RACE, PLACE, AND AGING WITH GRACE: THE INTERSECTION OF LIVING ARRANGEMENTS AND RACE IN THE STUDY OF OLDER ADULT WELL-BEING

By

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ABSTRACT OF THE DISSERTATION

Race, Place, and Aging with Grace: The Intersection of Living Arrangements and Race in the Study of Older Adult Well-Being

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Older adulthood is a period of the life course during which household living arrangements may become particularly salient for health and well-being. Changes such as the loss of a spouse, age-related health declines that require assistance from other people to manage, as well as the possibility that older adults may spend more time in their residential environments than younger cohorts, are all among the reasons why living arrangements may be linked to health outcomes for older adults. Research has found consistent patterns of associations between the living arrangements of older adults, such as whether one lives alone, with a spouse, or with others, and their physical and mental health. However, scant research has considered how these patterns are associated with health across different racial/ethnic groups. Race is a strong predictor of health outcomes in later life, and older Blacks and Whites vary in both patterns of and attitudes toward different living arrangements. Expanding existing knowledge of how living arrangements are linked to older adult health outcomes by stratifying by race can further explicate how and why the individuals with whom one lives can positively or negatively affect their well-being. Using data from Wave 2 of the Survey of Midlife Development in the United

States (MIDUS), I construct and test two kinds of relationships among living arrangements, race, and health for older Blacks and Whites. I evaluate whether differences in living arrangements can explain the well-documented race disparities in older adult physical health, including self-rated health and functional limitations, and find that living with someone other than one's spouse or children partially accounts for the race disparity in functional limitations. I also consider that living arrangements may be evaluated differently by older Blacks and Whites due to structural and cultural factors, and test whether variation in the statistical and cultural normativity of living arrangements produces different subjective well-being (SWB) outcomes for older Blacks and Whites, including positive affect, negative affect, and life satisfaction. I find that living with children has a positive association with positive affect for older Blacks. Finally, I consider that race intersects with other social statuses to produce health outcomes, and that experiences with living arrangements are significantly different by gender. I thus further explore how SWB is influenced by living arrangements differently for older Black and Whites by looking specifically at the experiences of women, as well as gender-specific psychosocial pathways that may account for these differences. I find that the benefits of living with children for positive affect persist when only women are considered, and that living with someone other than one's spouse or children is associated with poorer life satisfaction among older Black women. Attention to the ways in which living arrangements are related to older adult health through race-specific contexts can help researchers, clinicians, and policy makers better address the needs of the growing and diversifying population of older adults in the United States.

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CHAPTER 1

Introduction

The population of adults 65 years and older in the United States is growing faster than the total U.S. population (Roberts et al. 2018). As a result of increased longevity (CDC 2017), the large size of the aging Baby Boomer cohort, and declining birth rates (Martin et al. 2018), one in five Americans will be 65 years or older by the year 2030 (Mather et al. 2015). The older adult population of the United States is also becoming more racially and ethnically diverse. Black and African Americans comprise the largest racial minority in the United States, and due to gains in life expectancy (CDC 2017a), a fast-growing Black immigrant population (Anderson and Lopez 2018), and aging Black Baby Boomers, the older Black population is expected to almost triple by 2060, increasing from 4.4 million in 2016 to 12.1 million (Administration for Community Living 2018). Ensuring that medical, community, and social services are in place to meet the needs of this growing, diversifying population is critical.

Older adults are now living longer in the community (Administration on Community Living 2018), and most want to remain in their own homes for as long as possible (AARP 2012). Older adults' home environments will therefore play an important role in how they age. Households are our most proximal social environments, and the people with whom we live influence many of the physical and mental health risks or protective factors to which we're exposed (Hughes and Waite 2002). The living arrangements of the U.S. older adult population have changed over the past half-century. As shown in Figure 1.1, the percentage of older adults living alone has increased since the late 1970s, largely as a result of population aging and higher rates of divorce and

never marrying (Vespa 2017). This change has been somewhat counterbalanced, however, by other trends, including the rise of cohabitation (Stepler 2017) and increases in men's life expectancy, which allow women to remain with their spouses longer. Beginning in 1990, the percentage of older U.S. woman living alone began to decline for the first time in nearly a century (Stepler 2016). The proportion of older men living alone, by contrast, continues to increase as a result of gains in life expectancy, though it remains below the rate of older women (Vespa 2017; Stepler 2016). Rates of living with other relatives or non-relatives has dropped for both genders since 1976 (Vespa 2017), though these patterns vary by race (see Figure 1.2). Older Blacks are less likely to live with a spouse today than in 1976, and are more likely to live alone; the proportional increase in living alone since 1976 was greater for Blacks than Whites. While both groups are less likely to live with other relatives or non-relatives, the decline was proportionally largely for older Whites (Vespa 2017).

Despite these patterns, there has been a dearth of research on how living arrangements are linked to older adults' well-being across racial/ethnic groups. Evidence from both national surveys and population-based studies that do not stratify by race shows that living arrangements are associated with physical, mental, and emotional well-being among older adults, generally speaking. Living with a spouse is associated with better outcomes than living alone or with others (Weissman and Russell 2018; Hughes and Waite 2002), and living with others is particularly harmful to women's health compared to men's (Henning-Smith 2004). Older Blacks are overrepresented in living arrangements that are considered less protective for health, specifically in rates of living alone, with family members other than a spouse, and with non-relatives (Vespa 2017).

Given the well-documented patterns of poorer physical health among older Blacks compared to older Whites (Davis et al. 2017; Abramson 2015; Lin, Beck, and Finch 2014; Thorpe et al. 2012; Rook et al. 2008), differences in patterns of living arrangements among older Black and White adults may be an overlooked explanation for the race gap in later life health, but this has not been explicitly tested in prior research.

Households do not exist in a vacuum, however, and so the association of living arrangements with older adult health is also influenced by the larger social context through which living arrangements arise. Race differences in living arrangements are a result of long-term structural inequalities and sociohistorical trends. For example, grandmothers in Black families have taken on the role of primary caregiver to their grandchildren throughout the course of several time periods in history that had significant effects on Black families. During the Great Migration, grandmothers in Southern states often served as temporary caregiver for their grandchildren while their children were seeking employment opportunities in other parts of the country (Gibson 2002; Sudaskasa 1981). In the 1980s, Black families were disproportionately affected by several major structural problems, including the crack cocaine epidemic, the HIV/AIDS epidemic, and mass incarceration, all of which removed parents from the lives of their children and led to documented increases in custodial grandmothers (Dunlap, Golub, and Johnson 2006; Dunlap, Tourigny, and Johnson 2000; Fuller-Thomson and Minkler 2000; Burnette 1997). This history has shaped the experiences and outcomes of Black grandmothers in subsequent years. Black custodial grandmothers are more likely than White grandmothers to have friends who are also raising their grandchildren and to have been raised for a period of time by their own grandparents (Pruchno 1999). They also report less

caregiving burden and negative affect than White grandmothers (Pruchno and McKenney 2002), and express less anxiety about feeling "trapped" by their caregiving responsibilities (Pruchno 1999). Thus, the different histories shaping living arrangements for older Blacks and Whites may mean that living arrangements promote different mental health outcomes by race.

Byrnes (2016) argues that a significant shortcoming of environmental gerontology, the branch of gerontology that considers the role of place in the lives of older adults, has been neglecting to account for race over the past four decades of research. She argues that experiences of race are heavily shaped by place, citing the history of racist housing practices that limited home ownership among Blacks, maintained racial residential segregation, and influenced other patterns of living arrangements. The role of place in the lives of older adults, therefore, occurs in the context of race. In this dissertation, I address this gap in environmental gerontology by examining the association of living arrangements with physical and mental health outcomes for Black and White older adults in a U.S. national sample. I first consider the ways in which different patterns of living arrangements may be an overlooked explanation partially accounting for the well-documented disparities in physical health outcomes for older Blacks and Whites. I next consider that the contextual factors shaping living arrangements differ by race, and so the same living arrangements may also have different outcomes for Blacks and Whites on subjective measures of well-being. Third, I consider how, in addition to race, household roles are also strongly influenced by gender, and especially for women, household responsibilities are associated with psychological well-being. I therefore explore stressors and coping resources specific to the experiences

of living arrangements for older women, and how different experiences within the same living arrangements may produce different outcomes in subjective well-being for older Black and White women. In the following sections, I provide an overview of health disparities for Blacks and Whites in older adulthood, patterns of association between living arrangements and older adult health, and how and why older adult living arrangements differ by race. Finally, I provide an overview of the remaining chapters in the dissertation.

Black and White Health Disparities in Later Life

Black and White Americans have some of the most disparate and persistent health outcomes of all major racial/ethnic groups in the United States (Orsi, Margellos-Anast, and Whitman 2010). Among older adults, while the leading causes of death among Blacks are the same as the general population—heart disease and cancer (Kochanek, Arias, and Anderson 2015)—Blacks also experience earlier onset and disproportionate rates of metabolic risk factors for chronic disease (Lackland 2015), disease-specific mortality (Rooks et al. 2008), and disability-related quality of life (Fuller-Thomson et al. 2009; Lin, Beck, and Finch 2014) compared to their White counterparts. These disparities persist even when socioeconomic status (SES) is controlled, and remain in spite of the large gains in SES made by Black Americans since the 1970s (Williams, Priest, and Anderson 2016).

Life expectancy both at birth and at 65 years old has steadily increased for Black Americans since 1950. The life expectancy for Black Americans ages 65 and older in 1950 was 13.9 years, and this increased to 20.5 years by 2015 (CDC 2017a). This has narrowed, but not eliminated, the life expectancy gap between Blacks and Whites. In

2016, Blacks' life expectancy was an average of 3.5 years shorter than Whites, and Blacks had higher all-cause mortality rates than Whites at every age under 65 (CDC 2017a). Mortality increases for mid-life White adults, driven by increases in suicide and opioid-related deaths (Case and Deaton 2015), have contributed to the narrowing of the life expectancy gap in recent years. But social conditions are a fundamental cause of health (Phelan, Link, and Tehranifar 2010; Link and Phelan 1995), and Black Americans are still exposed to more risk factors for poor health at all stages of the life course. Compared to Whites, they are more likely to live below the poverty line (Fontenot, Semega, and Kollar 2018), lack health insurance coverage (Kaiser Family Foundation 2013) and live in neighborhoods that promote greater exposure to environmental toxins (Manduca and Sampson 2019) and violent crime (Peterson and Krivo 2010), as well as have fewer resources for healthy food (Lamichhane et al. 2013) and primary medical care (Institute of Medicine 2002). Chronic exposure to race-related stress also affects both the physical (Thames et al 2019) and mental health (Williams 2018) of Black Americans. Finally, Blacks also have poorer neonatal health outcomes, which is associated with greater risk of neurodevelopmental disability later in life (Howell et al. 2018). All of these social conditions lead to what some scholars call the "weathering hypothesis," (Geronimus 1992) or the premature biological aging experienced by Blacks as a result of the cumulative effects social disadvantage. By the time they reach older adulthood, this cumulative build-up of exposure to race-related stressors produces biological indicators of earlier health declines among Blacks compared to Whites (Geronimus et al. 2006).

The association of race with mental health is more complex. Despite poor social conditions, Blacks report better mental health than Whites. This pattern is referred to as

the race paradox in mental health. Compared to Whites, Blacks have consistently lower rates of psychiatric disorders (Williams et al. 2007; Breslau et al. 2006), and though findings are somewhat mixed, typically report lower rates of psychological distress (Bratter and Eschbach 2005) and greater psychological well-being (Ryff, Keyes, and Hughes 2003). A number of factors that may account for these counterintuitive patterns have been proposed, including Blacks' stronger resilience against stressors (Keyes 2009) and higher rates of internalized mental illness stigma among Blacks, which limits symptom recognition and treatment-seeking behaviors (Brown et al. 2010). Other scholars have argued that Blacks have higher religiosity (Krause 2006) and strong, supportive kin networks (Stack 1974), which are protective against poor mental health, though theories like these have more recently been refuted (Mouzon 2014, 2013). Race differences in mental health outcomes for older adults, however, may follow a different pattern. Mental health declines are not a normal part of aging, though physiological and social changes that occur in old age may increase a person's risk for depression (National Institute on Aging 2017). Prior research has found that older Blacks have higher rates of depressive symptoms relative to older Whites (Jang et al. 2005), but also less positive attitudes toward treatment-seeking (O'cConnor et al. 2010). This may make older Blacks more vulnerable to risk factors that are associated with depression in older populations, including diabetes, heart disease, and cancer (National Institute on Aging 2017).

Racial disparities in health are primarily products of social stratification. The cumulative effects of exposure to poor socioeconomic and environmental conditions over the life course puts Blacks at greater risk of poor physical health in old age compared to Whites. While mental health differences between Blacks and Whites show relative

advantages for Blacks, older Blacks may be more vulnerable to depression. Addressing these health disparities requires addressing the social contexts in which they occur. Living arrangements are one such social context that has previously been linked to older adult well-being, and variation in living arrangements may be an underexplored explanation for race disparities in older adult health. In the next section, I review the variation in patterns in living arrangements for older Blacks and Whites as a preface to theorizing how these patterns may explain race disparities in health.

Living Arrangements and Later Life Health

Living arrangements are a product of the culture and structures in which they're embedded. In the United States, the living arrangements that have historically been idealized are centered on nuclear families,[1] comprised of married couples living together with their biological offspring. Despite the fact that nuclear families have never been the statistical norm in the United States (Coontz 1992), they are nonetheless wrapped up in the mythology of the American Dream and referred to as "traditional families" in American conservative political discourse (Dowland 2015). The "normal" life course trajectory within this cultural milieu defines older adulthood as the "third age," during which older adults have transitioned out of the career and childrearing roles of their younger years and are free to engage in more leisure activities and connect with their spouse (Carr and Komp 2011). As shown in Figure 1.1, living with one's spouse in older adulthood is also the current statistical norm for both men and women in the United

[1] Families and households are not synonymous. However, in the United States, the majority of households include family relationships, especially those created through marriage or birth (U.S. Census Bureau 2012). Given this, research on patterns of interactions within families may be a useful body of literature to draw on for generating theories about how patterns of interactions vary across household living arrangements.

States (Stepler 2016), and is associated with potential health benefits. Spouses are a source of emotional support and companionship (Keyes 2002), and can have a positive influence on one another's health behaviors (Umberson, Crosnoe, and Reczek 2010; Umberson 1992). Spouses are also typically the first source of caregiving for an older adult experiencing age-related changes to their health and physiological abilities (Lima et al. 2008). Following the death of a spouse, the majority of older adults in the United States who were living only with their spouse will live alone (Stepler 2016). While living alone in old age is associated with comparatively poorer outcomes than living with a spouse (Kharicha et al. 2007), older adults who live alone are not a uniformly vulnerable group. Living alone can be associated with poor health if it promotes loneliness (Ong, Uchino, and Wethington 2016), as loneliness is a predictor of mortality in old age (Luo et al. 2012). But while most older Americans today were married at one point in their lives, today's older adult population has higher numbers of individuals who never married (Vespa 2017). Older adults who have been single throughout their adult lives may have higher levels of social engagement than individuals who previously relied heavily on their spouse for social connection, which in turn is protective against poor health (Michael et al. 2001). Living with people other than one's spouse in later life deviates from the U.S. cultural norm of the nuclear family, and is also a relatively less common living arrangement in older adulthood (Stepler 2016), though it's not a rarity either. The rate of multigenerational households in the United States has sharply increased since the 1980s, though young adults living in their parents' households are the key driver of this trend (Cohn and Passel 2018). While an increase in the prevalence of a social phenomenon often results in increased social favorability (Horwitz 2008), living with

other people is not currently preferred by older adults in the United States, who prefer to age in their own home even if that means living alone (AARP 2012) and feel ambivalent about the idea of moving into their adult children's homes (Cahill et al. 2009). Living with others in later life is associated with poorer health than living alone or with a spouse (Weissman and Russell 2018; Henning-Smith 2004; Hughes and Waite 2002), though because it represents such a broad category of family and non-family relationships, the mechanisms of this association are not yet clear. One explanation might be that living with others reflects having dependents in later life, and thus more demands imposed by the household (Hughes and Waite 2002). It may also reflect older adults having to leave the home in which they once lived due to declining health, though prior research has not been able to fully address the causal ordering of these associations.

Patterns of living arrangements in older adulthood mostly show correspondence between what is statistically common and culturally preferred, but the dominant imposed cultural values in the United States are heavily based on White, middle-class values promoted in the aftermath of World War II (Coontz 1992). They do not necessarily reflect what is common or preferred for all social groups. The United States has had a persistent history of race stratification and segregation; we're socioeconomically, politically, geographically, and culturally divided by race and ethnicity (Pew Research Center 2016). For this reason, I argue that the mechanisms of the associations between health outcomes and later life living arrangements could be more clearly articulated by first understanding how these associations vary across social groups. Compared to older White adults, older Blacks have both different patterns of living arrangements and different perspectives on marriage and kinship ties. Given this, in the next section, I

review these differences in living arrangements, the major reasons why they differ, and how these differences may lead to variation in health outcomes for older Black and White adults.

Living Arrangements, Race, and Potential Associations with Older Adult Health

The ways in which the structure of Black households differs from that of Whites have historically been framed as cultural deviance. These differences were the topic of the 1965 publication *The Negro Family: The Case for National Action* (subsequently, "The Moynihan Report"), written by then Assistant Secretary of the U.S. Department of Labor Daniel Patrick Moynihan to President Lyndon B. Johnson (U.S. Department of Labor 1965). Moynihan argued that the decline of nuclear families among Black Americans, and especially the prevalence of unmarried, head-of-household mothers, was a weakness for the Black community, which would hinder the progress toward social and economic equality that the civil rights movement sought to achieve. Moynihan's arguments about Black single mothers as a social pathogen were resurrected during welfare reform in the 1990s, which was largely centered on addressing the "culture of dependency" ascribed to single Black mothers (Fraser and Gordon 1994), though welfare reform only deepened poverty among the poorest segments of the U.S. population (Duncan and Brooks-Gunn 2000).

Since Moynihan wrote his report, rates of children born to parents who are not married or in a romantic partnership have greatly increased among White and Hispanic families (Acs 2013). The poorer socioeconomic outcomes for Blacks households compared to Whites' in spite of this trend debunks Moynihan's claims that a culture of inferior values in the Black community is what hinders social progress. It is rather social

stratification, the intergenerational effects of poverty, and other structural forces that both promote differences across household structures and also create negative social outcomes between Blacks and Whites. These structural forces shape household living arrangements across the life course, and may contribute to different health outcomes in later life for Blacks and Whites. To illustrate this point, I use the example of trends in marriage for Black and White women. Structural forces like urban deindustrialization, which concentrated poverty in Black communities, are attributed to declining rates of marriage for Black women (Wilson 1987). Throughout the life course, as a result of poorer socioeconomic and health outcomes, Black women also experience higher rates of divorce (West et al. 2014) and are likely to become widowed at earlier ages than White women (CDC 2017a). These differences in marriage rates may be associated with different health outcomes for older Black and White women, as living with a spouse in later life is associated with emotional, social, and economic benefits. Older Black women who do not live with a spouse may therefore be more vulnerable to risk factors for poorer health, such as more loneliness and less caregiving support to help manage chronic conditions. Furthermore, evidence shows that older Black and White women have only minor differences in emotional responses following the death of a spouse (Carr 2004), and so Black women, who are likely to be widowed sooner, may have an earlier onset of negative health consequences associated with transitioning to widowhood in their older adult years.

However, other research suggests that the psychological adjustment to losing a spouse may be different for Black and Whites. Pudrovska, Schieman, and Carr (2006) find that Black women experience less distress about being single following the death of

a spouse than White woman; they suggest that the more equitable household roles for Black married couples compared to Whites may contribute to Black women being better prepared to live alone. Furthermore, differences in social support, including support received from kin (Elwert and Christakis 2006) and religious participation (Elwert and Christakis 2006; Carr 2004), can help offset some of the negative psychological experiences of transitioning to widowhood for older Black women, meaning the health outcomes associated with transitioning out of living with a spouse may not persist net of other contextual factors that vary by race.

Finally, to return to the idea of the concordance between what is common and what is preferred, the decline in Black marriage rates may contribute to why some Black women of lower SES report feeling disillusioned by or disinterested in marriage (Edin and Kelafas 2005), as well as feeling too uncertain about their future to consider a commitment like marriage (Burton and Tucker 2009). If the ratio between what is preferred or ideal to actual circumstances is a mechanism linking living associations to health outcomes, then among subgroups of women for whom marriage was never a norm or priority, living alone in later life may not result in comparatively poorer health outcomes to those living with a spouse. In support of this argument, Pudrovska, Schieman and Carr (2006) find that Black women who never married also had less singlehood distress than their White counterparts, which may reflect the overall lesser salience of marriage in Black women's lives, especially low SES subgroups. Marital status is distinct from, but related to, older adult living arrangements, and while there is a vast literature on the health effects of marriage across race and gender subgroups, less work has focused specifically on living arrangements. Given that living arrangements are

a largely malleable part of an older person's life that can be addressed through social programs and policy, utilizing existing knowledge on differences in marriage and family norms across race and gender groups to understand how living arrangements are differentially linked to health outcomes across social groups can improve the translatability of this research for social intervention.

In summary, Black and White older adults live in different types of households as a result of the interplay between structural forces and cultural norms and attitudes. The consequences of these differences for later life health outcomes have not yet been studied. Compared to older Whites, older Blacks have higher rates of living arrangements that have previously been associated with poorer health outcomes, which may mean that living arrangements are a source of vulnerability for the later life health of Blacks. However, Blacks and Whites also report different attitudes toward those same living arrangements, and so the subjective assessments they make about them, along with any resulting psychological consequences of those assessments, may differ by race. Evaluating both of these theories is the goal of my dissertation, which I describe in the next section.

Outline of the Dissertation

Chapter 2 of the dissertation is entitled, "Black and White Disparities in Older Adult Self-Rated Health and Functional Limitations: Evaluating the Role of Living Arrangements." In this chapter, I test whether differences in four categories of living arrangements (living alone, with a spouse, with children (no spouse), or with others (no spouse)) partially account for disparities in physical health for older Black and White adults. Older Blacks and Whites have different living arrangements, with Blacks being

more likely to live in households that have been linked to poor health in older adulthood. I consider two measures of physical health that have been associated with older adult living arrangements: self-rated health, a global measure of health status, and functional limitations, to consider health status as an indicator of quality of life.

Chapter 3 is entitled "Variation in the Effect of Living Arrangements on Subjective Well-Being between Black and White Older Adults." This chapter considers that, even though Blacks live in households linked to poorer physical health in older adulthood, they also may evaluate and experience them differently. This may mean that the same living arrangements are associated with measures of subjective well-being (SWB), including positive and negative affectivity and life satisfaction, differently for Blacks and Whites. Thus, in this chapter, I measure the interactive effects of race and living arrangements on all three dimensions of SWB.

Chapter 4, entitled, "Older Adult Living Arrangements at the Intersection of Race and Later Life Womanhood: Associations with Subjective Well-Being," considers that living arrangements and household roles are highly gendered, especially for women, and so considering pathways specific to the experience of being an older Black or older White woman in the United States can further explicate why living arrangements produce different health outcomes by race in older adulthood. Thus, I measure the interaction of race and living arrangements on SWB specifically for older women, and whether these effects can be accounted for by stressors and coping resources likely to be experienced by older women.

Chapter 5 concludes the dissertation. I review the major findings of the dissertation, discuss their implications for policies and programs targeted to the needs of older adults, and make recommendations for future research.

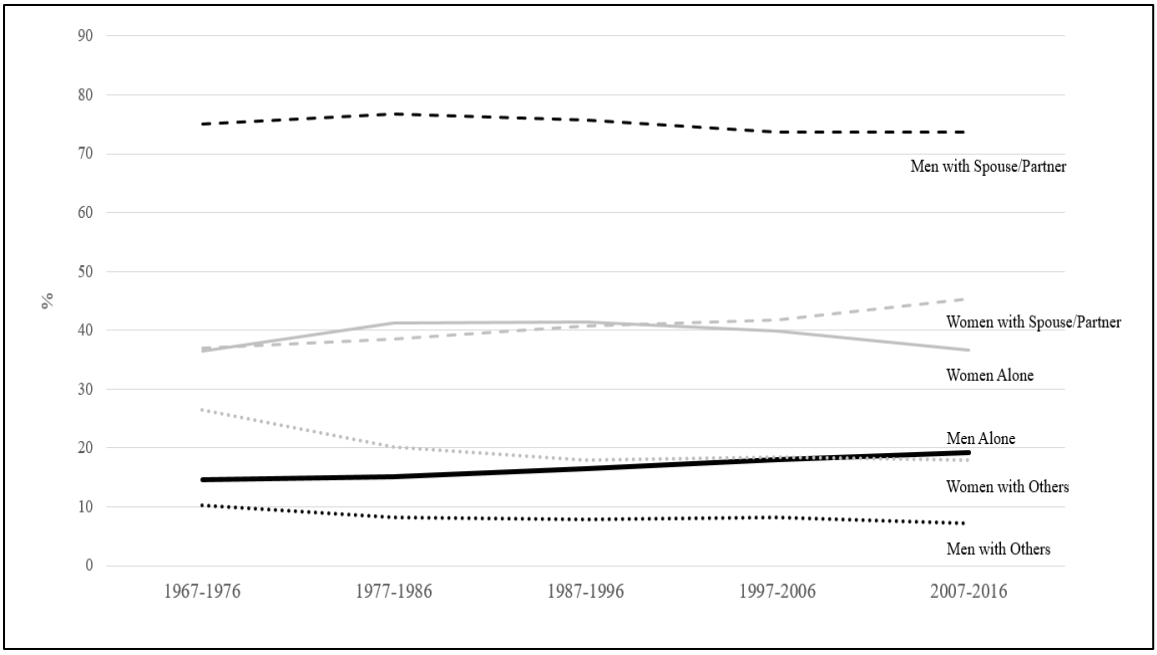


Figure 1.1 Living Arrangements for Adults 65+ in the United States

Source: Current Population Survey, Annual Social and Economic Supplement 1967-2016 (as cited in Vespa 2017)

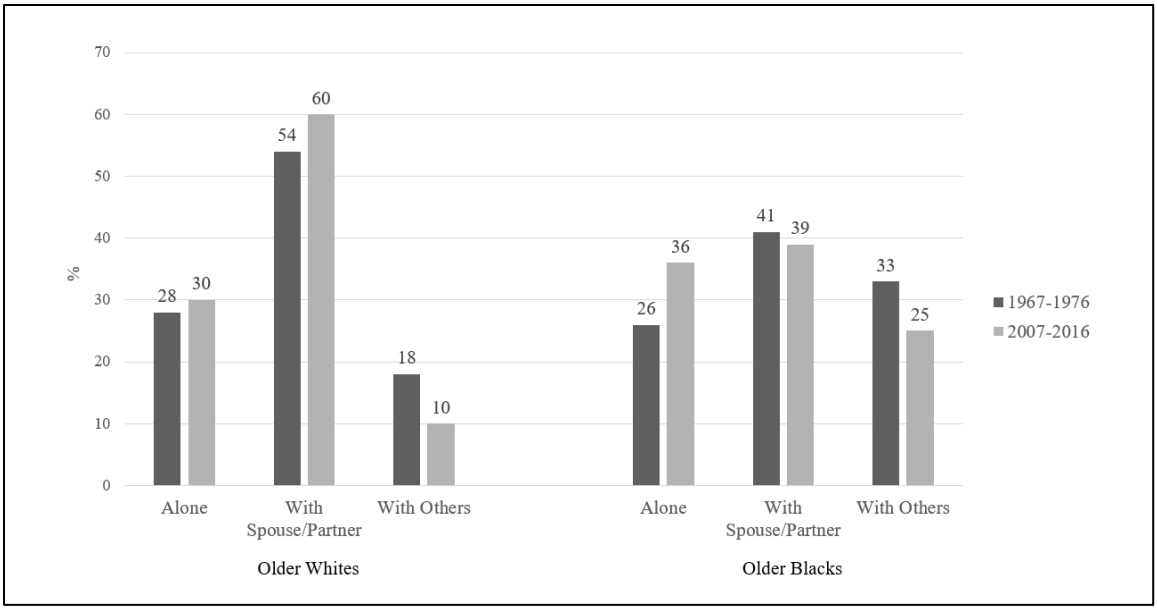


Figure 1.2 Living Arrangements for Adults 65+ by Race in the United States

Source: Current Population Survey, Annual Social and Economic Supplement 1967-2016 (as cited in Vespa 2017)

REFERENCES

AARP. 2012. *Beyond 50.05: A Report to the Nation on Livable Communities: Creating Environments for Successful Aging.* Washington, D.C.: AARP. Accessed September 10, 2019. (https://assets.aarp.org/rgcenter/il/beyond_50_communities.pdf).

Abramson, Corey M. 2015. *The End Game: How Inequality Shapes Our Final Years.* Cambridge, MA: Harvard University Press.

Acs, Gregory. 2013. *The Moynihan Report Revisited.* Washington D.C.: Urban Institute. Published June 2013. Accessed September 10, 2019. (https://www.urban.org/sites/default/files/publication/23696/412839-The-Moynihan-Report-Revisited.PDF).

Administration on Community Living. 2018. *2017 Profile of Older Americans.* Washington, D.C.: U.S. Department of Health and Human Services. Published April 2018. Accessed September 10, 2019. (https://acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2017OlderAmericansProfile.pdf).

Anderson, Monica and Gustavo Lopez. 2018. "Key Fact about Black Immigrants in the U.S." Pew Research Center. Published January 24, 2018. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2018/01/24/key-facts-about-black-immigrants-in-the-u-s/)

Breslau, Joshua, Sergio Aguilar-Gaxiola, Kenneth S. Kendler, Maxwell Su, David Williams, Ronald C. Kessler. 2006. "Specifying Race-Ethnic Differences in Risk for Psychiatric Disorder in a USA National Sample." *Psychological Medicine* 36(1):57-68.

Bratter, Jennifer L. and Karl Eschbach. 2005. "Race/Ethnic Differences in Nonspecific Psychological Distress: Evidence from the National Health Interview Survey." *Social Science Quarterly* 86(3):620–644.

Brown, Charlotte, Kyajen O. Connor, Valire Carr Copeland, Nancy Grote, Scott Beach, Deena Battista, and Charles F. Reynolds III. 2010. "Depression Stigma, Race, and Treatment Seeking Behaviors and Attitudes." *Journal of Community Psychology* 38(3):350-368.

Burnette, Denise. 1997. "Grandparents Raising Grandchildren in the Inner City." *Families in Society* 78(5):489-501.

Burton, Linda M. and M. Belinda Tucker. 2009. "Romantic Unions in an Era of Uncertainty: A Post-Moynihan Perspective on African American Women and Marriage." *The ANNALS of the American Academy of Political and Social Science* 621(1):132-148.

Byrnes, Mary E. 2016. "Grow Old with Me! Future Directions of Race, Age, and Place Scholarship." *Sociology Compass* 10(10):906-917.

Cahill, Emily, Lisa M. Lewis, Frances K. Barg, and Hillary R. Bogner. 2009. "You Don't Want to Burden Them: Older Adults' View on Family Involvement in Care." *Journal of Family Nursing* 15(3):295-317.

Case, Anne and Angus Deaton. 2015. "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century." *Proceedings of the National Academy of Sciences of The United States of America* 112(49):15078-15083.

Carr, Dawn C. and Kathrin S. Komp. 2011. *Gerontology in the Era of the Third Age: Implications and Next Steps.* New York, NY: Springer.

Carr, Deborah. 2004. "Black/White Differences in Psychological Adjustment to Spousal Loss among Older Adults." *Research on Aging* 26(6):591-622.

Centers for Disease Control [CDC]. 2017a. "Table 15. Life expectancy at birth, at age 65, and at age 75, by sex, race, and Hispanic origin: United States, selected years 1900–2016." NCHS Public Use Data Files. Washington, D.C.: Centers for Disease Control. Accessed September 10, 2019. (https://www.cdc.gov/nchs/data/hus/2017/015.pdf).

----- 2017b. *Chronic Disease Overview*. Published June 28, 2017. Accessed September 11, 2019. Hyattsville, MD: CDC. (http://www.cdc.gov/chronicdisease/overview/index.htm.)

Cohn, D'Vera and Jeffrey S. Passel. 2018. "A Record 64 Million Americans Live in Multigenerational Households." Pew Research Center. Published April 5, 2018. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-Americans-live-in-multigenerational-households/).

Coontz, Stephanie 1992. *The Way We Never Were: American Families and The Nostalgia Trap*. New York, NY: Basic Books.

Davis, Matthew A., Cui Guo, Ketlyne Sol, Kenneth M. Langa, and Barhmajee K. Nallamothu. 2017. "Trends and Disparities in the Number of Self-Reported Healthy Older Adults in the United States, 2000 to 2014." *JAMA Internal Medicine* 177(11):1683-1684.

Dowland, Seth. 2015. *Family Values and the Rise of the Christian Right*. Philadelphia: University of Pennsylvania Press.

Duncan, Greg J. and Jeanne Brooks-Gunn. 2003. "Family Poverty, Welfare Reform, and Child Development." *Child Development* 71(1):188-196.

Dunlap, Eloise, Andrew Golub, and Bruce D. Johnson. 2006. "The Severely-Distressed African American Family in the Crack Era: Empowerment is Not Enough." *Journal of Sociology and Social Welfare* 33(1):115-139.

Dunlap Eloise, Sylvie C. Tourigny, and Bruce D. Johnson. 2000. "Dead Tired and Bone Weary: Grandmothers as Caregivers in Drug Affected Inner City Households." *Race and Society* 3(2):143–163.

Edin, Kathryn, and Maria J. Kefalas. 2005. *Promises I Can Keep: Why Poor Women Put Motherhood before Marriage.* Berkeley, CA: University of California Press.

Elwert, Felix and Nicholas A. Christakis. 2006. "Widowhood and Race." *American Sociological Review* 71(1):16-41.

Fontenot, Kayla, Jessica Semega, and Melissa Kollar. 2018. "Income and Poverty in the United States: 2017." U.S. Census Bureau Current Population Reports. Washington, D.C.: U.S. Census Bureau. Published September 2018. Accessed September 10, 2019. (https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-263.pdf)

Fraser, Nancy and Linda Gordon. 1994. "A Genealogy of Dependency: Tracing a Keyword of the U.S. Welfare State." *Signs* 19(2):309-336.

Fuller-Thomson, Esme, A. Nuru-Jeter, Meredith Minkler, and Jack M. Guralnik. 2009.

"Black-White Disparities in Disability among Older Americans: Further Untangling the Role of Race and Socioeconomic Status." *Journal of Aging and Health* 21(5):677-698.

Fuller-Thomson, Esme and Meredith Minkler. 2000. "African American Grandparents Raising Grandchildren: A National Profile of Demographic and Health Characteristics." *Health and Social Work* 25(2):109–118.

Geronimus, Arline T., Margaret Hicken, Danya Keene, and John Bound. 2006. "'Weathering' and Age Patterns of Allostatic Load Scores among Blacks and Whites in the United States." *American Journal of Public Health* 96(5):826-833.

Geronimus, Arline T. 1992. "The Weathering Hypothesis and the Health of African-American Women and Infants: Evidence and Speculations." *Ethnicity and Disease* 2(3):207-221.

Gibson, Priscilla A. 2002. "African American Grandmothers as Caregivers: Answering The Call to Help Their Grandchildren." *Families in Society: The Journal of Contemporary Social Services* 83(1):35-43.

Henning-Smith, Carrie. 2014. "Quality of Life and Psychological Distress among Older Adults: The Role of Living Arrangements." *Journal of Applied Gerontology* 35(1):39-61.

Horwitz, Allan V. 2008. "Normality." Contexts 7(1): 70-71.

Howell, Elizabeth A., Teresa Janevic, and Paul L. Hebert. 2018. "Differences in Morbidity and Mortality Rates in Black, White, and Hispanic Very Preterm Infants among New York City Hospitals." *JAMA Pediatrics* 172(3):269-277.

Hughes, Mary Elizabeth and Linda J. Waite. 2002. "Health in Household Context: Living Arrangements and Health in Late Middle Age." *Journal of Health and Social Behavior* 43(1):1-21.

Institute of Medicine. 2003. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington, D.C.: The National Academies Press.

Jang, Yuri, Amy R. Borenstein, David A. Chiriboga, and James A. Mortimer. 2005. "Depressive Symptoms among African American and White Older Adults." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 60B(6):313-319.

Kaiser Family Foundation. 2013. "Health Coverage by Race and Ethnicity: The Potential Impact of the Affordable Care Act." Menlo Park, CA: Kaiser Family Foundation. Published March 13, 2013. Accessed September 10, 2019. (https://www.kff.org/disparities-policy/issue-brief/health-coverage-by-race-and-ethnicity-the-potential-impact-of-the-affordable-care-act/)

Keyes, Corey L.M. 2009. "The Black–White Paradox in Health: Flourishing in the Face of Social Inequality and Discrimination." *Journal of Personality* 77(6):1677-1706.

-----. 2002. "The Exchange of Emotional Support with Age and Its Relationship with Emotional Well-Being by Age." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 57B(6):518–525.

Kharicha, Kalpa, Steve Llife, Danielle Harari, Cameron Swift, Gerhard Gillmann, and Andreas E. Stuck. 2007. "Health Risk Appraisal in Older People 1: Are Older People Living Alone an 'At-Risk' Group?" *The British Journal of General*

Practice: The Journal of the Royal College of General Practitioners 57(537): 271-276.

Kochanek, Kenneth D., Elizabeth Arias, and Robert N Anderson. 2015. *Leading Causes of Death Contributing to Decrease in Life Expectancy Gap between Black and White Populations: United States, 1999–2013.* NCHS Data Brief No. 218. Washington, D.C.: Centers for Disease Control. Published November 2015. Accessed September 10, 2019. (https://www.cdc.gov/nchs/data/databriefs/db218.pdf.)

Krause, Neal. 2006. "Exploring the Stress-Buffering Effects of Church-Based and Secular Social Support on Self-Rated Health in Late Life." *Journal of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(1):S35-S43.

Lackland, Daniel T. 2014. "Racial Differences in Hypertension: Implications for High Blood Pressure Management." *American Journal of Medical Science* 348(2):135-138.

Lamichhane, Archana P., Joshua Warren, Robin Puett, Dwayne E. Porter, Matteo Bottai, Elizabeth J. Mayer-Davis, and Angela D. Liese. 2013. "Spatial Patterning of Supermarkets and Fast Food Outlets with Respect to Neighborhood Characteristics." *Health & Place* 23:157-164.

Lin, Shih-Fan, Audrey N. Beck, and Brian K. Finch. 2014. "Black-White Disparity in Disability Trends among Older Adults: Age, Period, and Cohort Trends." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 69B(5):784-797.

Link, Bruce G. and Jo Phelan. 1995. "Social Conditions as Fundamental Causes of Disease." *Journal of Health and Social Behavior* 35(S1):S80-S94.

Luo, Ye, Louise C. Hawkley, Linda J. Waite, and John T. Cacioppo. 2012. "Loneliness, Health, and Mortality in Old Age: A National Longitudinal Study." *Social Science and Medicine* 76(4):907-914.

Manduca, Robert and Robert J. Sampson. 2019. "Punishing and Toxic Neighborhood Environments Independently Predict the Intergenerational Social Mobility of Black and White Children." *Proceedings of the National Academy of Sciences of The United States of America* 116(16):7772-7777.

Martin, Joyce A., Brady E. Hamilton, Michelle J.K Osterman, Anne K. Driscoll, and Patrick Drake. 2018. Births: Final data for 2017 [Tables 1, 2]. *National Vital Statistics Reports* 67(8). Published November 7, 2018. Accessed September 10, 2019. (https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_08-508.pdf.)

Mather, Mark, Linda A. Jacobsen, and Kevin M. Pollard. 2015. "Aging in the United States." *Population Bulletins* 70(2). Washington, D.C.: Population Reference Bureau. Published December 2015. Accessed September 10, 2019. (https://www.prb.org/wp-content/uploads/2016/01/aging-us-population-bulletin-1.pdf).

