ITs on levels of emotional stress.

Model 5 presents the regression outputs when controlling for race, age, education, income, and hours of caregiving per week. The only notable change from Model 4 to Model 5 is that there is no difference in health outcomes for husbands that perform ITs versus husbands that do not. However, wives that perform ITs are still more likely to experience worsened health than wives that do not, and the odds ratio has not changed – nor has the strength of the relationship. Age continues to be significantly related to health outcomes and has not changed in strength or significance.

Model 6 presents the odds ratios when controlling for demographic variables, SES variables, hours of care, and physical strain. Despite controlling for all of my relevant variables, wives that perform ITs are still more likely to experience worsened health than wives that do not perform ITs. While the strength and the significance have been slightly weakened, there is still sufficient evidence to support my first hypothesis, wherein IT performance negatively affects the health of wives. However, there is no comparative gender difference in health outcomes, nor is there a significant difference in terms of spouses' age. However, those who experience high physical strain levels are more likely to experience worsened health (6.09).

Separating the Intimate Tasks

Based on a similar logic concerning what the literature has shown concerning the influence of the two intimate care tasks, that is, that bathing/showering might not cross the same kind of privacy boundaries as dealing with incontinence, I again ran the regression analysis for each task separately. The results of these analyses are shown below.

Table 6. *Odds Ratios for Logistic Regression Models Predicting Health Outcomes;* ***IT = dealing with incontinence***

Variables (Reference Group)	M1	M2	M3	M4	M5	M6
Wives/ITs (Husbands/ITs)	1.4	1.0	1.06	.95	1.04	.86
Wives/ITs (Wives/Non-ITs)	.37*	2.4+	2.5+	2.1	2.1	1.6
Husbands/ITs (Husbands/Non-ITs)	5.3**	6.8***	6.8***	2.2**	5.9**	3.9*
Wives/Non-ITs (Husbands/Non-ITs)	3.03*	2.7*	2.9*	2.1*	2.8*	2.1
Race *White (Non-White)*		.90	.93	.90	.94	
Age		.93**	.93**	.93**	.93**	.94*
Education *College/Grad (H.S./some college)*			1.12		1.25	
Income *Less than $50k* *50k to $99,999* *100k and over*			1.02		1.01	
Hours *40+ hours (Less than 40 hours)*				1.54	1.62	
Physical Strain *High strain (Low to moderate)*						5.46***

+p < .1 * p < .05 ** p < .01 *** p < .001

In terms of dealing with incontinence and health outcomes, the most consistent difference exists between husbands that perform ITs and husbands that do not (Table 6). The former is more likely to experience worsened health than the latter; this proves that dealing with

incontinence negatively affects the health of husbands as well as emotional stress levels (both across six models). There is some evidence across Models 1 through 3 to show that wives that deal with incontinence have worsened health than wives that do not, but it is not as strong or as significant as when looking at emotional stress levels. The findings on spouses that do deal with incontinence and spouses that do not deal with incontinence show that gender does not consistently impact the effect of dealing with incontinence on spouses. While dealing with incontinence seems to affect stress levels more negatively, it does not affect the health of spouses who perform this task as much. This is not entirely surprising considering dealing with incontinence is more of an emotionally upsetting task to perform, due to its extremely personal and intimate nature.

Table 7. *Odds Ratios for Logistic Regression Models Predicting Health Outcomes;* ***IT = bathing/showering assistance***

Variables (Reference Group)	M1	M2	M3	M4	M5	M6
Wives/IT (Husbands/IT)	3.5**	2.9*	3.02*	3.3*	3.4*	2.5+
Wives/IT (Wives/Non-IT)	4.2***	4.1**	4.1**	3.5*	3.4*	2.09
Husbands/IT (Husbands/Non-IT)	1.4	1.3	1.3	1.2	1.2	.73
Wives/Non-IT (Husbands/Non-IT)	1.1	.92	4.1	1.1	1.2	.90
Race *White (Non-White)*		.82	.83	.83	.86	.90
Age		.94*	.94*	.94*	.94*	.95+
Education *College/Grad (H.S./some college)*			1.05		1.21	1.51
Income *Less than $50k* *50k to $99,999* *100k and over*			1.06		1.05	1.13
Hours						

40+ hours (Less than 40 hours)	1.61	1.71	1.61
Physical Strain			
High strain (Low to moderate)			6.32***

+ p < .1 * p < .05 ** p < .01 *** p < .001

In Table 7 we see that wives that assist with bathing/showering are more likely to experience worsened health than husbands that deal with bathing/showering. Once again, when looking at solely shower and bath assistance there is a comparative gender difference. However, we see that wives that deal with showering/bathing assistance are more likely to experience worsened health than wives that do not. Overall, these findings show that gender does impact the health outcomes of spousal caregivers, Specifically, wives' health overall is more negatively impacted by assisting with bathing/showering.

Chapter 4: Discussion

My study considers the effect that intimate task performance has on wives and husbands that care for a spouse with Alzheimer's disease or related dementias. Preliminary qualitative evidence suggests that wives found dealing with incontinence as a major emotional hurdle when caring for their spouse. While the task was a major source of frustration and stress for wives, husbands did not identify the same feelings when it came to dealing with the incontinence of their spouse (Calasanti 2006). While previous research has not identified the effect of bathing/showering assistance on husbands or wives, infringement on bodily autonomy led me to include this task in the same category as dealing with incontinence, as an intimate task. Assisting with intimate tasks infringes on the bodily autonomy of a spouse, which can shift marital dynamics and cause additional stress, particularly for wives (Rose & Bruce 1995). These are

tasks that have largely been private for the entirety of one's life. The sudden dependency on a spouse to complete these tasks not only strips the care receiver of their usual privacy, but it rids them of their agency over their own body. Because wives develop a holistic care approach, where they consider not just the physical factors of caring for their spouse, but the mental and social factors that are at play. Thus, I hypothesized that the nature of these intimate care tasks would not only affect the health of the spouses the perform them but would specifically be more likely to affect the health of wives.

To address this, I compared the impact of these tasks on wives who performed them versus wives who did not; husbands who performed them versus husbands who did not; and finally, to see if gender mattered, I compared wives and husbands who both performed these tasks. My original hypotheses asserted three claims related to levels of emotional stress and overall health outcomes: 1) wives that performed ITs would experience more stress and worsened health than wives that do not perform ITs; 2) husbands that performed ITs would experience more stress and worsened health than husbands that do not perform ITs; and 3) wives that performed ITs would experience more stress and worse health than husbands that performed ITs. In other words, ITs more negatively impact the health of the wives who perform them.

Emotional Stress

The regression results suggest that spousal caregivers' performance of IT tasks have an impact on their emotional stress levels overall, and that this impact might differ by particular task. When looking at the combined IT measure, it appears that wives that perform ITs experience higher emotional stress than wives that do not perform ITs, until controlling for physical strain. High levels of physical strain were consistently found to be strongly related to high levels of emotional stress. Further, there is no evidence to prove that husbands that perform

ITs experience more emotional stress than husbands that do not perform ITs. However, there is some evidence to show that IT performance affects wives more than husbands who perform ITs, across three out of the six models. Because the strength of this relationship weakened as controls were added to the regression, my third hypothesis is only partially supported.

Previous research has shown that wives are largely more likely to experience emotional stress than husbands when providing care (Polenick & DePausquale 2019). Their holistic approach to caregiving increases their likelihood of having to manage stress or negative emotions. Although my findings on the combined IT measure did not show this gender difference, I did find that wives that perform ITs experienced more stress than wives that did not. Thus, we can confidently state that IT performance negatively affects wives' emotional stress levels. Model 3 is the only model that found a difference in husbands' health in terms of IT performance and nonperformance. When controlling for race, age, education, and income, husbands that perform ITs experience more emotional stress than husbands that do not perform ITs. However, the strength of this significant relationship is weak and inconsistent. The strongest relationship in comparison in regard to emotional stress levels remains between wives that perform ITs and wives that do not. Overall, IT performance negatively affects the stress levels of wives, and in some cases, does appear to differ by gender, though inconsistently.

Health Outcomes

After conducting an analysis on health outcomes of spousal caregivers, I found several spousal relationships. Across all six models, wives that perform ITs experience worse health than wives that do not perform ITs, which confirms my original hypothesis. The strength of this relationship is stronger across the board than when looking at the outcome variable of emotional

stress. However, there is little evidence to prove that wives that perform ITs suffer worse health than husbands that perform ITs.