Michael, Yvonne L., Lisa F. Berkman, Graham A. Colditz, and Ichiro Kawachi. 2001. "Living Arrangements, Social Integration, and Change in Functional Health Status." *American Journal of Epidemiology* 153(2):123-131.

Mouzon, Dawne M. 2014. "Relationships of Choice: Can Friendships or Fictive Kinships Explain the Race Paradox in Mental Health?" *Social Science Research* 44:32-43.

-----. 2013. “Can Family Relationships Explain the Race Paradox in Mental Health?” *Journal of Marriage and Family* 75(2):470-485.

National Institute on Aging. 2017. “Depression and Older Adults.” Washington, D.C.: National Institute on Aging. Published May 1, 2017. Accessed September 10, 2019. (https://www.nia.nih.gov/health/depression-and-older-adults)

O’Connor, Kyaien, Brenda Lee, Vanessa Mayers, Deborah Robinson, Charles F. Reynolds III, Steve Albert, and Charlotte Brown. 2010. “Attitudes and Beliefs about Mental Health among African American Older Adults Suffering from Depression.” *Journal of Aging Studies* 24(4):266-277.

Ong, Anthony D., Bert N. Uchino, and Elaine Wethington. 2016. “Loneliness and Health in Older Adults: A Mini-Review and Synthesis.” *Gerontology* 62(4):443-449.

Orsi, Jennifer M., Helen Margellos-Anast, and Steven Whitman. 2010. “Black-White Health Disparities in the United States and Chicago: A 15-Year Progress Analysis.” *American Journal of Public Health* 100(2):349-356.

Peterson, Ruth D. and Lauren J. Krivo. 2010. *Divergent Social Worlds: Neighborhood Crime and The Racial-Spatial Divide.* New York, NY: Russell Sage Foundation.

Pew Research Center. 2016. “On Views of Race and Inequality, Blacks and Whites Are Worlds Apart.” Pew Research Center. Published June 27, 2016. Accessed September 10, 2019. (https://www.pewsocialtrends.org/2016/06/27/on-views-of-race-and-inequality-blacks-and-whites-are-worlds-apart/).

Phelan, Jo C., Bruce G. Link, and Parisa Tehranifar. 2010. “Social Conditions as Fundamental Causes of Health Inequalities: Theory, Evidence, and Policy Implications.” *Journal of Health and Social Behavior* 51(S1):S28-S40.

Pruchno, Rachel A. and Dorothy McKenney. 2000. “Psychological Well-Being of Black and White Grandmothers Raising Grandchildren: Examination of a Two-Factor Model.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 57B(5):444-452.

Pruchno, Rachel A. 1999. “Raising Grandchildren: The Experiences of Black and White Grandmothers.” *The Gerontologist* 39(2):209-221.

Pudrovska, Tetyana, Scott Schieman, and Deborah Carr. 2006. “Strains of Singlehood in Later Life: Do Race and Gender Matter?” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(6):S315-S322.

Roberts, Andrew, Stella Ogunwole, Laura Blakeslee, and Megan Rabe. 2018. “Most Older Adults Live in Households with Computer and Internet Access.” Washington, D.C.: U.S. Census Bureau. Published October 30, 2018. Accessed September 10, 2019. (https://www.census.gov/library/stories/2018/10/snapshot-fast-growing-US-older-population.html).

Rooks, Ronica N., Eleanor M. Simonsick, Tamara B. Harris, Lisa M. Klesges, Anne B. Newman, and Hilsa Ayonayon. 2008. “Racial Disparities in Health Care Access and Cardiovascular Disease Indicators in Black and White Older Adults in the Health ABC Study.” *Journal of Health and Aging* 20(6):599-614.

Ryff, Carol D., Corey L.M. Keyes, and Diane L. Hughes. 2003. “Status Inequalities, Perceived Discrimination, Eudaimonic Well-Being: Do the Challenges of Minority Life Hone Purpose and Growth?” *Journal of Health and Social Behavior* 44(3):275–291.

Stack, Carol B. 1974. *All Our Kin: Strategies for Survival in a Black Community.* New

York: Harper & Row.
Stepler, Renee. 2017. “Number of U.S. Adults Cohabitating with a Partner Continues to Rise, Especially among Those 50 and Older.” Pew Research Center. Published April 6, 2017. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2017/04/06/number-of-u-s-adults-cohabiting-with-a-partner-continues-to-rise-especially-among-those-50-and-older/)
-----. 2016. “Smaller Shares of Women Ages 65 and Older Are Living Alone.” Pew Research Center. Published February 18, 2016. Accessed September 10, 2019. (https://www.pewsocialtrends.org/2016/02/18/smaller-share-of-women-ages-65-and-older-are-living-alone/).
Sudaskasa, Naira. 1981. “Interpreting the African Heritage I Afro-American Family Organization.” Pp. 37-53 in *Black Families* by Harriette P. McAdoo. Beverly Hills, CA: Sage.
Thames, April D., Michael R. Irwin, and Elizabeth C. Breen, and Steve W. Cole. 2019. “Experienced Discrimination and Racial Differences in Leukocyte Gene Expression.” *Psychoneuroendocrinology* 106:277-283.
Thorpe, Ronald J., Annemarie Koster, Hans Bosma, Tamara B. Harris, Elelanor M. Simonsick, Jacques T. M. van Ejik, Gerturids I.J.M. Kempen, Anne B. Newman, Suzanne Satterfield, Susan M. Rubin, and Stephen B. Kritchevsky. 2012. “Racial Differences in Mortality in Older Adults: Factors beyond Socioeconomic Status.” *Annals of Behavioral Medicine* 43(1):29-38.
Umberson, Debra, Robert Crosnoe, and Corinne Reczek. 2010. “Social Relationships and Health Behavior across the Life Course.” *Annual Review of Sociology* 36:139-157.
Umberson, Debra. 1992. “Gender, Marital Status, and the Social Control of Health Behavior.” *Social Science and Medicine* 34:907-917.
U.S. Department of Labor, Office of Policy Planning and Research. 1965. *The Negro Family: The Case for National Action*. Washington, DC: U.S. Department of Labor. (http://www.dol.gov/oasam/programs/history/webidmeynihan.htm)
Vespa, Jonathan. 2017. “Historical Living Arrangements of Older Adults: 1976-2016.” U.S. Census Bureau. Working Paper Number SEHSD-WP2017-30. Washington, D.C.: U.S. Census Bureau. Published April 2017. Accessed September 10, 2019. (https://www.census.gov/library/working-papers/2017/demo/SEHSD-WP2017-30.html).
Weissman, Judith D. and David Russell. 2018. “Relationships between Living Arrangements and Health Status among Older Adults in the United States, 2009-2014: Findings from the National Health Interview Survey.” *Journal of Applied Gerontology* 37(1):7-25.
West, Loraine A., Samantha Cole, Daniel Goodkind, and Wan He. 2014. “65+ in the United States: 2010.” Current Population Reports P23-212. Washington, D.C.: U.S. Census Bureau. Published June 2014. Accessed September 10, 2019. (https://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf).
Williams, David R. 2018. “Stress and the Mental Health of Populations of Color: Advancing Our Understanding of Race-Related Stressors.” *Journal of Health and Social Behavior* 59(4):466-485.

Williams, David R., Naomi Priest, and Norman Anderson 2016. "Understanding Associations between Race, Socioeconomic Status, and Health: Patterns and Prospects." *Health Psychology* 35(4):407-411.

Williams, David R., Hector M. Gonzalez, Harold Neighbors, Randolph Nesse, Jamie M. Abelson, Julie Sweetman, and James S. Jackson. 2007. "Prevalence and Distribution of Major Depressive Disorder in African Americans, Caribbean Blacks, and Non-Hispanic Whites: Results from the National Survey of American Life." *Archives of General Psychiatry* 64(3):305–315.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, The Underclass, and Public Policy.* Chicago, IL: University of Chicago Press.

CHAPTER 2

Black and White Disparities in Older Adult Self-Rated Health and Functional Limitations: Evaluating the Role of Living Arrangements

INTRODUCTION

Racial disparities in health are a persistent social problem in the United States, and disparities between Black and White Americans are particularly stark. Despite being a major goal of federal public health initiatives, efforts to reduce health disparities have had limited impact, and since the 1990s, disparities between Black and Whites have widened on important health indicators like cardiovascular disease and cancer mortality (Hunt and Whitman 2015; Orsi, Margellos-Anast, and Whitman 2010). The social inequalities driving these disparities accumulate over the life course, leading to racial divisions in health and quality of life in old age (Abramson 2015). Compared to older Whites, older Blacks have higher all-cause (Thorpe et al. 2012) and disease-specific (Rooks et al. 2008) mortality rates, higher burdens of chronic conditions and disability (Lin, Beck, and Finch 2014), and poorer subjective well-being in old age (Davis et al. 2017).

Older adults are now living longer in the community, and so addressing the economic, social, and environmental conditions that drive these health inequalities has become even more important for this population. The social environment of the home may be particularly salient for older adult health, as people spend time in their home environments on a daily basis (Hughes and Waite 2002), and older adults may spend more time in their home than younger cohorts (Yen, Michael, and Perdue 2009). Prior

research has linked living arrangements to older adult health outcomes; whether one lives alone (Kharicha et al. 2007), with a spouse (Weissman and Russell 2018), with dependent children (Hughes and Waite 2002), or with other family or non-family relations (Weissman and Russell 2018; Hughes and Waite 1999) is associated with physical health outcomes for older adults. Patterns of living arrangements in later life also vary across social groups, including racial/ethnic groups. Compared to older Whites, older Blacks are more likely to live in multigenerational households (Cohn and Passel 2018), care for children or grandchildren (Seltzer and Yahirun 2013), and particularly among women, are less likely to have a spouse (West et al. 2014). Previous research has not yet explored the extent to which variation in living arrangements contributes to health disparities for older Blacks and Whites. Given the links between living arrangements and health in the general population of U.S. older adults, living arrangements may be an underexplored contributor to racial disparities in older adult health.

In this chapter, I use data from Wave 2 of the Midlife Development in the United States (MIDUS 2) study to assess whether living arrangements partially explain differences in self-rated health and functional limitations between older Blacks and Whites. I then assess psychosocial pathways (i.e., caregiving responsibilities, social support, and social strain) through which living arrangements may account for race disparities in health. I also evaluate whether these associations persist net of other demographic (i.e., sex, age subgroup, and marital history) and socioeconomic characteristics, as well as baseline health status. Understanding the role of living arrangements in older adult health disparities may be a first step toward developing

policies for home-based care services and supports aimed at reducing health inequalities in later life.

BACKGROUND

Race and Health Disparities in Later Life

Older Blacks and Whites differ on major indicators of physical health status. Compared to older Whites, older Blacks rate their overall health less favorably (Davis et al. 2017; Boen 2016), experience greater functional decline (Lin, Beck, Finch 2014) at earlier ages (Thorpe et al. 2016), and have both higher all-cause mortality (Thorpe et al. 2012) and higher mortality from leading causes, including cardiovascular disease (Rooks et al. 2008) and common cancers (Howlader et al. 2019). Sociological research has been instrumental in emphasizing the social and environmental causes of these disparities, originating with W.E.B. DuBois's formative study *The Philadelphia Negro* (1899). Challenging the biological paradigm for race differences in health that dominated the medical profession at the time, DuBois argued that Blacks' poorer health outcomes were a direct result of social structure, specifically poorer living conditions within Philadelphia neighborhoods. While DuBois's work did not spur an immediate paradigm shift in either sociological or medical literature, according to Williams and Sternthal (2010), sociologists of the late 20th century onward have made major contributions to our understanding of health disparities as a dimension of racial inequality.

Among these contributions is the conceptualization of social conditions as "fundamental causes" of health outcomes (Link and Phelan 1995), which links low socioeconomic status (SES) and poor health via pathways like access and opportunities to engage in healthy behaviors and receive quality healthcare. Empirical assessments have

found that differences in SES explain a sizeable portion, but not all, of the health differences between Blacks and Whites (Williams and Collins 1995). The residual effect of race, or the portion of health disparities unaccounted for by SES, is largely a result of both interpersonal and systematic racial discrimination experienced by Blacks over the life course. Exposure to race-related stress has been attributed to greater allostatic load over time in biosocial models of health (Massey 2004; Clark et al. 1999), and recent neuroendocrine research identifying specific inflammatory processes activated in response to racial discrimination among African Americans, which can lead to poor health outcomes over time, supports these models (Thames et al. 2019). Racial residential segregation, maintained through both SES inequalities and institutionalized racism (Massey 2004), also has an independent effect on health inequalities over and above individual SES by increasing psychological distress (Mirowsky and Ross 2003) and exposure to environmental toxins (Williams and Collins 2001) and limiting opportunities to live a healthy lifestyle (Walker, Keane, and Burke 2010). Finally, sociologists recognize race as a social construct (Omi and Winant 1986), which has been substantiated by findings from the Human Genome Project showing that human genetic diversity does not cluster in ways that correspond to racial categories, further discrediting the legacy of biological explanations for racial disparities in health (Serre and Pääbo 2004).

The roles of social and environmental conditions in racial health disparities may be especially important for the study of older populations. Some scholars have theorized that as a result of both life course changes, such as retiring from full-time work, and age-related physiological changes that limit mobility, older adults may spend more time in

their residential environments than younger cohorts, making them particularly sensitive to the socio-environmental correlates of poor health (Yen, Michael, and Perdue 2009; Diez-Roux 2004). Studies have shown links between structural (Bowling et al. 2006; Subramanian et al. 2006; Balfour and Kaplan 2002), service-related (Bowling et al. 2006; Subramanian et al. 2006), socioeconomic (Yen, Michael and Perdue 2009), and social (Bowling et al. 2006) neighborhood characteristics and older adult health, as well as the ways in which these characteristics may contribute to race disparities in health for older adults (Robert and Ruel 2006). However, less is known about how older adults' internal residential environments, or their home environments, contribute to these disparities. In addition to living in different neighborhoods (Massey and Denton 1993), Blacks and Whites live with various family relations at different frequencies (Vespa, Lewis, and Kreider 2013), and health is influenced by the people with whom one lives (Berkman and Glass 2000). Research with younger cohorts of adults suggests Blacks live in "complex" households, or households with more extended family members, at higher rates than Whites; this may increase levels of strain in the home and create more demands for some household members, putting them at risk of poorer health as a result (Hughes and Waite 1999). Given that living environments may have even more significant consequences for older adult health, this analysis explores the role of living arrangements in health disparities for older Black and White adults.

Dimensions of physical health status that may be particularly useful for studying the associations between race, living arrangements, and older adult health are self-rated health and functional limitations. Despite being a subjective assessment, self-rated health is a strong independent predictor of mortality worldwide (Idler and Benyamini 1997),

making it a robust measure of global physical health status. Self-rated health also varies by race in older adulthood, with Blacks consistently reporting poorer health than Whites (Cagney, Browning, and Wen 2005). Functional abilities are a dimension of health that becomes particularly salient in later years of life (CDC 2017a), and limitations in functional ability also promote poorer subjective well-being among older adults (George 2010). In addition to the fact that older Blacks report more functional limitations than older Whites (Fuller-Thomson et al. 2009), this measure of physical health may also be particularly sensitive to social contexts like living arrangements, as positive social interaction and commensality among family members (Andrew et al. 2008) are associated with functional health in older adults.

Thus, this analysis evaluates whether living arrangements explain part of the disparities in self-rated health and functional limitations for older Black and White adults. I also assess psychosocial pathways that might account this association. In the subsequent sections, I first provide an overview of patterns in living arrangements for older Blacks and Whites and summarize what is known about how those patterns are linked to self-rated health and functional limitations. I then review literatures that could explain how and why living arrangements may account for race disparities in older adult health.

Race, Living Arrangements, and Older Adult Physical Health

Many of the same structural inequities driving racial disparities in health have also led to different patterns of living arrangements between Blacks and Whites. This is especially true of patterns related to marriage. Blacks are less likely than Whites to ever marry (Raley, Sweeney, and Wondra 2015). As of the 2010 U.S. Census, approximately 9% of Black women 65 years and older report having never married, compared to about

4% of White women (West et al. 2014). A commonly cited explanation for this pattern is what is often referred to as the "marriageable men" hypothesis (Lichter et al. 1992). Wilson's (1987) influential work argues that the withdrawal of the middle class and large industries from inner cities in 1970s, which concentrated poverty and produced chronic unemployment in non-White, urban communities, resulted in a smaller pool of men with economic stability for Black women. This hypothesis is not universally accepted, however. Other scholars have argued that only a small portion of the overall declines in Black marriage rates since the 1970s can be attributed to changes in men's earning potential (Wood 1995), and that, in general, increases in earning potential among men of lower SES have not typically led to increases in marriage rates (Kearney and Wilson 2018). The destabilizing effects of mass incarceration on Black families are another frequently cited contributor to differences in marriage rates for Blacks and Whites. Incarceration rates for Black Americans have risen dramatically since the 1980s. Black Americans currently account for 40% of the U.S. prison population, despite representing only 13.5% of all U.S. residents (Sawyer and Wagner 2019). Although the race gap in incarceration appears to be narrowing in recent years (Gramlich 2018), as of the 2010 U.S. Census, Blacks were still 6 times more likely to be incarcerated than Whites (Pew Research Center 2013).

In addition to lower rates of marriage, older Blacks are also more likely than Whites to experience divorce or separation. Though rates of divorce and separation have increased in the United States overall since the 1970s, 52% of older Blacks in the U.S. report being divorced or widowed as of the 2010 U.S. Census, compared to 39% of older Whites (West et al. 2014). SES differences between Blacks and Whites may explain

some of this disparity, as financial strain is a major risk factor for divorce (Vinokur, Price, and Caplan 1996), and rates of divorce tend to be higher among subgroups with lower SES in the United States (Wang 2015). Declining stigma in the latter half of the 20th century also led to fewer legal barriers to divorce, making it more socially and legally accessible (Ruggles 1997). Finally, older Black women are likely to become widowed sooner than their White counterparts, due to Black men's shorter life expectancy compared to other U.S. race and gender subgroups (CDC 2017b). As of the 2010 U.S. Census, 46% of older Black women were widowed, compared to 40% of White women (West et al. 2014).

In addition to differences in marriage rates, Blacks and Whites also vary by rates of living in multigenerational households (Cohn and Passel 2018; Pew Research Center 2010). Among all Americans living in multigenerational households, Blacks also have the largest share of skip-generation households, or households comprised of a grandparent and grandchild with no parent present (Pew Research Center 2010). Black grandmothers comprise the largest group of grandmothers serving in a primary caregiving capacity to their grandchildren (Seltzer and Yahirun 2013), a pattern frequently attributed to structural failings like mass incarceration (Turney 2014) and the disproportionate effect of HIV/AIDS on Black communities (Joslin and Harrison 1998).[2]

Whether or not one lives with their spouse or cares for children in later life are among the patterns of living arrangements that have been linked to dimensions of physical health for older adults. Among older adults, living with others has been found to

[2] Ancedotal evidence from popular literature describes a similar phenomenon occurring among low-income Whites in recent years as a result of the disproportionate effect that the opioid epidemic has had on this population (Van Dam 2019).

be more advantageous to self-rated health than living alone in cross-sectional research (Kharicha et al. 2007), though not all cohabitation is equally beneficial. Cross-sectional studies that have used more finely-cut measures of living arrangements find that older adults who live with their spouse report better self-rated health than those who live with others but not their spouse (Weissman and Russell 2018; Waite and Hughes 1999). This is consistent with Cantor's (1979) hierarchical-compensatory model, which suggests that older adults prefer to have assistance from spouses over other kin. Among older women, living with children in particular is associated with poorer self-rated health compared to older women who live only with their spouse (Weissman and Russell 2018; Hughes and Waite 2002). Cross-sectional research on older adult living arrangements and functional health also finds comparative advantages to living with others than living alone (Kharicha et al. 2007), and particular advantages of living with a spouse compared to other relations (Weissman and Russell 2018; Waite and Hughes 1999). However, these patterns may vary by sex, as some scholars have found that women who live alone have better functional health than those who live with a spouse, possibly due to exhibiting high levels of social engagement and independence (Michael et al. 2001).

Despite this evidence linking living arrangements to dimensions of physical health among older adults, studies have not yet explored the extent to which variation in living arrangements between older Black and White adults can account for racial disparities in health. Thus, in this analysis I evaluate whether variation in living arrangements accounts for part of the disparities in self-rated health and functional limitations between older Blacks and Whites.

Race, Living Arrangements, and Caregiving Responsibilities in Later Life

Living arrangements may contribute to racial disparities in older adult health via informal caregiving responsibilities. While aging may increase a person's likelihood of needing the help of an informal caregiver, increased life expectancy in the United States has also shifted informal caregiving responsibilities into later years of life (Silverstein and Giarrusso 2010). One-third of all caregivers in the United States are now age 65 or older (National Alliance for Caregiving and AARP 2015). Part of this trend is accounted for by caring for individuals who need lifelong help; for example, about a quarter of caregivers for people with developmental disabilities are at least 60 years old (Braddock et al. 2015). The average age of caregivers for an individual 65 years or older is 63 years (National Alliance for Caregiving and AARP 2015), reflecting multiple demographic trends. First, while spouses are often the first source of caregiving for an aging adult (Lima et al. 2008), women in late middle age and early years of older adulthood may also become caregivers for their aging parents (Pope, Kolomer, and Glass 2012). As a result of increases in life expectancy, one-third of people ages 60-74 in the United States now have a surviving parent (Brody 2010). Compared to the first half of the 20th century, older adults today are also more likely to provide care to their grandchildren. One-third of all grandmothers in the United States who live with a grandchild are the child's primary caregiver and not simply a co-resident (Seltzer and Yahirun 2013).

Patterns of informal caregiving vary for Black and White older adults in terms of who provides care, the types of care given, and the duration of care provided. Early work on caregiving networks found that older Blacks have a more diverse group of caregivers, including siblings, friends, and relatives, while older Whites were more likely to be cared

for by only their spouse (Lum 2005; Lawton et al. 1992). More recent research confirms that this is partially a reflection of older Blacks living with extended family members more frequently and having lower rates of marriage than Whites (Lum 2005; Peek 2000). Evidence from national samples shows that Blacks also report more balanced exchanges of support within their kin networks than Whites (Sarkisian and Gerstel 2004). This means that among older Blacks, having a more diverse group of caregivers may be balanced by also providing care to a wider range of kin. Research has shown that older Blacks are more likely to give care to people outside their immediate family, like friends, than older Whites (McCann et al. 2015). Blacks are also more likely to be informal caregivers at all in older adulthood and to spend more time on caregiving responsibilities each week compared to older Whites (McCann et al. 2015). SES may account for part of this pattern, as Whites have higher rates of using formal caregiving services (Miller and Guo 2000).

Despite the potential to do more caregiving in older adulthood than their White counterparts, older Black caregivers may also struggle more to access the services and support their need for their caregiving responsibilities. Qualitative research finds that the inaccessibility of formal services plays a significant part in the experiences of Black grandmothers who care for their grandchildren (Simpson and Lawrence-Webb 2009). Older Black women are more likely to be living near the poverty line than their White counterparts in general (Tucker and Lowell 2016), and do not always access the services designed to assist custodial grandparents, such as health insurance and Temporary Assistance for Needy Families (TANF) benefits that extend to all household members (Minkler and Fuller-Thomson 2005).

Longitudinal research has found that entering into an informal caregiving role predicts declines in both self-rated health (McCann et al 2004; Burton et al. 2003) and functional ability (McCann et al. 2004) for older adults compared to aged-matched non-caregivers. Health declines have been observed among those providing both basic self-care (e.g., bathing, dressing) and instrumental (e.g., housekeeping, shopping) assistance to a loved one, though the greatest declines were found in older adults who transitioned into providing self-care assistance over longer periods of time (Burton et al. 2003). The pathways between caregiving and health declines are thought to be multidimensional, and can result from a combination of the physiological effects of stress, injuries sustained during caregiving activities that require physical assistance, and caregivers' diminished opportunities to engage in their own preventive health behaviors (American Psychological Association 2011). While longitudinal research has not yet fully explored how these trends vary with the nature of the relationship between caregiver and recipient, evidence from cross-sectional studies suggests that the health burdens associated with caregiving may be particularly severe for co-residential relationships, as caregivers have fewer opportunities for respite from their caregiving role (Pinquart and Sorensen 2007; Brodaty and Hadzi-Pavlovic 1990). Caregiving responsibilities that arise through stressful circumstances may also have particularly harmful health-related consequences. For example, grandmothers raising their grandchildren in skip-generation households report poorer health than other grandmothers with child-rearing responsibilities (Seltzer and Yahirun 2013).

In this analysis, I theorize that caregiving responsibilities may be a mechanism through which living arrangements contribute to health disparities between older Black

and White adults. Specifically, the frequency of caregiving responsibilities may 1) differ for Blacks and Whites, 2) vary across living arrangements, and 3) have significant associations with self-rated health and functional limitations. Thus, in this analysis I evaluate whether the statistical association between race and health outcomes when living arrangements are controlled is mediated by caregiving responsibilities.

Race, Living Arrangements, and Social Support and Strain

Social support and strain may be another mechanism through which living arrangements contribute to racial disparities in older adult health. Social support refers to the extent to which a person's social, emotional, and/or practical needs are met by the individuals with whom they interact (Thoits 1982; Kaplan 1977). The significance of social relations for well-being were first empirically documented in sociological literature with Durkheim's (1897) *Suicide.* In contemporary social research, having sources of social support is thought to positively influence physical health by buffering against the neuroendocrine and immune functioning problems associated with stress (Thoits 2011; Uchino 2006). Longitudinal evidence finds significant associations between positive social exchanges and physical function among older adults (Andrew et al. 2008; Avlund et al. 2004). Spouses may be a particularly important source of social support in older adulthood, as people tend to maintain fewer social relationships as they age (Lang and Carstensen 2002). Lacking social support in later life, by contrast, may be a risk factor for poorer health. Older adults who live alone, for example, report worse self-rated health and more functional limitations than those who live with other people in cross-sectional research (Kharicha et al. 2007); similar patterns have been found for these health outcomes among later midlife adults who live alone in comparison to those living with a

spouse (Hughes and Waite 1999). While living alone and the absence of social support are not synonymous, recent research identifies living alone as one potential risk factor for feeling lonely or being socially isolated (Smith and Victor 2018). Loneliness, in turn, predicts functional decline in older adults (Perissinotto, Stijacic Cenzer, and Covinsky 2012).

However, living with other people is not a guarantee of having social support. Moorman (2016), for example, finds that one-third of older adults who live with their spouse report loneliness. This is consistent with Weiss's (1974) typology, which distinguishes social loneliness (or lack of a social network) and emotional loneliness (or the lack of intimate attachment with other people) as two types of loneliness that exist independently with one another. Additionally, having lots of social ties is not always positively associated with well-being. Especially among women, having more social connections is associated with increases in stress through a "cost of caring" phenomenon, in which network events, or the negative life events of social network members, induce stress. Women with more negative life events occurring within their social network have reported higher than average levels of stress (Hampton et al. 2015).

Having more social connections can also increase the likelihood of experiencing social strain, or negative social interactions characterized by conflict and dispute (Chen and Feeley 2014; Shiovitz-Erza and Leitsch 2010). Older adults report less strain in their relationships than younger adults, though the relatively infrequent nature of such conflict also means that instances of strain are more distressing (Birditt and Fingerman 2005). Longitudinal data from national surveys have linked social strain to poorer self-rated health among older adults (Krause, Newson, and Rook 2008) and to increased mortality

(Birditt and Antonucci 2008) in both middle-aged and older adults. Conflict in family relationships (Umberson et al. 2006; Robles and Kiecolt-Glaser 2003) and perceived lack of emotional support (Seeman et al. 2002) can lead to chronically elevated stress hormones levels, increasing allostatic load over time.

However, in family relationships, social strain is not mutually exclusive of social support. Family networks characterized by high levels of support are not necessarily characterized by low strain, nor vice versa, and prior research has documented the co-occurrence of both support and strain within family relationships for older adults (Chen and Feeley 2014; Fingerman, Hay, and Birditt 2004). This is attributed to the conceptualization of family relationships as being more permanent and difficult to withdraw from, which can create conflicting experiences of feeling both support and strain during times of family conflict. Friendships, by contrast, are thought of as voluntary relationships from which people have the option to withdraw, and are thus less likely to be characterized by mixtures of both support and strain (Lawton, Silverstein, and Bengtson 1994).

Trends in social support and strain may differ for Blacks and Whites, though findings are mixed. While some research has found that Blacks both provide and receive more support from kin than Whites (Taylor et al. 2013; Gerstel 2000; Gerstel and Gallagher 1994), other studies have found no differences in the overall amount of social support received by race (Kiecolt, Hughes, and Keith 2008; Sarkisian and Gerstel 2004). These discrepancies may be resolved by how support is conceptualized and measured. Some theorists have argued that because Blacks have large kin networks and ties to extended family, social support is strong within Black families (Hill 1999; Stack 1974).

Quantitative research finds that Blacks do have more daily interaction with a wider range of family members than Whites (Taylor et al. 2013; Ajrouch, Antonucci, and Janevic 2001), but having more social ties is not always correlated with more perceived social support. Despite having larger kin networks and more frequent contact with kin, some research has found that Blacks are less likely than Whites to report having a confidant (McPherson, Smith-Lovin, and Brashears 2006), even among those who are married (Kiecolt et al. 2008), and having someone to confide in is a key indicator of perceived emotional support. Black women perceived having fewer exchanges of emotional support with their kin networks than White women, which may reflect cultural differences in the acceptability of seeking emotional support (Sarkisian and Gerstel 2004).

Considering different types of social support is also important for understanding differences in social support for Blacks and Whites. Sarkisian and Gerstel (2004) find that when considering various types of support simultaneously, there is no overall difference between Blacks and Whites in the amount of support given and received. However, when considered separately, the authors find that Whites are more likely than Blacks to exchange financial support, while Blacks are more likely than Whites to exchange practical support, such as transportation and child care. These associations were partially explained by differences in SES and family composition between Blacks and Whites.

There is comparably less research on differences in social strain between Blacks and Whites, and existing research has produced mixed results. When considering social relationships overall, Kiecolt and colleagues (2008) found no differences in strain for Blacks and Whites. There may be difference patterns for family relationships, however.

For example, Blacks have reported less satisfaction with and more conflict within marriages than Whites (Broman 2005, 1993). Among those who are unmarried, never-married and divorced African Americans feel less close to kin than their married counterparts, and among Black Caribbeans, being unmarried is positively associated with having more family strain (Lincoln, Taylor, and Chatters 2012).

In this analysis, I theorize that social support and strain may be a mechanism through which living arrangements contribute to health disparities between older Black and White adults. Specifically, 1) Blacks and Whites may experience social support and strain at different rates, 2) the presence of support and strain may vary for those who live alone, with a spouse, or with others, and 3) social support and strain may have significant associations with self-rated health and functional limitations. Thus, in this analysis I evaluate whether the statistical association between race and health outcomes when living arrangements are controlled is mediated by social support and strain.

SES and Other Demographic Correlates of Living Arrangements and Physical Health

In the United States, SES has a strong graded association with health (Adler et al. 1994), and social scientists have argued that social class conditions are the fundamental cause of health and illness outcomes (Link and Phelan 1995). SES varies significantly by race. Since the 1970s, though Black adults have experienced the single largest increase in household income of any major racial/ethnic group in the United States, they still lag behind Whites on major indicators of SES, including educational attainment, household income, wealth, and home ownership (Williams, Priest, and Anderson 2016). Blacks ages 65 and older have more than double the rate of poverty compared to age-matched Whites (Mather 2016). Among older adults in low-income households, Blacks are less than likely

than Whites to receive Social Security benefits, but more likely to be reliant on Social Security for more than 90 percent of their family income when they do receive it (Waid 2016). These differences in SES account for a significant part, but not all, of the health disparities in race (Braveman et al. 2010).

SES also varies by living arrangements in the United States. Social scientists conceptualize families as economic units (Ross and Sawhill 1977), as household composition is significantly associated with economic resources. Households headed by married couples report higher income levels than households headed by single people (Waite and Gallagher 2001); this is especially true of households in which both spouses are working (Pew Research Center 2015). Among households headed by older adults, while economic circumstances have greatly improved since the mid-20th century in general, some older female-headed households remain vulnerable. Older divorced women and women who never married are at risk of economic hardship due having lower Social Security benefits and higher rates of poverty than older married or widowed women (Lin, Brown and Hammersmith 2017). Women from lower-income households are also likely to become widowed sooner than their more privileged counterparts, meaning fewer economic resources beyond Social Security must be stretched over more remaining years of life (Karamcheva and Munnell 2007). Women who live without a spouse and care for children are also likely to experience financial instability (Wang, Parker, and Taylor 2013); this pattern persists into later stages of the life course for women who become the primary caregivers to their grandchildren (Seltzer and Yahirun 2013).

Furthermore, virtually all large-scale changes in U.S. family structure that have occurred in the past 30 years have differed along social class lines, and this has

implications for older adult head-of-households. Since the 1980s, those with college degrees have experienced increasing rates of marriage and declining divorce rates, while those without degrees have experienced higher rates of marital instability (Seltzer and Yahirun 2013; Cherlin 2010). These changes are likely to have a disproportionate effect on older adults from families with limited economic resources, as they may be more likely to provide financial support to their children and grandchildren than their wealthier counterparts (Seltzer and Yahirun 2013). This trend was exacerbated as a result of the 2007-2009 recession, during which financial assistance from older parents to adult children made up the bulk of economic transfers (Mather 2015). Thus, given these associations of SES with race, living arrangements, and physical health, I control for SES in this analysis to assess whether it can account for the effect of living arrangements on the race disparities in physical health.

The association between race, living arrangements, and physical health may also vary by other demographic factors, including sex, age subgroup, and marital history. Older women report poorer self-rated health (Bath 2003) and more functional limitations (Dunlop et al 2002) than older men. The association between living arrangements and health also differs for men and women. For example, while older men do uniformly better when living with a spouse, the same pattern does not consistently exist for women (Poulain and Herm 2016; Davis et al. 1992). Older Black and White adults have different outcomes in physical health by age subgroup. While functional limitations tend to increase with age (Lee et al. 2008), the specific age of onset varies by race, with Black adults experiencing more functional limitations at earlier ages (Thorpe et al. 2016). Furthermore, while Blacks have a shorter life expectancy than Whites at midlife (Pollard

and Scommegna 2013), by age 80, a "crossover effect" in mortality occurs, with Blacks having greater longevity than their White counterparts (Hargrave 2010; Lynch, Brown, and Harmsen 2003). In terms of living arrangements, some evidence suggests that the health advantage of living with a spouse disappears among individuals 80 years or older (Staehelin et al. 2012).

Finally, the effect of living arrangements on race disparities in health may vary with marital history. Specifically, while living alone in old age is associated with poorer health by some estimates, those who have always lived alone during their adult years may not be as vulnerable as individuals who previously lived with a spouse and transitioned to living alone (Poulain and Herm 2016; Pudrovska, Schieman, and Carr 2006). Thus, my analysis also controls sex, age subgroup, and marital history.

The Causal Ordering of Living Arrangements and Health

Most of the research on older adult living arrangements and physical health to date (Weissman and Russell 2018, Kharicha et al. 2007; Hughes and Waite 1999) uses cross-sectional designs. But the association between living arrangements and older adult health may also be explained by the influence of health status on with whom older adults live. Cross-sectional research on living arrangements, self-rated health, and functional limitations has not been able to fully address this potential selection bias. Declines in health and functional abilities are a major reason why older adults may relocate to the homes of their adult children or other family members (Oswald et al. 2002), especially if they do not live with a spouse (Seltzer and Friedman 2014). Some evidence also suggests that there is a social selection effect of marriage, where healthier individuals are more likely to marry and stay married (Goldman et al. 2001). Cross-sectional associations

between living arrangements and health may therefore be a result of the way that health concerns affect where and with whom ones lives, especially among older adults living with people who are not their spouse. Thus, to account for potential reverse causation between living arrangements and health, I control for a retrospective baseline measure of respondents' health.

Summary

Social determinants of health over the life course cause Blacks to arrive in old age with poorer health outcomes than Whites. Socioeconomic inequities also contribute to Blacks and Whites having different living arrangements in old age, with older Blacks being less likely to live with a spouse and more likely to live with dependent children or other extended family members. These variations in living arrangements are associated with older adults' physical health outcomes like self-rated health and functional limitations, though no study of which I am aware has linked variation in living arrangements to race disparities in older adult health. In this analysis, I measure the baseline effect of race on self-rated health and functional limitations in a sample of Black and White adults ages 55 and older, and then control for living arrangements to evaluate whether they partially explain the race differences in health outcomes. I next assess whether caregiving, social support, and social strain are mechanisms through which living arrangements can explain part of the race disparities in health. I then adjust for socioeconomic and other demographic characteristics, and finally control for baseline health to account for the possibility that health status selects older adults into different living arrangements.

DATA & METHODS

Data

Data are from the National Survey of Midlife Development in the United States (MIDUS) 2 (2004-2006) (N = 4,633) and the Midlife in the United States: Milwaukee African American Sample (2005-2006) (N = 592) (Brim, Ryff, and Kessler 2004). The MIDUS is a nationally representative probability sample of non-institutionalized English-speaking adults ages 25 to 74, selected from telephone banks in the continental United States. First, households were selected via random digit dialing, then stratified sampling was used to select respondents within households to obtain data from a variety of household members. Data for the main MIDUS sample were collected through telephone interviews and self-administered questionnaires first in 1995-1996, a second time in 2004-2006, and a third time in 2014. The Milwaukee Sample is a sample of 592 self-identified Blacks and African Americans from Milwaukee, Wisconsin, from which data were collected in 2004-2006. This oversample was included to maximize representation from African Americans in MIDUS in order to examine health issues in minority populations. Areas of Milwaukee were stratified according to the proportion of the population that identified as Black or African American. Areas with high concentrations were sampled at higher rates than areas with lower concentrations. Area probability sampling methods were used along with population counts from the 2000 U.S. Census to identify potential respondents. Households were screened for the presence of African American or Black adults, as well as age and gender. Respondents were interviewed using Computer Assisted Personal Interview (CAPI) and self-administered questionnaires. All measures used were parallel to those in the MIDUS 1 and 2 samples. I

use the second wave of MIDUS data, which is the only wave to include the Milwaukee African American oversample, in order to maximize the number of Black respondents in my analytic sample.

The full MIDUS 2 main sample combined with the Milwaukee sample includes 5,555 respondents. I first limit the analytic sample to those who are age 55+ at the time of MIDUS 2 survey, retaining 2,735 respondents or 49% of the full sample. While age 65 is a more commonly used age cut point to define older adulthood (World Health Organization 2002), this analysis uses age 55 to both maximize sample size and to account for differences in the way Blacks and Whites age. Blacks have a shorter life expectancy and poorer health at midlife (Pollard and Scommegna 2013), as well as an earlier onset of chronic health conditions associated with aging (Thorpe et al. 2016). Furthermore, Blacks also meet some of the benchmarks associated with adulthood, such as childrearing (Barber, Yarger, and Gatny 2015; Braboy Jackson and Berkowitz 2005), earlier than their White counterparts, making a lower cut point for the transition to older adulthood more appropriate from a psychosocial perspective.

I next limit the sample to include only Black and White respondents, as only 281 respondents, or 4% of the MIDUS main plus Milwaukee sample, identify as another race. I then conduct exploratory analyses to show how patterns of missing data on self-rated health and functional limitations measures vary across categories of independent variables. While no cases in my analytic sample were missing self-rated health data, those with missing functional limitations data were more likely to be White, male, and have at least 13 years of education. I use listwise deletion to account for missing data across variables, retaining 83% of the sample. Of the 455 cases dropped, 105 cases (23%)

were dropped due to missing functional limitations data. My final analytic sample consists of 2,150 respondents, including 1,919 White respondents and 231 Black respondents.