Although the first two models of this table show that wives that perform ITs do experience worsened health more than husbands that perform ITs, this relationship disappears when controls for demographics, hours of care, and physical strain are introduced. The strongest relationship exists between wives that perform ITs and wives that do not. The relationship between husbands that perform ITs and husbands that do not is moderately strong across the first four models but does not exist when controlling for all variables. The reason for these different spousal relationships may be a result of the broadness of "health outcomes." The question asks caregivers to consider how their health has changed as a result of caregiving but does not make clear what those health outcomes might be. Regardless, the findings remain strong and consistent that wives that perform ITs experience worsened health than wives that do not, across all six models.

Control Variables

In terms of emotional stress, the variables reflecting age, education, income, and physical strain are related to the emotional stress levels of caregivers. Older caregivers are less likely than middle-aged caregivers to experience high levels of emotional stress. Caregivers with a yearly household income (over $100,000) are more likely to experience high emotional stress than caregivers with a median household income (between $50,000 and $99,999). Additionally, caregivers who achieve higher levels of education are more likely to experience high emotional stress. Although the reasons for these findings are unclear, it may be that those with higher education and income levels also have higher expectations of themselves as caregivers. Thus, they would be likely to place additional pressures on themselves during their time of caregiving.

Less surprisingly, caregivers who experience high physical strain are more likely to experience high emotional stress. Hours of care, the number of IADLs and ADLs, employment, and race were not significantly related to emotional stress levels. My analysis of health outcomes shows that age and physical strain had an impact on my dependent variable. Once again older caregivers were found less likely to experience worsened health. Caregivers who experienced high levels of physical strain were found more likely to experience worsened health. Hours of care, education, income, the number of IADLs and ADLs, employment, and race were not significantly related to health outcomes.

Age and physical strain were the only control variables that were found to be significantly related to both emotional stress and health outcomes. Physical strain is identified as a caregiver obstacle that contributes towards spousal caregivers' experience of care burden (Bruhn & Rebach 2014; Queen et al., 2019). Caregiver burden is defined as the negative effects of caregiving experienced by a caregiver, which can include extreme stress, frustration, guilt, depression, anxiety, or physical strain (Macguire et al., 2016; Swinkels et al., 2018). Stress and strain both fall under the category of caregiver burden, which can be linked to my second independent variable, health outcomes. Thus, may explain the relationship between physical strain and health outcomes. It is also possible that high levels of physical strain would be stressful for a caregiver, and vice versa. It is also not far-fetched to assume that caregivers who report worsened health, would be likely to experience high physical strain.

Older caregivers were less likely to experience both high emotional stress and overall worsened health than younger/middle-aged caregivers. In a qualitative study on sexual intimacy in mid-and-late-life couples, Lodge and Umberson (2016) found that couples in late life redefined their meaning of marriage regarding sexual intimacy, to better suit their lifestyles and

capabilities. By contrast, mid-life couples identified that changes in their intimacy as married couples were more distressing. While my hypotheses did not make any assertions on sexual intimacy, the idea of shifting expectations of oneself and of a relationship as one ages may be related to the age patterns in my study. Further analysis shows that caregivers over the age of 75 were less likely than caregivers younger than 75 to report greater stress or worsened health. These later-life couples may have been less affected by the shifts in intimacy by performing ITs because they may have already redefined what intimacy looks like in their relationships. Thus, they would be less likely to report high emotional stress or even worsened health due to the performance of intimate tasks that affect bodily autonomy. Younger couples, however, may be more affected by the changes in intimacy that IT performance may cause, which would result in higher emotional stress and worsened health.

This explanation – that older people may adjust their expectations of their bodies and those of their partners – is congruent with another qualitative study by Gibson and Kierans (2017) found that some older men with Parkinson's disease (PD) reconceptualized their symptoms as being due to the natural process of aging, rather than a result of having PD, in order to maintain their masculine identities. Older adults have had more time to come to terms with the process of aging and may be more comfortable with the symptoms of their conditions or their spouse's condition because they have had more time to accept physical bodily changes. Therefore, the older caregivers in my sample may be less likely to experience emotional stress or worsened health because they view having to perform ITs because as a natural part of the aging process, rather than a more troubling effect of having AD.

Separating Intimate Tasks

I defined intimate tasks as a task that a caregiver performs for a spouse that infringes on their privacy and bodily autonomy. I hypothesized that intimate tasks would have a negative effect on caregivers that must perform them, particularly wives who tend to be responsible for emotional work as well. Because preliminary research identified dealing with incontinence as an emotionally difficult task for wives to perform for their husbands, I labeled it as an intimate task. Using my definition of an intimate task, I included bathing/showering assistance as well, due to it being a largely personal and bodily task that a care receiver was accustomed to being able to do on their own. Due to the lack of existing research that qualified bathing/showering assistance as an emotionally difficult task, I conducted additional analysis to identify the separate effects each task has on spousal health.

My analysis found that dealing with incontinence negatively affects the emotional stress levels of both husband and wife who perform this task versus husbands and wives who do not. Further, there were no gender differences in this regard. Contrary to my expectations, having to deal with incontinence was found to consistently affect the health outcomes of husbands that perform ITs compared to husbands that do not. The findings for wives in regard to health are less prominent. Therefore, husbands that deal with incontinence are more likely to experience worsened health than husbands that do not.

A particularly important finding in my additional analysis was that wives that assist a spouse with bathing/showering were more likely to experience high emotional stress than husbands that also perform this task. This is the most consistent gender difference we see in any of the study's regressions, and it remains significant and moderately strong across Models 1 through 5; it disappears only when physical strain is controlled. Given the likelihood that physical strain makes it more difficult for a caregiver to help with bathing/showering, this is not

a surprise. But short of this, the impact of engaging in this intimate care tasks have a greater negative impact on wives' health when compared to similar husbands. Given that the findings on incontinence show a greater impact on husbands, it is likely that having combined these tasks into the one measure shaped the previous findings of no gender differences.

Overall, we see that incontinence seems to affect stress levels more while showering/bathing assistance affects overall health more across spousal groups. The surprising finding in this analysis is that husbands seem to be more affected emotionally by dealing with incontinence and wives seem to be more affected by performing showering/bathing assistance. This finding was unanticipated was that preliminary evidence found that only wives mentioned incontinence as a source of stress during their caregiving. However, by separating the intimate tasks we can see that while incontinence does affect both husbands and wives, husbands seem to be more affected by it. Further, wives seem to be more affected by assisting their spouses with bathing/showering.

Society views women as natural caregivers, partially in part to the fact that caregiving involves a great deal of household tasks that were also considered traditionally female tasks (Batolova & Cohen 2002; Kan et al., 2011). For traditional couples with younger children, is it likely that the wife would oversee changing diapers more often than husbands, given that wives are more often responsible for the bulk of childcare (Kan et al., 2011). There is an argument to be made that because wives are likely to have spent more time dealing with children's incontinence in the past, they may feel more equipped to deal with a spouse's incontinence – despite the obvious difference in the nature of the task – compared to husbands who have less previous experience. Beyond the gender repertoires that may prepare husbands and wives with

different levels of previous experience doing certain tasks, dealing with incontinence was found to increase the stress of both husbands and wives.

In summation, having to deal with incontinence is more related to high emotional stress levels and bathing/showering assistance is more related to worsened health outcomes for caregivers that perform each task. The reason this may be the case is that assisting with bathing/showering may inherently call for more physical work, whereas dealing with incontinence is less of a physically demanding task. Toileting and passing bowel movements are also inherently more private tasks to an individual than taking a shower or bathing oneself. Therefore, it is not surprising that dealing with incontinence affects levels of emotional stress more, and bathing/showering assistance would affect overall health more, given the latter's generality.

Conclusion

In this study, I considered whether gender impacts the effect of intimate task performance on emotional stress and overall health. My theoretical framework, as well as preliminary existing evidence, lead me to hypothesize the following: 1) wives that perform ITs would experience more stress and worse health than wives that did not; 2) husbands that perform ITs would experience more stress and worse health than husbands that did not; and 3) wives that perform ITs would experience more stress and worse health than husbands that also perform ITs. Because of the intimate nature of the care tasks, I asserted that spouses who performed these tasks would be affected more negatively affected in regard to their health than spouses that did not perform these tasks. I further asserted that wives' holistic approach to caregiving would result in them experiencing more negative health effects than husbands. Attempting to care for the "entirety" of

a person requires a caregiver to perform emotion work while also completing basic tasks, which is a difficult feat to accomplish.