Measures

Dependent Variables

Two measures of physical health are included in the analysis. *Self-rated health* is measured with the question, "In general, would you say your physical health is excellent, very good, good, fair, or poor?" Responses are coded so that 1 = poor and 5 = excellent. *Functional limitations* are measured using the Instrumental Activities of Daily Living (IADL) scale. Respondents were asked how much their health limits them in seven activities: "lifting or carrying groceries," "climbing several flights of stairs," "bending, kneeling, or stooping," "walking more than a mile," "walking several blocks," "vigorous activities (e.g., running, lifting heavy objects)," "moderate activities (e.g., bowling, vacuuming)." Response categories for all items are a lot, some, a little, and not at all. Responses for all items were reverse-coded by MIDUS so that higher scores reflect a greater degree of difficulty in performing these activities. The scale is constructed using the sum value of the respondents' responses to all seven reverse-coded items.

Key Independent Variables

Race is coded so that Black = 1. Respondents were asked, "What are your main racial origins— that is, what race or races are your parents, grandparents, and other ancestors?" Black and African American are included as a single response category for

this question; this measure may therefore include multiple ethnicities that cannot be assessed separately, including Afro-Caribbean or African-born respondents.

I consider four measures of household living arrangements. Respondents were asked to identify members of their household and their personal relationship to each member. *Lives alone* is the reference category, and measures respondents who do not share a household with any other individuals. *Lives with spouse/partner* measures respondents who live with a spouse, partner, or same sex partner,[3] regardless of others who may live in the home. *Lives with children* measures respondents who live with biological, adopted/foster, or stepchildren or grandchildren in their home, but do not live with a spouse, and *Lives with others* measures respondents who live with any other person besides children or their spouse.

Control Variables

I consider three measures of caregiving responsibilities. Respondents were first asked whether they had given care to any family member or friend in the past 12 months due to that person's physical or mental condition, illness, or disability, and next asked whether the person to whom they provided care is a member of their household. From this, I constructed three dichotomous measures of caregiving responsibilities*: gives care to a non-household member, gives care to a household member,* and *does not give care*.

I consider four measures of social support and strain. Consistent with other studies of older adult social relations and well-being, I examine social support and social strain as separate measures (Chen and Feeley 2014; Shiovitz-Erza and Leitsch 2010;

[3] I list "partner" and "same sex partner" separately because they are listed as distinct measures in the MIDUS household roster questions.

Newsom et al. 2003). All four scales were developed in prior research by authors of the MIDUS (Whalen and Lachman 2000; Schuster, Kessler, and Aseltine 1990), and respondents' scores were pre-constructed by the MIDUS team in the public use dataset for Wave 2. *Family support* was constructed by calculating the mean of responses to four items. Respondents were asked: "Not including your spouse or partner, how much do members of your family really care about you?" "How much do they understand the way you feel about things?" "How much can you rely on them for help if you have a serious problem?" "How much can you open up to them if you need to talk about your worries?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. *Family strain* was constructed by calculating the mean of responses to four items. Respondents were asked: "Not including your spouse or partner, how often do members of your family make too many demands on you?" "How often do they criticize you?" "How often do they let you down when you are counting on them?" "How often do they get on your nerves?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. While these are the best available measures of family social support and strain in the MIDUS 2, they do not ask the respondents to distinguish between family members in their household and other family relationships.

Friend support was constructed by calculating the mean of response to four items. Respondents were asked: "How much do your friends really care about you?" "How much do they understand the way you feel about things?" "How much can you rely on them for help if you have a serious problem?" "How much can you open up to them if you need to talk about your worries?" Response categories were a lot, some, a little, or

not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. *Friend strain* was constructed by calculating the mean of responses to four items. Respondents were asked: "How often do your friends make too many demands on you?" "How often do they criticize you?" "How often do they let you down when you are counting on them?" "How often do they get on your nerves?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale.

I control for five categories of demographic and socioeconomic characteristics. *Sex* was coded so that female = 1. I create three dichotomous measures of age subgroup: *under 65, 65-74 years,* and *75 or more years;* respondents 65-74 years old are the reference group. Educational attainment is measured with the following subgroups: *less than 12 years, 12 years, 13-15 years, and 16 or more years,* with respondents with 12 years of education as the reference group. *Never married* is a dichotomous measure of whether the respondent reports ever having been married; those who do not report a history of marriage = 1.

Finally, in order to assess causality between living arrangements and health, I consider a measure of *baseline health.* This is the respondent's assessment of their overall health ten years ago on a scale ranging from 0-10, with 10 being the best possible health. I dichotomized this measure so that responses 0-5=1, indicating poorer baseline health. This measure was included as an approximation of baseline health, given that the Milwaukee oversample was only collected during one wave of MIDUS, and the analysis therefore only includes one wave of data.

Analytic Strategy

The analysis includes five nested ordered logistic regression models for self-rated health and five nested ordinary least squares (OLS) regression models for functional limitations. The sequence of models is the same for both outcome measures. Model 1 includes the main effect of race, and Model 2 controls for living arrangements. In Model 3, I control for caregiving, social support, and social strain measures. Model 4 controls for demographic characteristics, including gender, race, age subgroup, educational attainment, and history of marriage. Finally, Model 5 controls for baseline health status. P-values ≤ 0.05 were assessed as statistically significant. All analyses were conducted using Stata 15 (StataCorp 2017).

RESULTS

Bivariate Analyses

I present descriptive statistics (means and proportions) for all variables included in the analyses by race in Table 2.1. Independent samples t-tests were used to compare the means on all continuous measures for Black and White respondents, and chi-square tests were used to compare proportions on all categorical measures. Consistent with previous research reporting positive and negative affect as independent constructs that can co-exist at similar levels in the same individuals, Black respondents report significantly higher mean levels of both positive (3.73 vs. 3.52) and negative (1.56 versus 1.45) affect compared to Whites. They report significantly lower levels of life satisfaction.

In terms of living arrangements, White respondents are significantly more likely to live with a spouse. The majority (71%) of White respondents report living with a spouse compared to 36% of Black respondents. Living with others but no spouse was the most frequently reported living arrangement among Black respondents (53%), while this living arrangement was reported by 23% of White respondents. Greater proportions of Black respondents (7%) than Whites (1%) report living with children but no spouse. The least frequently reported living arrangement for the total sample is living alone (4%), and proportions were not significantly different for Blacks and Whites.

Caregiving responsibilities were not significantly different by race, but Black and White respondents did report significantly different levels of social support and strain. Blacks report lower levels of support from both family (3.49 versus 3.59) and friends (3.20 versus 3.32), and slightly higher levels of family (2.02 versus 1.92) and friend strain (1.85 versus 1.76) compared to Whites. A higher proportion of Black respondents than White respondents in the sample are female (63% versus 55%). Black respondents are also relatively younger than White respondents. A significantly higher proportion of Blacks are younger than 65 years of age (57% versus 49%), while a significantly lower proportion are 75 years of age or older (11% versus 17%). Whites report overall higher levels of educational attainment than Blacks; a significantly lower proportion of Whites report having less than 12 years of education (7% versus 23%), and a significantly higher proportion report having 16 or more years (35% versus 17%). A significantly higher proportion of Black respondents report never having been married (10% versus 4%). Finally, while self-rated health ten years ago was not significantly different by race,

double the percentage of Blacks compared to Whites reported poor present health at the time of the survey (35% versus 17%, respectively.)

Multivariate Analyses

Self-Rated Health

Table 2.2 presents the results of the ordered logistic regression of self-rated health on all independent variables. Model 1 includes the unadjusted effect of race on self-rated health, and shows that Black respondents have 63% lower odds of more favorable health ratings than Whites (OR: 0.37). The results of Model 2 indicate that the observed race difference in self-rated health was independent of differences in living arrangements, as the magnitude of the association between race and self-rated health does not change appreciably (OR: 0.42), and there were no significant differences in the associations living with a spouse, children/grandchildren, or others with self-rated health compared to living alone.

Model 3 accounts for the mediating effects of caregiving, social support, and social strain. The results show that the race difference in self-rated health is very slightly reduced by the incorporation of these measures into the model (from OR: 0.42 to OR: 0.44.) Family strain and friend support are also associated with self-rated health. A one unit increase in family strain is associated with a 17% reduction in the odds of reporting more favorable health (OR: 0.83), while a one unit increase in support from friends is associated with a 43% increase in the odds of reporting more favorable health (OR: 1.43).

Model 4 controls for other demographic characteristics, which further reduces the race difference in odds of more favorable health ratings (OR: 0.48). Respondents who are 75 and older report 41% lower odds of more favorable health (OR: 0.59). Greater

educational attainment is associated with higher odds of rating one's health more favorably. Compared to those with 12 years of education, respondents with 13-15 years (OR: 1.52) and 16 or more years (OR: 2.74) have significantly higher odds of reporting more favorable health ratings, while respondents with less than 12 years of education report 34% lower odds (OR: 0.66). Finally, Model 5 controls for the respondent's self-rated health ten years ago, and indicates that the race difference in health is independent of past health, as the difference in the odds of more favorable health ratings for Blacks and Whites does not change appreciably after controlling for this measure (from OR: 0.48 to OR: 0.47). Perhaps not surprisingly, reporting poor past health is independently associated with a 66% reduction in the odds of reporting more favorable health in the present (OR: 0.34).

Functional Limitations

Table 2.3 presents the results of the OLS regression of functional limitations on all independent variables. The main association of race with functional limitations is shown in Model 1. Blacks report functional limitation scores 1.88 units higher than Whites, and the results of Model 2 indicate that this is partially accounted for by living arrangements, as the race difference decreases by about 45% after they are controlled (from b = 1.88 to b = 1.03). Living with others (no spouse, no children) is also associated with having functional limitations scores 2.07 units higher than those who live alone. The race difference in functional limitations further decreases in magnitude by an additional 14% (from b = 1.03 to b = 0.89) after controlling for caregiving, social support, and social strain in Model 3, as does the difference in living with others compared to living alone (from b= 2.07 to b =1.92).

Model 4 controls for other demographic characteristics beyond race, and finds that while the race difference in functional limitations does not change net of these characteristics, the association of living with others with functional limitations is no longer statistically significant. Finally, Model 5 controls for poor self-ratings of health ten years ago to account for reverse causation in the association of living arrangements and health. The race difference in functional limitations is independent of past health and remains stable in magnitude (from b= 0.89 to b =0.91.)

DISCUSSION

This analysis uses national survey data to study the disparities in self-rated health and functional limitation between older Blacks and Whites and whether those disparities can be accounted for by differences in living arrangements. I also assess whether caregiving responsibilities and social support and strain mediate the link between living arrangements, race, and health outcomes. I then control for the effects of socioeconomic and additional demographic characteristics, and finally account for baseline health to ascertain the causal ordering of associations between living arrangements and health.

Living Arrangements Have Different Patterns of Association with Self-Rated Health and Functional Limitations

Consistent with well-documented trends, I find that Blacks having poorer self-rated health than Whites. However, this difference was independent of differences in living arrangements, and there were also no significant associations between living arrangements and self-rated health. This is inconsistent with previous research. To identify potential explanations for this finding, I conducted sensitivity analyses with

different levels of measurement for self-rated health and living arrangements, as well as variation in sample characteristics. Among previous research on older adult living arrangements and self-rated health (Weissmann and Russell 2018; Kharicha et al. 2007; Hughes and Waite 2002), one study used a non-representative sample of older adults in London (Kharicha et al. 2007). The two studies that used a representative sample of U.S. older adults (Weismann and Russell 2018; Hughes and Waite 2002) measured self-rated health on a 5-point scale, as I do in this analysis. However, because meta-analyses have found that reporting "poor" health has a stronger association with mortality than reporting "excellent" health in previous research (DeSalvo et al. 2006), I re-estimated the model using a dichotomous measure of self-rated health that compared the odds of poor health versus all other ratings. I also used a dichotomous measure of "fair or poor" health versus all other ratings, as is often done in population health research. There were no significant associations between living arrangements and self-rated health at any level of measurement.

Next, because Hughes and Waite (2002) use a sample of adults 50 and older, I re-estimated the model using this wider age range to assess whether the association between living arrangements and self-rated health is significant when younger respondents are included, and found that this was not the case. Finally, this analysis compares respondents living with a spouse (regardless of who is in the home), with children (no spouse), or others (no spouse) to respondents living alone, but Weissman and Russell (2018) also include a category for those living with only a spouse as the reference category for their analysis. While the unequal proportion of Black compared to White respondents in my sample required that I create a comparatively more coarsely cut

measure of living with a spouse for this analysis, I re-estimated the model using the presence of a spouse as the reference category. The model showed that respondents who live with others but no spouse had poorer odds of reporting good health than those who lived with a spouse, and that this accounted for a small amount of the race variation in self-reported health (from OR: 0.37 to OR: 0.42). Marriage is a consistent predictor of better health in the general population (Koball et al. 2010), and these findings may suggest that marital status matters more than the presence or absence of any people in the home for self-rated health.

In contrast to self-rated health, I find that the race difference in functional limitations, in which Blacks report more functional limitations than Whites, is partially explained by living with someone other than children or a spouse versus living alone. This suggests variation in the mechanisms through which living arrangements affect health. Hughes and Waite (2002) theorize that self-rated health, as a subjective and global assessment of health, may respond to both actual ill health as well as more subjective evaluations of well-being. Because marriage is a predictor of subjective well-being for older adults, and is also correlated with self-rated health in older populations, the importance of a spouse in this model may indicate that living arrangements affect older adult self-rated health through the way they are perceived in relation to respondents' overall sense of satisfaction with their life. Functional limitations, by contrast, may be affected by living arrangements through more physiological processes. Specifically, the presence of others but no spouse compared to living alone may reflect greater household demands and more stress associated with them.

Family Strain and Friend Support May Be Mechanisms through which Living Arrangements Explain the Race Disparity in Functional Limitations

This analysis also suggests that one mechanism through which living arrangements affect older adult functional limitations is through the quality of relationships in the household. I theorized that the dynamics of support and strain in household relationships would mediate the effect of living arrangements on functional limitations, and supplemental analyses using Baron and Kenny's (1986) steps to establish mediation in multiple regression (as cited in Aneshensel 2013) suggest that family strain partially mediates the association between race, living arrangements, and functional limitations. Specifically, both race and living with others are significantly associated with family strain in bivariate analyses, and family strain is significantly associated with functional limitations when race and living arrangements are controlled (Aneshensel 2013; Baron and Kenny 1986). These associations, along with the retained statistical significance—despite reductions in magnitude—of the association of race and living with others on functional limitations in Model 3, would suggest that older Blacks' greater functional limitations compared to older Whites may be partially accounted for by higher proportions of Blacks living in household arrangements that promote poorer health via family strain.

The effect of family strain in the model may also be explained through physiological or psychological processes. Strain in one's personal relationships has been found to activate the same physiological stress response as perceived oneself to be in immediate, physical danger (Eisenberger and Cole 2012), and chronically elevated stress levels are a predictor of functional decline in old age (Karlamangla et al. 2002).

Psychologically, negative social relationships can promote functional decline because are associated with perceived feelings of loneliness (Perissinnoto, Cenzer, and Covinsky 2012). Loneliness is a significant predictor of psychological distress in older adults (Cornwell and Waite 2009), which in turn can make people less motivated to engage in behaviors that are conducive to functional health (Shankar et al. 2011). Loneliness is also correlated with poorer sleep quality and inflammatory control, both of which are risk factors for functional limitations in old age (Lenze et al. 2005). While I do not directly test loneliness in this analysis, feelings of loneliness can exist independently of social isolation, and social strain has been found to intensity feelings of loneliness in older adults (Chen and Feely 2014). My findings may therefore also indicate living arrangements characterized by familial strain negatively affect the functional health of older household members through increasing feelings of loneliness.

I also find that friend support is associated with fewer functional limitations. The positive effects of social support on health are well-documented in the aggregate (Thoits 2011, 1995), and some evidence suggests that these benefits extend to functional health among older adult populations by mitigating feelings of perceived loneliness. Individuals who do not marry tend to have stronger networks of friends than those who are married (Klinenberg 2013), and so the negative affect of living with others but not a spouse may be buffered by supportive friendship networks.

Other Demographic Characteristics Explain Away the Effect of Living Arrangements

However, I also find that demographic characteristics explain away the effect of living with others on the race disparity in functional limitations. Supplemental analyses testing how the baseline association of living arrangements on functional limitations

changes when demographic characteristics are controlled confirm this, as the main association of living with others loses statistical significance in the model accounting for demographics. Further analyses show that when considered independently, no single demographic characteristic is responsible for confounding the relationship between living with others and functional limitations. However, sex, age subgroup, and education subgroup are all significantly associated with both living with others and functional limitations in bivariate analyses, lending further confirmation that the relationship between living with others and functional limitations in early models was spurious and accounted for demographic characteristics. Because I theorized that living arrangements may be a proxy for SES, I also conducted supplemental analyses including just the association of education with living arrangements in the model. I find that the deleterious association of living with others on functional limitations remains significant and decreases by 25%. This shows that SES partially explains the negative association of living with others with functional limitations, though it does not fully account for it.

The only demographic characteristic that was not independently significantly associated with functional health in the model was the respondent's history of marriage. Supplemental analyses show that including this predictor in the model explains away the significant effect of living with others on functional health compared to those who live alone. The majority of respondents who have never married report living alone, and so I conducted supplemental analyses of the effect of never marrying and living alone compared to being previously married and living alone. While neither of these conditions were independently associated with functional limitations, controlling for never marrying and living alone explained away the significant association of living with others with

functional limitations compared to living alone. This suggests that living alone may be a proxy for marital history in the model, and that the functional health advantage is with those who have stayed single. Emerging evidence shows that, especially among women, those who never marry report better health outcomes at older ages than married or divorced/widowed women (Kutob et al. 2017). More older Americans are "aging alone" today than in the past (Klinenberg, Torres, and Portacolone 2013), which poses some public health risks. However, those who have stayed single throughout the life course are in relatively good health physically and mentally (Pudrovska et al. 2016), and are not necessarily socially isolated, maintaining strong social networks and staying more active (Klinenberg 2013) than their previously married counterparts. In this analysis, controlling for marital history suggests that living arrangements should be viewed in the context of life course trajectories and how people arrived in their current living arrangements.

No Evidence of Reverse Causality between Living Arrangements and Functional Limitations

Finally, I find that the association between living arrangements, race, and functional limitations cannot be explained away through reverse causality, or the tendency of people with poor functional health to live with others instead of living alone. I attempt to account for the direction of this association by controlling for respondents' self-rated health ten years ago. I find that reporting poor health ten year ago is associated with double the odds of reporting poor functional health at the time of the survey. Because the associations of living arrangements with functional limitations are no longer significant in the fully adjusted model, I conducted supplemental analyses to evaluate how the main associations of living arrangements with functional limitations change

when past health ratings are controlled in order to better assess the direction of these associations. I find that the significant association of living with others with greater functional limitations persists after accounting for past health. The model therefore provides no evidence that the association between living arrangements and functional limitations is a result of chronic health problems selecting older adults into particular living arrangements.

Limitations

This analysis has seven limitations. First, while the MIDUS sample was originally constructed via national random-digit-dialing (Brim et al. 2004), the SES of the MIDUS sample is positively skewed compared to national estimates from 2005 (ICPSR 2019). As shown in Table 2.4, the MIDUS 2 sample has higher educational attainment than estimates of the U.S. population from the 2005 American Community Survey (ACS). The proportion of MIDUS 2 respondents with 12 or fewer years of education is less than half of the 2005 ACS estimate (6% versus 16%), and the proportion with 16 or more years of education is 10% higher in the MIDUS 2 (37% versus 27%). Much of the theory that grounds this analysis is based on issues of SES, specifically that older Blacks' history of economic exclusion has influenced their overrepresentation in living arrangements that are associated with poorer health in prior research. The positive SES skew of the MIDUS 2 sample may not be able to fully capture the full extent of experiences of SES disadvantage that exist for Blacks at the national level. Furthermore, the MIDUS 2 sample may also be comparatively advantaged in terms of health and social integration, which are also key measures in this analysis. Participation in the MIDUS includes a phone interview of approximately 30 minutes in length and 2 self-administered

questionnaires of approximately 45 pages in length each (Brim et al. 2004). Health declines, being unmarried, and changes in social participation are risk factors for attrition in longitudinal research (Weinert, Cudney, and Hill 2008), and the retention of participants across multiple waves of data collection in the MIDUS may also be skewed toward healthier, more socially integrated individuals.

While I cannot explicitly link patterns in my analytic sample to biases in the MIDUS 2 sample, reports of living arrangements in my analytic sample differ substantially from estimates from the 2000 U.S. Census (see Table 2.5). There is no reason of which I am aware related to the sample selection or measurement construction for this analysis that could account for this discrepancy, though the magnitude of difference rates of living arrangements in my sample and national estimates likely limits the generalizability of my findings. The proportion of older adults living alone in my analytic sample is especially smaller than national estimates, and because these respondents represented the reference category in my analysis, the ability of my models to detect differences between these respondents and others may have been limited. This analysis yielded findings that contradicted those from previous research, such as the lack of association between living arrangements and self-rated health. My inability to replicate national estimates of living arrangement categories among older adults may have contributed to the unexpected patterns generated by this analysis.

Third, social conditions and health are often mutually influential, and so to assess causal ordering between these two factors, it is therefore critical to use a baseline measure of health. MIDUS currently includes three waves of data collection. However, the Milwaukee African American oversample was only collected at Wave 2, precluding

the possibility of obtaining a baseline measure of health from a previous wave of data for these respondents. Comparing the experiences of Black and White respondents was a key part of this analysis, and so to maximize the number of Black respondents in my analytic sample, I chose to include the oversample and use only Wave 2 of MIDUS in the analysis. To establish a baseline measure of health using only one wave of data, I control for the respondents' self-assessment at the time of the survey of their health ten years ago. This measure is significantly associated with respondents' current self-rated health, which suggests that it can be a suitable proxy for baseline health in the absence of multiple waves of data. Despite this, I cannot totally eliminate the possibility of recall bias in this measure. Self-report measures are particularly subject to recall bias in survey research (Raphael 1987). Furthermore, because there is a ten-year gap between the baseline and present measures of health included in this analysis with no interim measures, I cannot account for how respondents' physical health status may have changed during this interval. Thus, future research on living arrangements and health would benefit from more well-controlled methods for assessing causal ordering.

Fourth, the Milwaukee oversample measures Black and African American respondents as a single demographic, obscuring differences among African Americans, those with direct descent from African countries, and different Afro-Caribbean and Afro-Latinx ethnicities. Research on health disparities between U.S.-born Black Americans and Black immigrants of African and Caribbean origins finds that that Black immigrants have fewer metabolic risk factors for cardiovascular disease and functional limitations than U.S.-born Blacks, and exceed both U.S.-born White and Black Americans in mortality risk and health behaviors (Singh and Siapush 2002). This is consistent with

other research on the "immigrant paradox," which finds immigrant groups to have better health relative to their U.S.-born peers (Voelker 1994). Comparing Black immigrants from different countries of origin to one another results in further variation; Ghazal Read and Emerson (2005) find that Black immigrants in the United States from minority-White countries of origin have superior health profiles compared to those from majority-White regions like Europe. Groups of Black Americans also have different outcomes related to social exchanges within families. For example, in a study comparing patterns of emotional support and negative interaction within African American and Afro-Caribbean families in the United States, Lincoln and colleagues (2012) find that the being unmarried is associated with receiving more emotional support from family members among African Americans, but with more negative family interaction among Afro-Caribbeans. Their findings highlight the importance of disaggregating groups of Black Americans when studying to Blacks' social support networks, and especially when referencing the strong and supportive networks of extended kin compared to other groups of Americans (Cantor et al. 1994; Stack 1974). The data used for this analysis cannot account for this heterogeneity in measures of health and family relationships.

A fifth limitation of this analysis is that, despite the inclusion of the Milwaukee oversample, the analytic sample still contains unequal proportions of Black and White respondents. While 89% of the analytic sample identified as White, only 11% identified as Black. To further maximize the number of Black respondents in the sample, I include all respondents who are 55 years of age or older. This is a lower cut-point for older adulthood than is traditionally used in social research, though it may be justified given the lower life expectancy, earlier onset of chronic conditions, and earlier age of meeting

benchmarks of adulthood among Blacks compared to Whites in the United States. However, these unequal proportions bias the analytic sample.

As a result of the unequal proportions of Black and White respondents included in this analysis, I create relatively coarsely-cut categories of living arrangements, which is another limitation of the study. I compare the experiences of respondents who live alone, live with a spouse (regardless of others who are present in the home), live with children but no spouse, and those who live with any people other than a spouse or children. Previous work on living arrangements and health for older adults suggests that more nuanced comparisons of household arrangements may be beneficial for understanding how and why living arrangements influence health. The relatively small number of Black respondents included in my analytic sample limited this possibility, as the living arrangement subgroups among Black respondents would have otherwise been too small to conduct multiple regression.

There are also limitations of the models and measures used in this analysis. I consider whether or not the respondent has given care to a friend or family member in the past 12 months and whether or not they live in the same household. These measures do not account for the frequency of caregiving during the past 12 months, however, and likely reflect both regular, long-term caregiving responsibilities and short-term or event-specific assistance that cannot be measured separately. Family strain was significantly associated with poorer self-rated health and functional limitations, but the MIDUS 2 measures of family support and family strain do not ask respondents to consider only family members living in their household. The utility of these measures for accounting associations between race, living arrangements, and health is therefore limited.

Furthermore, the models did not account for health behaviors as a mechanism through which living arrangements could explain race disparities in health. Evidence suggests that living arrangements are significantly associated with health behaviors like dietary quality for older adults, and that specific patterns vary across racial/ethnic subgroups (Davis et al. 2000). Accounting for behavioral pathways between living arrangements and health disparities is needed in future research.

Finally, exploratory analyses showed significant associations between cases with missing functional limitations data and demographic characteristics. Specifically, respondents with missing functional limitations data are more likely to be White, male, and have at least 13 years of educational attainment. Because I use listwise deletion to drop cases with missing data on my dependent variables, my findings may be slightly biased in relation to these factors, limiting the generalizability of the analysis's results.

CONCLUSION

This study highlights living arrangements as a potentially underexplored contributor to race disparities in older adult health. I use national survey data to study the effect of race on self-rated health and functional limitations among Blacks and Whites 55+, and then examine the effect of living arrangements on this association. I also assess how these effects can be accounted for by caregiving responsibilities, social support and strain, other demographic characteristics, and baseline health. I find that the association between race and self-rated health is independent of living arrangements, but that living with people other than a spouse or children partially explains the race disparity in functional limitations, though the significance of living with others was explained away in later models that adjusted for other demographic characteristics. Given these findings,

future research could explore more complex interactions between living arrangements and demographic characteristics in order to understand how the association of living arrangements with health may vary across different social subgroups.

Table 2.1 Means and Proportions for Adults 55+ by Race, Midlife in the United States (2006) (N=2,150)

	Total Sample	White	Black	Test Statistics
Dependent Variable				
Self-Rated Health				
Poor	0.05	0.05	0.09	7.38**
Fair	0.14	0.13	0.27	34.24***
Good	0.31	0.31	0.36	2.64
Very good	0.35	0.36	0.23	15.32***
Excellent	0.15	0.16	0.05	18.44***
Functional Limitations (1=least; 4=most)	2.05 (0.94)	2.02 (0.93)	2.30 (0.99)	-4.30***
Key Independent Variable				
Lives Alone (ref)	0.04	0.04	0.04	0.47
Lives with Spouse	0.67	0.71	0.35	115.12***
Lives with Children (no spouse)	0.02	0.01	0.06	33.22***
Lives with Others (no spouse)	0.27	0.24	0.53	93.75***
Control variables				
No Caregiving (ref)	0.87	0.87	0.84	2.22
Caregiving (non-household member)	0.06	0.06	0.07	0.39
Caregiving (household member)	0.07	0.07	0.10	1.89
Family Support (1 = least; 4 = most)	3.58 (0.55)	3.59 (0.54)	3.50 (0.63)	2.48*
Family Strain (1 = least; 4 = most)	1.93 (0.57)	1.92 (0.56)	2.03 (0.70)	-2.61**

Friend Support (1 = least; 4 = most)	3.30 (0.65)	3.32 (0.63)	3.21 (0.77)	2.43*
Friend Strain (1 = least; 4 = most)	1.77 (0.50)	1.76 (0.48)	1.85 (0.67)	-2.60**
Poor Self-Rated Health 10 Yrs. Ago (0-5 =1)	0.09	0.09	0.12	1.88
Female (=1)	0.55	0.56	0.63	5.51*
< 65 Yrs. Old.	0.49	0.48	0.56	5.07*
65-74 Yrs. Old (ref)	0.34	0.34	0.33	0.05
75+ Yrs. Old	0.17	0.18	0.11	7.45**
< 12 Yrs. Education	0.09	0.08	0.24	61.26***
12 Yrs. Education (ref)	0.30	0.30	0.30	0.04
13-15 Yrs. Education	0.28	0.28	0.29	0.17
16+ Yrs. Education	0.33	0.36	0.17	29.42***
Never married (=1)	0.05	0.04	0.11	18.19***
N	2,150	1,919	231	
%	(100)	(89)	(11)	

Note: Independent sample t-tests were conducted to compare means for continuous measures. Chi-square tests were conducted to compare proportions for categorical measures. Asterisks denote the significance level of the test statistics, where *p≤.05;**p≤.01;***p≤.001.

Table 2.2 Ordered Logistic Regression of Self-Rated Health on Living Arrangements, Midlife in the United States (2006) (N = 2,150)

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
	Odds Ratio (C.I. 95%)	**Odds Ratio (C.I. 95%)**	**Odds Ratio (C.I. 95%)**	**Odds Ratio (C.I. 95%)**	**Odds Ratio (C.I. 95%)**
Black (=1)	0.37*** (0.29-0.48)	0.42*** (0.33-0.54)	0.44*** (0.34-057)	0.48*** (0.37-0.62)	0.47*** (0.36-0.61)
Lives with Spouse		1.10 (0.76-1.60)	1.08 (0.74-1.59)	1.43 (0.87-2.33)	1.39 (0.85-2.270
Lives with Children (no spouse)		0.99 (0.50-1.98)	0.99 (0.50-1.99)	1.75 (0.82-3.72)	1.63 (0.76-3.46)
Lives with Others (no spouse)		0.73 (0.49-1.08)	0.73 (0.49-1.07)	1.05 (0.64-1.71)	1.05 (0.65-1.72)
Caregiving (non-household member)			1.07 (0.77-1.49)	0.90 (0.64-1.25)	0.88 (0.63-1.22)
Caregiving (household member)			1.19 (0.89-1.61)	1.17 (0.87-1.59)	1.17 (0.86-1.58)
Family Support (1 = least; 4 = most)			1.06 (0.90-1.24)	1.10 (0.93-1.31)	1.11 (0.95-1.31)
Family Strain (1 = least; 4 = most)			0.83* (0.71-0.97)	0.79** (0.68-0.94)	0.84* (0.71-0.99)
Friend Support (1 = least; 4 = most)			1.43*** (1.25-1.63)	1.34*** (1.17-1.54)	1.32*** (1.16-1.52)
Friend Strain (1 = least; 4 = most)			0.87 (0.73-1.03)	0.82* (0.68-0.97)	0.80* (0.67-0.96)
Female (=1)				1.13 (0.94-1.34)	1.17 (0.98-1.39)
<65 Yrs. Old				1.13 (0.94-1.34)	1.13 (0.95-1.35)

75+ Yrs. Old				0.59*** (0.47-0.75)	0.58*** (0.46-0.74)
< 12 Yrs. Education				0.66** (0.49-0.89)	0.70* (0.52-0.95)
13-15 Yrs. Education				1.52*** (1.24-1.86)	1.52*** (1.24-1.86)
16+ Yrs. Education				2.74*** (2.24-3.36)	2.73*** (2.23-3.34)
Never Married (=1)				1.36 (0.84-2.18)	1.43 (0.88-2.30)
Poor self-rated health 10 years ago (0-5=1)					0.34*** (0.26-0.44)
Log-likelihood	-3060.8973	-3050.6306	-3019.0893	-2929.4932	-2898.7838
Wald chi-square	60.77***	20.48***	62.80***	173.04***	61.55***
df	1	3	6	7	1
Pseudo R^2	0.01	0.01	0.02	0.05	0.06

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 2.3 Ordinary Least Squares Regression of Functional Limitations on Living Arrangements, Midlife in the United States (2006) (N=2,150)

	Model 1	Model 2	Model 3	Model 4	Model 5
Black (=1)	1.88*** (0.45)	1.03* (0.46)	0.89* (0.46)	0.89* (0.45)	0.91* (0.45)
Lives with Spouse		-0.61 (0.66)	-0.71 (0.67)	-0.81 (0.83)	-0.75 (0.83)
Lives with Children (no spouse)		0.50 (1.23)	0.20 (1.23)	-1.39 (1.28)	-1.24 (1.27)
Lives with Others (no spouse)		2.07** (0.69)	1.92** (0.70)	0.63 (0.84)	0.61 (0.83)
Caregiving (non-household member)			0.36 (0.59)	0.66 (0.56)	0.65 (0.56)
Caregiving (household member)			0.82 (0.53)	0.56 (0.51)	0.57 (0.51)
Family Support (1 = least; 4 = most)			0.55 (0.29)	0.18 (0.28)	0.15 (0.28)
Family Strain (1 = least; 4 = most)			0.97*** (0.29)	0.93*** (0.28)	0.81** (0.28)
Friend Support (1 = least; 4 = most)			-0.73*** (0.23)	-0.71*** (0.23)	-0.66** (0.23)
Friend Strain (1 = least; 4 = most)			0.29 (0.32)	0.81** (0.31)	0.84** (0.30)
Female (=1)				1.68*** (0.29)	1.61*** (0.29)
<65 Yrs. Old				-1.30*** (0.30)	-1.30*** (0.30)
75+ Yrs. Old				2.49*** (0.40)	2.49*** (0.40)
< 12 Yrs. Education				1.27** (0.50)	1.07* (0.50)
13-15 Yrs Education				-0.97** (0.34)	-0.97** (0.34)
16+ Yrs. Education				-1.91*** (0.34)	-1.86*** (0.34)

Never Married (=1)				-0.54	-0.61
				(0.82)	(0.81)
Poor Self-Rated Health 10 Yrs. Ago (0-5=1)					2.42***
					(0.46)
Constant	14.08***	14.01***	12.12***	13.10***	12.96***
	(0.15)	(0.64)	(1.41)	(1.51)	(1.51)
Adjusted R^2	0.01	0.04	0.05	0.14	0.15

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 2.4 Educational Attainment (in Years) of the MIDUS 2 Sample (2004-2006) and U.S. Population Estimates (2005)

	MIDUS 2 (N=4,963)[a]	American Community Survey (ACS) (N=188,950,759)[b]
<12 Yrs.	6%	16%
12 Yrs.	27%	30%
13-15 Yrs.	30%	28%
16+ Yrs.	37%	27%

[a]Source: Inter-University Consortium for Political and Social Research (ICPSR 2019)
[b]Source: American Community Survey (2005)

Table 2.5 Living Arrangements for Adults 65+ in the MIDUS 2 Sample (2004-2006) and U.S. Population Estimate (2000)

	Analytic Sample (N=2,150)		2000 U.S. Census	
	Women	Men	Women	Men
Lives Alone	4%	4%	36%	17%
Lives with Spouse	56%	81%	38%	70%
Lives with Children	3%	1%	13%	4%
Lives with Others	37%	13%	6%	5%

[a]Source: 2000 U.S. Census, as cited in Stepler 2016

Note: The measurement of living arrangement categories for each sample varies. My analytic sample measures respondents who live with any minor children, while the 2000 Census data measures respondents living only with their own children, regardless of age. Furthermore, the 2000 Census data also include respondents living in an institutionalized setting, which accounted for an additional 7% of women and 4% of men in 2000.

REFERENCES

Abramson, Corey M. 2015. *The End Game: How Inequality Shapes Our Final Years.* Cambridge, MA: Harvard University Press.

Adler, Nancy E., Thomas Boyce, Margaret Chesney, Sheldon Cohen, Susan Folkman, Robert L. Kahn, and S. Lenard Syme. 1994. "Socioeconomic Status and Health: The Challenge of the Gradient." *The American Psychologist* 49(1):15-24.

Administration on Aging. 2004. *National Family Caregiver Support Program (FCSP) Complete Resource Guide*. Washington, D.C.: Administration on Aging.

Ajrouch, Kristine J., Toni C. Antonucci, and Mary R. Janevic. 2001. "Social Networks Among Blacks and Whites: The Interaction between Race and Age." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 56B(2):112-118.

Andrew, Melissa K., Arnold B. Mitnitski, and Kenneth Rockwood. 2008. "Social Vulnerability, Frailty and Mortality in Elderly People." PLoS ONE 3(5):e2232.

Aneshensel, Carol S. 2013. *Theory-Based Data Analysis for the Social Sciences.* Thousand Oaks, CA: Sage Publications.

American Psychological Association (APA). 2011. "APA Family Caregiver Briefcase." APA Public Interest Directorate Reports. Washington, D.C.: APA. Published August 2011. Accessed September 10, 2019. (https://www.apa.org/pi/about/publications/caregivers).

Avlund, Kirsten, Rikke Lund, Bjorn E. Holstein, Pernille Due. 2004. "Social Relations as Determinant of Onset of Disability in Aging." *Archives of Gerontology and Geriatrics* 38(1):85-99.

Balfour, Jennifer L. and George A. Kaplan. 2002. "Neighborhood Environment and Loss of Physical Function in Older Adults: Evidence from the Alameda County Study." *American Journal of Epidemiology* 155(6):507–515.

Barber, Jennifer S., Jennifer Eckerman Yarger, and Heather H. Gatny. 2015. "Black-White Differences in Attitudes Related to Pregnancy among Young Women." *Demography* 52(3):751-786.

Baron, Reuben M. and David A. Kenny. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Consideration." *Journal of Personality and Social Psychology* 51(6): 1173-1182.

Bath, Peter A. 2003. "Differences between Older Men and Women in the Self-Rated Health-Mortality Relationship." *The Gerontologist* 43(3):387-395.

Berkman, Lisa F. and Thomas Glass. 2000. "Social Integration, Social Networks, Social Support, and Health." Pp. 137-173 in: *Social Epidemiology*, edited by Lisa F. Berkman and Ichiro Kawachi. New York, NY: Oxford University Press.

Birditt, Kira S. and Toni Antonucci. 2008. "Life Sustaining Irritations? Relationship Quality and Mortality in the Context of Chronic Illness. *Social Science and Medicine* 67(8):1291–1299.

Birditt, Kira S., and Karen L. Fingerman. 2005. "Do We Get Better at Picking Our Battles? Age Group Differences in Descriptions of Behavioral Reactions to Interpersonal Tensions." *Journals of Gerontology, Series B: Psychological Sciences & Social Sciences* 60B(3):121–128.

Boen, Courtney. 2016. “The Role of Socioeconomic Factors in Black-White Health Inequities across the Life Course: Point-in-Time Measures, Long-Term Exposures, and Differential Health Returns.” *Social Science and Medicine* 170: 63-76.

Bowling, Ann, Julie Barber, Richard Morris, and Shah Ebrahim. 2006. “Do Perceptions of Neighborhood Environment Influence Health? Baseline Findings from a British Survey of Aging.” *Journal of Epidemiology and Community Health* 60(6): 457-457.

Braboy Jackson, Pamela and Alexandra Berkowitz. 2005. "The Structure of the Life Course: Gender and Racioethnic Variation in the Occurrence and Order/Sequencing of Role Transitions.” *Advances in Life Course Research* 9:55-90.

Braddock, David, Richard Hemp, Mary C. Rizzolo, E. Shea Tanis, Laura Haffer, and Joy Wu. 2015. *The State of the States in Intellectual and Developmental Disabilities: Emerging from the Great Recession.* Washington, DC: American Association on Intellectual and Developmental Disabilities.

Braveman, Paula A., Catherine Cubbin, Susan Egerter, David R. Williams, and Elsie Pamuk. 2010. “Socioeconomic Disparities in Health in the United States: What the Patterns Tell Us.” *American Journal of Public Health* 100(S1):S187-S198.

Brim, Orville G., Carol D. Ryff, and Ronald C. Kessler. 2004. “The MIDUS National Survey: An Overview.” Pp. 1-36 in *How Healthy are We? A National Study of Well-Being at Midlife,* edited by Orville G. Brim, Carol D. Ryff, and Ronald C. Kessler. Chicago, IL: University of Chicago Press.

Brody, Elaine M. 2010. “On Being Very, Very Old: An Insider’s Perspective.” *The Gerontologist* 50(1):2-10.

Brodaty, Henry, and Dusan Hadzi-Pavlovic. 1990. “Psychosocial Effects on Carers of Living with Persons with Dementia.” *Australian and New Zealand Journal of Psychiatry* 24(3):351-361.

Broman, Clifford L. 2005. “Marital Quality in Black and White Marriages.” *Journal of Family Issues* 26(4) 431-441.

-----. 1993. “Race Differences in Marital Well-Being.” *Journal of Marriage and the Family* 55(3):724-732.

Burton, Lynda C., Bozena Zdaniuk, Richard Schulz, Sharon Jackson, and Calvin Hirsch. 2003. “Transition in Spousal Caregiving.” *The Gerontologist* 43(2):230-241.

Cagney, Kathleen A., Christopher R. Browning, and Ming Wen. 2005. “Racial Disparities in Self-Rated Health at Older Ages: What Difference Does the Neighborhood Make?” *Journals of Gerontology Series B: Psychological Sciences & Social Sciences* 60(4):S181-S190.

Cantor, Marjorie H., Mark Brennan, and Anthony Sainz. 1994. “The Importance of Ethnicity in the Social Support Systems of Older New Yorkers.” *Journal of Gerontological Social Work* 22(3-4):95-128.

Cantor, Marjorie H. 1979. “Neighbors and Friends: An Overlooked Resource in the Informal Support System.” *Research on Aging* 1(4):434-463.

Centers for Disease Control and Prevention [CDC]. 2017a. *Health, United States, 2016, With Chartbook on Long-Term Trends in Health.* Accessed September 10, 2019. Hyattsville, MD: CDC.

(https://www.cdc.gov/nchs/data/hus/hus16.pdf#015).

-----. 2017b. *Chronic Disease Overview*. Published June 28, 2017. Accessed September 10, 2019. Hyattsville, MD: CDC. (http://www.cdc.gov/chronicdisease/overview/index.htm.)

Chatters, Linda M., Robert Joseph Taylor, and Rukmalie Jayakody. 1994. "Fictive Kinship Relations in Black Extended Families." *Journal of Comparative Family Studies*, 25(3):197– 313.

Chen, Yixin, and Thomas Hugh Feeley. 2014. "Social Support, Social Strain, Loneliness, and Well-Being among Older Adults: An Analysis of the Health and Retirement Study." *Journal of Social and Personal Relationships* 31(2):141-161.

Cherlin, Andrew J. 2010. "Demographic Trends in the United States: A Review of Research in the 2000s." *Journal of Marriage and Family* 72(3):403-419.

Clark, Rodney, Norman B. Anderson, Vanessa R. Clark, and David R. Williams. 1999. "Racism as a Stressor for African Americans: A Biopsychosocial Model." *American Psychologist* 54(10):805-816.

Cohn, D'Vera and Jeffrey S. Passel. 2018. "A Record 64 Million Americans Live in Multigenerational Households." Washington, D.C.: Pew Research Center. Published April 5, 2018. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/).

Collins, William J. and Robert A. Margo. 2001. "Race and Home Ownership: A Century-Long View." *Explorations in Economic History* 38(1):68-92.

Cornwell, Eric York and Linda J. Waite. 2009. "Social Disconnectedness, Perceived Isolation, and Health among Older Adults." *Journal of Health and Social Behavior* 50(1):31-48.

Davis, Matthew A., Cui Guo, Ketlyne Sol, Kenneth M. Langa, and Barhmajee K. Nallamothu. 2017. "Trends and Disparities in the Number of Self-Reported Healthy Older Adults in the United States, 2000 to 2014." *JAMA Internal Medicine* 177(11):1683-1684.

Davis, Maradee A., John M. Neuhaus, Deborah J. Moritz, and Mark R. Segal. 1992. "Living Arrangements and Survival among Middle-Aged and Older Adults in the NHANES I Epidemiologic Follow-Up Study." *American Journal of Public Health* 82(3):401-406.

DeSalvo, Karen B., Nicole Bloser, Kristi Reynolds, Jiang He, and Paul Muntner. 2006. "Mortality Prediction with a Single General Self-Rated Health Question: A Meta-Analysis." *Journal of General Internal Medicine* 21(3):267-275.

Diex Roux, Ana V., Luisa N. Borrell, Mary Haan, Sharon A. Jackson, and Richard Schultz. 2004. "Neighborhood Environments and Mortality in an Elderly Cohort: Results from the Cardiovascular Health Study." *Journal of Epidemiology and Community Health* 58(11):917-923.

Dunlop, Dorothy D., Larry M. Manheim, Min-Woong Sohn, Xiangyang Liu, and Rowland W. Chang. 2002. "Incidence of Functional Limitations in Older Adults: The Impact of Gender, Race, and Chronic Conditions." *Archives of Physical Medicine and Rehabilitation* 83(7):964-971.

Durkheim, Emile.1897 [1951]. *Suicide: A Study in Sociology.* New York, NY: The Free Press.

Eisenberger, Naomi I. and Steve W. Cole. 2012. “Social Neuroscience and Health: Neurophysiological Mechanisms Linking Social Ties with Physical Health.” *Nature Neuroscience* 15(5):669-674.

Fingerman, Karen L., Elizabeth L. Hay, and Kira Birditt. 2004. "The Best of Ties, the Worst of Ties: Close, Problematic, and Ambivalent Social Relationships.” *Journal of Marriage and the Family* 66(3):792-808.

Fuller-Thomson, Esme, A. Nuru-Jeter, Meredith Minkler, and Jack M. Guralnik. 2009. “Black-White Disparities in Disability among Older Americans: Further Untangling the Role of Race and Socioeconomic Status.” *Journal of Aging and Health* 21(5):677-698.

George, Linda A. 2010. “Still Happy After All These Years: Research Frontiers on Subjective Well-Being in Later Life.” *Journals of Gerontology Series B: Psychological Sciences & Social Sciences* 65B(3):331-339.

Gerstel, Naomi. 2000. “The Third Shift: Gender and Care Work Outside the Home.” *Qualitative Sociology* 23(4):467-483.

Gerstel, Naomi and Sally Gallagher. 1994. “Caring for Kith and Kin: Gender, Employment, and The Privatization of Care.” *Social Problems* 41(4):519-539.

Ghazal Read, Jen’nan and Michael O. Emerson. “Racial Context, Black Immigration, and U.S. Black/White Health Disparity.” *Social Forces* 84(1):181-199.

Goldman, N. 2001. “Social Inequalities in Health: Disentangling the Underlying Mechanisms.” *Annals of the New York Academy of Sciences* 954: 118-139.

Gramlich, John. 2018. “The Gap between the Number of Blacks and Whites in Prison is Shrinking.” Pew Research Center. Published January 12, 2018. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2018/01/12/shrinking-gap-between-number-of-Blacks-and-Whites-in-prison/).

Hampton, Keith, Lee Rainie, Weixu Lu, Inyoung Shin, and Kristen Purcell. 2015. “Social Media and the Cost of Caring.” Pew Research Center. Published January 15, 2015. Accessed September 10, 2019. (http://www.pewinternet.org/2015/01/15/the-cost-of-caring/#fn-12667-30).

Hargraves, Rita. 2010. *Health and Health Care of Older African American Adults.* In eCampus Geriatrics, edited by V.J. Periyakoli. Accessed September 10, 2019. (https://geriatrics.stanford.edu/wp-content/uploads/2014/10/african_american.pdf).

Hill, Robert B. 1999. *The Strength of African American Families: Twenty-Five Years Later.* Lanham: University Press of America.

Howlader, N., A.M. Noone, M. Krapcho, D. Miller, A. Brest, M. Yu, J. Ruhl, Z. Tatalovich, A. Mariotto, D.R. Lewis, H.S. Chen, E.J. Feuer, and K.A. Cronin. 2019. *SEER Cancer Statistics Review, 1975-2016.* Bethesda, MD: National Cancer Institute. Published April 2019. Accessed September 10, 2019. (https://seer.cancer.gov/csr/1975_2016/)

Hughes, Mary Elizabeth and Linda J. Waite. 2002. “Health in Household Context: Living Arrangements and Health in Late Middle Age.” *Journal of Health and Social Behavior* 43(1):1-21.

Hunt, Bijou and Steve Whitman. 2015. “Black-White Health Disparities in the United

States and Chicago: 1990-2010." *Journal of Racial and Ethnic Health Disparities* 2(1):93-100.

Inter-University Consortium for Political and Social Research [ICPSR]. 2019. "Midlife in the United States (MIDUS 1), 1995-1996." ICPSR 2760. Accessed September 10, 2019. (http://icpsr.umich.edu).

Idler, Ellen L. and Yael Benyamini. 1997. "Self-Rated Health and Mortality: A Review of Twenty-Seven Community Studies." *Journal of Health and Social Behavior* 38(1):21-37.

Lynch, Scott M., J. Scott Brown, and Katherine G. Harmsen 2003. "Black-White Differences in Mortality Compression and Deceleration and the Mortality Crossover Reconsidered." *Research on Aging* 25(5):456-483.

Joslin, Daphne and R. Harrison. 1998. "The 'Hidden Patient:' Older Relatives Raising Children Orphaned by AIDS." *Journal of the American Women's Medical Association* 53(2):65-76.

Kaplan, Berton H., John C. Cassel, and Susan Gore. 1977. "Social Support and Health." *Medical Care* 15(S5):S47-S58.

Karamcheva, Nadia, and Alicia H. Munnell. 2007. "Why Are Widows So Poor?" Center for Retirement Research at Boston College. Boston, MA: Center for Retirement Research. Accessed September 10, 2019. (https://crr.bc.edu/wp-content/uploads/2007/07/ib_7-9-508.pdf)

Karlamangla, Arun S., Burton H. Singer, Bruce S. McEwen, John W. Rowe, and Teresa E. Seeman. 2002. "Allostatic Load as a Predictor of Functional Decline: MacArthur Studies of Successful Aging." *Journal of Clinical Epidemiology* 55(7):696–710.

Kearney, Melissa S. and Riley Wilson. "Male Earnings, Marriageable Men, and Non-Marital Fertility: Evidence from the Fracking Boom." *The Review of Economics and Statistics* 100(4):678-690.

Kharicha, Kalpa, Steve Llife, Danielle Harari, Cameron Swift, Gerhard Gillmann, and Andreas E. Stuck. 2007. "Health Risk Appraisal in Older People 1: Are Older People Living Alone an 'At-Risk' Group?" *The British Journal of General Practice: The Journal of the Royal College of General Practitioners* 57(537): 271-276.

Kiecolt, Jill K., Michael Hughes, and Verna M. Keith. 2008. "Race, Social Relationships, and Health." *Personal Relationships* 15(2):229-245.

Klinenberg, Eric. 2013. *Going Solo: The Extraordinary Rise and Surprising Appeal of Living Alone.* New York, NY: Penguin Books.

Klinenberg, Eric, Stacy Torres, and Elena Portacolone. 2013. *Aging Alone in America: A Briefing Paper Prepared for the Council on Contemporary Families for Older Americans Month.* Accessed September 10, 2019. (https://www.contemporaryfamilies.org/wpcontent/uploads/2013/10/2012_Briefing_Klinenberg_Aging-alone-in-america.pdf)

Koball, Heather L., Emily Moiduddin, Jamila Henderson, Brian Goesling, and Melanie Besculides. 2010. "What Do We Know About the Link Between Marriage and Health?" *Journal of Family Issues* 31(8):1019-1040.

Krause, Neal, Jason T. Newsom, and Karen S. Rook. 2008. "Financial Strain, Negative

Social Interaction, and Self-Rated Health: Evidence from Two United States Nationwide Longitudinal Surveys." *Ageing & Society* 28(7):1000-1023.

Kutob, Randa M., Nicole P. Yuan, Betsy C. Weirtham, David A. Sbarra, Eric B. Loucks, Rami Nassir, Gihan Bareh, Mimi M. Kim, Linda G. Snetselaar, Cynthia A. Thomson. 2017. "Relationship between Marital Transitions, Health Behaviors, and Health Indicators of Postmenopausal Women: Results from the Women's Health Initiative." *Journal of Women's Health* 26(4):313-320.

Lawton, Leora, Merrill Silverstein, and Vern Bengtson. 1994. "Affection, Social Contact, and Geographic Distance between Adult Children and Their Parents." *Journal of Marriage and the Family* 56(1):57–68.

Lawton, M. Powell, Doris Rajagopal, Elaine Brody, and Martin H. Kleban. 1992. "The Dynamics of Caregiving for a Demented Elder among Black and White Families." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 47B(4):156-164.

Lang, Frieder R. and Laura L. Carstensen. 2002. "Time Counts: Future Time Perspective, Goals, and Social Relationships." *Psychology and Aging* 17(1):125-139.

Lenze, Eric J., Richard Schultz, Lynn M. Martire, Bozena Zdaniuk, Thomas Glass, Willem J. Kop, Sharon A. Jackson, and Charles F. Reynolds III. 2005. "The Course of Functional Decline in Older People with Persistently Elevated Depressive Symptoms: Longitudinal Findings from the Cardiovascular Health Study." *Journal of the American Geriatrics Society* 53(4):569-575.

Lichter, Daniel T., Diane K. MacLoughlin, George Kephart, and David J. Landry. 1992. "Race and the Retreat from Marriage: A Shortage of Marriageable Men?" *American Sociological Review* 57:781-799.

Lima, Julie C., Susan M. Allen, Frances Goldscheider, and Orna Intrator. 2008. "Spousal Caregiving in Later Midlife versus Older Ages: Implications of Work and Family Obligations. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 63B(4):S229–S238.

Lin, I-Fen, Susan L. Brown, and Anna M. Hammersmith. 2017. "Marital Biography, Social Security Receipt, and Poverty." *Research on Aging* 39(1):86-110.

Lin, Shih-Fan, Audrey N. Beck, and Brian K. Finch. 2014. "Black-White Disparity in Disability Trends among Older Adults: Age, Period, and Cohort Trends." *Journal of Gerontology, Series B: Psychological and Sciences Social Sciences* 69B(5):784-797.

Lincoln, Karen D., Robert Joseph Taylor, and Linda M. Chatters. 2012. "Correlates of Emotional Support and Negative Interaction among African Americans and Caribbean Blacks." *Journal of Family Issues* 34(9):1262-1290.

Link, Bruce G. and Jo Phelan. 1995. "Social Conditions as Fundamental Causes of Disease." *Journal of Health and Social Behavior* 35(S1):S80-S94.

Lum, Terry Y. 2005. "Understanding the Racial and Ethnic Differences in Caregiving Arrangements." *Journal of Gerontological Social Work* 45(4):3-21.

Massey, Douglas S. 2004. "Segregation and Stratification: A Biosocial Perspective." *Du Bois Review: Social Science Research on Race* 1(1):7-25.

Massey, Douglas S. and Nancy Denton. 1993. *American Apartheid: Segregation and Making of the Underclass.* Cambridge, MA: Harvard University Press.

Mather, Mark. 2016. “Fact Sheet: Aging in the United States.” Washington D.C.: Population Reference Bureau. Accessed September 10, 2019. (https://www.prb.org/aging-UnitedStates-fact-sheet/)

-----. 2015. “Effects of the Great Recession on Older Americans’ Health and Well-Being.” Washington, D.C.: Population Reference Bureau. Accessed September 10, 2019. (https://www.prb.org/todays-research-aging-great-recession-2/).

McCann, Judith J., Liesi E. Hebert, Laurel A Beckett, Martha Clare Morris, Paul A. Scherr, and Denis A. Evans. 2015. “Comparison of Informal Caregiving by Black and White Older Adults in a Community Population.” *Journal of the American Geriatrics Society* 48(12):1612-1617.

McCann, Judith J., Liesi E. Hebert, Julia I. Bienias, Martha Clare Morris, and Denis A. Evans. 2004. “Predictors of Beginning and Ending Caregiving during a 3-Year Period in a Biracial Community Population of Older Adults.” *American Journal of Public Health* 94(10):1800-1806.

McPherson, Miller, Lynn Smith-Lovin, and Matthew E. Brashears. 2006. “Social Isolation in America: Changes in Core Discussion Networks Over Two Decades.” *American Sociological Review* 71(3):353-375.

Michael, Yvonne L, Lisa F. Berkman, Graham A. Colditz, and Ichiro Kawachi. 2001. “Living Arrangements, Social Integration, and Change in Functional Health Status.” *American Journal of Epidemiology* 153(2):123-131.

Miller, Bailia and Shenyang Guo. 2000. “Social Support for Spouse Caregivers of Persons with Dementia.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 55B(3):163-172.

Minkler, Meredith and Esme Fuller-Thomson. 2005. “African American Grandparents Raising Grandchildren: A National Study using the Census 2000 American Community Survey.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences.* 60B(2): S82-S92.

Mirowsky, John and Catherine Ross 2003. *Social Causes of Psychological Distress.* 2nd ed. New York, NY: Aldine de Gruyter.

Moorman, Sarah M. 2016. “Dydadic Perspectives on Marital Quality and Loneliness in Later Life.” *Journal of Social and Personal Relationships* 33(5):600-618.

National Alliance for Caregiving (NAC) and AARP. 2015. *Caregiving in the U.S.* Bethesda, MD: NAC.

Newsom, Jason T., Masami Nishishiba, David L. Morgan, and Karen S. Rook. 2003. “The Relative Importance of Three Domains of Positive and Negative Social Exchanges: A Longitudinal Model with Comparable Measures.” *Psychology and Aging* 18(4):746–754.

Omi, Michael and Howard Winant. 1986. *Racial Formation in the United States.* New York, NY: Routledge.

Orsi, Jennifer M., Helen Margellos-Anast, and Steven Whitman. 2010. “Black-White Health Disparities in the United States and Chicago: A 15-Year Progress Analysis.” *American Journal of Public Health* 100(2):349-356.

Oswald, Frank, Olivia Schilling, Hans-Werner Wahl, and Karin Gang. 2002. “Trouble in Paradise? Reasons to Relocate and Objective Environmental Changes among Well-Off Older Adults.” *Journal of Environmental Psychology* 22(3):273-288.

Peek, M. Kristen, Raymond T. Coward, and Chuck W. Peek. 2000. “Race, Aging, and

Care: Can Differences in Family and Household Structure Account for Race Variations in Informal Care?" *Research on Aging* 22(2):117-142.

Perissinotto, Carla M., Irena Stijacic Cenzer, and Kenneth E. Covinsky. 2012. "Loneliness in Older Persons: A Predictor of Functional Decline and Death." *Archives of Internal Medicine* 172(14):1078-1083.

Pew Research Center. 2015. "The American Middle Class is Losing Ground." Pew Research Center. Published December 2015. Accessed September 10, 2019. (https://www.pewresearch.org/wp-content/uploads/sites/3/2015/12/2015-12-09_middle-class_FINAL-report.pdf)

-----. 2013. "Incarceration Gap Widens Between Blacks and Whites." Pew Research Center. Published September 6, 2013. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2013/09/06/incarceration-gap-between-Whites-and-Blacks-widens/).

-----. 2010. "The Return of the Multi-Generational Household." Pew Research Center. Published March 2010. Accessed September 10, 2019. (https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/752-multi-generational-families.pdf)

Pinquart, Martin and Silvia Sorensen. 2007. "Correlates of Physical Health and Informal Caregivers: A Meta-Analysis." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 62B(2):126-137.

Pollard, Kelvin and Paola Scommegna. 2013. *The Health and Life Expectancy of Older Blacks and Hispanics in the United States.* Washington, D.C.: Population Reference Bureau. Published June 2013. Accessed September 10, 2019. (http://www.prb.org/pdf13/TodaysResearchAging28.pdf)

Pope, Natalie D., Stacey Kolomer, and Anne P. Glass. 2012. "How Women in Late Midlife Become Caregivers for their Aging Parents." *Journal of Women & Aging* 24(3):242–261.

Poulain, Michel and Anne Herm. 2016. "Centenarians' Marital History and Living Arrangements: Pathways to Extreme Longevity." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 71B(4):724-733.

Pudrovska, Tetyana, Scott Schieman, and Deborah Carr. 2006. "Strains of Singlehood in Later Life: Do Race and Gender Matter?" *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(6):S315-S322.

Raley, R. Kelly, Megan M. Sweeney, and Danielle Wondra. 2015. "The Growing Racial and Ethnic Divide in U.S. Marriage Patterns." *The Future of Children* 25(2):89-109.

Raphael, Karen. 1987. "Recall Bias: A Proposal for Assessment and Control." *International Journal of Epidemiology* 16(2):167-170.

Robert, Stephanie A. and Erin Ruel. 2006. "Racial Segregation and Health Disparities between Black and White Older Adults." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(4):203-211.

Robles, Theodore F. and Janice K. Kiecolt-Glaser. 2003. "The Physiology of Marriage: Pathways to Health." *Physiology and Behavior* 79(3):409-416.

Rooks, Ronica N., Eleanor M. Simonsick, Tamara B. Harris, Lisa M. Klesges, Anne B.

Newman, and Hilsa Ayonayon. 2008. “Racial Disparities in Health Care Access and Cardiovascular Disease Indicators in Black and White Older Adults in the Health ABC Study.” *Journal of Health and Aging* 20(6):599-614.

Ross, Heather L., and Isabel V. Sawhill. 1977. “The Family as Economic Unit.” *The Wilson Quarterly* 1(2):84-88.

Ruggles, Steven. 1997. “The Rise of Divorce and Separation in the United States: 1880-1990.” *Demography* 34(4):455-479.

Sarkisian, Natalia and Naomi Gerstel. 2004. “Kin Support among Blacks and Whites: Race and Family Organization.” *American Sociological Review* 69(6):812-837.

Sawyer, Wendy and Peter Wagner. 2019. *Mass Incarceration: The Whole Pie 2019.* Prison Policy Initiative. Northampton, MA: Prison Policy Initiative. Published March 19, 2019. Accessed September 10, 2019. (https://www.prisonpolicy.org/reports/pie2019.html).

Schuster, Tonya L., Ronald C. Kessler, and Robert H. Aseltine. 1990. “Supportive Interactions, Negative Interactions, and Depressive Mood.” *American Journal of Community Psychology* 18(3):423-438.

Seeman, Teresa E., Burton H. Singer, Carol D. Ryff, Gayle Dienberg Love, and Lene Levy-Storms. 2002. “Social Relationships, Gender, and Allostatic Load across Two Age Cohorts.” *Psychosomatic Medicine* 64(3):395-406.

Seltzer, Judith A. and Esther M. Friedman. 2014. “Widowed Mothers’ Coresidence with Adult Children.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 69B(1):63-74.

Seltzer, Judith A. and Jenjira J. Yahirun. 2013. *Diversity in Old Age: The Elderly in Changing Economic and Family Contexts.* Russell Sage Foundation. Published November 6, 2013. Accessed September 10, 2019. (https://s4.ad.brown.edu/Projects/Diversity/Data/Report/report11062013.pdf).

Serre, David and Svante Pääbo 2004. “Evidence for Human Gradients in Genetic Diversity Within and Among Continents.” *Genome Research* 14(9):1679-1685.

Shankar, Aparna, Anne McMunn, James Banks, and Andrew Steptoe. 2011. “Loneliness, Social Isolation, and Behavioral and Biological Health Indicators in Older Adults.” *Health Psychology* 30(4):377–385.

Shiovitz-Ezra, Sharon and Sara Leitsch. 2010. “The Role of Social Relationships in Predicting Loneliness: The National Social Life, Health, and Aging Project.” *Social Work Research* 34(3):157–167.

Silverstein, Merrill and Roseann Giarrusso 2010. “Aging and Family Life: A Decade in Review.” *Journal of Marriage and Family* 72(5):1039-1058.

Simpson, Gaynell Marie and Claudia Lawrence-Webb. 2009. “Responsibility Without Community Resources: Informal Kinship Care among Low-Income, African American Grandmother Caregivers.” *Journal of Black Studies* 39(6):825-847.

Singh, Gopal and Mohammed Siahpush 2002. “Ethnic-Immigrant Differentials in Health Behaviors, Morbidity, and Cause-Specific Mortality in the United States: An Analysis of Two National Data Bases.” *Human Biology* 74(1):83-109.

Smith, Kimberley J. and Christina Victor. 2018. “Typologies of Loneliness, Living Alone, and Social Isolation, and their Associations with Physical and Mental Health.” *Ageing & Society* 39(8):1709-1730.

Stack, Carol B. 1974. *All Our Kin: Strategies for Survival in a Black Community.* New

York: Harper & Row.
Staehelin, Katharina, Christian Schindler, Adrian Spoerri, and Elisabeth Zemp Stutz. 2012. “Marital Status, Living Arrangement, and Mortality: Does the Association Vary by Gender?” *Journal of Epidemiology and Community Health* 66(7):e22.
StataCorp. 2017. *Stata Statistical Software: Release 15*. College Station, TX: StataCorp, LLC.
Subramanian S.V., Laura Kubzansky, Lisa Berkman, Martha Fay, and Ichiro Kawachi. 2006. “Neighborhood Effects on the Self-Rated Health of Elders: Uncovering the Relative Importance of Structural and Service-Related Neighborhood Environments.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(3):S153–S160.
Taylor, Myra F., Ruth Marquis, David A. Coall, Rachel Batten, Jenni Werner. 2017. “The Physical Health Dilemma Facing Custodial Grandparent Caregivers: Policy Considerations.” *Cogent Medicine* 4(1):1-14.
Taylor, Robert Joseph, Ivy Forysthe-Brown, Karen D. Lincoln, and Linda M. Chatters. 2017. “Extended Family Support Networks of Caribbean Black Adults in the United States.” *Journal of Family Issues* 38(4): 22-546.
Taylor, Robert Joseph, Linda M. Chatters, Amanda Toler Woodward, and Edna Brown. 2013. “Racial and Ethnic Differences in Extended Family, Friendship, Fictive Kin, and Congregational Informal Support Networks.” *Family Relations* 62(4): 609-624.
Thames, April D., Michael R. Irwin, and Elizabeth C. Breen, and Steve W. Cole. 2019. “Experienced Discrimination and Racial Differences in Leukocyte Gene Expression.” *Psychoneuroendocrinology* 106:277-283.
Thoits, Peggy A. 2011. “Mechanisms Linking Social Ties and Support to Physical and Mental Health.” *Journal of Health and Social Behavior* 52(2):145-161.
-----. 1995. “Stress, Coping, and Social Support Processes: Where Are We? What Next?” *Journal of Health and Social Behavior* 35(S1):S53-S79.
------ 1982. “Conceptual, Methodological, and Theoretical Problems in Studying Social Support as a Buffer against Life Stress.” *Journal of Health and Social Behavior* 23(2):145-159.
Thorpe, Ronald J., Ruth G. Fesahazion, Lauren Parker, Tanganiyka Wilder, Ronica N. Rooks, Janice V. Bowie, Caryn N. Bell, Sarah L. Szanton, and Thomas A. LaViest. 2016. “Accelerated Health Declines among African Americans in the USA.” *Journal of Urban Health* 93(5):808-819.
Thorpe, Ronald J., Annemarie Koster, Hans Bosma, Tamara B. Harris, Elelanor M. Simonsick, Jacques T. M. van Ejik, Gerturids I.J.M. Kempen, Anne B. Newman, Suzanne Satterfield, Susan M. Rubin, and Stephen B. Kritchevsky. 2012. “Racial Differences in Mortality in Older Adults: Factors beyond Socioeconomic Status.” *Annals of Behavioral Medicine* 43(1):29-38.
Tucker, Jasmine and Caitlin Lowell. 2016. *National Snapshot: Poverty among Women and Families, 2015.* National Women’s Law Center Fact Sheet September 2016. Published September 14, 2016. Accessed September 10, 2019. (https://nwlc.org/resources/national-snapshot-poverty-among-women-families-2015/).
Turney, Kristen. 2014. “The Intergenerational Consequences of Mass Incarceration:

Implications for Children's Co-Residence and Contact with Grandparents." *Social Forces* 93(1):299-327.

Uchino, Bert N. 2006. "Social Support and Health: A Review of Physiological Processes Potentially Underlying Links to Disease Outcomes." *Journal of Behavioral Medicine* 29(4):377-387.

Umberson, Debra, Kristi Williams, Daniel A. Powers, Hui Liu, and Belinda Needham. 2006. "You Make Me Sick: Marital Quality and Health over the Life Course." *Journal of Health and Social Behavior* 47(1) 1-16.

Van Dam, Andrew. 2019. "How These Grandparents Became America's Unofficial Social Safety Net." The Washington Post. March 23, 2019. Accessed September 10, 2019. (https://www.washingtonpost.com/US-policy/2019/03/23/how-these-grandparents-became-americas-unofficial-social-safety-net/?utm_term=.2fc162a467c2).

Vespa, Jonathan, Jamie M. Lewis, and Rose M. Krieder. 2013. "America's Families and Living Arrangements: 2012." U.S. Census Bureau Report No. P20-570. Washington, D.C.: U.S. Census Bureau. Published August 2013. Accessed September 10, 2019. (https://www.census.gov/prod/2013pubs/p20-570.pdf).

Vinokur, Amiran D., Richard H. Price, and Robert D. Caplan. 1996. "Hard Times and Hurtful Partners: How Financial Strain Affects Depression and Relationship Satisfaction of Unemployed Persons and Their Spouses." *Journal of Personality and Social Psychology* 71(1):166-179.

Voelker, Rebecca. 1994. "Born in the U.S.A.: Infant Health Paradox." *JAMA* 272(23): 1803-1804.

Whalen, Heather R. and Margie E. Lachman. 2000. "Social Support and Strain from Partner, Family and Friends: Costs and Benefits for Men and Women in Adulthood." *Journal of Social and Personal Relationships* 17(1):5-30.

Waid, Mikki. 2016. "Social Security: A Key Retirement Income Source for Older Minorities." AARP Public Policy Institute. Published March 2016. Accessed September 10, 2019. (https://www.aarp.org/content/dam/aarp/ppi/2016-03/social-security-a-key-income-source-for-older-minorities-aarp-ppi.pdf).

Waite, Linda J., and Maggie Gallagher. 2001. *The Case for Marriage: Why Married People are Happier, Healthier, and Better Off Financially.* New York, NY: Broadway Books.

Waite, Linda J. and Mary Elizabeth Hughes. 1999. "At Risk on the Cusp of Old Age: Living Arrangements and Functional Status among Black, White, and Hispanic Adults." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 54B(3):S136-144.

Walker, Renee E., Christopher R. Keane, and Jessica G. Burke. 2010. "Disparities and Access to Healthy Food in the United States." *Health & Place* 16(5):876-884.

Wang, Wendy. 2015. "The Link between a College Education and a Lasting Marriage." Pew Research Center. Published December 4, 2015. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2015/12/04/education-and-marriage/).

Wang, Wendy, Kim Parker, and Paul Taylor. 2013. "Breadwinner Moms." Pew Research Center. Published May 23, 2013. Accessed September 10, 2019. (http://www.pewsocialtrends.org/2013/05/29/breadwinner-moms/)

Weigers, Margaret E. and Susan K. Drilea. 1999. “Research Findings #10: Health Status and Limitations: A Comparison of Hispanics, Blacks, and Whites.” Agency for Healthcare Quality and Research (AHQR). Rockville, MD: AHQR. (https://meps.ahrq.gov/data_files/publications/rf10/rf10.shtml).

Weinert, Clarann, Shirley Cudney and Wade G. Hill. 2008. “Retention in a Computer-Based Intervention for Chronically Ill Rural Women.” *Applied Nursing Research* 21(1):23-29.

Weiss, Robert S. 1974. *Loneliness: The Experience of Emotional and Social Isolation.* Cambridge, MA: The MIT Press.

Weissman, Judith D. and David Russell. 2018. “Relationships between Living Arrangements and Health Status among Older Adults in the United States, 2009-2014: Findings from the National Health Interview Survey.” *Journal of Applied Gerontology* 37(1):7-25.

West, Loraine A., Samantha Cole, Daniel Goodkind, and Wan He. 2014. “65+ in the United States: 2010.” Current Population Reports P23-212. Washington, D.C.: U.S. Census Bureau. (https://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf).

Williams, David R., Naomi Priest, and Norman Anderson 2016. “Understanding Associations between Race, Socioeconomic Status, and Health: Patterns and Prospects.” *Health Psychology* 35(4):407-411.

Williams, David R. and Charles O. Collins. 2001. “Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health.” *Public Health Reports* 116(5):404-416.

Williams, David R. and Chiquita Collins. 1995. “U.S. Socioeconomic and Racial Differences in Health: Patterns and Explanations.” *Annual Review of Sociology* 21:349-386.

Williams, David R. and Michelle Sternthal. 2010. “Understanding Racial/Ethnic Disparities in Health: Sociological Contributions.” *Journal of Health and Social Behavior* 51(S1):S15–S27.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, The Underclass, and Public Policy.* Chicago, IL: University of Chicago Press.

Wood, Robert G. 1995. “Marriage Rates and Marriageable Men: A Test of the Wilson Hypothesis.” *The Journal of Human Resources* 30(1):163-193.

World Health Organization [WHO]. 2002. “Proposed Working Definition of an Older Person in Africa for the MDS Project.” World Health Organization Health Statistics and Information Systems. Published 2002. Accessed September 10, 2019. (http://www.who.int/healthinfo/survey/ageingdefnolder/en/).

Yen, Irene H., Yvonne L. Michael, and Leslie Perdue. 2009. “Neighborhood Environment in Studies of Health in Older Adults: A Systematic Review.” *American Journal of Preventive Medicine* 37(5):455-463.

CHAPTER 3

Variation in the Effect of Living Arrangements on Subjective Well-Being between Black and White Older Adults

INTRODUCTION

Increased life expectancy and the large Baby Boomer cohort have brought unprecedented growth to America's older adult population. Ensuring that this population has the housing necessary to maintain physical, emotional, and social well-being is vital. As older adults are now living longer in the community (Administration on Community Living 2018), the home environment may become a more salient predictor of well-being. Subjective assessments of well-being, including mood, emotions, and judgements about one's life as a whole, are especially sensitive to aspects of the home environment like living arrangements. Evidence shows that living with a spouse is associated with better subjective assessments of well-being among older adults (Waddell and Jacob Lawson 2010), while living alone (Ong, Unchino, and Wethington 2016) or with other family members (Weissman and Russell 2018; Henning-Smith 2014) may be risk factors for poorer well-being in specific social contexts.

In order to translate findings like these into policies and programs to improve well-being in older adulthood, a better understanding of the mechanisms through which living arrangements are associated with well-being is needed. The influence of living arrangements on subjective aspects of well-being may be partially explained how congruent an older person's living arrangements are with what they consider ideal, preferred, or expected (Davis, Kim, and Fingerman 2018; Russell and Taylor 2009), and these evaluations are likely to vary across social groups. Black and White Americans

differ in both their patterns of living arrangements in older adulthood, as well as attitudes, beliefs, and patterns related to family interaction, and there may be Black/White differences in how living arrangements influence older adult health that have yet to be explored in social research.

Understanding how living arrangements may be associated with well-being in older adulthood differently for Blacks and Whites has multiple benefits. First, Black and White Americans have disparate social, economic, and health outcomes across the life course, and recent research documents the ways in which these disparities are carried into older adult years (Abramson 2015). Identifying the pathways through which living arrangements may produce different outcomes for Blacks and Whites can give social researchers a richer understanding of how race disparities are maintained in older adulthood. This knowledge, in turn, can then be applied to the development of service and support programs aimed at reducing these disparities. Furthermore, the growing older adult population of the United States is also becoming more racially and ethnically diverse (CDC 2017), and this creates greater economic demand for more culturally competency within organizations that provide services to older adults in order to effectively address the needs of this diverse population.

Therefore, in this chapter, I use data from Wave 2 of the Midlife Development in the United States (MIDUS 2) study to assess whether the associations of living arrangements with subjective aspects of well-being are different for older Blacks and Whites. I also assess the psychosocial pathways (i.e., caregiving responsibilities, social support, and social strain) through which living arrangements may have different

influences on well-being by race. Finally, I evaluate whether these associations persist net of other demographic and health status characteristics.

BACKGROUND

Older Adult Subjective Well-Being and Association with Living Arrangements

Subjective well-being (SWB) is a measure of one's quality of life, comprised of two factors: the frequency and intensity of moods and emotional states experienced on a daily basis, and the cognitive evaluations one makes of their life as a whole (Diener 1984). SWB can be assessed using three measures: positive affect, negative affect, and life satisfaction, with good SWB indicated by both high endorsement of positive affect and life satisfaction and low endorsement of negative affect (Tov and Diener 2013). Watson and Tellegen (1985) first documented the robustness and stability of positive and negative affectivity as constructs for self-reports of mood; positive affect can be characterized by positive emotion descriptors, including "happy," "enthusiastic," "elated," or "warmhearted," while negative affect may be characterized by emotional states like "distressed," "fearful," "hostile," or "nervous." Positive and negative affect are independent constructs, as high levels of one dimension do not necessarily indicate low levels of the other (Watson, Clark, and Tellegen 1988), and high levels of both can co-exist in both older and younger adult samples (Kercher 1992). Positive affect is thought to be influenced by personality, and longitudinal research documents evidence of a "set point," or stable level of positive affect to which individuals return after experiencing fluctuations in response to particular situations (Costa, McCrae, and Zonderman 1987). However, Mroczek and Kolarz (1998) argue that there are sociodemographic and

environmental factors related to positive affect which, while relatively weaker predictors of positive affect than individual personality, should not be omitted from studies of emotional well-being. They argue that research on personality and happiness would benefit from the utilization of a multivariate approach that considers individual, demographic, and contextual-level factors. Older age may one such demographic characteristic, as older adults tend to focus more on positive than negative experiences (Lang and Carstensen 2002), and positive emotions may therefore be a more significant aspect of SWB for older adults than for younger populations.

While only a small body of literature considers living arrangements as an environmental factor related to positive affect for older adults, the scant evidence available suggests that the people with whom one lives may have an effect on positive affectivity in later life. Consistent with the well-documented benefits of marriage for emotional well-being (Umberson, Wortman, and Kessler 1992; Menaghan and Lieberman 1986; Pearlin and Johnson 1977), living with a spouse in later life is associated with more happiness than living alone, with children, or with other family members (Waddell and Jacob Lawson 2010). However, Chipperfield, Perry, and Weiner (2003), by contrast, find no association between either marriage or cohabitation and positive emotions in a sample of community-dwelling adults 72-99 years old, a finding which they theorize may be a reflection of other characteristics, like the high number of caregivers among married couples in the sample.