Given my analyses, I found that IT performance negatively affected the emotional stress levels and health outcomes of wives. I also found that IT performance negatively affected the health outcomes of husbands. I did not find sufficient evidence that there was any consistent gender difference in these experiences when it came to intimate tasks. However, when separating the intimate tasks, I found that dealing with incontinence was more likely to impact emotional stress (particularly for husbands) while assisting with bathing/showering was more likely to impact health outcomes (particularly for wives).

Intimate tasks are considered intimate tasks for a reason. Their very nature of them implies that the act of performing the task is more connected to the body of the care receiver. Bowel movements, showering, and bathing are all things that able-bodied adults have been doing for themselves for most of their lives. To suddenly depend on someone, potentially your most intimate relationship to complete these tasks can be a jarring change for both the caregiver and the care receiver. The very fact that these tasks must be performed by a spouse implies that a potential shift in relational power dynamics have occurred. Because men and women do not hold the same social stature or position, the power shifts are not the same for wives or husbands.

In this sense, intimate care tasks are not only defined by whether they infringe on the bodily autonomy of the care receiver, but they are defined by the way that the performance affects the caregiver. The health of both wives and husbands is affected by having to perform intimate care tasks. Caregivers are not experiencing the loss of bodily autonomy and thus are experiencing more stress and worse health. Rather, the caregivers are feeling the effects of a spouse losing bodily autonomy – of the loss or shift of something within a relationship that is

causing these negative health effects. Having a spouse depend on you to handle household laundry is different than having a spouse depend on you to simply go to the bathroom or clean themselves. Losing agency over such crucial bodily tasks diminishes individual privacy, control, and personal or relational power. Intimate task performance indicates that the relationship power dynamic has shifted; the caregiver is placed in the power position whether they desire to be or not, regardless of gender. A caregiver does not need to suffer from the same illness as the care receiver to feel the negative effects that a condition like Alzheimer's disease has on someone. The act of caregiving is trying and difficult in its own form, which is why it is crucial to contribute to caregiving literature in the hopes that we can better support caregivers in their work to care for others.

Limitations and Implications

One limitation of this study is its smaller sample size. Though the groups were fairly equal by gender, future research would benefit from expanding the total sample size to analyze further variations in results. A larger sample would also allow researchers to control for more variables, potentially finding more relationships beyond mostly age and forms of strain. Additionally, the unequal racial distribution in my sample means that I could not really examine variations that could be critical to both my expectations and the regression results. Expanding the sample size may allow for the relationships between these controls and my dependent variables to be better understood.

This study also observes a very particular group of the caregiving population: heterosexual older adults with a spouse suffering from Alzheimer's disease or related dementias. Future studies might vary the sample in order to study the effect that, for example, a different condition would have on the health outcomes of spouses. Though Alzheimer's disease and

related dementias were chosen intentionally in this study, due to its likelihood to increase caregiver burden (Sheehan et al., 2021), other conditions may result in particular health outcomes as well. Additionally, this study focused on heterosexual, married couples. While previous caregiving literature largely studies heterosexual relationships, literature is expanding the scope of relationships, looking more at LGBTQ+ relationships. Studying the effect of non-normative gender dynamics amongst spousal caregivers allows researchers to answer questions that normative gender relations theory cannot directly speculate on.

The nature of this study has the potential for enacting real-world effects, though likely on a smaller, individual scale. For example, informal caregivers have varied access to and amounts of resources available to them. However, understanding what aspects of care are likely to affect their health outcomes may help influence how they allocate their resources, specifically, outside assistance for care tasks. Additionally, these findings could potentially increase awareness for older adult caregivers that may feel guilty for any negative feelings they have while performing certain tasks for their spouse. Acknowledging that certain tasks are likely to create negative feelings and potentially lead to worsened health outcomes may help normalize the experience of caregiver burden. Though informal caregivers may volunteer themselves for the care work, that does not make the nature of the work any less difficult to perform. Researchers should continue to study the effect of caregiving in order to enrich discussions on how to better serve caregivers across the nation.

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