There is comparatively more research on the associations of living arrangements with negative emotions in later life. Living with a spouse is consistently associated with fewer negative emotions than living alone or with other people in both cross-sectional

(Weissman and Russell 2018; Henning-Smith 2014; Greenfield and Russell 2011) and longitudinal (Hughes and Waite 2002) studies. These patterns do not appear to be the result of simply sharing a household with another person, as cross-sectional studies find that older adults who live with someone other than their spouse report more psychological distress than those living with their spouse (Weissman and Russell 2018; Henning-Smith 2014), and among older women, living with children in particular is associated with more depressive symptoms compared to living with other family members (Hughes and Waite 2002). Findings related to the association of living alone with negative affect are more complex. Among older adults, living alone has been linked to greater risk of depressive symptomology in both cross-sectional (Hughes and Waite 1999; Mui and Burnette 1994; Dean et al. 1992) and longitudinal (Hughes and Waite 2002) research. Other studies have found that older adults living alone do not differ from those living with others in terms of depression (Osborn et al. 2003; Hughes and Gove 1981) or that living alone can *decrease* the presence of anger, another dimension of negative affect, in older adults (Schieman 1999). These differences may be a reflection of other research that finds living alone is associated with negative affect among older adults only through particular contexts. A recent meta-analysis finds that perceived loneliness is a key mediator linking living alone to poor mental and emotional health among older adults (Ong, Uchino, and Wethington 2016). While living alone and loneliness are correlated, they are not equivalent (Wenger 1996), and some studies find that living alone is associated with higher levels of social engagement, which in turn is protective against poor mental health (Michael et al. 2001; Hughes and Gove 1981). Furthermore, older adults living alone who are managing chronic conditions are at risk of

having more unmet needs, like assistance with household maintenance and emotional support, putting them at increased risk of psychological distress (Miranda-Castillo, Woods, and Orrell 2010; Gilmour, Gibson, and Campbell 2003).

Finally, life satisfaction, the component of SWB that refers to a person's subjective evaluation of their life when evaluated as a whole (Diener et al. 1985), may also vary by living arrangement in older populations. However, much of the research on older adult living arrangements that measures life satisfaction as an outcome has been done with samples from outside the United States, specifically East and Southeast Asian samples. A consistent finding across these studies is that living with *any* family member is associated with higher life satisfaction than living alone among older Korean (Shin and Sok 2012; An et al. 2008)**,** Chinese (Chou and Chi 2000; Ho et al. 1995), and Malaysian (Kooshair et al. 2012) adults. But given the strong tradition of filial piety across East Asian cultures (Yim 1998), these findings cannot necessarily be extrapolated to American populations. Studies of older adult living arrangements and life satisfaction conducted with American samples are more limited, and find some differences in life satisfaction between older adults who live with others compared to those living alone, which are mostly mediated through concerns about financial insecurity and lack of instrumental support in the event of an emergency (Fengler, Danigelis, and Little 1983; Fengler and Danigelis 1982).

Taken together, previous research suggests that living arrangements may be related to all three components of SWB for older adults, though the amount of available evidence varies by component, and patterns are often mediated through other factors like caregiving responsibilities, perceptions of social support, and financial worries. Thus, in

this analysis, I compare the associations of living arrangements with all three components of SWB, and evaluate which psychosocial pathways may account for the associations of living arrangements with each component among older adults.

Race, Living Arrangements, and Mental Well-Being in Later Life

There is some evidence that the association of living arrangements with older adult mental well-being varies by racial/ethnic group in the United States. Specifically, compared to non-Hispanic older adults, Hispanic older adults who live alone are at greater risk of depressive symptoms (Russell and Taylor 2009; Hughes and Waite 1999). Researchers argue this may reflect the strong preference for close family relationships and the relative importance of family over self within Hispanic communities (Hughes and Waite 1999), a pattern that continues to be reflected in more recent research with Hispanic families (Mayawaki 2016; Savage et al. 2016). Differences in family dynamics exist across major racial and ethnic groups in the United States (McBride Murry, Phillips Smith, and Hill 2001), and so research on older adult living arrangements and SWB may yield more robust estimates by accounting for whether race and ethnicity moderate how and for whom living arrangements matter.

No studies of which I am aware measure how the association of living arrangements with SWB varies for Black and White older adults. However, Black and White Americans have both different patterns of living arrangements in later life and differ on multiple measures of family interaction, including frequency of contact with extended family, the types and frequencies of support exchanges with family, and beliefs about and attitudes toward household roles. This variation in both patterns of living arrangements and dynamics of family relationships may indicate that the same living

arrangements are perceived differently by Black and White older adults, meaning the associations of living arrangements and subjective aspects of well-being are moderated by race.

Variation in Living Arrangements for Older Blacks and Whites

The living arrangements of older Black and White adults differ by three key patterns: marital status, co-residence with grandchildren, and extended family households. Across the adult life course, Blacks have lower rates of marriage than Whites (Raley, Sweeney, and Wondra 2015), and as of the 2010 U.S. Census, higher proportions of older Blacks than older Whites report never marrying (West et al. 2014). These differences in marriage rates are thought to be attributed to structural problems that disadvantage Black Americans, including concentrated poverty in Black communities, which generates chronic underemployment among Black men (Wilson 1987), and the destabilizing effects of mass incarceration on marriage, which disproportionately affects Blacks (Sawyer and Wagner 2019). Older Blacks also have higher rates of divorce than older Whites (West et al. 2014), possibly reflecting greater marital discord among Blacks compared to Whites (Broman 2005, 1993) and higher proportions occupying low socioeconomic status (SES), which is a risk factor for divorce (Wang 2015). Finally, among women who do marry, older Black women become widowed sooner than their White counterparts due to Black men's shorter life expectancy (CDC 2017).

Beyond differences in marriage rates, Blacks are also more likely than Whites to live in multigenerational households (Cohn and Passel 2018; Pew Research Center 2010). Part of this is accounted for by the higher proportion of skip-generation households among Blacks compared to other racial/ethnic groups (Pew Research Center 2010). Black

grandmothers comprise the largest group of grandmothers serving in a primary caregiving capacity to their grandchildren (Seltzer and Yahirun 2013), a pattern frequently attributed problems like mass incarceration (Turney 2014) and the disproportionate effect of HIV/AIDS on Black communities (Joslin and Harrison 1998). Finally, older Blacks are more likely than older Whites to live with extended family members and non-family members, and national survey data finds that one-third of Blacks report having offered housing to a friend or extended family member to assist them with employment or educational opportunities or to help them cope with adverse life circumstances (Taylor, Chatters, and Celious 2003).

Black/White Variation in Attitudes, Beliefs, and Patterns of Interaction Related to Family

The strength of relationships in Black families is often cited as an explanation for the relatively good mental health Blacks report compared to Whites (Breslau et al. 2006). One of the most well-known studies of Black families is Stack's (1974) work *All Our Kin*, which characterizes Black families as extended kin networks that developed as an adaptive strategy against socioeconomic disadvantage. Other research, including both quantitative analyses of national data (Taylor, Chatters, and Celious 2003) and ethnographic research (Aschenbrenner 1983), has since found that Black families exchange instrumental support to help family members and friends cope with financial struggles (Taylor, Chatters, and Celious 2003; Aschenbrenner 1983), career and educational opportunities (Taylor, Chatters, and Celious 2003), job loss (Taylor, Chatters, and Celious 2003; Aschenbrenner 1983), and marital transitions (Aschenbrenner 1983). However, there is also evidence that refutes Stack's characterization of Black families. Taylor, Chatters, and Celious (2003) find that income was positively associated with the

likelihood of living with extended family among Blacks. This suggests that rather than people with limited financial means pooling their resources as Stack described, the prevalence of extended family households among Blacks may be driven by more financially well-off households assisting kin with more limited financial means. Additionally, the protective mental health benefits of living with extended family for Blacks has also been refuted; Kiecolt and colleagues (2008), and more recently Mouzon (2013), find that family relationships do not account for the better mental health Blacks report compared to Whites.

Despite these issues with Stack's arguments about the causes and consequences of Black extended family networks, evidence suggests that Blacks may have more positive attitudes toward living with extended family than Whites. Burr and Mutchler (1999) find that older Blacks report stronger attachment to the concept of filial responsibility, and are more likely than older Whites to agree that families should take other family members into their home in times of need. Singh, Williams, and Singh (1998) find that higher proportions of Blacks than Whites have positive attitudes about parents sharing a home with their adult children, though their analysis did not stratify by age. The social networks of Blacks also include more fictive kin, or family ties that are not from blood or marriage, than those of Whites (Taylor et al. 2013). Chatters and colleagues (1994) estimate that up to two-thirds of Blacks report having fictive kin. Finally, Blacks also report different attitudes about gender-based household roles than Whites. Kane (1992) finds that both Black men and women are more critical of gender norms in the home and workplace than their white counterparts, and have more similar patterns of opinions on gender stratification compared to White men and women.

In summary, Blacks and Whites differ in patterns of living arrangements, as well as attitudes and norms related to extended family relationships, multigenerational and extended family households, chosen family relationships, and gender-based household roles. The subjective assessments older Blacks and Whites make about their living arrangements may vary due to these patterns. Thus, in this analysis, I assess whether the associations of living arrangements with SWB are different for older Blacks and Whites.

Caregiving as a Mechanism That May Differ By Race

Caregiving responsibilities may be a mechanism through which living arrangements are associated with SWB for older adults. Older adults today are more likely than previous generations to have caregiving responsibilities as a result of increased life expectancy and higher rates of community living. Spouses are typically the primary caregivers for aging adults (Lima et al. 2008), which is a large part of the reason the typical caregiver for an older adult in the United States today is another older adult (National Alliance for Caregiving and AARP 2015). Furthermore, one-third of people ages 60-74 in the United States today have a surviving parent (Brody 2010), increasing the likelihood that older adults today will give care to a very elderly parent while coping with their own age-related health changes. Older adults today are also more likely than past generations to provide custodial care to a grandchild (Seltzer and Yahirun 2013).

Caregiving responsibilities can negatively affect the SWB of older adults. According to Vitaliano and colleagues (2003), the experience of informal caregiving can be so stressful that it has been used as a model in studies of the health effects of chronic stress, and Pinquart and Sorensen's (2003) meta-analysis finds that the psychological consequences of caregiving responsibilities tend to be notably more severe than

physiological health consequences. Older adult caregivers report lower life satisfaction (Ekwall; Sjyberg, and Hallberg 2005), and higher rates of depression, anxiety, stress, and loneliness (Lavela and Anther 2010) than age-matched non-caregivers. However, Black and White older adults may not be equally susceptible to these psychological risks. Lazarus and Folkman's (1984) Transactional Model argues that the way people respond to stressors is influenced by the subjective meaning they attach to the stressor as well as the resources they have to address it, and Blacks and Whites differ on both of these factors. The association between informal caregiving and poor psychological health is almost entirely mediated through the perceived level of burden associated with the care (Gräßel and Addabo 2011), and studies comparing levels of caregiving burden for Blacks and Whites consistently find that Blacks report less burden than Whites (Friedemann et al. 2013; Roth et al. 2001; Pruchno, Patrick, Burant 1997; Lawton et al. 1992; Mui 1992). Dilworth-Anderson and colleagues (2005) find that these differences reflect different subjective meanings attached to caregiving responsibilities by race. Black participants in their study scored significantly higher on a scale assessing what they describe as "cultural" justifications for caregiving, by more frequently endorsing items characterizing caregiving as a duty that strengthens family bonds, in line with how they were raised, or part of their religious or spiritual beliefs. Additionally, Black families may also divide informal caregiving responsibilities amongst multiple people more frequently than Whites (McCann et al. 2015; Lum 2005; Pyke and Bengston 1996; Lawton et al. 1992), potentially increasing both objective and perceived resources for dealing with caregiving-related stress.

In this analysis, I theorize that caregiving responsibilities may be a mechanism through which living arrangements are associated with SWB for older adults, and that because Blacks and Whites tend to make different subjective assessments of caregiving responsibilities, the pathway between living arrangements and SWB via caregiving will lead to different outcomes by race. Thus, I evaluate whether caregiving accounts for the ways in which the association of living arrangements with SWB differs for older Blacks and Whites.

Social Support and Strain as Mechanisms that May Differ by Race

The benefits of social support for psychological well-being are well-documented (see Kawachi and Berkman 2001 for an overview.) Living arrangements may influence one's perceptions of social support and strain, and thus may be another mechanism through which living arrangements are associated with SWB. Among older adults, living alone is a risk factor for—though not a determinant of—poor psychological well-being when it increases feelings of loneliness or perceptions of social isolation and a lack of instrumental support (Ong, Uchino, and Wetherton 2016; (Fengler, Danigelis, and Little 1983; Fengler and Danigelis 1982). Living with a spouse is a particularly important source of social support for older adults, as people tend to be more selective about social relations as they age (Lang and Carstensen 2002). Social strain, by contrast, is less frequently reported by older adults than younger adults. However, the relatively infrequent nature of social conflict also means that instances of strain evoke stronger negative emotional responses in older adults (Birditt and Fingerman 2005).

Early theorists have argued that because Blacks have large kin networks and ties to extended family, social support is especially strong within Black families (Hill 1999;

Stack 1974), but more recent research on patterns of social support and strain among Black and Whites has produced more complicated findings. Sarkisian and Gerstel (2004) highlight the importance of specifying types of social support when comparing patterns for Blacks and Whites. In their analysis of data from the National Survey of Families and Households (1992-1994), they find that when considering various types of support simultaneously, there is no race difference in the amount of support given and received, but after disaggregating types of support, Whites are more likely than Blacks to exchange financial support, while Blacks are more likely than Whites to exchange practical support, such as transportation and child care. Mouzon (2013) extends these findings by considering a wider range of support types and analyzing a more diverse sample from the National Survey of American Life (NSAL), and her findings have implications for older adults. She finds that Blacks report more frequent family interaction than Whites, but that there are no race differences in the frequency of support received or subjective family closeness. Previous research on race differences in older adult social support finds that older Blacks have smaller, more family-centered social networks than older Whites (Ajrouch, Antonucci, and Janevic 2001), but also more frequent daily contact with their networks (Taylor et al. 2013; Ajrouch, Antonucci, and Janevic 2001). Mouzon's (2013) findings suggest that these small, high-contact family networks of older Blacks may not necessarily correspond to either greater support receipt or to perceived closeness with network members.

In terms of support from non-family relationships, some researchers have argued that due to lower rates of marriage, Blacks receive more compensatory support from friends and other non-relatives (Taylor et al. 1997). Relationships of choice are thought to

have mental health benefits compared to family relationships, as they are less likely to be characterized by both support and strain (Lawton, Silverstein, and Bengtson 1994). However, comparisons of friend support and strain among Blacks and Whites document more friend support among Whites than Blacks (Mouzon 2014; Shim et al. 2012).

In this analysis, I theorize that social support and strain may be mechanisms through which living arrangements are associated with SWB for older adults, and that because Blacks and Whites report different patterns of family support and strain and compensatory support from friends, the pathways between living arrangements and SWB via support and strain will have different outcomes by race. Thus, I evaluate whether family and friend support and strain account for the ways in which the associations of living arrangements with SWB differ for older Blacks and Whites.

Socioeconomic Status and Other Demographic Correlates of Living Arrangements, Race, and Mental Well-Being

Financial worries are among the leading stressors for Americans (American Psychological Association 2018), and living arrangements are correlated with financial resources. For example, households headed by married couples report higher income levels than households headed by single people (Pew Research Center 2015), and among women, never marrying or divorcing is associated with greater risk economic hardship than being married or widowed (Lin, Brown and Hammersmith 2017). SES also varies significantly by race in the United States. Since the 1970s, though Black adults have experienced the single largest increase in household income of any major racial/ethnic group in the United States, they still lag behind Whites on major indicators of SES, including educational attainment, household income, wealth, and home ownership

(Williams, Priest, and Anderson 2016). Blacks ages 65 and older have more than double the rate of poverty compared to age-matched Whites (Mather 2016). Among older adults in low-income households, Blacks are less than likely than Whites to receive Social Security benefits, but more likely to be reliant on Social Security for more than 90 percent of their family income when they do receive it (Waid 2016). Thus, in this analysis, I assess whether the interaction of living arrangements and race on SWB persists when SES is controlled.

I also control for other sociodemographic correlates of living arrangements and SWB. Higher rates of older women than men live alone (Administration on Community Living 2018), which is partially a reflection of men's shorter life expectancy (CDC 2017). Older men are also more likely than older women to remarry following the loss of a spouse (Livingston 2014), while older women are more likely than older men to live with children (Hughes and Waite 2002). The likelihood of living alone also increases with age, especially among women, due to greater likelihood of losing a spouse in old age compared to earlier years of life (Smith et al. 2002). Finally, though living with a spouse generally has positive benefits for SWB compared to living alone, those who have never married have fewer depression symptoms (Hughes and Waite 2009) and less psychological distress (Schoenborn 2004) compared to previously married people. Living alone due to never marrying rather than because of losing a spouse may be assessed differently when evaluating life satisfaction. People who have never married may be more emotionally self-reliant than single people who were previously married (Pudrovska, Schieman, and Carr 2006), and may have maintained strong platonic and romantic relationships in the absence of a marital partner (Pudrovska et al. 2006; Barrett

1999). Thus, in this analysis, I evaluate whether the interaction of living arrangements with race on SWB persists net of other demographic characteristics.

Relationships between Physical and Mental Health and Potential Selection Effects of Living Arrangements and SWB

Findings from longitudinal data lead Hughes and Gove (1981) to report that there is no evidence that people who live alone are selected into this living arrangement because of preexisting psychological problems. But most existing research on living arrangements and older adult mental health uses cross-sectional data, and so the causal direction of this relationship is still largely unclear, especially for living arrangements that go beyond general comparisons of living alone versus with others. Among more recent studies that do use longitudinal data, the effect of living arrangements on dimensions of mental well-being has been found to persist net of baseline mental health measures (Gana et al. 2013; Hughes and Waite 2002).

However, physical and mental health are mutually influential, and so mental health problems may select people into living arrangements via poor physical health. Poorer physical health predicts greater depressive symptoms among older adults (Schieman and Plickert 2007), and concerns about physical health status are a heavily weighted factor in the decision-making process about whether to relocate in old age (Lofqvist et al. 2013). Weissman and Taylor (2018) find that living with family members is associated with poorer psychological well-being for older adults, but self-rated health and functional ability explain part of this association; the causal ordering of these associations could not be clarified in their analysis. If older adults with poorer overall health are more likely to live with family members than those who are healthier, then the

effect of living arrangements on poor mental health may be driven by the poorer overall health and quality of life for these individuals. Thus, in this analysis I control for both present and baseline measures of self-rated health, as well as baseline life satisfaction.

Summary

Living arrangements are associated with all three dimensions of SWB for older adults. However, these associations may be influenced by the subjective assessments that individuals make of their living arrangements. In the United States, Black and White older adults have different patterns of living arrangements and different attitudes, beliefs and patterns of interaction related to family networks. No study of which I am aware evaluates whether race moderates the association of living arrangements with older adult SWB. In this analysis, I first measure the baseline associations of living arrangements and race on positive affect, negative affect, and life satisfaction, and then assess whether the associations of living arrangements on SWB differs for Blacks and Whites. I next as account for caregiving, social support, and social strain as mechanisms through which the associations of living arrangements with SWB may be moderated by race. I then adjust for socioeconomic, demographic, and health characteristics, and finally adjust for baseline health and life satisfaction to account for the possibility that poor well-being selects older adults into different living arrangements.

DATA & METHODS

Data

Data are from the National Survey of Midlife Development in the United States (MIDUS) 2 (2004-2006) (N = 4,633) and the Midlife in the United States: Milwaukee

African American Sample (2005-2006) (N = 592) (Brim, Ryff, and Kessler 2004). The MIDUS is a nationally representative probability sample of non-institutionalized English-speaking adults ages 25 to 74, selected from telephone banks in the continental United States. First, households were selected via random digit dialing, then stratified sampling was used to select respondents within households to obtain data from a variety of household members. Data for the main MIDUS sample were collected through telephone interviews and self-administered questionnaires first in 1995-1996, a second time in 2004-2006, and a third time in 2014. The Milwaukee Sample is a sample of 592 self-identified Blacks and African Americans from Milwaukee, Wisconsin, from whom data were collected in 2004-2006. This oversample was included to maximize representation from African Americans in MIDUS in order to examine health issues in minority populations. Areas of Milwaukee were stratified according to the proportion of the population that identified as Black or African American. Areas with high concentrations were sampled at higher rates than areas with lower concentrations. Area probability sampling methods were used along with population counts from the 2000 U.S. Census to identify potential respondents. Households were screened for the presence of African American or Black adults, as well as age and gender. Respondents were interviewed using Computer Assisted Personal Interview (CAPI) and self-administered questionnaires. All measures used were parallel to those in the MIDUS 1 and 2 samples. I use the second wave of MIDUS data, which is the only wave to include the Milwaukee African American oversample, in order to maximize the number of Black respondents in my sample.

The full MIDUS 2 main sample combined with the Milwaukee sample includes 5,555 respondents. I first limit the analytic sample to those who are age 55+ at the time of MIDUS 2 survey, retaining 2,735 respondents or 49% of the full sample. While age 65 is a more commonly used age cut point to define older adulthood (World Health Organization 2002), this analysis uses age 55 to both maximize sample size and to account for differences in the way Blacks and Whites age. Blacks have a shorter life expectancy and poorer health at midlife (Pollard and Scommegna 2013), as well as an earlier onset of chronic health conditions associated with aging (Thorpe et al. 2016). Furthermore, Blacks also meet some of the benchmarks associated with adulthood, such as childrearing (Barber, Yarger, and Gatny 2015; Braboy Jackson and Berkowitz 2005), earlier than their White counterparts, making a lower cut point for the transition to older adulthood more appropriate from a psychosocial perspective.

I next limit the sample to include only Black and White respondents, as only 281 respondents, or 4% of the MIDUS main plus Milwaukee sample, identify as another race. I then conduct exploratory analyses to show how patterns of missing data on all three dependent variables vary across categories of independent variables. Patterns were consistent for all three dependent variables; those with missing data were more likely to be White, male, have 13-15 years of education, and report poor health. I use listwise deletion to account for missing data across variables, retaining 81% of the sample. Of the 483 cases dropped, 338 (70%) were dropped due to missing positive affect data, 355 (73%) were missing negative affect data, and 326 (67%) were missing life satisfaction data. My final analytic sample consists of 2,122 respondents, including 1,895 White respondents and 227 Black respondents.

Measures

Dependent Variables

Positive affect and *negative affect* are continuous variables each measuring the mean of 6 items. For positive affect, respondents were asked how much of the time during the past 30 days they felt, “cheerful,” “in good spirits,” “extremely happy,” “calm and peaceful,” “satisfied,” and “full of life.” Negative affect was assessed by asking how much of the time in the past 30 days respondents felt, “so sad nothing could cheer [them] up,” “nervous,” “restless or fidgety,” “hopeless,” “that everything was an effort,” and “worthless.” Response categories included, “all of the time,” “most of the time,” “some of the time,” “a little of the time,” and “none of the time.” Both scales were constructed by the MIDUS team by recoding the items so that higher scores reflect higher values of positive/negative affect and then calculating the mean across each set of items. Scale scores were computed for cases that had valid values for at least one item. For cases with no valid items, a scale scores were not calculated and the case was coded as not calculated due to missing data.

Life satisfaction is a continuous variable constructed by MIDUS, which measures the mean of 5 items. Participants were asked to rate their: life overall, work, health, relationship with spouse/partner, relationship with children, and finances on scale where 0= the worse possible situation and 10= the best possible situation. Because not all respondents have a spouse and/or children, the scores for satisfaction with spouse/partner relationships and relationships with children were averaged to create a single item; this item is then averaged with the remaining items to create an overall score of 0-10, where higher scores indicate higher levels of life satisfaction. Scale scores were computed by

MIDUS for cases that had valid values for at least one item; cases were no valid values were coded as not calculated due to missing data.

Key Independent Variables

I consider four measures of household living arrangements. Respondents were asked to identify members of their household and their personal relationship to each member. *Lives alone* is the reference category, and measures respondents who do not share a household with any other individuals. *Lives with spouse/partner* measures respondents who live with a spouse, partner, or same sex partner,[4] regardless of others who may live in the home. *Lives with children* measures respondents who live with biological, adopted/foster, or stepchildren or grandchildren in their home, but do not live with a spouse, and *Lives with others* measures respondents who live with any other person besides children or their spouse. I also include the effect of race as a key independent variable to assess its interaction with living arrangements on SWB. Race is coded so that Black = 1. Respondents were asked, "What are your main racial origins- that is, what race or races are your parents, grandparents, and other ancestors?" Black and African American are included as a single response category for this question; this measure may therefore include multiple ethnicities that cannot be assessed separately, including Afro-Caribbean or African-born respondents.

[4] I list "partner" and "same sex partner" separately because they are listed as distinct measures in the MIDUS household roster questions.

Control Variables

I consider three measures of caregiving responsibilities. Respondents were first asked whether they had given care to any family member or friend in the past 12 months due to that person's physical or mental condition, illness, or disability, and next asked whether they person to whom they provided care is a member of their household. From this, I constructed three dichotomous measures of caregiving responsibilities*: gives care to a non-household member, gives care to a household member,* and *does not give care*.

I consider four measures of social support and strain. Consistent with other studies of older adult social relations and well-being, I examine social support and social strain as separate measures (Chen and Feeley 2014; Shiovitz-Erza and Leitsch 2010; Newsom et al. 2003). All four scales were developed in prior research by authors of the MIDUS (Whalen and Lachman 2000; Schuster, Kessler, and Aseltine 1990), and respondents scores were pre-constructed by the MIDUS team in the public use dataset for Wave 2. Consistent with other studies of older adult social relations and well-being, I examine social support and social strain as separate measures (Chen and Feeley 2014; Shiovitz-Erza and Leitsch 2010; Newsom et al. 2003). *Family support* is constructed by calculating the mean of responses to four items. Respondents were asked: "Not including your spouse or partner, how much do members of your family really care about you?" "How much do they understand the way you feel about things?" "How much can you rely on them for help if you have a serious problem?" "How much can you open up to them if you need to talk about your worries?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. *Family strain* is constructed by calculating the mean of responses to four items. Respondents were asked: "Not including your spouse or partner, how often do

members of your family make too many demands on you?" "How often do they criticize you?" "How often do they let you down when you are counting on them?" "How often do they get on your nerves?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. While these are the best available measures of family social support and strain in the MIDUS 2, they do not ask the respondents to distinguish between family members in their household and other family relationships.

Friend support is constructed by calculating the mean of response to four items. Respondents were asked: "How much do your friends really care about you?" "How much do they understand the way you feel about things?" "How much can you rely on them for help if you have a serious problem?" "How much can you open up to them if you need to talk about your worries?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. *Friend strain* is constructed by calculating the mean of responses to four items. Respondents were asked: "How often do your friends make too many demands on you?" "How often do they criticize you?" "How often do they let you down when you are counting on them?" "How often do they get on your nerves?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale.

I control for six categories of demographic, socioeconomic, and health status characteristics. *Sex* was coded so that female = 1. I create three dichotomous variables of age subgroups: *under 65, 65-74 years,* and *75 or more years;* respondents 65-74 years old are the reference group. Educational attainment is measured with the following

subgroups: *less than 12 years, 12 years, 13-15 years, and 16 or more years,* with respondents with 12 years of education as the reference group. *Never married* is a dichotomous measure whether the respondent reports ever having been married; those who do not report a history of marriage = 1. Given the bidirectional association between mental/emotional and physical health, I control for *poor self-rated health;* respondents are asked to rate their overall health on a scale ranging from 1-5, where 1= poor and 5= excellent. This measure was coded so that 1= "fair" or "poor" health

Finally, I consider two measures of baseline health and well-being in order to assess the directional associations of living arrangements and well-being. *Poor self-rated health ten years ago* is measured as the respondent's assessment of their overall health ten years ago. The measure does not distinguish between respondents' assessment of their physical and mental/emotional health when rating their overall health status, but because the MIDUS does not provide a parallel question for assessing mental health ten years ago, this is therefore the best available measure of baseline health. *Baseline life satisfaction* is the respondents rating of their 'life overall ten years ago." Both rating are measured on a scale ranging from 0-10, with 0 indicating the "worst" outcome and 10 indicating the "best" outcome. These measures are included as an approximation of baseline well-being, as the analysis only includes one wave of data.

Analytic Strategy

The analysis includes 5 ordinary least squares (OLS) regression models for positive affect, negative affect, and life satisfaction. The sequence of the models is the same for all outcomes. Model 1 includes the main effects of living arrangements and race, and Model 2 measures the interaction of race with living arrangements. Model 3

accounts for caregiving, social support, and social strain measures. Model 4 controls for socioeconomic, demographic, and health status characteristics, including gender, race, age subgroup, educational attainment, history of marriage, and self-rated health. Finally, in Model 5, I control for baseline measures of health and life satisfaction. P-values ≤ 0.05 were assessed as statistically significant. All analyses were conducted using Stata 15 (StataCorp 2017).

RESULTS

Bivariate Analyses

I present descriptive statistics (means and proportions) for all variables included in the analyses by both key independent variables: living arrangements (Table 3.1) and race (Table 3.2). In both tables, test statistics comparing the means and proportions of the key variables on all measures are included in the far right column. In Table 3.1, analysis of variance (ANOVA) and Tukey's post hoc analyses were used to compare the means and proportions for all measures by living arrangement. Respondents who live with their spouse report significantly better outcomes on all three dependent measures compared to those who live with others; their positive affect scores are 0.13 points higher (3.58 versus 3.45), their negative affect scores are 0.17 points lower (1.41 versus 1.58), and they report life satisfaction scores about half a point higher than those who live with others (7.90 versus 7.31). They also report significantly higher life satisfaction scores than those who live alone (7.90 versus 7.15) and those who live with children (7.90 versus 6.98).

Respondents who live with their spouse also report the highest family support scores (3.62) and the lowest family strain scores (1.89) of all living arrangement groups.

Respondents who live alone report the lowest level of family support (3.33), but not the highest level of family strain (2.00, versus 2.20 for those living with children), a finding consistent with research that argues support and strain should be considered separate constructs (Chen and Feeley 2014; Shiovitz-Erza and Leitsch 2010; Newsom et al. 2003). A significantly larger proportion of respondents who live alone (19%) report providing care to a friend or family member than those who live either with children (5%) or with others (6%). The proportions of respondents giving care to a household member or providing no care was not significantly different across living arrangements, with the exception of respondents who live alone.

A pattern of divide emerges between those who live alone or with a spouse and those who live with children or with others for demographic and health characteristics. While those who live alone and with a spouse do not significantly differ from one another on multiple indicators, they both differ from respondents living with children or with others on these same measures. Compared to those living with children or with others, those who live alone or with a spouse have lower proportions of Black respondents, female respondents, and those with less than 12 years of education. Lower proportions of these two groups also report poor health compared to those living with others (15% and 16%, respectively, versus 27%), but not to those living with children. Those who live with others also report the highest proportion of poor health 10 years ago (13%), which was significantly different from the proportion of those living with a spouse (7%). Those living with a spouse report significantly higher baseline life satisfaction scores (8.00) than those living alone (7.33) or with others (7.6). Finally, the vast majority (71%) of

respondents who live alone report never marrying, compared to 5% of respondents both living with children or with others.

Table 3.2 presents the descriptive statistics for all measures by race. Independent samples t-tests were used to compare the means on all continuous measures for Black and White respondents, and chi-square tests were used to compare proportions on all categorical measures. Consistent with previous research reporting positive and negative affect as independent constructs that can co-exist at similar levels in the same individuals (Watson, Clark, and Tellegen 1988), Black respondents report significantly higher mean levels of both positive (3.73 vs. 3.52) and negative (1.55 versus 1.45) affect compared to Whites. They report significantly lower levels of life satisfaction (7.32 versus 7.74).

In terms of living arrangements, White respondents are significantly more likely to live with a spouse. The majority (71%) of White respondents report living with a spouse compared to 36% of Black respondents. The most frequently reported living arrangement among Black respondents is living with others (53%), which is significantly different from the 23% of White respondents who reported this living arrangement. Significantly greater proportions of Black respondents (7%) than Whites (1%) report living with children or grandchildren but no spouse. The least frequently reported living arrangement for the total sample is living alone (4%), and proportions are not significantly different for Blacks and Whites.

Caregiving responsibilities were not significantly different by race, but Black and White respondents did report significantly different levels of social support and strain. Blacks report slightly lower levels of support from both family (3.49 versus 3.59) and friends (3.20 versus 3.32), and slightly higher levels of family (2.02 versus 1.92) and

friend strain (1.85 versus 1.76) compared to Whites. A higher proportion of Black respondents than White respondents in the sample are female (63% versus 55%). Black respondents are also relatively younger than White respondents. A significantly higher proportion of Blacks are younger than 65 years of age (57% versus 49%), while a significantly lower proportion are 75 years of age or older (11% versus 17%). Whites report overall higher levels educational attainment than Blacks; a significantly lower proportion of Whites report having less than 12 years of education (8% versus 23%), and a significantly higher proportion report having 16 or more years (35% versus 17%). A significantly higher proportion of Black respondents report never having been married (10% versus 4%). While neither life satisfaction nor self-rated health ten years ago were significantly different by race, double the percentage of Blacks compared to Whites reported poor present health at the time of the survey (35% versus 17%, respectively.)

Positive Affect

Table 3.4 presents the results of the OLS regression of positive affect on all independent variables. Model 1 reports the main effects of living arrangements and race on positive affect, and shows that those living with a spouse report positive affect scores 0.16 units higher than those living alone. The associations living with children or with others compared to living alone are not statistically significant. There is also no significant association of race with positive affect. Model 2 includes the interaction of living arrangements and race, and shows that the associations of living arrangements with positive affect are not significantly different for Blacks and Whites.

However, when caregiving responsibilities and social support and strain are accounted for in Model 3, the interaction of race and living with children on positive

affect becomes statistically significant and increases in magnitude by 71% (b= 0.65). The significant association of living with a spouse compared to living alone is explained away by accounting for these measures. Caregiving and social support and strain also have significant independent associations with positive affect. Caregiving for a household member has no significant association with positive affect compared to having no caregiving responsibilities, but providing care to someone in general is associated with positive affect scores 0.16 units lower than those who give no care. Increases in family support and friend support are both associated with increases in positive affect (a 0.09 unit increase and a 0.21 unit increase, respectively), while increases family and friend strain are both associated with declines in positive affect of 0.16 units.

Model 4 controls for socioeconomic and demographic characteristics, and shows that the interactive association of race and living with children on positive affect decreases about 8% (b = 0.60). Respondents younger than 65 have positive affect scores 0.07 units lower than respondents ages 65-74, and respondents who report poor health have scores 0.44 units lower than those with better health. Finally, Model 5 controls for past health and life satisfaction. The interactive association of race and living with children decreases by an additional 7% (b= 0.56). Unlike present poor health, reporting poor past health has no significant association with positive affect. Increases in past life satisfaction scores, however, are associated with a 0.07 unit increase in positive affect.

Negative Affect

Table 3.5 presents the results of the OLS regression of negative affect on all independent variables. Model 1 shows the main associations of living arrangements and race, and shows neither significant associations of living with a spouse, with children or

with others compared to living alone on negative affect, nor a difference in negative affect scores for Blacks and Whites. Model 2 shows that the associations of living arrangements with negative affect are also not significantly different by race.

The lack of associations between living arrangements and race persist net of measures accounted for in Models 3-5. There are, however, significant associations of social support and strain and socioeconomic, demographic, and health characteristics with negative affect scores. Increases in support from both family and friends in Model 3 are both associated with decreases in negative affect scores (decreases of 0.05 units and 0.10 units, respectively), while increases in both family and friend strain are associated with increases in negative affect scores (respectively, increases of 0.19 units and 0.12 units.) Model 4 shows that women report negative affect scores 0.10 units higher than men, and that both respondents younger than 65 and older than 75 report higher scores compared to respondents 65-74 (0.06 units and 0.07 units higher, respectively.) Having less than 12 years of education is not associated with a difference in negative affect scores relative to having 12 years, though having 13-15 and 16 or more years are both associated with lower scores, (0.06 units and 0.08 units lower, respectively.) Reporting poor health is associated with a 0.37 unit increase in negative affect. Finally, Model 5 shows that poor health ten years ago has no association with negative affect, but increases in past life satisfaction are associated with a 0.03 unit decrease in negative affect.

Life Satisfaction

Table 3.6 presents the results of the OLS regression of life satisfaction on all independent variables. Model 1 shows the main associations of living arrangements and race on life satisfaction. Compared to living alone, living with a spouse is associated with

a 0.70 unit increase in life satisfaction scores. Blacks report life satisfaction scores 0.21 units lower than Whites. Model 2 shows that the associations of living arrangements with life satisfaction are not significantly different for Blacks and Whites.

The significant association of living with a spouse on life satisfaction is partially explained by accounting for caregiving responsibilities and social support and strain in Model 3. The significant association of living with a spouse compared to living alone on life satisfaction decreases 26% after accounting for these measures. There are no significant associations of caregiving responsibilities with life satisfaction, though increases in both family (b= 0.38) and friend (b= 0.29) support are associated with increases in life satisfaction scores, and increases in both family (b= -0.31) and friend (b= -0.25) strain are associated with decreases in life satisfaction.

In Model 4, the significant association of living with a spouse compared to living alone on life satisfaction persists but increases 21% in magnitude (b= 0.68). Younger age and higher educational attainment are both significantly associated with life satisfaction, with respondents younger than 65 reporting scores 0.25 units lower than respondents 65-74, and those with 16 or more years of education reporting scores 0.17 units higher than those with 12 years. Reporting poor health is associated with a full point reduction in life satisfaction scores (b= -1.01). Finally, in Model 5, the significant association of living with a spouse compared to living alone persists net of health status characteristics, but decreases about 12% (b= -0.60). Poor past health is associated with a decrease in life satisfaction (b= -0.15), and an increase in past life satisfaction is associated with an increase in present life satisfaction of 0.19 units.

DISCUSSION

This analysis uses national survey data to study associations of living arrangements on affectivity and life satisfaction in older adults and the way these associations may differ for Blacks and Whites. I also assess caregiving responsibilities and social support and strain as mechanisms of this moderated association, account for associations of socioeconomic, other demographic, and health status characteristics, and control for the association of baseline health to assess causal ordering between living arrangements and SWB. I find that there are positive associations of living with a spouse on both positive affect and life satisfaction compared to living alone, and that the association with positive affect was accounted for by caregiving and social support and strain. I also find a significant interaction of race and living with children on positive affect, which was suppressed by family strain.

Measures of Mental Well-Being Are Especially Responsive to Living with a Spouse in Later Life

Living with a spouse was the living arrangement measure most consistently associated with SWB across all analyses. It was persistently associated with greater life satisfaction compared to respondents living alone, retaining statistically significance in the fully adjusted model. This is not surprising, given that life satisfaction is the cognitive dimension of SWB, influenced by the subjective assessments individuals make about their lives overall, often by considering achievements and milestones (Kahneman et al. 2006). Marriage is often interpreted as one such symbol of success in the United States, and was especially seen as such in the early and middle decades of the 20th century (Lee and Payne 2010), during which the respondents in my analytic sample were entering their

young adulthood years and were most likely to marry for the first time. Furthermore, the significant association of living with a spouse on life satisfaction was not explained away by accounting for a baseline measure of life satisfaction. Had this been the case, it would have suggested that individuals with greater life satisfaction are more likely to marry and stay married. The association between marriage and well-being is thought to consist of both social causation and social selection processes (Murray 2000), though this analysis does not suggest a selection effect of life satisfaction and living with a spouse.

Unexpectedly, although evidence shows that individuals who never marry report less psychological distress about being single than individuals who were previously married (Pudrovska, Schieman, and Carr 2006), accounting for a history of never marrying did not reduce the size of the association of living with a spouse with greater life satisfaction relative to living alone. This is especially surprising given that in my analytic sample, 70% of the respondents who report living alone also report never having married. However, respondents who never married account for only 5% of my analytic sample, which may be an inadequate sample size for moderating the effect of living alone on life satisfaction. Alternatively, never marrying may not moderate the association of living with a spouse compared to living alone on life satisfaction because respondents who never married in my analytic sample report multiple outcomes indicative of poorer SWB. Supplemental analyses show that compared to currently married or formerly married respondents, those who never married report: a significantly lower mean level of life satisfaction, significantly higher rates of providing care to a family member or friend, and both significantly lower levels of family support and higher levels of friend strain. Patterns related to caregiving and support and strain are somewhat consistent with

previous research. For example, Barrett (1999) finds that people who never married report more demands and criticism from people in their social networks than their married or previously married counterparts, a pattern that did not significantly differ for younger versus older adults. While the psychosocial experiences of people who never marry are not the key focus of this analysis, marital status is correlated with living arrangements, and the relatively poor outcomes among this group in my analytic sample may explain why marital history did not moderate the association of living with a spouse versus living alone on life satisfaction.

Unlike findings for life satisfaction, the significant association of living with a spouse with positive affect compared to living alone was explained away when caregiving responsibilities and social support and strain were accounted for. Supplemental analyses show that both the positive association of family support and the negative association of family strain with positive affect were key drivers of this effect. This may be understood through considering the particular social support benefits that marriage can provide. Married individuals have denser, more kin centered social networks than unmarried or previously married individuals (Hurlbert and Acock 1990), and compared to other social ties, immediate kin relations are especially important sources of emotional support (Agmeessens, Waege, and Lievens 2006; Gottlieb 2000). Receiving emotional support from close family members is, in turn, associated with better mental and emotional health (Thoits 2011; Holahan and Moos 1981; Turner 1981), especially among older adults, who rely on emotional health to cope with age-related declines in physiological health (Bookwala 2012). Positive affect is a dimension of SWB related to mood and emotion rather than cognitive judgements, and so the association of

living with a spouse on positive affect may have therefore been spurious because living with a spouse is indicative of respondents' perceptions that they have supportive family relationships, which bolsters their emotional well-being.

Contrary to expectations, the association of living with a spouse on all three outcomes was not significantly different for Blacks and Whites. Given that rates of marriage and the subjective meaning and importance attached to marriage differ for Blacks and Whites (Barrett 1999), this analysis tested whether the association of living with a spouse on SWB would differ by race. While the results show benefits in the main association of living with a spouse on SWB, this association did not vary by race. The model for this analysis is largely built on the theory that trends in living arrangements for Blacks and Whites result in different subjective assessments of normative households and family relationships in old age. While there is some evidence that perceptions of normativity are a mechanism linking living arrangements to stress (Davis et al. 2018), the validity of these mechanisms cannot be tested with these survey data. Qualitative research methods could explore racial/ethnic variations in perceptions of normativity as they relate to family and household structure, which would establish an evidence base for the theory that the predictive effect of living arrangements on mental health would vary across racial/ethnic subgroups.

The Association of Living with Children and Positive Affect among Older Adults is Moderated by Race

I find that the association of living with children on positive affect is moderated by race, and that this association is suppressed by caregiving and social support and strain measures. Supplemental analyses show that family strain suppresses the interactive

association of race and living with children; all other caregiving, support, and strain measures included in the analysis had a negligible effect on the magnitude of the interaction term and no effect on its statistical significance. A suppression effect occurs when two independent variables have opposite relationships with the dependent variable, but a positive relationship with each other (MacKinnon, Krull, and Lockwood 2000). In this analysis, the benefits of living with children become significantly different for Blacks and Whites when family strain is accounted for, whereas living with children is associated with higher positive affect scores among Blacks than Whites (see Figure 3.1). Family strain has a significant positive association with living with children, and significantly higher levels of family strain are reported by Blacks compared to Whites. However, family strain also has an independent *negative* association with positive affect scores. In other words, family strain is associated with lower levels of positive affect, while living with children improves levels of positive affect among Blacks.

This counterintuitive finding may be understood by considering evidence from research on Black/White differences in experiences with caring for grandchildren. The measure of living with children included in this analysis is inclusive of all biological, adopted, step-, and grandchildren under the age of 18, and does not account for more fine-grained distinctions between the relationships of the co-residential children to the respondent. However, in a sample of respondents ages 55 and older, while it is theoretically possible that some of the children accounted for in this measure could be biological children, it is not likely to account for the majority, given that the average age of women in my analytic sample is 66, meaning they would have been born in 1938 and entered typical childbearing years in 1960, when the average age at first birth was 22.7

and the average number of children women had was around 2 (Kirmeyer and Hamilton 2011). In order to have a biological minor child in 2004, the average female respondent in my sample would therefore have had to give birth in 1986, when they were 48 years old. This measure also excludes co-residential spouses, meaning it is not likely that these children are the respondent's stepchildren. It is therefore a more likely assumption that many of these co-residential children are products of specific circumstances through which respondents came to care for minor children, whether it be their grandchildren or the children of other kin. Blacks in my analytic sample had higher rates of living with children than Whites. This may reflect Blacks' history of what Hill (1977) calls informal adoption, or assuming responsibility for dependent children for kin without involving legal adoption channels. It is for this reason that I argue the literature on race and grandparenting may be instructive for understanding the moderation effect of race and living with children, as it makes grandparents particularly vulnerable to poor mental health for a variety of reasons: raising a second generation of children is likely to be a significant and unexpected change for older adults, and in skip-generation families, it represents a change that may have arisen through stressful circumstances. Furthermore, Black custodial grandparents are more likely to have low income and are less likely to be married, decreasing the likelihood that there is a second grandparent in the home (Pruchno 1999). However, other research finds that Black grandparents may be more resilient to some of these vulnerabilities, as they report fewer symptoms of depression than White grandparents in spite of being more likely to experience financial hardship and be a single grandparent (Pruchno and McKenny 2002; Goodman and Silverstein 2001). However, positive and negative emotions are separate constructs, and the presence

of one type of emotions does not necessarily mean the absence of the other type. My finding adds to this literature on the resilience of Black grandparents, suggesting that not only do they have fewer negative emotional consequences than White grandparents, but that grandparenting has a positive effect on their mental well-being. I also find that this association was not accounted for by variation in SES, as the significance of the association remained and the magnitude did not change appreciably after controlling for educational attainment.

The mental health benefits of grandparenting among older Blacks, even in the presence of more potential psychosocial stressors, may reflect two processes. First, grandparenting may be a significant source of pride for older Blacks and a central component of their self-identity (Pruchno and McKenney 2002). Alternatively, it may be reflection of the fact that White grandparents experience more negative mental health consequences, which has been documented elsewhere (Pruchno and McKenny 2002; Goodman and Silverstein 2001). While having decreased positive affect does not necessarily indicate the presence of negative emotions, a lack of positive affect can be described as "flat" (Watson and Tellegen 1985), which is a common presentation of depression.

Furthermore, I find that the moderation effect of race on living with children and positive affect was suppressed by family strain. The measure of family strain used in this analysis is not limited to household members, so I cannot say whether the co-residential children were the source of strain. However, Blacks report significantly higher levels of family strain than Whites, and supplemental analyses show that this finding persists when considering only Black and White respondents living with children. This finding may

suggest that Blacks who care for children have more family strain because stressful family circumstances that led to their caregiving responsibilities, which in turn increases the centrality of their grandparenting role to their self-identity and bolsters positive emotional well-being.

No Associations of Living Arrangements or Race with Negative Affect

I find no significant associations between living arrangements and negative affect and no significant differences in the associations of living arrangements on negative affect by race. I offer three explanations for this finding. First, this may reflect the older age of my analytic sample. Age has a negative linear relationship with negative affect; levels of negative affect tend to decline over the adult life course (Morczek and Kolarz 1998). Lang and Cartensen (2002) explain that as older adults age, they become more selective about how they expend their emotional energy, and focus more on positive than negative experiences. Respondents ages 55-64 in my analytic sample report significantly higher levels of negative affect than respondents ages 65-74, and sensitivity analyses show that my analytic sample of adults 55 and older report a significantly lower mean level of negative affect than younger respondents the MIDUS 2. Additionally, when older adults do experience negative emotions, the intensity of the emotion tends to be milder; a negative event that produces outrage in a younger adult may produce only mild disappointment in an older adult (Schiebe, Mata, and Carstensen 2010). Affect may therefore by less sensitive to negative environmental stimuli like living arrangements among older residents.

Furthermore, the principle of negative reciprocity (Cordova et al. 1993) states that negative moods and behaviors beget more negativity in social relationships, especially

within relationships with high levels of daily interaction, like co-residential family members or intimate partnerships. Negative reciprocity within families has been implicated in domestic violence (Mathes 2015; Jacobson et al. 2000; Cordova et al. 1993) and child behavioral problems (Laird et al. 2003). The non-significance of living arrangements for older adult negative affect may reflect older adults' relatively low levels of negative affect, which create more harmonious relationships in the household that are then reciprocally maintained.

Finally, some scholars have found that Blacks are more likely to endorse somatic symptoms of depression, while Whites are more like to endorse mood-based symptoms (Das et al. 2006; Iwata, Turner, and Lloyd 2002). Measurement instruments for depression that emphasize mood can therefore potentially underdiagnose depression symptoms in Blacks. Negative affect is correlated with depression, and the findings in this analysis may suggest that negative affect is not a reliable measure for capturing how living arrangements are related to psychological well-being for Blacks.

Poor Health is Strongly Associated with Mental Well-Being for Older Adults

This analysis controlled for the association of poor self-rated health on SWB, given both the strong correlation between poor physical and mental health. I also control for retrospective measures of past self-rated health and life satisfaction in order to assess the causal ordering between living arrangements and SWB, since poor well-being is associated with where and with whom older adults live. Controlling for retrospective measures of well-being did not explain the associations of living arrangements with SWB. The positive association of living with a spouse with life satisfaction was not explained by baseline life satisfaction. This is not surprising; while there is some

evidence of a selection process for marriage (Murray 2000), though which healthier and happier people are more likely to marry, this same process is less relevant for the study of older adults, as the rates of marrying at older ages is relatively low (Livingston 2014).

Furthermore, in all three models of SWB, rating one's health as "fair" or "poor" was associated with the single largest increase in positive affect and life satisfaction and the largest decrease in negative affect. Controlling for poor self-rated health improved the model fit substantially, resulting in an approximate 50% increase in the adjusted R^2 for each SWB outcome. This is consistent with other research that finds age-related health changes to be a significant source of stress for older adults (Diefenbach, Stanley, and Beck). While physical health status was not a key focus of this analysis, the magnitude of the associations between health and SWB in these analyses reflect the strong significance of health status for older adult well-being and the importance of accounting for health status when modeling psychosocial outcomes for older adults.

Limitations

This analysis has seven limitations. While the MIDUS sample was originally constructed via national random-digit-dialing (Brim et al. 2004), the SES of the MIDUS sample is positively skewed compared to national estimates from 2005 (ICPSR 2019). As shown in Table 3.7, the MIDUS 2 sample has higher educational attainment than estimates of the U.S. population from the 2005 American Community Survey (ACS). The proportion of MIDUS 2 respondents with 12 or fewer years of education is less than half of the 2005 ACS estimate (6% versus 16%), and the proportion with 16 or more years of education is 10% higher in the MIDUS 2 (37% versus 27%). Much of the theory that grounds this analysis is based on issues of SES, specifically that older Blacks' history of

economic exclusion has influenced their overrepresentation in living arrangements that are associated with poorer health in prior research. The positive SES skew of the MIDUS sample may not be able to fully capture the full extent of experiences of SES disadvantage that exist for Blacks at the national level. Furthermore, the MIDUS sample may also be comparatively advantaged in terms of health and social integration, which are also key measures in this analysis. Participation in the MIDUS includes a phone interview of approximately 30 minutes in length and 2 self-administered questionnaires of approximately 45 pages in length each (Brim et al. 2004). Health declines, being unmarried, and changes in social participation are risk factors for attrition in longitudinal research (Weinert, Cudney, and Hill 2008), and the retention of participants across multiple waves of data collection in the MIDUS may also be skewed toward healthier, more socially integrated individuals.

While I cannot explicitly link patterns in my analytic sample to biases in the MIDUS sample, reports of living arrangements in my analytic sample differ substantially from estimates from the 2000 U.S. Census (see Table 3.8). There is no reason of which I am aware related to the sample selection or measurement construction for this analysis that could account for this discrepancy, though the magnitude of difference in rates of living arrangements in my sample and national estimates likely limits the generalizability of my findings. The proportion of older adults living alone in my analytic sample is especially smaller than national estimates, and because these respondents represented the reference category in my analysis, the ability of my models to detect differences between these respondents and others may have been limited.

Additionally, social conditions and health are often mutually influential, and so to assess causal ordering between these two factors, it is therefore critical to use a baseline measure of health. MIDUS currently includes three waves of data collection. However, the Milwaukee African American oversample was only collected at Wave 2, precluding the possibility of obtaining a baseline measure of health from a previous wave of data for these respondents. Comparing the experiences of Black and White respondents was a key part of this analysis, and so to maximize the number of Black respondents in my analytic sample, I chose to include the oversample and use only Wave 2 of MIDUS in the analysis. To establish a baseline measure of health using only one wave of data, I control for the respondents' self-assessment at the time of the survey of their health ten years ago. This measure is significantly associated with respondents' current self-rated health, which suggests that it can be a suitable proxy for baseline health in the absence of multiple waves of data. Despite this, I cannot totally eliminate the possibility of recall bias in this measure. Self-report measures are particularly subject to recall bias in survey research (Raphael 1987). Furthermore, because there is a ten-year gap between the baseline and present measures of health included in this analysis with no interim measures, I cannot account for how respondents' physical health status may have changed during this interval. Thus, future research on living arrangements and health would benefit from more well-controlled methods for assessing causal ordering.

Furthermore, I use the Milwaukee African American oversample of the MIDUS to maximize the number of Black respondents in my analytic sample compared to Whites. However, the Milwaukee oversample measures Black and African American respondents as a single demographic, obscuring differences among African Americans,

those with direct descent from African countries, and different Afro-Caribbean and Afro-Latinx ethnicities. Nationally representative survey data shows variation in mental health outcomes across subgroups of older Black Americans; for example, Afro-Caribbean older adults report better global mental health than older African Americans (Keane et al. 2009). Comparing groups with a longer family history in the United States those with a more recent history of immigration yields further variation. Consistent with other research showing that the health advantages experienced among first-generation Americans disappear in subsequent generations (Mossakowski 2003), Williams and colleagues (2007) find the mental health of third-generation Afro-Caribbeans to be indistinguishable from their African American counterparts. Groups of Black Americans also have different outcomes related to social exchanges within families. For example, in a study comparing patterns of emotional support and negative interaction within African American and Afro-Caribbean families in the United States, Lincoln and colleagues (2012) find that the being unmarried is associated with receiving more emotional support from family members among African Americans, but with more negative family interaction among Afro-Caribbeans. The data used for this analysis cannot account for this heterogeneity in measures of health and family relationships.

A fifth limitation of this analysis is that Blacks accounted for only 11% of my analytic sample. This was to be expected, as the MIDUS is a nationally representative survey and Blacks account between 12-13% of the U.S. population (American Community Survey 2017). So while this is not a limitation in itself, as national surveys are an ideal source of data for documenting population-level trends, the smaller proportion of Blacks compared to Whites in my sample precluded the testing of more

fine-grained analyses between race and living arrangements. I created relatively coarsely-cut categories of living arrangements, comparing experiences of respondents who live alone, live with a spouse (regardless of others who are present in the home), live with children but not spouse, and those who live with any people other than a spouse or children. Previous work on living arrangements and health for older adults suggests that more nuanced comparisons of household arrangements may be beneficial for understanding how and why living arrangements influence health, which I could not fully explore in this analysis. Furthermore, the living arrangement categories I did compare still included unequal proportions of respondents across groups (see Table 3.3).

Some of the measures included in the analysis also have limitations. I consider whether or not the respondent has given care to a friend or family member in the past 12 months and whether or not they live in the same household. These measures do not account for the frequency of caregiving during the past 12 months, however, and likely reflect both regular, long-term caregiving responsibilities and short-term or event-specific assistance that cannot be measured separately. Additionally, while both family support and family strain were significantly associated with all three SWB outcomes, the MIDUS measures of family support and family strain do not ask respondents to consider only family members living in their household. The utility of these measures for accounting associations between race, living arrangements, and SWB is therefore limited.

Finally, exploratory analyses showed significant associations between cases with missing dependent variable data and demographic characteristics. Specifically, for all three dependent variables, respondents with missing data are significantly more likely to be White; male; have 13-15 years of education, but not have completed 16 or more years;

and report poor health. Because I use listwise deletion to drop cases with missing data on my dependent variables, my findings may be biased in relation to these factors, limiting the generalizability of this analysis's results.

CONCLUSION

This study examines the associations of living arrangements on three dimensions of SWB among older adults and whether these associations vary for Blacks and Whites. I use national survey data to study the associations of living arrangements with positive affect, negative affect, and life satisfaction for Blacks and Whites 55 years and older. I further evaluate how these associations may be accounted for by caregiving responsibilities, social support and strain, sociodemographic characteristics, and health characteristics. I find that living with a spouse is associated with improved life satisfaction and positive affect, but that this association did not differ by race. Furthermore, the association of living with children had positive emotional benefits for older Blacks. These findings suggest that living arrangements may have some context-specific associations with SWB for older adults that vary by race. Understanding the mechanisms through which living arrangements are associated with SWB across different social subgroups in the United States can potentially help address disparities across outcomes related to health and quality of life among older adults.

Table 3.1 Means and Proportions for Adults 55+ by Living Arrangement, Midlife in the United States (2006) (N=2,122)

	Total Sample	Lives Alone	Lives With Spouse	Lives With Children	Lives With Others	*F*-Statistic (df=3)	Significant Subgroup Differences
Dependent Variables							
Positive Affect (1= lowest; 5=highest)	3.54 (0.69)	3.44 (0.71)	3.58 (0.65)	3.57 (0.76)	3.45 (0.75)	5.36***	bd
Negative Affect (1= lowest; 5=highest)	1.46 (0.55)	1.48 (0.51)	1.41 (0.50)	1.51 (0.62)	1.58 (0.65)	12.47***	bd
Life Satisfaction (0= lowest; 10=highest)	7.69 (1.27)	7.15 (1.60)	7.90 (1.13)	6.98 (1.30)	7.31 (1.38)	40.51***	ab, bc, bd
Other Key Independent Variable							
Black (=1)	0.11	0.09	0.06	0.41	0.22	50.84***	ac, ad, bc, bd, cd
Control Variables							
No Caregiving	0.87	0.81	0.87	0.84	0.87	0.95	
Caregiving (non-household member)	0.07	0.19	0.06	0.05	0.06	7.66***	ab, ac, ad
Caregiving(household member)	0.07	0.00	0.07	0.11	0.07	2.56*	ab
Family Support (1= least; 4 = most)	3.58 (0.54)	3.33 (0.76)	3.62 (0.50)	3.44 (0.63)	3.53 (0.59)	12.21***	ab, ad, bd
Family Strain (1= least; 4 = most)	1.93 (0.57)	2.00 (0.65)	1.89 (0.54)	2.20 (0.75)	1.99 (0.62)	6.97***	bc, bd
Friend Support (1 = least; 4 = most)	3.31 (0.64)	3.38 (0.64)	3.31 (0.63)	3.36 (0.61)	3.29 (0.69)	0.69	
Friend Strain (1 = least; 4 = most)	1.77 (0.50)	1.87 (0.52)	1.75 (0.47)	1.85 (0.65)	1.80 (0.56)	2.96*	
Female (=1)	0.55	0.56	0.46	0.84	0.78	65.57***	ac, ad, bc, bd
<65 Yrs. Old	0.50	0.56	0.52	0.51	0.42	5.79***	bd
65-74 Yrs. Old (ref)	0.34	0.26	0.34	0.27	0.35	1.11	

75+ Yrs. Old	0.17	0.17	0.14	0.22	0.23	7.95***	bd
< 12 Yrs. Education	0.09.	0.04	0.07	0.24	0.15	14.88***	ac, ad, bc, bd
12 Yrs. Education (ref)	0.30	0.21	0.31	0.32	0.30	1.32	
13-15 Yrs. Education	0.28	0.22	0.27	0.32	0.30	1.16	
16+ Yrs. Education	0.33	0.53	0.35	0.11	0.25	14.80***	ab, ac, ad, bc, bd
Never married (=1)	0.05	0.71	0.00	0.05	0.05	589.22***	ab, ac, ad, bd
Poor Self-Rated Health (1=fair/poor)	0.19	0.15	0.16	0.22	0.27	10.08***	ad, bd
Poor Self-Rated Health 10 Yrs. Ago (0-5=1)	0.09	0.10	0.07	0.08	0.13	5.16***	bd
Baseline Life Satisfaction (1= worst; 10=best)	7.86 (1.74)	7.33 (1.78)	8.00 (1.62)	7.89 (1.70)	7.60 (2.00)	10.06***	ab, bd
N	2,122	91	1,426	37	561		
%	(100)	(4)	(67)	(2)	(26)		

Note: Subgroup comparisons were conducted using analysis of variance (ANOVA) and Tukey's post hoc analyses. Significant ($p < 0.05$) subgroup differences are denoted as ab: lives alone versus lives with a spouse; ac: lives alone versus lives with children/grandchildren, ad: lives alone versus lives with others, bc: lives with spouse versus lives with children/grandchildren, bd: lives with spouse versus lives with others, and cd: lives with children/grandchildren versus lives with others. Asterisks denote the significance level of the F-statistic, where *p≤.05;**p≤.01;***p≤.001

Table 3.2 Means and Proportions for Adults 55+ by Race, Midlife in the United States (2006) (N=2,122)

	Total Sample	White	Black	Test Statistics
Dependent Variable				
Positive Affect (1= lowest; 5=highest)	3.54 (0.69)	3.52 (0.68)	3.73 (0.73)	-4.41***
Negative Affect (1= lowest; 5=highest)	1.46 (0.55)	1.45 (0.53)	1.55 (0.69)	-2.60**
Life Satisfaction (0=lowest; 10=highest)	7.69 (1.27)	7.74 (1.25)	7.32 (1.37)	4.77***
Other Key Independent Variable				
Lives Alone (ref)	0.04	0.04	0.03	0.36
Lives with Spouse	0.67	0.71	0.36	114.56***
Lives with Children (no spouse)	0.02	0.01	0.07	35.11***
Lives with Others (no spouse)	0.26	0.23	0.53	94.93***
Control Variables				
No Caregiving (ref)	0.81	0.87	0.85	1.10
Caregiving (non-household member)	0.19	0.06	0.07	0.33
Caregiving (household member)	0.00	0.06	0.08	0.73
Family support (1 = least; 4 = most)	3.33 (0.76)	3.59 (0.53)	3.49 (0.64)	2.63**
Family strain (1 = least; 4 = most)	2.00 (0.65)	1.92 (0.56)	2.02 (0.70)	-2.50**
Friend support (1 = least; 4 = most)	3.38 (0.64)	0.32 (0.63)	3.20 (0.78)	2.60**

Friend strain (1 = least; 4 = most)	1.87 (0.52)	1.76 (0.47)	1.85 (0.68)	-2.48**
Female (=1)	0.56	0.55	0.63	6.12**
<65 Yrs. Old	0.56	0.49	0.57	5.07*
65-74 Yrs. Old (ref)	0.26	0.34	0.32	0.27
75+ Yrs. Old	0.17	0.17	0.11	5.63**
< 12 Yrs. Education	0.04	0.08	0.23	60.78***
12 Yrs. Education (ref)	0.21	0.30	0.30	0.01
13-15 Yrs. Education	0.22	0.28	0.29	0.22
16 + Yrs. Education	0.53	0.35	0.17	28.58***
Never married (=1)	0.71	0.04	0.10	16.63***
Poor Self-Rated Health (1=fair/poor)	0.15	0.17	0.35	43.97***
Poor Self-Rated Health 1 Yrs. Ago (0-5=1)	0.10	0.09	0.11	-1.18
Baseline Life Satisfaction (1= worst; 10=best)	7.33 (1.78)	7.85 (1.72)	7.95 (1.94)	-0.77
N	2,122	1,895	227	
%	(100)	(89)	(11)	

Note: Independent sample t-tests were conducted to compare means for continuous measures. Chi-square tests were conducted to compare proportions for categorical measures. Asterisks denote the significance level of the test statistics, where *p≤.05;**p≤.01;***p≤.001.

Table 3.3 Frequencies and Percentages for Variables Used in Interaction Analyses, Midlife in the United States (2006) (N=2,122)

	White	Black	Total
Lives Alone	83 (4.4%)	8 (3.5%)	91 (4.3%)
Lives with Spouse	1,345 (71%)	81 (35.7%)	1,426 (67.2%)
Lives with Children (no spouse)	22 (1.2%)	15 (6.6%)	37 (1.8%)
Lives with Others (no spouse)	440 (23.2%)	121 (53.3%)	561 (26.4%)
Total	1890 (100%)	227 (100%)	2,122 (100%)

Table 3.4 Ordinary Least Squares Regression of Positive Affect on Living Arrangements, Midlife in the United States (2006) (N=2,122)

	Model 1	Model 2	Model 3	Model 4	Model 5
Lives with Spouse	0.16* (0.07)	0.16* (0.08)	0.09 (0.07)	0.13 (0.09)	0.10 (0.09)
Lives with Children (no spouse)	0.05 (0.13)	-0.09 (0.16)	-0.18 (0.15)	-0.12 (0.16)	-0.12 (0.17)
Lives with Others (no spouse)	-0.01 (0.07)	-0.02 (0.08)	-0.06 (0.08)	0.01 (0.09)	0.01 (0.09)
Black (=1)	0.27* (0.05)	0.24* (0.22)	0.19* (0.21)	0.24* (0.21)	0.19* (0.20)
Lives with Spouse x Race		-0.03 (0.24)	0.08 (0.23)	0.09 (0.22)	0.13 (0.22)
Lives with Children x Race		0.38 (0.32)	0.65* (0.30)	0.60* (0.29)	0.56* (0.29)
Lives with Others x Race		0.04 (0.24)	0.14 (0.22)	0.15 (0.22)	0.16 (0.21)
Caregiving (non-household member)			-0.16** (0.06)	-0.14** (0.05)	-0.13** (0.05)
Caregiving (household member)			-0.05 (0.06)	-0.05 (0.05)	-0.06 (0.05)
Family support (1 = least; 4 = most)			0.09*** (0.03)	0.09* (0.03)	0.07*** (0.03)
Family strain (1 = least; 4 = most)			-0.16*** (0.03)	-0.13*** (0.03)	-0.11*** (0.03)
Friend support (1 = least; 4 = most)			0.21*** (0.02)	0.19*** (0.02)	0.17*** (0.02)
Friend strain (1 = least; 4 = most)			-0.16*** (0.03)	-0.15*** (0.03)	-0.15*** (0.03)
Female (=1)				-0.03 (0.03)	-0.04 (0.03)
<65 Yrs. Old				-0.07* (0.03)	-0.04* (0.03)
75+ Yrs. Old				-0.03 (0.04)	-0.05 (0.04)

< 12 Yrs. Education				0.10 (0.05)	0.08 (0.05)
13-15 Yrs. Education				0.03 (0.04)	0.02 (0.04)
16+ Yrs. Education				0.01 (0.03)	0.01 (0.03)
Never Married (=1)				0.06 (0.08)	0.07 (0.08)
Poor Self-Rated Health (fair/poor=1)				-0.44*** (0.04)	-0.42*** (0.04)
Poor Self-Rated Health 10 Yrs. Ago (0-5=1)					0.01 (0.05)
Baseline Life Satisfaction (1=worst; 10=best)					0.07*** (0.01)
Constant	3.40*** (0.07)	3.41*** (0.07)	3.03*** (0.15)	3.13*** (0.16)	2.69*** (0.17)
Adjusted R^2	0.02	0.02	0.15	0.21	0.23

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 3.5 Ordinary Least Squares Regression of Negative Affect on Living Arrangements, Midlife in the United States (2006) (N=2,122)

	Model 1	Model 2	Model 3	Model 4	Model 5
Lives with Spouse	-0.08 (0.06)	-0.07 (0.06)	-0.01 (0.06)	-0.03 (0.07)	-0.02 (0.07)
Lives with Children (no spouse)	-0.01 (0.11)	0.07 (0.13)	0.12 (0.12)	-0.04 (0.13)	-0.03 (0.13)
Lives with Others (no spouse)	0.08 (0.06)	0.08 (0.06)	0.11 (0.06)	0.04 (0.08)	0.04 (0.07)
Black (=1)	0.05 (0.04)	0.11 (0.18)	0.17 (0.17)	0.09 (0.17)	0.11 (0.17)
Lives with Spouse x Race		-0.07 (0.19)	-0.16 (0.18)	-0.16 (0.18)	-0.17 (0.18)
Lives with Children x Race		-0.21 (0.26)	-0.42 (0.25)	-0.37 (0.24)	-0.35 (0.24)
Lives with Others x Race		-0.04 (0.19)	-0.12 (0.18)	-0.13 (0.18)	-0.13 (0.17)
Caregiving (non-household member)			0.07 (0.05)	0.06 (0.05)	0.05 (0.04)
Caregiving (household member)			0.03 (0.05)	0.03 (0.05)	0.04 (0.04)
Family support (1 = least; 4 = most)			-0.05* (0.02)	-0.06** (0.02)	-0.05* (0.02)
Family strain (1 = least; 4 = most)			0.19*** (0.02)	0.16*** (0.02)	0.15*** (0.02)
Friend support (1 = least; 4 = most)			-0.10*** (0.02)	-0.09*** (0.02)	-0.08*** (0.02)
Friend strain (1 = least; 4 = most)			0.12*** (0.03)	0.13*** (0.03)	0.13*** (0.03)
Female (=1)				0.10*** (0.02)	0.09*** (0.02)
<65 Yrs. Old				0.06* (0.03)	0.04 (0.02)
75+ Yrs. Old				0.07* (0.03)	0.07 (0.03)

< 12 Yrs. Education				0.02 (0.04)	0.02 (0.04)
13-15 Yrs. Education				-0.06*** (0.30)	-0.06* (0.03)
16+ Yrs. Education				-0.08*** (0.03)	-0.08** (0.03)
Never Married (=1)				-0.02 (0.03)	-0.02 (0.07)
Poor Self-Rated Health (fair/poor=1)				0.37*** (0.03)	0.36*** (0.03)
Poor Self-Rated Health 10 Yrs. Ago (0-5=1)					0.01 (0.04)
Baseline Life Satisfaction (1=worst; 10=best)					0.03*** (0.01)
Constant	1.49*** (0.06)	1.48*** (0.06)	1.38*** (0.12)	1.31*** (0.13)	1.52*** (0.13)
Adjusted R^2	0.02	0.02	0.13	0.21	0.22

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 3.6 Ordinary Least Squares Regression of Life Satisfaction on Living Arrangements, Midlife in the United States (2006) (N=2,122)

	Model 1	Model 2	Model 3	Model 4	Model 5
Lives with Spouse	0.70***	0.76***	0.56***	0.68***	0.60***
	(0.13)	(0.13)	(0.13)	(0.16)	(0.15)
Lives with Children (no spouse)	-0.14	0.05	-0.12	0.03	0.06
	(0.24)	(0.29)	(0.27)	(0.29)	(0.27)
Lives with Others (no spouse)	0.17	0.18	0.06	0.22	0.23
	(0.13)	(0.14)	(0.13)	(0.17)	(0.15)
Black (=1)	-0.21**	0.22	0.08	0.20	0.06
	(0.09)	(0.41)	(0.38)	(0.38)	(0.35)
Lives with Spouse x Race		-0.59	-0.32	-0.24	-0.14
		(0.43)	(0.40)	(0.40)	(0.37)
Lives with Children x Race		-0.80	-0.25	-0.28	-0.42
		(0.58)	(0.54)	(0.53)	(0.50)
Lives with Others x Race		-0.32	-0.09	0.00	0.03
		(0.43)	(0.40)	(0.37)	(0.37)
Caregiving (non-household member)			-0.17	-0.13	-0.10
			(0.10)	(0.10)	(0.09)
Caregiving (household member)			-0.12	-0.15	-0.18
			(0.10)	(0.10)	(0.09)
Family Support (1 = least; 4 = most)			0.38***	0.35***	0.29***
			(0.05)	(0.05)	(0.05)
Family Strain (1 = least; 4 = most)			-0.31***	-0.25***	-0.17***
			(0.05)	(0.05)	(0.05)
Friend Support (1 = least; 4 = most)			0.29***	0.23***	0.17***
			(0.42)	(0.04)	(0.04)
Friend Strain (1 = least; 4 = most)			-0.25***	-0.21***	-0.20***
			(0.06)	(0.06)	(0.05)
Female (=1)				0.04	0.05
				(0.05)	(0.05)
<65 Yrs. Old				-0.25***	-0.15***
				(0.06)	(0.05)
75+ Yrs. Old				-0.03	-0.08
				(0.07)	(0.07)

< 12 Yrs. Education				-0.01 (0.09)	-0.05 (0.09)
13-15 Yrs. Education				0.04 (0.06)	0.04 (0.06)
16+ Yrs. Education				0.17*** (0.06)	0.19*** (0.06)
Never Married (=1)				0.12 (0.15)	0.13 (0.14)
Poor Self-Rated Health (fair/poor=1)				-1.06*** (0.06)	-1.01*** (0.06)
Poor Self-Rated Health 10 Yrs. Ago (0-5=1)					-0.15* (0.08)
Baseline Life Satisfaction (1=worst; 10=best)					0.19*** (0.01)
Constant	7.20*** (0.12)	7.16*** (0.13)	6.02*** (0.26)	6.28*** (0.28)	5.03*** (0.27)
Adjusted R^2	0.06	0.06	0.20	0.31	0.38

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 3.7 Educational Attainment (in Years) of the MIDUS 2 Sample (2004-2006) and U.S. Population Estimates (2005)

	MIDUS 2 (N=4,963)[a]	American Community Survey (ACS) (N=188,950,759)[b]
<12 Yrs.	6%	16%
12 Yrs.	27%	30%
13-15 Yrs.	30%	28%
16+ Yrs.	37%	27%

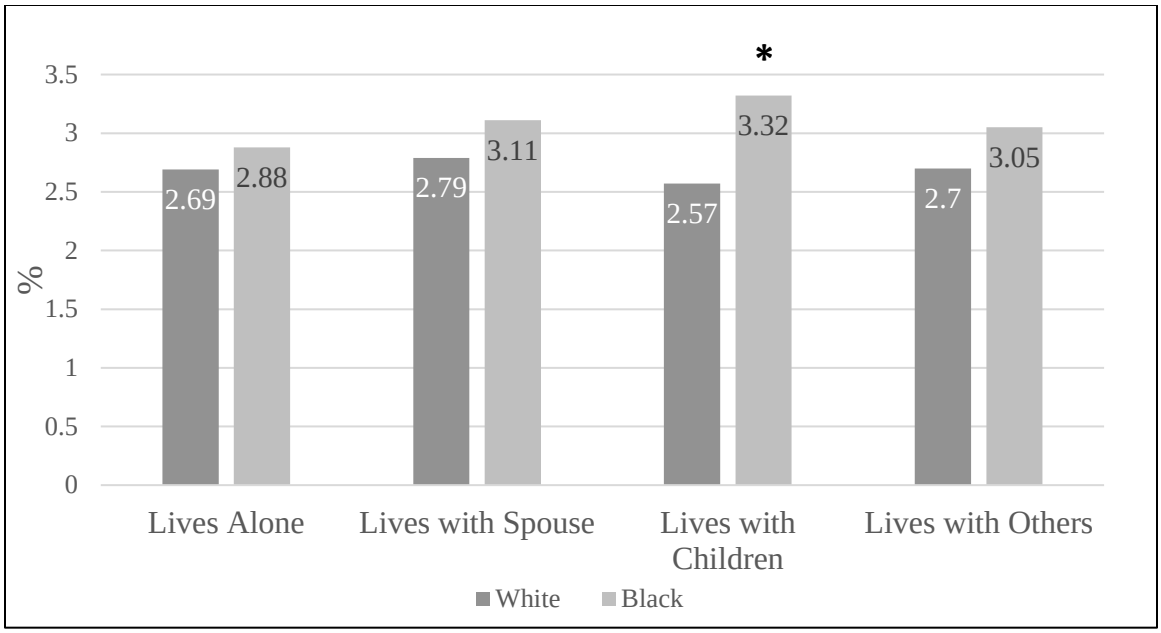
[a]Source: Inter-University Consortium for Political and Social Research (ICPSR 2019)
[b]Source: American Community Survey (2005)

Table 3.8 Living Arrangements for Adults 65+ in the MIDUS 2 Sample (2004-2006) and U.S. Population Estimate (2000)

	Analytic Sample (N=2,122)		2000 U.S. Census	
	Women	Men	Women	Men
Lives Alone	4%	4%	36%	17%
Lives with Spouse	56%	81%	38%	70%
Lives with Children	3%	1%	13%	4%
Lives with Others	37%	13%	6%	5%

[a]Source: 2000 U.S. Census, as cited in Stepler 2016

Note: The measurement of living arrangement categories for each sample varies. My analytic sample measures respondents who live with any minor children, while the 2000 Census data measures respondents living only with their own children, regardless of age. Furthermore, the 2000 Census data also include respondents living in an institutionalized setting, which accounted for an additional 7% of women and 4% of men in 2000.



Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Figure 3.1 Positive Affect Scores by Living Arrangements and Race, Midlife in the United States (2006) (N= 2,122)

REFERENCES

Abramson, Corey M. 2015. *The End Game: How Inequality Shapes Our Final Years.* Cambridge, MA: Harvard University Press.

Administration on Aging. 2006. A Statistical Profile of Black Older Americans Aged 65+. Washington, D.C.: Administration on Aging.

Administration on Community Living. 2018. *2017 Profile of Older Americans* Washington, D.C.: U.S. Department of Health and Human Services. Published April 2018. Accessed September 10, 2019. (https://acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2017OlderAmericansProfile.pdf).

Agneessens, Filip, Hans Waege, and John Lievens. 2006. "Diversity in Social Support by Role Relations: A Typology." *Social Networks* 28(4):427-441.

Ajrouch, Kristine J., Toni C. Antonucci, and Mary R. Janevic. 2001. "Social Networks among Blacks and Whites: The Interaction between Race and Age." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 56B(2):112-118.

An, Ji-Young, Kyungeh An, Linda O'Connor, and Sharon Wexler. 2008. "Life Satisfaction, Self-Esteem, and Perceived Health Status among Elder Korean Women: Focus on Living Arrangements." *Journal of Transcultural Nursing* 19(2):151-160.

Anzick, Michael A. and David A. Weaver. 2001. *Reducing Poverty among Elderly Women.* ORES Working Paper No. 87 Washington, D.C.: Social Security Administration.

American Psychological Association. 2018. *Stress in America: Uncertainty about Health Care.* Published January 24, 2018. Accessed September 10, 2019. (https://www.apa.org/news/press/releases/stress/2017/uncertainty-health-care.pdf).

Aschenbrenner, Joyce. 1983. *Lifelines: Black Families in Chicago*. Prospect Heights, IL: Waveland.

Barber, Jennifer S., Jennifer Eckerman Yarger, and Heather H. Gatny. 2015. "Black-White Differences in Attitudes Related to Pregnancy among Young Women." *Demography* 52(3):751-786.

Barrett, Anne E. 1999. "Social Support and Life Satisfaction among the Never Married." *Research on Aging* 21(1):46-72.

Birditt, Kira S. and Karen L. Fingerman. 2005. "Do We Get Better at Picking Our Battles? Age Group Differences in Descriptions of Behavioral Reactions to Interpersonal Tensions." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 60(30):P121-P128.

Bookwala, Jamila. 2012. "Marriage and Other Partnered Relationships in Middle and Late Adulthood." Pp. 91-124 in: *Handbook of Aging and the Family*, edited by Rosemary Blieszner and Victoria H. Bedford. Barbara, CA: ABC-CLIO.

Braboy Jackson, Pamela and Alexandra Berkowitz. 2005. "The Structure of the Life Course: Gender and Racioethnic Variation in the Occurrence and Order/Sequencing of Role Transitions." *Advances in Life Course Research* 9:55-90.

Braddock, David, Richard Hemp, Mary C. Rizzolo, Emily Shea Tanis, Laura Haffer, and Jiang Wu. 2015. *The State of the States in Intellectual and Developmental Disabilities: Emerging from the Great Recession.* Washington, DC: American Association on Intellectual and Developmental Disabilities. Published 2014. Accessed September 10, 2019. (http://www.stateofthestates.org/).

Breslau, Joshua, Sergio Aguilar-Gaxiola, Kenneth S. Kendler, Maxwell Su, David Williams, and Ronald C. Kessler. 2006. "Specifying Race-Ethnic Differences in Risk for Psychiatric Disorder in a USA National Sample." *Psychological Medicine* 36(1):57-68.

Brim, Orville G., Carol D. Ryff, and Ronald C. Kessler, R.C. 2004. "The MIDUS National Survey: An Overview." Pp. 1-36 in *How Healthy Are We? A National Study of Well-Being at Midlife.* Chicago: University of Chicago Press.

Brody, Elaine M. 2010. "On Being Very, Very Old: An Insider's Perspective." *The Gerontologist* 50(1):2-10.

Broman, Clifford L. 2005. "Marital Quality in Black and White Marriages." *Journal of Family Issues* 26(4):431-441.

-----. 1993. "Race Differences in Marital Well-Being." *Journal of Marriage and the Family* 55(3):724-732.

Burr, Jeffrey A. and Jan E. Mutchler. 1999. "Race and Ethnic Variation in Norms of Filial Responsibility among Older Persons." *Journal of Marriage and Family* 61(3):674-687.

Centers for Disease Control [CDC]. 2017. *Health, United States, 2016, With Chartbook on Long-Term Trends in Health.* Hyattsville, MD: CDC. (https://www.cdc.gov/nchs/data/hus/hus16.pdf#015).

Chatters, Linda M., Robert Joseph Taylor, and Rukmalie Jayakody. 1994. "Fictive Kinship Relations in Black Extended Families*." Journal of Comparative Family Studies* 25(3):297-312.

Chen, Yixin, and Thomas Hugh Feeley. 2014. "Social Support, Social Strain, Loneliness, and Well-Being among Older Adults: an Analysis of the Health and Retirement Study." *Journal of Social and Personal Relationships* 31(2):141-161.

Chipperfield, Judith G., Raymond P. Perry, and Bernard Weiner. 2003. "Discrete Emotions in Later Life." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 58B(1):P23-P34.

Chou, Kee-Lee and Iris Chi. 2000. "Comparison between Elderly Chinese Living Alone and Those Living with Others." *Journal of Gerontological Social Work* 33(4):51-66.

Cohn, D'Vera and Jeffrey S. Passel. 2018. "A Record 64 Million Americans Live in Multigenerational Households." Pew Research Center. Published April 5, 2018. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2018/04/05/a-Record-64-million-Americans-live-in-multigenerational-households/).

Cordova, James V., Neil S. Jacobson, John M. Gottman, Regina Rushe, and Gary Cox. 1993. "Negative Reciprocity and Communication in Couples with a Violent Husband." *Journal of Abnormal Psychology* 102:559–564.

Costa, Paul T., Robert R. McCrae, and Alan B. Zonderman. 1987. "Environmental and

Dispositional Influences on Well-Being: Longitudinal Follow-Up of an American National Sample." *British Journal of Psychology* 78(3):299-306.

Das, Amar K., Mark Olfson, Henry L. McCurtis, and Myrna M. Weissman. 2006. "Depression in African Americans: Breaking Barriers to Detection and Treatment: Community-Based Studies Tend to Ignore High-Risk Groups of African Americans." *Journal of Family Practice* 55(1):30-39.

Davis, Edin M., Kyungmin Kim, and Karen L. Fingerman. 2018. "Is an Empty Nest Best? Coresidence with Adult Children and Parental Marital Quality Before and After the Great Recession." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 73B(3):372–381.

Dean, Alfred, Bohdan Kolody, Patricia Wood, and Georg E. Matt. 1992. "The Influence of Living Alone on Depression in Elderly Persons." *Journal of Aging and Health* 4(1):3-18.

Diefenbach, G.J., M.A. Stanley, and J. Gayle Beck. 2001. "Worry Content Reported by Older Adults With and Without Generalized Anxiety Disorder." *Aging and Mental Health* 5(3): 269-274.

Diener, Ed, Robert A. Emmons, Randy J. Larsen, and Sharon Griffin. 1985. "The Satisfaction With Life Scale." *Journal of Personality Assessment* 49(1):71-75.

Diener, Ed .1984. "Subjective Well-Being." *Psychological Bulletin*. 95(3):542–575.

Dilworth-Anderson, Peggye, Beverly H. Brummett, Paula Goodwin, Sharon Wallace Williams, Redford B. Williams, and Illene C. Siegler. 2005. "Effect of Race on Cultural Justifications for Caregiving." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 60B(5):S257-S262.

Ekwall, Anna K., Bengt Sjyberg, and Ingalill R. Hallberg. 2006. "Loneliness s a Predictor of Quality of Life among Older Caregivers." *Journal of Advanced Nursing* 49(1): 23-32.

Fengler, Alfred P., Nicholas Danigelis and Virginia C. Little. 1983. "Later Life Satisfaction and Household Structure: Living with Others and Living Alone." *Ageing & Society* 3(3):357-377.

Fengler, Alfred P. and Nicholas Danigelis. 1982. "Residence, the Elderly Widow, and Life Satisfaction." *Research on Aging* 4(1):113-135.

Friedemann, Marie-Luise, Kathleen C. Buckwalter, Frederick L. Newman, and Ana C. Mauro. 2013. "Patterns and Caregiving of Cuban, Other Hispanic, Caribbean Black, and White Elders in South Florida." *Journal of Cross-Cultural Gerontology* 28(2): 137-152.

Gana, Kamel, Nathalie Bailly, Yael Saada, Michele Joulain, and Daniel Alaphilippe. 2013. "Does Life Satisfaction Change in Old Age: Results From an 8-Year Longitudinal Study." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 68B(4):540-552.

Gilmour, Helen, Faith Gibson, and Jim Campbell. 2003. "Living Alone with Dementia: A Case Study Approach to Understanding Risk." *Dementia* 2(3):403-420.

Gottlieb, Benjamin H. 2000. "Selecting and Planning Support Interventions." Pp. 195-220 in *Social Support Measurement and Intervention,* edited by Sheldon Cohen, Benjamin H. Gottlieb, and Lynn G. Underwood. New York, NY: Oxford University Press.

Gove, Walter R. 1973. "Sex, Marital Status, and Mortality." *American Journal of*

Sociology 79(1):45-67.
Gräßel, Elmar and Raffaela Adabbo. 2011. "Perceived Burden of Informal Caregivers of a Chronically Ill Older Family Member: Burden in the Context of the Transactional Stress Model of Lazarus and Folkman." *Journal of Gerontopsychology and Geriatric Psychiatry* 24(3):141-154.
Greenfield, Emily and D. Russell. 2011. "Identifying Living Arrangements that Heighten Risk for Loneliness in Later Life." *Journal of Applied Gerontology* 30(4):524-534.
Henning-Smith, Carrie. 2014. "Quality of Life and Psychological Distress among Older Adults: The Role of Living Arrangements." *Journal of Applied Gerontology* 35(1):39-61.
Hill, Robert B. 1999. *The Strength of African American Families: Twenty-Five Years Later.* Lanham, MD: University Press of America.
-----. 1977. *Informal Adoption among Black Families.* Washington, D.C.: National Urban League.
Ho, Suzanne C., Jean Woo, Jacky Lau, S.G. Chan, Y.K. Yuen, Y.K. Chan, and Iris Chi. 1995. "Life Satisfaction and Associated Factors in Older Hong Kong Chinese." *Journal of the American Geriatrics Society* 43(3):252-255.
Holahan, Charles J. and Rudolf H. Moos. 1981. "Social Support and Psychological Distress: A Longitudinal Analysis." *Journal of Abnormal Psychology* 90(4):365-370.
Hughes, Mary Elizabeth and Linda J. Waite. 2009. "Marital Biography and Health at Mid-Life." *Journal of Health and Social Behavior* 50(3):344-358.
-----. 2002. "Health in Household Context: Living Arrangements and Health in Late Middle Age." *Journal of Health and Social Behavior* 43(1):1-21.
Hughes, Mary Elizabeth, Linda J. Waite, Tracey A. LaPierre, and Ye Luo. 2007. "All In The Family: The Impact of Caring for Grandchildren on Grandparents' Health." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 62(2):S108-S119.
Hughes, Michael and Walter R. Gove. 1981. "Living Alone, Social Integration, and Mental Health." *American Journal of Sociology* 87(1):48-74.
Hurlbert, Jeanne S. and Alan C. Acock. 1990. "Social Network Analysis: A Structural Perspective for Family Studies." *Journal of Social and Personal Relationships* 7(2):245-264.
Inter-University Consortium for Political and Social Research [ICPSR]. 2019. "Midlife in The United States (MIDUS 1), 1995-1996." ICPSR 2760. Accessed September 10, 2019. (http://icpsr.umich.edu).
Iwata, Norobu, R. Jay Turner, and Donald A. Lloyd. 2002. "Race/Ethnicity and Depression Symptoms in Community-Dwelling Young Adults: A Differential Item Functioning Analysis." *Psychiatry Research* 110(3):281-289.
Jacobson, Neil S., John M. Gottman, Jennifer Waltz, Regina Rushe, Julie C. Babcock, and Amy Holtzworth-Munroe. 2000. "Affect, Verbal Content, and Psychophysiology in the Arguments of Couples with a Violent Husband. *Prevention & Treatment 3*(1):982-988.
Joslin, Daphne and R. Harrison, R. 1998. "The 'Hidden Patient:' Older Relatives Raising

Children Orphaned by AIDS." *Journal of the American Women's Medical Association* 53(2):65-76.

Kahneman, Daniel, Alan B. Krueger, David Schkade D, Norbert Schwarz, and Arthur A. Stone. 2006. "Would You Be Happier If You Were Richer? A Focusing Illusion." *Science* 312:1908–1910.

Kane, Emily W. 1992. "Race, Gender, and Attitudes toward Gender Stratification." *Social Psychology Quarterly* 55(3):311-320.

Kawachi, Ichiro and Lisa F. Berkman. 2001. "Social Ties and Mental Health." *Journal of Urban Health* 78(3):458-467.

Keane, Florence, Ruth M. Tappen, Christine L. Williams, and Monica Rosselli. 2008. "Comparison of African American and Afro-Caribbean Older Adults' Self-Reported Health Status, Function, and Substance Use." *Journal of Black Psychology* 35(1):44-62.

Kercher, Kyle. 1992. "Assessing Subjective Well-Being in the Old-Old: The PANAS as a Measure of Orthogonal Dimensions of Positive and Negative Affect." *Research on Aging* 14(2):131-168.

Kessler, Ronald C., Gavin Andrews, Daniel Mroczek, Bedirhan Ustun, and Hans-Ulrich Wittchen. 1998. "The World Health Organization Composite International Diagnostic Interview Short-Form (CIDI-SF)." *International Journal of Methods in Psychiatric Research* 7(4):171-185.

Kessler, Ronald C., Katherine A. McGonagle, Shanyang Zhao, Christopher B. Nelson, Michael Hughes, Suzann Eshleman, Hans-Ulrich Wittchen, and Kenneth S. Kendler. 1994. "Lifetime and 12-Month Prevalence of DSM-IIIR Psychiatric Disorders in the United States: Results from the National Comorbidity Survey." *Archives of General Psychiatry* 51(1):8-19.

Kiecolt, Jill K., Michael Hughes, and Verna M. Keith. 2008. "Race, Social Relationships, and Health." *Personal Relationships* 15(2):229-245.

Kirmeyer, Sharon E., and Brady E. Hamilton. 2001. "Childbearing Differences Among Three Generations of U.S. Women." NCHS Data Brief No. 68. Washington, D.C.: National Center for Health Statistics. Published August 2011. Accessed September 10, 2019. (https://www.cdc.gov/nchs/data/databriefs/db68.pdf).

Kooshair, Hadi, Nurizan Yahaya, Tengku Aizan Hamid, Asnarulkhadi Abu Samah, and Vajiheh Sedaghat Jou. 2012. "Living Arrangements and Life Satisfaction in Older Malaysians: The Mediating Role of Social Support Function." PLoS ONE 7(8): e43125.

Laird, Robert D., Gregory S. Pettit GS, John E. Bates JE, and Kenneth A. Dodge. 2003. "Parents' Monitoring Relevant Knowledge and Adolescents' Delinquent Behavior: Evidence of correlated Developmental Changes and Reciprocal Influences." *Child Development* 74(3):752–768.

Lang, Frieder R. and Laura L. Carstensen. 2002. "Time Counts: Future Time Perspective, Goals, and Social Relationships." *Psychology and Aging* 17(1):125-139.

Lawton, M. Powell, Doris Rajagopal, Elaine Brody, and Morton H. Kleban. 1992. "The Dynamics of Caregiving for a Demented Elder among Black and White Families." *Journal of Gerontology* 47(4):S156-S164.

Lawton, M. Powell, Miriam Moss, Morton H. Kleban, Allen Glicksman, and Michael

Rovine. 1991. “A Two-Factor Model of Caregiving Appraisal and Psychological Well-Being.” *Journals of Gerontology, Series B: Psychosocial Sciences and Social Sciences* 46B(4):181-189.

Lavela, Sherri L. and Nazneen Anther. 2010. “Psychological Health in Older Adult Spousal Caregivers of Older Adults.” *Chronic Illness* 6(1):67-80.

Lazarus, Richard S. and Susan Folkman. 1984. *Stress, Appraisal, and Coping*. New York, NY: Springer.

Lincoln, Karen D., Robert Joseph Taylor, and Linda M. Chatters. 2012. “Correlates of Emotional Support and Negative Interaction among African Americans and Caribbean Blacks.” *Journal of Family Issues* 34(9):1262-1290.

Lima, Julie C., Susan M. Allen, Frances Goldscheider, and Orna Intrator. 2008. “Spousal Caregiving in Later Midlife versus Older Ages: Implications of Work and Family Obligations. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 63B(4):S229–S238.

Lin, I-Fen, Susan L. Brown, and Anna M. Hammersmith. 2017. “Marital Biography, Social Security Receipt, and Poverty.” *Research on Aging* 39(1):86-110.

Livingston, Gretchen. 2014. “Tying the Knot Again? Chances Are, There’s a Bigger Age Gap than the First Time Around.” Pew Research Center. Published December 4, 2014. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2014/12/04/tying-the-knot-again-chances-are-theres-a-bigger-age-gap-than-the-first-time-around/)

Lofqvist, Charlotte, Marianne Granbom, Ines Himmelsbach, Susanne Iwarsson, Frank Oswald, and Maria Haak. 2013. “Voices on Relocation and Aging in Place in Very Old Age- A Complex and Ambivalent Matter.” *The Gerontologist* 53(6): 919-927.

Lum, Terry Y. 2005. “Understanding the Racial and Ethnic Differences in Caregiving Arrangements.” *Journal of Gerontological Social Work* 45(4):3-21.

MacKinnon, David P., Jennnifer L. Krull, and Chondra M. Lockwood. 2000. “Equivalence of the Mediation, Confounding, and Suppression Effect.” *Prevention Science* 1(4):173-181.

Mather, Mark. 2016. “Fact Sheet: Aging in the United States.” Washington, D.C.: Population Reference Bureau. Published July 15, 2019. Accessed September 10, 2019. (https://www.prb.org/aging-unitedstates-fact-sheet/)

Mathes, Eugene W. 2015. “Negative Affect Reciprocity as an Explanation of the Correlation between the Perpetrating and Being the Victim of Sexual Coercion.” *Journal of Family Violence* 30(7):943-951.

Mayawaki, Christina E. 2016. “Caregiving Practice Patterns of Asian, Hispanic, and Non-White American Family Caregivers of Older Adults across Generations.” *Journal of Cross-Cultural Gerontology* 31(1):35-55.

McBride, Velma, Emilie Phillips Smith, Nancy E. Hill. 2001. “Race, Ethnicity, and Culture in Studies of Families in Context.” *Journal of Marriage and Family* 63(4):911-914.

McCann, Judith J., Liesi E. Hebert, Laurel A. Beckett, Martha Clare Morris, Paul A. Scherr, and Denis A. Evans. 2000. “Comparison of Informal Caregiving by Black and White Older Adults in a Community Population.” *Journal of the American Geriatrics Society* 48(12):1612-1617.

Menaghan, Elizabeth G. and Morton A. Lieberman. 1986. “Changes in Depression Following Divorce: A Panel Study.” *Journal of Marriage and the Family* 48(2): 319-328.

Michael, Yvonne L., Lisa F. Berkman, Graham A. Colditz, and Ichiro Kawachi. 2001. “Living Arrangements, Social Integration, and Change in Functional Health Status.” *American Journal of Epidemiology* 153(2):123-131.

Miranda-Castilllo, Claudia, Bob Wood, and Martin Orrell. 2010. “People with Dementia Living Alone: What Are Their Needs and What Kind of Support Are They Receiving?” *International Psychogeriatrics* 22(4):607-617.

Mossakowski, Krysia N. 2003. "Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health?" *Journal of Health and Social Behavior* 44(3): 318–331.

Mouzon, Dawne M. 2014. “Relationships of Choice: Can Friendships or Fictive Kinships Explain the Race Paradox in Mental Health?” *Social Science Research* 44:32-43.

-----. 2013. “Can Family Relationships Explain the Race Paradox in Mental Health?” *Journal of Marriage and Family* 75(2):470-485.

Mroczek, Daniel K. and Christian M. Kolarz. 1998. “The Effect of Age on Positive and Negative Affect: A Developmental Perspective on Happiness.” *Journal of Personality and Social Psychology* 75(5):1333-1349.

Mui, Ada C. 1992. “Caregiver Strain among Black and White Daughter Caregivers: A Role Theory Perspective.” *The Gerontologist* 32(2):203-212.

Murray, John E. 2000. “Marital Protection and Marital Selection: Evidence from a Historical-Prospective Sample of American Men.” *Demography* 37(4):511-521.

National Alliance for Caregiving (NAC) and AARP. 2015. *Caregiving in the U.S.* Bethesda, MD: NAC.

Newsom, Jason T., Masami Nishishiba, David L. Morgan, and Karen S. Rook. 2003. “The Relative Importance of Three Domains of Positive and Negative Social Exchanges: A Longitudinal Model with Comparable Measures.” *Psychology and Aging* 18(4):746–754.

Ong, Anthony D., Bert N. Uchino, and Elaine Wethington. 2016. “Loneliness and Health in Older Adults: A Mini-Review and Synthesis.” *Gerontology* 62(4):443-449.

Osborn, David P.J., Astrid E. Fletcher, Liam Smeeth, Susan Stirling, Christopher J. Bulpitt, Elizabeth Breeze, Edmond SW Ng, Maria Nunes, Dee Jones, and Alistair Tulloch. 2003. “Factors Associated with Depression in a Representative Sample of 14,217 People Aged 75 and Over in the United Kingdom: Results from the MRC Trial of Assessment and Management of Older People in the Community.” *International Journal of Geriatric Psychology* 18(7):623-630.

Pavot, William and Ed Diener. 2008. “The Satisfaction With Life Scale and The Emerging Construct of Life Satisfaction.” *The Journal of Positive Psychology* 3(2):137-152.

Pearlin, Leonard I. and Joyce S. Johnson. 1977. “Marital Status, Life-Strains, and Depression.” *American Sociological Review* 42(5):704 -715.

Pew Research Center. 2015. “Married Adults are More Likely to be Upper Income than Unmarried Adults.” Pew Research Center Demographic & Social Trends. Published December 8, 2015. Accessed September 10, 2019.

(http://www.pewsocialtrends.org/2015/12/09/the-american-middle-class-is-losing-ground/st_2015-12-09_middle-class-13/).

-----. 2010. "The Return of the Multi-Generational Household." Pew Research Center Demographic & Social Trends. Published March 2010. Accessed September 10, 2019. (https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/752-multi-generational-families.pdf)

Pinquart, Martin and Silvia Sörensen. "Differences between Caregivers and Noncaregivers in Psychological Health and Physical Health: A Meta-Analysis." *Psychology and Aging* 18(2):250-267.

Pollard, Kelvin and Paola Scommegna. 2013. *The Health and Life Expectancy of Older Blacks and Hispanics in the United States.* Population Reference Bureau. Published June 2013. Accessed September 10, 2019. Washington, D.C.: Population Reference Bureau. (http://www.prb.org/pdf13/TodaysResearchAging28.pdf)

Pruchno, Rachel A. and Dorothy McKenney. 2000. "Psychological Well-Being of Black and White Grandmothers Raising Grandchildren: Examination of a Two-Factor Model." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 57B(5):444-452.

Pruchno, Rachel A. 1999. "Raising Grandchildren: The Experiences of Black and White Grandmothers." *The Gerontologist* 39(2):209-211.

Pruchno Rachel A., Julie Hicks Patrick, and Christopher J. Burant. 1997. "African American and White Mothers of Adults with Chronic Disabilities: Caregiving Burden and Satisfaction." *Family Relations* 46(4):335-346.

Pudrovska, Tetyana, Scott Schieman, and Deborah Carr. 2006. "The Strains of Singlehood in Later Life: Do Race and Gender Matter?" *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(6):315-322.

Pyke, Karen D. and Vern Bengston. 1996. "Caring More or Less: Individualistic and Collectivist Systems of Family Eldercare." *Journal of Marriage and the Family* 58(2) 379-392.

Raley, R. Kelly, Megan M. Sweeney, and Danielle Wondra. 2015. "The Growing Racial and Ethnic Divide in U.S. Marriage Patterns." *The Future of Children* 25(2):89-109.

Raphael, Karen. 1987. "Recall Bias: A Proposal for Assessment and Control." *International Journal of Epidemiology* 16(2): 167-170.

Roth, David L., Williams E. Haley, Jason E. Owen, Olivio J. Clay, Kathryn T. Goode. 2001. "Latent Growth Models of the Longitudinal Effects of Dementia Caregiving: A Comparison of African American and White Family Caregivers." *Psychology and Aging* 16(3):427-436.

Russell, David and John Taylor. 2009. "Living Alone and Depressive Symptoms: The Influence of Gender, Physical Disability, and Social Support among Hispanic and Non-Hispanic Older Adults." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 64B(1):95-104.

Ryff, Carol, David Almeida, John Ayanian, Deborah S. Carr, Paul D. Cleary, Christopher Coe, and David Williams. 2018. "Midlife in the United States (MIDUS 2): Milwaukee African American Sample, 2005-2006." Ann Arbor, MI: Inter-

university Consortium for Political and Social Research [distributor], Updated March 9, 2018. Accessed September 10, 2019. (https://doi.org/10.3886/ICPSR22840.v5).

Sarkisian, Natalia and Naomi Gerstel. 2004. "Kin Support among Blacks and Whites: Race and Family Organization." *American Sociological Review* 69(6):812-837.

Savage, Brittany, Karen J. Foli, Nancy E. Edwards, and Kathleen Abrahamson. 2016. "Familism and Health Care Provision to Hispanic Older Adults." *Journal of Gerontological Nursing* 42(1):21-29.

Sawyer, Wendy and Peter Wagner. 2019. *Mass Incarceration: The Whole Pie 2019.* Prison Policy Initiative. Northampton, MA: Prison Policy Initiative. Published March 19, 2019. Accessed September 10, 2019. (https://www.prisonpolicy.org/reports/pie2019.html).

Schiebe, Suzanne, Rui Mata, and Laura L. Carstensen 2010. "Age Differences in Affective Forecasting and Experienced Emotion Surrounding the 2008 U.S. Presidential Election." *Cognition and Emotion* 26(6): 029-1044.

Schieman, Scott and Gabriele Plickert. 2007. "Functional Limitations and Changes in Levels of Depression among Older Adults: A Multiple-Hierarchy Stratification Perspective." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 62B(1):S36-S42.

Schieman, Scott. 1999. "Age and Anger." *Journal of Health and Social Behavior* 40(3): 273-289.

Schoenborn, Charlotte A. 2004. *Marital Status and Health: United States, 1999–2002*. Vital and Health Statistics No. 351. National Center for Health Statistics: Hyattsville, MD.

Schuster, Tonya L., Ronald C. Kessler, and Robert H. Aseltine. 1990. "Supportive Interactions, Negative Interactions, and Depressive Mood." *American Journal of Community Psychology* 18(3):423-438

Seltzer, Judith A., and Jenjira J. Yahirun. 2013. *Diversity in Old Age: The Elderly in Changing Economic and Family Contexts.* Russell Sage Foundation. Published November 6, 2013. Accessed September 10, 2019. (https://s4.ad.brown.edu/Projects/Diversity/Data/Report/report11062013.pdf).

Shim, Ruth S., Jiali Ye, Peter Baltrus, Yvonne Fry-Johnson, Elvan Daniels, and George Rust. 2012. "Racial/Ethnic Disparities, Social Support, and Depression: Examining a Social Determinant of Mental Health." *Ethnicity & Disease* 22(1):15-20.

Shin, S.H. and S.R. Sok. 2012. "A Comparison of the Factors Influencing Life Satisfaction between Korean Older People Living with Family and Living Alone." *International Nursing Review* 59(2):252-258.

Singh, B. Krishna, Sherwood Williams, and Betsy B. Singh. 1998. "An Examination of Extended Family Residence Sharing Predispositions in the United States: 1973-1989." *Marriage and Family Review* 27(1-2):131-143.

Stack, Carol B. 1974. *All Our Kin: Strategies for Survival in a Black Community.* New York, NY: Harper & Row.

Taylor, Robert Joseph, Linda M. Chatters, Amanda Toler Woodward, and Edna Brown. 2013. "Racial and Ethnic Differences in Extended Family, Friendship, Fictive

Kin, and Congregational Informal Support Networks." *Family Relations* 62(4): 609-624.

Taylor, Robert Joseph, Linda M. Chatters, and Aaron Celious. 2003. "Extended Family Households among Black Americans." *African American Research Perspectives* 9(1):133-151.

Taylor, Paul, Jeffrey Passel, Richard Fry, Richard Morin, Wendy Wang, Gabriel Velasco, and Daniel Dockterman. 2010. "The Return of the Multi-Generational Family." Pew Research Center Social & Demographic Trends Report. Washington, D.C.: Pew Research Center. Published March 18, 2010. Accessed September 10, 2019. (https://www.pewsocialtrends.org/2010/03/18/the-return-of-the-multi-generational-family-household/).

Taylor, Robert Joseph, Linda M. Chatters, and James S. Jackson. 1997. "Changes Over Time in Support Network Involvement among Black Americans. Pp. 293-316 in *Family Life in Black America,* edited by Robert Joseph Taylor, James S. Jackson, and Linda M. Chatters. Thousand Oaks, CA: Sage.

Thoits, Peggy A. 2011. "Mechanisms Linking Social Ties and Support to Physical and Mental Health." *Journal of Health and Social Behavior* 52(2):145-161.

Thorpe, Robert James, Ruth G. Fesahazion, Lauren Parker, Tanganiyka Wilder, Ronica N. Rooks, Janice V. Bowie, Caryn N.Bell, Sarah L. Szanton, and Thomas A. LaViest. 2016. "Accelerated Health Declines among African Americans in the U.S.A."" *Journal of Urban Health* 93(5):808-819.

Tov, William and Ed Diener. 2013. "Subjective Well-Being." Research Collection School of Social Sciences. Paper 1395. New York, NY: Wiley. Published 2013. Accessed September 10, 2019. (https://ink.library.smu.edu.sg/soss_research/1395/).

Turner R. Jay. 1981. "Social Support as a Contingency in Psychological Well-Being." *Journal of Health and Social Behavior 22*(4):357-367.

Turney, Kristen. 2014. "The Intergenerational Consequences of Mass Incarceration: Implications for Children's Co-Residence and Contact with Grandparents." *Social Forces* 93(1):299-327.

Umberson, Debra, Camille B. Wortman, and Ronald C. Kessler. 1992. "Widowhood and Depression: Explaining Long-Term Gender Differences in Vulnerability." *Journal of Health and Social Behavior* 33(1):10-24.

Vitaliano, Peter P, Jianping Zhang, and James M. Scanlan. 2003. "Is Caregiving Hazardous to One's Physical Health? A Meta-Analysis." *Psychological Bulletin* 129(6):946–972.

Waddell, Erin L. and Joy M. Jacob-Lawson. 2010. "Predicting Positive Well-Being in Older Men and Women." *The International Journal of Aging and Human Development* 70(3):181-197.

Waid, Mikki. 2016. "Social Security: A Key Retirement Income Source for Older Minorities." AARP Public Policy Institute. Washington, D.C.: AARP Public Policy Institute. Published March 2016. Accessed September 10, 2019. (https://www.aarp.org/content/dam/aarp/ppi/2016-03/social-security-a-key-income-source-for-older-minorities-aarp-ppi.pdf).

Waite, Linda J. and Maggie Gallagher. 2001. *The Case for Marriage: Why Married*

People are Happier, Healthier, and Better Off Financially. New York, NY: Broadway Books.

Wang, Wendy. 2015. "The Link between a College Education and a Lasting Marriage." Pew Research Center. Published December 4, 2015. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2015/12/04/education-and-marriage/).

Watson, David, Lee Anna Clark, and Auke Tellegen. 1988. "Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales." *Journal of Personality and Social Psychology* 54(6):1063-1070.

Watson, David and Auke Tellegen. 1985. "Toward a Consensual Structure of Mood." *Psychological Bulletin* 98(2):219-235.

Weinert, Clarann, Shirley Cudney and Wade G. Hill. 2008. "Retention in a Computer-Based Intervention for Chronically Ill Rural Women" *Applied Nursing Research* 21(1):23-29.

Weissman, Judith D. and David Russell. 2018. "Relationships between Living Arrangements and Health Status among Older Adults in the United States, 2009-2014: Findings from the National Health Interview Survey." *Journal of Applied Gerontology* 37(1):1-19.

Wenger, Clare G., Richard Davies, Said Shahtahmasebbi, and Anne Scott. 1996. "Social Isolation and Loneliness in Old Age: Review and Model Refinement." *Ageing & Society* 16(3):333-358.

West, Loraine A., Samantha Cole, Daniel Goodkind, and Wan He. 2014. "65+ in the United States: 2010." Current Population Reports P23-212. Washington, D.C.: U.S. Census Bureau. (https://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf).

Whalen, Heather R. and Margie E. Lachman. 2000. "Social Support and Strain from Partner, Family and Friends: Costs and Benefits for Men and Women in Adulthood." *Journal of Social and Personal Relationships* 17(1):5-30.

Williams, David R., Naomi Priest, and Norman Anderson 2016. "Understanding Associations between Race, Socioeconomic Status, and Health: Patterns and Prospects." *Health Psychology* 35(4) 407-411.

Williams, David R., Hector M. Gonzalez, Harold Neighbors, Randolph Nesse, Jamie M. Abelson, Julie Sweetman, and James S. Jackson. 2007. "Prevalence and Distribution of Major Depression Disorder in African Americans, Caribbean Blacks, and Non-Hispanic Whites: Results from the National Survey of American Life." *Archives of General Psychiatry* 64(3):305-315.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy.* Chicago, IL: University of Chicago Press.

World Health Organization [WHO] 2002. "Proposed Working Definition of an Older Person in Africa for the MDS Project." World Health Organization Health Statistics and Information Systems. Published 2002. Accessed September 10, 2019. (http://www.who.int/healthinfo/survey/ageingdefnolder/en/).

Yim, Dawnhee. 1998. "Psychocultural Features of Ancestor Worship." Pp. 163-186 in *Confucianism and the Family,* edited by Walter H. Slote and George A. De Vos. New York, NY: SUNY Press.

CHAPTER 4

Older Adult Living Arrangements at the Intersection of Race and Later Life Womanhood: Associations with Subjective Well-Being

INTRODUCTION

Western conceptions of femininity emphasize the home as women's domain. Largely as a result of gender role socialization that reinforces this notion, women do a disproportionate share of household work (Kornrich, Brines and Leupp 2015) and emotional labor for family members (Hochschild 1989; Gove and Hughes 1979) compared to men, and live with others more frequently than men throughout the adult life course (Vespa 2017). Social research on home environments must therefore consider that women are socialized into different household roles than men and may evaluate their living arrangements differently.

However, as Black feminist thought emphasizes, the experience of being a woman differs across racial/ethnic and social class lines throughout Western society, specifically within the American context (Hill 2000). Black women have historically been excluded from Western ideas of femininity through a combination of racist ideologies and socioeconomic disadvantage. As a result, Black women's experiences, including those related to family and the home, are distinct from that of White women. In older adulthood, Black women are less likely to live with a spouse (West et al. 2014), more likely to provide care and support to others, including children (Seltzer and Yahirun 2013), and are more economically vulnerable when living alone (Christ and Gronniger 2018). This may mean that the association between living arrangements and subjective measures of well-being differ for older Black and White women.

In this chapter, I consider how the social experience of being a woman differs for Blacks and Whites and the implications this may have for how living arrangements are linked to subjective well-being (SWB). Specifically, I use data from Wave 2 of the Midlife Development in the United States (MIDUS 2) study to evaluate whether the associations of four categories of living arrangements (living alone, living with a spouse, living with children (no spouse), and living with others (no spouse)) with SWB are different for older Black and White women. I also evaluate whether these differences can be accounted for by stressors or support resources that women are likely to have as a result of their living arrangements.

BACKGROUND

The Intersection of Race and Gender for Black Women

The experiences of Black women have been critical to the development of scholarly work on the ways that social groups like race and gender intersect in daily life. Kimberle Crenshaw's 1989 article, "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," coined the term "intersectionality" to describe the way Black women are excluded from legal discourse on both sex discrimination (defined by White women's experiences) and racial discrimination (defined by Black men's experiences.) She argues that these dual oppressions render Black women invisible to the legal system and without recourse for legal justice in the face of discrimination. Crenshaw and her contemporaries highlight the way that marginalized statuses operate synergistically to define social experiences, and argue that an individual's experiences cannot be fully understood by considering these statuses as discrete identities.

Households may also be useful sites for exploring the interaction of race and gender. Household roles are highly gendered, especially for women, and attitudes toward gender roles and gender inequality vary by race, ethnicity, and class in the United States (Kane 2000). Black women report greater parity with Black men in having positive attitudes toward mothers' participation in the labor force and egalitarian household roles (Kane 2000, 1992). There are several potential explanations for this pattern. First, the social oppression of Black men may enable them to more readily recognize the social oppression of women. Black men are more likely than White men to attribute gender inequality to sex discrimination rather than women's biological inferiority (Kluegel and Smith 1986), and Kane (2000) argues that this is a product of their sensitization to social inequality via racial discrimination, as well as greater awareness that inequality is a structural phenomenon. Another explanation is Black women's historically consistent participation in the labor force (Dow 2015), as while women do the majority of housework and childcare in households headed by heterosexual couples even when both partners work, dual-earner households have a slightly better division of labor (Kornrich, Brines and Leupp 2015; Shelton and John 1996).

E. Franklin Frazier's work (1939) argues that the race variation in attitudes toward gender instead has its roots in the effects of slavery on the Black family. By denying slaves the right to marry, he argues, and forcing family separations through sales, slavery undermined Blacks' ability to internalize Western patriarchal family roles (i.e., families in which men were seen as necessary providers for and protectors of women and children.) Furthermore, in the early 19th century, Western industrialization spurred development of middle-class households, in which the home was seen as women's

natural place in society. Black women who were enslaved, however, did not live in a world characterized by concepts of public and private spheres, nor did they necessarily perform different types of labor than men or stop laboring when they became mothers (Jones 2010). After emancipation, Black women generally entered and remained in the labor force regardless of their parental status (Jones 2010). Thus, according to these arguments, slavery not only destroyed African family traditions, but also prevented Blacks from internalizing and participating in gender-based family roles idealized by the White middle class.

However, other scholars of Black feminist thought see the aforementioned efforts to explain or justify why Black families have been "unable to" adhere mainstream, nuclear family values and its rigid gender roles as problematic (Hill 2005). These scholars argue that such attempts to explain Black households as "incompliant" with these values are at once not critical enough of the patriarchal attitudes that assume nuclear families are superior, and also failures to recognize the way that the differences in family structure and household roles are both a) a product of how race and gender interact with class and b) sometimes a conscious choice for Black women. In support of the former, Kane (2000) and Hill (2005) point to Black and White mothers' experiences with the labor force. While second wave feminism, led by the voices of White, middle-class women, aimed to enable women to have roles in both domestic family life and the labor force without stigmatization, Black women of lower social classes generally did not experience employment as something that was in competition with their roles as mothers. They instead worked out of economic necessity, most commonly in lower-paying jobs with poorer working conditions than those held by White women. More recent research

comparing the experiences of middle-class Black and White mothers finds that not only do Black mothers still not view motherhood and employment as conflicting activities, but they may also feel that remaining of the labor force is expected of them as mothers. Dow (2015) argues that these attitudes are shaped in part by the legacy of U.S. welfare reform and the conflicting cultural ideologies it produced about motherhood for White versus Black women. Namely, these ideologies depict White mothers who work as less maternal, but Black mothers who do *not* work as "lazy" and "abusers of the social welfare system" (Dow 2015).

In support of the second argument, that deviating from nuclear family culture is a way of subverting racist and patriarchal ideologies, Kane (1992) theorizes that Black women's experiences, including economic independence, have given them the freedom to view mainstream family values that assign women to a natural domestic role more critically. Likewise, Collins (1986) describes Black women, having been pushed to the margins of debates on both race and gender equality, as occupying a unique "outsider within" status that allows them to be both intimately familiar with both race and gender oppression and still maintain enough social distance to view them critically. In this way, Black women's decisions about marriage and childbearing be conscious attempts to liberate oneself from the systems of power that prevent "insiders" from seeing the way they are being oppressed.

In this chapter, I argue that historical patterns and cultural expectations related to home and family life for Blacks and White women, which are products of institutionalized racism, may produce different associations of living arrangements with SWB by race. In the subsequent sections, I first provide an overview of patterns in living

arrangements and how attitudes about household structure differ for older Black and White women. I then review literatures on positive and negative experiences that may be associated with living arrangements for older Black and White women, and explain how these factors may contribute to differential associations of living arrangements and SWB by race for older women.

Living Arrangements among Older Black and White Women

An important correlate of SWB in later life is whether or not one lives with their spouse. Evidence shows that having a spouse is linked to both more positive affect (Waddell and Jacob-Lawson 2010) and less negative affect (Weissman and Russell 2018; Hughes and Waite 2002) among older adults. Having a spouse may become even more closely linked with emotional well-being in older adulthood, as older adults tend to view the future as more finite and thus limit their social networks to a smaller set of meaningful social ties, giving spousal relationships greater salience (Lang and Carstensen 2002; Lang 2001). While the benefits of marriage were once thought to be greater for men than women due to women's subordinate social status (Gove 1972), more recent research shows that the benefits of marriage extend equally to both men and women (Simon 2002; Waite and Gallagher 2000). Older couples may also experience greater social equity in their marriages, as both partners exit the professional and/or childbearing responsibilities they occupied in earlier years of life, leading male and female partners to have more similar household roles and feel more equally invested in their marriage (Kulik 2002).

However, these benefits of living with a spouse in older adulthood may differ for Black women compared to White women. Black women are less likely to live with a

spouse at any stage of the life course, as they have lower rates of marriage and higher rates of divorce than Whites (West et al 2014) due to structural factors like the effects of urban deindustrialization on Black men's employment prospects (Wilson et al. 1987) and the higher rate of incarceration for Black men (Pew Research Center 2013). Among older women, in addition to having higher rates of divorce and never marrying, Black women who marry also experience widowhood earlier in life than White women, due to Black men's shorter expectancy than White men (CDC 2017).

The desirability and importance of marriage may also vary for Black and White women. Some scholars have argued that women place greater importance on marriage than men, as being married is a more central part of their self-identity (Loscocco and Walzer 2013). However, Black women place less value on marriage than their White counterparts (Sarkisian and Gerstel 2004). Black women of higher socioeconomic status (SES) rate having a good career as a more important accomplishment of the adult life course than marriage (King 1999). The concentration of poverty in Black communities may make marriage seem less desirable for Black women of lower SES as well; Edin and Kelafas (2005) find that low-income women anticipate poor economic returns to marriage, which lessens its salience in their imagined futures. Burton and Tucker (2009) find that the uncertainty of the future for Black women with limited socioeconomic prospects also makes them feel more ambivalent about entering a commitment like marriage.

Finally, Black and White women also report differences in SWB outcomes related to marriage. Blacks report more marital discord and less satisfaction with their marriages compared to Whites (Broman 2005,1993), and Black women in particular report the least

amount of happiness with their marriages in comparison both to White women and to men of either race (Corra et al. 2009). Marital discord may have spillover effects for the experiences of later life widowhood. Carr (2004) finds that older Black women report less despair and anger, two emotions that can be used to characterize negative affect, following the death of a spouse than older White women, and that higher levels of pre-loss marital conflict account for the difference in despair. Differences in anger, by contrast, reflect older Black women's higher levels of social support from children, as well as the importance of religion as a coping mechanism in older Black women's lives.

Living arrangements beyond those rooted in marriage also have significant associations with women's later life SWB. Older adults who live with someone other than their spouse report more psychological distress than those living with their spouse, an effect that is stronger for women than men (Weissman and Russell 2018; Henning-Smith 2014; Hughes and Waite 2002). The particular relationships captured in these measures of "living with others" are not further specified in previous research, but can potentially reflect a wide range of family and non-family relationships, making it difficult to theorize about the mechanisms behind these associations. However, because the effects differ by gender, general patterns of how household roles vary by gender might be a useful context for understanding these patterns. As previously mentioned, women perform greater shares of household labor than men (Kornrich, Brines and Leupp 2015; Shelton and John 1996). Older women living in what Hughes and Waite (2002) call "complex households," or households comprised of relationships beyond those related to marriage or birth, may therefore have poorer psychological outcomes in these households because they are responsible for taking care of a larger household than women living only

with their spouse. Furthermore, women are also more likely than men to provide emotional labor to household members, which can take a toll on their own emotional well-being (Hochschild 1989; Gove and Hughes 1979).

While the particular reason for the gender disparity in outcomes related to living with others cannot be determined from existing research, there are theoretical reasons as to why White and Black women may have different psychological outcomes associated with this living arrangement. First, living with extended family members is more common among older Black women compared to older White women, and there is some evidence that one mechanism linking living arrangements to psychological well-being is the extent to which they align with or deviate from what is considered either ideal or expected. As an example, Davis, Kim and Fingerman (2018) find that the effect of co-residing with adult children on older parents' marital harmony decreased in between 2008 and 2013. They suggest that the effects of the recession, during which financial assistance from older parents to adult children made up the bulk of economic transfers (Mather 2015), may have normalized this living arrangement, decreasing the amount of stress it caused in the older generation of the household. Within the U.S. population as a whole, Blacks are also more likely than Whites to live in multigenerational households (Cohn and Passel 2018; Pew Research Center 2010), and among older adults, Blacks are more likely than Whites to live with both extended family members like cousins or siblings, as well as non-family members (Taylor, Chatters, and Celious 2003).

Attitudes toward living with extended family also vary by both race and gender. Black women report stronger agreement than their male and White counterparts that people should take other family members into their home (Burr and Mutchler 1999;

Brody, Johnson, and Fulcomer 1984). Some scholars argue that Black women with West African roots have maintained cultural traditions that assign greater importance to blood ties over conjugal ties (Sudarkasa 2007) and emphasize a matrilineal "tilt" in comparison to Western patriarchal norms that assign men the role of head-of-household and define family through patrilineal ties (Burgess 1995). Organizing family life around matrilineal blood ties places older Black women in an important role for extended family members, and can possibly contribute to Black women feeling stronger filial piety toward extended family members than White women.

In summary, attitudes and norms related to family structure and household roles differ for older Black and White women. The subjective assessments individuals make of their living arrangements may be influenced by these attitudes and norms, leading to different associations of living arrangements with SWB by race for older women. Thus, in this analysis, I assess whether the associations of living arrangements on SWB differs across subgroups of older Black and White women.

Gendered Stressors Related to Living Arrangements for Older Black and White Women

The stressors that U.S. women may encounter in later life as a result of their living arrangements are strongly related to gender roles and the experiences of women in a Western, patriarchal society. The intersection of race and gender for Black and White women also shapes the likelihood that these stressors will be experienced, as well as circumstances through which they may arise. In this analysis, I consider three such types of stressors: caregiving responsibilities, social strain, and economic precarity.

Caregiving Responsibilities

Caregiving may be a mechanism through which living arrangements are associated with SWB for older women. Caregiving responsibilities are becoming more common in the lives of older U.S. adults. The population as a whole is more likely to have caregiving responsibilities than past generations as a result of increased life expectancy and higher rates of community living. These trends increase the likelihood that one's older adult years will involve providing care to an aging spouse (Lima et al. 2008), a grandchild (Seltzer and Yahirun 2013), or in the case of people in their younger years of older adulthood, even a very elderly parent (Brody 2010).

The amount and type of caregiving an older adult does is heavily influenced by their gender. Women have far more caregiving responsibilities throughout their lifetime than men, possibly as a result of early gender socialization that associates femininity with empathy and being a source of support for other family members (Chodorow 1978). At older ages, patterns of caregiving for women also diverge by race, with Black women providing more care to family than older White women (McCann et al. 2000; Silverstein and Waite 1983). Older Black women tend to maintain close relationships with extended kin (Lincoln, Taylor, and Chatters 2003), and are more likely to give care to people outside their immediate family than older Whites (McCann et al. 2015). Of particular significance to the experiences of older Black women is providing care to grandchildren in skip generation households (Pew Research Center 2010) due to structural problems like mass incarceration (Turney 2014) and the effect of HIV/AIDS on Black communities (Joslin and Harrison 1998). Caregiving can be severely taxing both physically and psychologically (Burton et al. 2003; Vitaliano, Zhang, and Scanlan 2003), and Black's

women greater caregiving responsibilities in later life compared to White women may put their health at risk, especially because older Black women are more likely than White women experience poverty (Tucker and Lowell 2016) and be in poor health themselves (Hunt and Whitman 2015; Sundquist, Winkleby, and Pudaric 2001).

However, despite these risk factors, older Black women report feeling less burdened by the care they give than their White counterparts (Conway, Jones, and Speakes-Lewis 2011; Cuellar 2002; Martin 2000; Mui 1992). Research on Black women's gender socialization finds that Black women report identifying as kinkeepers for their families (Peterson 2008), which may explain why Black female caregivers are more likely than Whites to report that caregiving is a family duty rather than an unexpected burden (Martin 2000). Black women who provide care to household members may therefore experience fewer negative psychological consequences than their White counterparts. Thus, in this analysis I assess whether caregiving responsibilities account for different associations of living arrangements with SWB for older Black and White women.

Social Strain

It has been widely documented that women report maintaining more close social bonds than men, and rely more heavily on their social networks for support when dealing with negative life events (Kawachi and Berkman 2001; Wethington, McLeod, and Kessler 1987; Belle 1982). Somewhat paradoxically, women's stronger social ties compared to men are also thought to contribute to their relatively poorer mental health. Women are more likely than men to report negative interactions with their social network (Pagel et al. 1987; Belle 1982), and women with more negative life events occurring in

their social network have reported higher than average levels of stress (Hampton et al. 2015). Women who live with other people may therefore be susceptible to experiencing strain as a result of their living arrangements.

As people age, their social networks tend to shrink, as older adults focus more on positive than negative relationships (Lang and Carstensen 2002), and so this "contagion" effects of negative social ties for women may diminish with age. However, while most older Black women report supportive, emotionally close ties with kin (Lincoln, Taylor, and Chatters 2003), among certain groups of older Black women, aging may increase the risk of social strain. Lincoln, Taylor, and Chatters (2003) find that older Black women with more educational attainment report more social strain with family members and friends than those with less education, which may reflect findings from other research that more financially stable members of Black families play a large role in providing instrumental assistance to other family members, including providing them room in their home (Taylor et al. 2003). Furthermore, having more social roles within their kin networks (e.g., spouse, parent, grandparent) is associated with better health for middle-aged Black women, but poorer health for older Black women (Coleman et al. 1987), possibly underscoring the significant role that Black women assume within their kin networks in old age (Peterson 2008).

Taken together, this research suggests that older Black women may experience more strain from their social networks as a result of their presumed status as kinkeeper. Thus, in this analysis I assess whether social strain accounts for differences in the association of living arrangements with SWB for older Black and White women.

Economic Precarity

In the United States, women have higher rates of poverty than men at all stages of the adult life course (Fontenot, Semega, and Kollar 2018). In addition to the direct effect of the persistent gender gap in pay (Graf, Brown, and Patten 2019), a number of other social factors may promote or exacerbate economic insecurity among women, including the costs of raising children as single parents (Kramer et al. 2016), having poorer health compared to men (Verbrugge 1985), and experiencing disruptions in their labor force participation in order to care for children and other family members (Gangl and Ziefle 2009). The cumulative effects of these issues over the life course mean that women are more likely than men to age in poverty (Christ and Gronniger 2018).

Older women of color are significantly more likely than older White women to experience poverty, and the differences between older Black and White women are particularly striking. Black women over age 65 have slightly more than double the rate of poverty than their Whites (Christ and Gronniger 2018), as well as fewer assets and lower average retirement savings (Addo and Litcher 2013). Black women are also less likely than White women to marry and more likely to divorce (West et al. 2014), both of which are risk factors for financial insecurity among women in later life (Lin, Brown and Hammersmith 2017). Finally, older Black women are more likely to act as caregivers (McCann et al. 2000; Silverstein and Waite 1983), which can compound economic security among women who already have few resources (Christ and Gronniger 2018). Thus, in this analysis I assess whether economic precarity accounts for differences in the association of living arrangements with SWB for older Black and White women.

Gendered Experiences of Social Support and Coping Resources among Older Black and White Women

While U.S. women experience unique social, economic, and psychological risks compared to men, they also have unique support and coping resources to address these stressors. The amount and type of resources utilized in older adulthood varies for Black and White women. In this analysis, I consider three types of support and coping resources that can account for the ways in which living arrangements are linked to SWB differently for older Black and White women.

Sources of Social Support

Women exchange more instrumental (Haxton and Harknett 2009) and emotional (Liebler and Sandefur 2002) support with kin. While having a large number of close social ties also increases' women's risk of social strain (Hampton et al. 2015, Pagel et al. 1987; Belle 1982), having more support can counteract the negative effects of social strain for women (Walen and Lachman 2000). Black and White women exchange comparable amounts of overall support with kin, though Black women are less likely White women to be involved in exchanges of emotional support with kin (Sarkisian and Gerstel 2004). The authors theorize that the cultural stereotype of the "strong Black woman" may account for this finding by encouraging Black women to stay silent about their emotional stressors. This lack of support may have important consequences for older Black women who are responsible for caregiving or otherwise providing assistance to kin, as despite perceiving less caregiving burden, Black female caregivers are also likely to use emotion-focused coping for their caregiving responsibilities (Knight et al. 2000). The absence of emotional support for these coping strategies may have negative

health consequences even if Black women do not cognitively evaluate caregiving as a burden.

Differences in marital status can also affect the amount of social support older Black women receive compared to White women. Black women have higher rates of divorce than White women (West et al. 2014) and while perceived stigmatization has diminished among divorced women since the mid-20th century (Konstam et al. 2016), particularly among older cohorts, divorce can decrease levels of support from family (Taylor 1986) or church networks (Taylor and Chatters 1986). Marriage can also extend one's kin network and the potential social support resources they provide (Hurlbert and Acock 1990; Taylor and Chatters 1986; Chatters, Taylor, and Jackson 1985). Black women may compensate for the lack of support resources through marriage by maintaining strong ties with extended kin and non-family members, though these relationships may be more beneficial for some types of support than others. Black women who are not married report less emotional support from family than their married counterparts (Lincoln, Taylor, and Chatters 2003), for example, which may not be easily compensated for, as Black women are less likely than White women to exchange emotional support with kin (Sarkisian and Gerstel 2004) or have an emotional confidant (Kiecolt et al. 2008). Thus, in this analysis, I assess whether differences in social support partially account for differences in the associations of living arrangements with SWB for older Black and White women.

Religious/Spiritual Coping

Women in the United States are generally more religious than their male counterparts, and Black women have the highest level of religiosity of all racial/ethnic

groups. Black women surpass both Black men and women of other racial/ethnic groups on measures of intensity of belief in God, daily prayer, attendance at religious services, and the overall importance of religion in their lives (Cox and Diamant 2018). This is especially true of older cohorts of Black women, who report comparatively higher levels of religiosity than younger cohorts (Diamant and Mohamed 2018). Religious belief and participation have documented benefits for the well-being of older adults (Koenig 1997), and so older Black women's stronger religiosity compared to Whites may account for differences in how living arrangements are linked to their SWB.

Blacks are more likely than Whites to report using religion as a coping resource for stress and negative life events (Mattis and Jagers 2001), and Black women report higher levels of religious coping than Black men (Chatters, Taylor, Jackson, and Lincoln 2008). There are multiple ways in which religion can be a coping resource for Black women. Most Black Americans identify as Christians, and about half are affiliated with historically Black churches (Masci 2018). Historically Black churches were originally developed by Black free persons prior to Emancipation (Pinn 2002), and have remained an important community institution for Blacks (Barnes 2005; Reid, Hatch, and Parrish 2003). Black churches can be sources of community support for congregants, facilitators of collaborative efforts to address community issues, and a place to worship in ways distinct from White Protestant churches (Krause 2002; Nelsen and Nelsen 1975). Black women have historically relied on their church to help them cope with gender-specific experiences, including financial insecurity, underemployment, and raising children as a single parent (Mendenhall, Bowman and Zhang 2013). In old age, churches can also be a source of instrumental support for older Black women (Krause 2002).

Additionally, Black women report that spiritual beliefs are a coping resource. Spirituality is distinct from religiosity; while the latter refers to adherence to a system of beliefs, the former is concerned more with one's intrinsic sense of connection to the divine or experiences of transcendence (Mattis and Watson 2008). Reed and Neville (2013) find that spirituality is strongly related to global mental health and life satisfaction among Black women. Thus, in this analysis I evaluate whether differences in the associations of living arrangements with SWB for older Black and White women are accounted for by two measures of religious coping, one measuring the respondents' use of religious/spiritual advisors and community members for instrumental and emotional support, and one measuring the respondents' religious/spiritual worldview and its salience in their daily life.

Marital History

I consider women's marital history as another potential explanatory pathway through which living arrangements may be associated with SWB differently for older Black and White women. While one's marital history is not itself a coping or support resource, current marital status can help contextualize the association between their current living arrangements and SWB. Specifically, older adults who live alone because they have never married may have fewer negative SWB outcomes associated with their living arrangements than those who live alone due to the loss of a spouse. Black women are less likely to marry and report marriage as less desirable than White women, and previous research finds that Black women report less stress as a result of being unmarried than their White counterparts (Pudrovska, Schieman, and Carr 2006). The consequences of not living with a spouse may therefore be less severe for those who have remained

single, and this may account differences in the associations of living arrangements with SWB for older Black and White women. Thus, I control for whether women in my sample have ever been married.

Other Influences on SWB for Older Black and White Women

I also control for three additional factors that may influence how living arrangements are associated with SWB for older Black and White women. First, I control for age subgroup within the older adult population. As age increases, the likelihood of living alone increases among married people who formerly lived with their spouse, though this transition happens earlier for Black women than White women (CDC 2017). I control for current self-rated health, given the well-documented associations between physical and mental health for older adults (Schieman and Plickert 2007). Finally, older adults with poor mental health may change their living arrangements if they have difficulty living independently (Cronin-Stubbs et al. 2000), so I control for retrospective measures of baseline health and life satisfaction in order to assess the causal ordering between living arrangements and SWB.

Summary

Black and White women have different gender-based experiences related to home and family life as a result of both having different cultural expectations for femininity assigned to them, as well as Blacks' socioeconomic disadvantage relative to Whites. Black and White women also report different attitudes about marriage and family, and in older adulthood, have different patterns of living arrangements. These normative differences may mean that the way in which living arrangements are linked to SWB in

older adulthood may be different for Black and White women. In this analysis, I first measure the baseline associations of living arrangements and race on positive affect, negative affect, and life satisfaction for older women, and then assess whether the associations of living arrangements with SWB differ for Blacks and Whites. I next measure whether these differences can be accounted for by stressors or coping and support resources Black and White women are likely to experience in older adulthood. I then adjust for age subgroup and self-rated health status, and finally adjust for baseline health and life satisfaction to account for the possibility that poor well-being selects older women into different living arrangements.

DATA & METHODS

Data

Data are from the National Survey of Midlife Development in the United States (MIDUS) 2 (2004-2006) (N = 4,633) and Midlife in the United States: Milwaukee African American Sample (2005-2006) (N = 592) (Brim, Ryff, and Kessler 2004). The MIDUS is a nationally representative probability sample of non-institutionalized English-speaking adults ages 25 to 74, selected from telephone banks in the continental United States. First, households were selected via random digit dialing, then stratified sampling was used to select respondents within households to obtain data from a variety of household members. Data for the main MIDUS sample were collected through telephone interviews and self-administered questionnaires first in 1995-1996, a second time in 2004-2006, and a third time in 2014. The Milwaukee Sample is a sample of 592 self-identified Blacks and African Americans from Milwaukee, Wisconsin, from which data were collected in 2004-2006. This oversample was included to maximize representation

from African Americans in MIDUS in order to examine health issues in minority populations. Areas of Milwaukee were stratified according to the proportion of the population that identified as Black or African American. Areas with high concentrations were sampled at higher rates than areas with lower concentrations. Area probability sampling methods were used along with population counts from the 2000 U.S. Census to identify potential respondents. Households were screened for the presence of African American or Black adults, as well as age and gender. Respondents were interviewed using Computer Assisted Personal Interview (CAPI) and self-administered questionnaires. All measures used were parallel to those in the MIDUS 1 and 2 samples. I use the second wave of MIDUS data, which is the only wave to include the Milwaukee African American oversample, in order to maximize the number of Black respondents in my sample.

The full MIDUS 2 main sample combined with the Milwaukee sample includes 5,555 respondents. I first limit the analytic sample to those who are age 55+ at the time of MIDUS 2 survey, retaining 2,735 respondents or 49% of the full sample. While age 65 is a more commonly used age cut point to define older adulthood (World Health Organization 2002), this analysis uses age 55 to both maximize sample size and to account for differences in the way Blacks and Whites age. Blacks have a shorter life expectancy and poorer health at midlife (Pollard and Scommegna 2013), as well as an earlier onset of chronic health conditions associated with aging (Thorpe et al. 2016). Furthermore, Blacks also meet some of the benchmarks associated with adulthood, such as childrearing (Barber, Yarger, and Gatny 2015; Braboy Jackson and Berkowitz 2005),

earlier than their White counterparts, making a lower cut point for the transition to older adulthood more appropriate from a psychosocial perspective.

I next limit the sample to include only Black and White respondents, as only 281 respondents, or 4% of the MIDUS main plus Milwaukee sample, identify as another race. Finally, I further limit the sample to include only female respondents. I then conduct exploratory analyses to show how patterns of missing data on all three dependent variables vary across categories of independent variables. Patterns were consistent for all three dependent variables; those with missing data were more likely to have 13-15 years of education and report poor health. I use listwise deletion to account for missing data across variables, retaining 79.8% of the sample. Of the 286 cases dropped, 153 (53%) were dropped due to missing positive affect data, 166 (58%) were missing negative affect data, and 148 (52%) were missing life satisfaction data. My final analytic sample consists of 1,1,33 female respondents, including 1,216 White respondents and 203 Black respondents. The proportion of respondents in each living arrangement and race subgroup can be seen in Table 4.1.

Measures

Dependent Variable

Positive affect and *negative affect* are continuous variables each measuring the mean of 6 items. For positive affect, respondents were asked how much of the time during the past 30 days they felt, “cheerful,” “in good spirits,” “extremely happy,” “calm and peaceful,” “satisfied,” and “full of life.” Negative affect was assessed by asking how much of the time in the past 30 days respondents felt, “so sad nothing could cheer [them]

up," "nervous," "restless or fidgety," "hopeless," "that everything was an effort," and "worthless." Response categories included, "all of the time," "most of the time," "some of the time," "a little of the time," and "none of the time." Both scales were constructed by recoding the items so that higher scores reflect higher values of positive/negative affect and then calculating the mean across each set of items. Scale scores were computed for cases that had valid values for at least one item. For cases with no valid items, scale scores were not calculated and the case was coded as not calculated due to missing data.

Life satisfaction is a continuous variable measuring the mean of 5 items. Participants were asked to rate their: life overall, work, health, relationship with spouse/partner, relationship with children, and finances on scale where 0= the worse possible situation and 10= the best possible situation. The scores for satisfaction with spouse/partner relationships and relationships with children were averaged to create a single item; this item is then averaged with the remaining items to create an overall score of 0-10, where higher scores indicate higher levels of life satisfaction. Scale scores were computed for cases that had valid values for at least one item; cases with no valid values were coded as not calculated due to missing data.

Key Independent Variables

I consider four measures of household living arrangements. Respondents were asked to identify members of their household and their personal relationship to each member. *Lives alone* is the reference category, and measures respondents who do not share a household with any other individuals. *Lives with spouse/partner* measures respondents

who live with a spouse, partner, or same sex partner,[5] regardless of others who may live in the home. *Lives with children* measures respondents who live with biological, adopted/foster, or stepchildren or grandchildren in their home, but do not live with a spouse, and *Lives with others* measures respondents who live with any other person besides children or their spouse.

I also include the effect of race as a key independent variable in order to assess how it interacts with living arrangements. Race is coded so that Black = 1. Respondents were asked, "What are your main racial origins- that is, what race or races are your parents, grandparents, and other ancestors?" Black and African American are included as a single response category for this question; this measure may therefore include multiple ethnicities that cannot be assessed separately, including Afro-Caribbean or African-born respondents.

Control Variables

Potential stressors. I consider three types of potential stressors related to living arrangements for older women: caregiving responsibilities, social strain, and economic precarity. I include three measures of caregiving responsibilities. Respondents were first asked whether they had given care to any family member or friend in the past 12 months due to that person's physical or mental condition, illness, or disability, and next asked whether they person to whom they provided care is a member of their household. From this, I constructed three dichotomous measures of caregiving responsibilities*: gives care to a non-household member, gives care to a household member,* and *does not give care*.

[5] I list "partner" and "same sex partner" separately because they are listed as distinct measures in the MIDUS household roster questions.

I consider two measures of social strain, both of which were developed in prior research by authors of the MIDUS (Whalen and Lachman 2000; Schuster, Kessler, and Aseltine 1990). *Family strain* is a measure of responses to four items. Respondents' scores were pre-constructed by the MIDUS team in the public use dataset for Wave 2. Respondents were asked: "Not including your spouse or partner, how often do members of your family make too many demands on you?" "How often do they criticize you?" "How often do they let you down when you are counting on them?" "How often do they get on your nerves?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. While these are the best available measures of family social support and strain in the MIDUS 2, they do not ask the respondents to distinguish between family members in their household and other family. *Friend strain* was constructed by the MIDUS team by calculating the mean of responses to four items. Respondents were asked: "How often do your friends make too many demands on you?" "How often do they criticize you?" "How often do they let you down when you are counting on them?" "How often do they get on your nerves?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale.

Finally, I consider three measures of economic precarity: educational attainment, household poverty status, and the respondent's self-rating of their current financial situation. Educational attainment is measured with the following subgroups: *less than 12 years, 12 years, 13-15 years, and 16 or more years,* with respondents with 12 years of education as the reference group. *Household Income < Poverty* is a dichotomous measure of whether the respondent's total household income falls below the 2004 U.S. poverty

guidelines (U.S Department of Health and Human Services 2004). To construct this measure, I first use the total household income measure constructed by MIDUS, which is the sum of income from wages, pension, Social Security, and government assistance for the respondent and all members of their household. Sums for this summary measure of household income were computed by MIDUS for all cases that had at least one valid response to the income variables; for cases that did not have any valid responses, the respondent's total household income was coded as missing. I then used this income measure along with the household size measure constructed by MIDUS, measured as the total number of people residing in the respondent's household including themselves, to create a dichotomous variable indicating whether the respondent's total household income was less than or equal to the 2004 U.S. poverty guidelines for their household size. Respondents who fell below these poverty guidelines = 1. Finally, *Current Financial Situation* is a single item representing the respondent's rating in response to the question, "Using a scale from 0 to 10 where 0 means "the worst possible financial situation" and 10 means "the best possible financial situation," how would you rate your financial situation these days?"

Social support and coping resources. I consider three types of social support and coping resources: social support, religious/spiritual coping, and marital history. Both measures of social support were developed in prior research by authors of the MIDUS (Whalen and Lachman 2000; Schuster, Kessler, and Aseltine 1990). *Family support* is constructed by calculating the mean of responses to four items. Respondents were asked: "Not including your spouse or partner, how much do members of your family really care about you?" "How much do they understand the way you feel about things?" "How

much can you rely on them for help if you have a serious problem?" "How much can you open up to them if you need to talk about your worries?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale. *Friend support* is constructed by calculating the mean of response to four items. Respondents were asked: "How much do your friends really care about you?" "How much do they understand the way you feel about things?" "How much can you rely on them for help if you have a serious problem?" "How much can you open up to them if you need to talk about your worries?" Response categories were a lot, some, a little, or not at all. Responses were reverse coded so higher scores reflect higher standing in the scale.

I include two measures of religious/spiritual coping constructed by MIDUS. *Religious coping (community)* is the sum of two items: 1) how often the respondent seeks comfort through religious or spiritual means such as praying, meditating, attending services, or talking to a religious or spiritual advisor when they are having difficulties in their family, work, or personal life, and 2) how often they turn to religious or spiritual beliefs to help them make a decision in their daily life. Response categories were often, sometimes, rarely, or never, and were coded so that higher summed scores reflect higher levels of religious/spiritual coping. *Religious coping (personal)* is the sum of six items. Respondents were asked to rate their agreement with the following statements: "I try to make sense of the situation and decide what to do without relying on God," "I wonder whether God has abandoned me," "I feel God is punishing me for my sins or lack of spirituality," "I look to God for strength, support, and guidance," "I work together with God as partners," and "I think about how my life is part of a larger spiritual force."

Response categories were a great deal, some, a little, or none, and were coded so that higher summed scores reflect higher levels of agreement. Finally, *never married* is a dichotomous measure of whether the respondent reports ever having married; those who do not report a history of marriage = 1.

Other control variables. I also control for age subgroup and health status characteristics. I creat three dichotomous variables of age subgroups: *under 65, 65-74 years,* and *75 or more years;* respondents 65-74 years old are the reference group. Given the bidirectional association between mental/emotional and physical health, I control for *poor self-rated health;* respondents were asked to rate their overall health on a scale ranging from 1-5, where 1=poor and 5=excellent. This measure is coded so that 1= "fair" or "poor" health. Finally, I consider two measures of baseline health and well-being in order to assess the directional association of living arrangements and well-being. *Poor self-rated health ten years ago* is measured as the respondent's assessment of their overall health ten years ago. The measure does not distinguish between respondents' assessment of their physical and mental/emotional health when rating their overall health status, but because the MIDUS does not provide a parallel question for assessing mental health ten years ago, this is therefore the best available measure of baseline health. *Baseline life satisfaction* is the respondents rating of their 'life overall ten years ago." Both ratings are measured on a scale ranging from 0-10, with 0 indicating the "worst" outcome and 10 indicating the "best" outcome. These measures are included as an approximation of baseline SWB, as the analysis only includes one wave of data.

Analytic Strategy

The analysis includes 6 ordinary least squares (OLS) regression models for positive affect, negative affect, and life satisfaction. The sequence of the models is the same for all outcomes. Model 1 includes the main effects of living arrangements and race, and Model 2 measures the interaction of race with living arrangements. Model 3 accounts for potential stressors, including caregiving, social strain, and economic precarity measures. Model 4 controls for coping resources, including social support, religious/spiritual coping, and marital history. In Model 5, I control for age subgroup and self-rated health. Finally, in Model 6 I include baseline measures of health and life satisfaction. P-values ≤ 0.05 were assessed as statistically significant. All analyses were conducted using Stata 15 (StataCorp 2017).

RESULTS

Bivariate Analyses

I present descriptive statistics (means and proportions) for all variables included in the analyses by both key independent variables: living arrangements (Table 4.2) and race (Table 4.3). In both tables, test statistics comparing the means and proportions of the key variables on all measures are included in the far right column. In Table 4.2, analysis of variance (ANOVA) and Tukey's post hoc analyses were used to compare the means and proportions for all measures by living arrangement. Women who live with their spouse report significantly better outcomes for all three measures of SWB, including higher positive affect scores (3.60 versus 3.45), lower negative affect scores (1.45 vs. 1.61), and higher life satisfaction scores (7.98 vs. 7.31). Women who live with their

spouse also have significantly higher life satisfaction scores than those who live alone or with children.

Of all potential stressors included in the analysis, respondents differed by living arrangement in reports of friend strain, educational attainment, proportions below the poverty line, and self-rated financial situation, but not by family strain or caregiving responsibilities. Compared to women who live with others, women who live with their spouse report: less friend strain (1.71 vs. 1.80), higher rates of attaining 16 or more years of education (29% vs. 21%), lower rates of having less than 12 years of education (5% vs. 14%), lower rates of poverty (11% vs. 26%), and more favorably ratings of their financial situation (7.14 vs. 5.76). Women who live alone report the highest educational attainment, with 45% reporting 16 or more years. All living arrangement groups significantly differed in their current financial situation rating, with women living with their spouse reporting the best rating (7.14), followed by women living alone (6.86), women living with others (5.76), and finally women living with children (4.39).

Women living with their spouse report significantly higher levels of family support (3.70 vs. 3.55) and friend support (3.46 vs 3.33) than women living with others. Respondents did not significantly differ by living arrangement in their reports of religious or spiritual coping. Women living with their spouse were younger than women living with others; 55% of women living with a spouse were under age 65 compared to 43% of women living with others, and 10% were 75 or older, compared to 21% of women living with others. Finally, women living with their spouse had lower rates of poor current health than those living with others (13% vs. 27%) and higher baseline life satisfaction scores (8.02 vs. 7.62) than those living with others.

Table 4.3 presents the descriptive statistics for all measures by race. Independent samples t-tests were used to compare the means on all continuous measures for Black and White respondents, and chi-square tests were used to compare proportions on all categorical measures. As shown in the table, Black women report both significantly higher levels of positive affect (37.2 vs. 3.51) and negative affect (1.59 vs. 1.49) than their White counterparts. They also report significantly lower levels of life satisfaction (7.24 vs. 7.74). While Black and White women did not differ in rates of living alone, White women were significantly more like to live with a spouse (60% vs. 21%), and less likely to live with children (2% vs. 8%) or with others (34% vs. 67%) than Black women.

Black women reported significantly higher levels of family strain (2.11 vs. 1.97) and poor economic circumstances. They had significantly lower average household income ($32,732 vs. $50,526), were more likely to have fewer than 12 years of education (23% vs. 7%), less likely to have 16 or more years (17% vs. 27%), had higher rates of poverty (28% vs. 18%), and had poorer ratings of their current financial situation (5.12 vs. 6.72). In spite of these potential stressors, Black women also report more coping resources for stress, including significantly higher levels of family support (3.47 vs. 3.44) and higher levels of community and personal religious/spiritual coping (6.78 vs. 6.12 and 21.52 vs. 19.67, respectively.) Significantly higher proportions of Black women than White women also reported never marrying (13% vs. 4%). Friend support was the only coping resource for which Black women did not report a more favorable outcome than White women (3.27 vs. 3.44). Finally, while Black and White women did not differ by age subgroup or baseline measures of health, Black women were significantly more likely to report poor current health (37% vs. 16%).

Multivariate Analyses

Positive Affect

Table 4.4 presents the OLS regression models predicting positive affect on all independent variables. Model 1 reports the main effects of living arrangements and race on positive affect, and shows that living arrangements are not significantly associated with positive affect, but that Black women report positive affect scores 0.27 units higher than White women. Model 2 examines the interaction effects of living arrangements and race on positive affect, and shows the associations of living arrangements with positive affect are not significantly different for Black and White women. The lack of significant associations between living arrangement and race with positive affect persist once stressors, coping resources, and other controls are sequentially added in Models 3-6.

While they do not explain associations between living arrangements, race, and positive affect, stressors, coping resources, and health characteristics all have significant independent associations with positive affect. Because these variables are not the key theoretically interest of this analysis, I refer to only the fully-adjusted effects here, which can be seen in Model 6, and do not describe the relative change in these coefficients across each nested model. As seen in Model 6, all three types of stressors included in the model (caregiving responsibilities, social strain, and economic precarity) are significantly associated with positive affect. Providing care to a both household member and non-household member is associated with a 0.15 unit decrease in positive affect scores. Family strain (b = -0.07) and friend strain (b = -0.13) are also both associated with decreases in positive affect scores in the fully adjusted model. By contrast, increases in the favorability of one's current financial situation is significantly associated with a 0.05

unit increase positive affect scores in the fully adjusted model. Family support (b = 0.12) and friend support (b= 0.14) both have comparable positive associations with positive affect, and while both types of religious/spiritual coping have significant associations with positive affect scores, the association of community religious/spiritual coping is negative (b = -0.04) while the association of personal religious/spiritual coping is positive (b = 0.03). Finally, age subgroup, self-rated health, and baseline life satisfaction all have significant associations with positive affect. Women 75 years or older report positive affect scores 0.11 units lower than women ages 65-74, those who report fair or poor health have scores 0.39 units lower than those who reported better health, and an increase in life satisfaction 10 years ago is associated with a 0.05 unit increase in current positive affect.

Negative Affect

Table 4.5 presents the OLS regression models predicting negative affect on all independent variables. Model 1 reports the main associations of living arrangements and race on negative affect, and shows that living with others is associated with a 0.20 unit increase in negative affect scores. However, Model 2 shows that neither this association, nor the associations of any other living arrangements, are significantly different for Black and White women; these patterns persist in the fully-adjusted models.

As with the models for positive affect, stressors, supports and coping resources, and other controls all have significant independent associations with negative affect, and I describe only the effects in the fully-adjusted Model 6 for conciseness. A one unit increase in family (b = 0.11) and friend (b = 0.12) strain are both associated with a comparable unit increase in negative affect scores, and a one unit increase in one's

current financial situation rating is associated with a 0.03 unit decrease in negative affect scores in the fully-adjusted model. One unit increases in family support (b = -0.07), friend support (b = -0.12), and personal religious/spiritual coping (b = -0.03) are all associated with decreases in negative affect scores, while a one unit increase in community religious/spiritual coping is associated with a 0.04 unit increase in negative affect. Finally, women who rated their health as fair or poor had negative affect scores 0.37 units higher than those who rated their health more favorably.

Life Satisfaction

Table 4.6 shows the OLS regression models predicting life satisfaction on all independent variables. Model 1 shows the main associations of living arrangements and race on life satisfaction. Women who live with a spouse have life satisfaction scores 0.35 units higher than women who live alone, while women who live with children have scores 0.58 units lower than those who live alone. Black women also report life satisfaction scores 0.25 units lower than White women. Model 2 looks at the interaction of living arrangements and race on life satisfaction, and shows that while the main association of living with a spouse on life satisfaction persists (b = 0.38), there are no associations of living arrangements with life satisfaction that differ for Black and White women.

However, when stressors are incorporated in Model 3, the association of living with a spouse persists (from b = 0.38 to b = 0.40), and the association of living with others with life satisfaction becomes significantly different for Black and White women. The life satisfaction scores for each race and living arrangement subgroup are shown in Figure 4.1. The interaction analysis, as shown in the figure, shows that Black women who

live with others have lower life satisfaction scores lower than those who live alone, while White women who live with others have higher life satisfaction scores than those who live alone. Family and friend strain and financial situation ratings have independent associations with life satisfaction. A one unit increase in family strain is associated with a 0.31 unit decrease in life satisfaction scores, a unit increase in friend strain is associated with a 0.15 unit decrease, and a unit increase in one's financial situation rating is associated with a 0.39 unit increase in life satisfaction.

Model 4 incorporates social supports and coping resources. The positive main association of living with a spouse compared to living alone persists and increases in magnitude (b= 0.40 to b = 0.47), while the significant difference in living with others for Black and White women is reduced to marginal statistical significance (b = -0.69; p <0.10). A one unit increase in family support is associated with a 0.29 unit increase in life satisfaction, a one unit increase in friend support is associated with a 0.14 unit increase, and a one unit increase in personal religious/spiritual coping is associated with a 0.03 unit increase in life satisfaction scores.

Model 5 accounts for the effects of age subgroup and self-rated health. The main association of living with a spouse on life satisfaction persists net of these controls; women who live with a spouse have life satisfaction scores 0.41 units higher than women who live alone. The difference in living with others for Black and White women is no longer statistically significant. The model also shows that women under 65 years old have life satisfaction scores 0.12 units lower than those 65-74 years old, and that those who rate their health as fair or poor have life satisfaction scores 0.79 units lower than those who rated their health more favorably. Finally, Model 6 controls for retrospective

baseline assessments of both health and life satisfaction, and shows that while there is no significant association of baseline health status with life satisfaction, a one unit increase in life satisfaction 10 years ago is associated with a 0.13 unit increase in current life satisfaction scores.

DISCUSSION

This analysis uses national survey data to study the associations of living arrangements on SWB among older women and the way these associations may differ for Black and White women. I assess whether these associations can be accounted for by stressors and supports and coping resources that are salient to the experiences of older Black and White women, and also control for age subgroup and health characteristics. I find that the associations of living arrangements with positive and negative affect are not significantly different for Black and White women, but that the association of living with others does differ by race once stressors are accounted for, though this association did not persist in the fully-adjusted model.

Financial Stressors Partially Account for the Difference in the Association of Living with Others with Life Satisfaction for Black and White Women

I find that the associations of living with others compared to living alone with life satisfaction is significantly different for older Black and White women. White women who live with others have higher life satisfaction scores than White women living alone, but Black women who live with others have lower scores than those who live alone. An important caveat in this pattern is that the analytic sample is underpowered with respect to Black women living alone (N = 5), undermining the reliability of these patterns.

However, in order to guide theory that can be tested in future research with greater statistical power, I also offer practical interpretations of these findings as they relate to experiences of race and gender in later life.

I find that the associations of living with others with life satisfaction differs for Black and White women only when potential stressors are controlled. Supplemental analyses show that current financial situation ratings drive this effect; all other potential stressors had a negligible effect on the magnitude of the interaction term and no effect on its statistical significance. This pattern suggests a suppression effect is occurring. A suppression effect occurs when two independent variables have opposite relationships with the dependent variable, but a positive relationship with each other (MacKinnon, Krull, and Lockwood 2000). In this analysis, the associations of living with others with life satisfaction becomes significantly different for Blacks and Whites only when financial situation ratings are accounted for. Specifically, a) living with others is associated with lower life satisfaction scores compared to those living alone for Black women, b) living with others has a negative significant association with financial situation ratings, and c) Black women report significantly poorer financial situations than White women. However, financial situation ratings also have an independent positive association with life satisfaction.

The negative association of living with others with life satisfaction among older Black women may be suppressed by financial situation ratings because living with others may be more indicative of their socioeconomic status than it is for Whites. Living with extended families to pool economic resources is more common in Black than White families (Cohen and Casper 2002; Raley 1995), and Blacks are more likely than Whites

to agree that people have a duty to help struggling family members by offering them a place to live (Taylor, Chatters, and Celious 2003). This analysis did not stratify by head-of-household, but older Black women are more likely than older White women to provide care to family members (McCann et al. 2000; Silverstein and Waite 1983), and older Black women who are already from lower socioeconomic strata may be unduly psychologically burdened by living with people for whom they are financially responsible. Adult children may be one such household relationship represented in this category. Since 1980, Black adults ages 18-34 have been more likely to live with a head-of-household parent than with a spouse or partner in their own household (Fry 2016). This trend has become more common among young adults who did not complete high school, do not have a college degree, and are unemployed (Fry 2016), all groups in which Blacks are disproportionately represented. Older Black women who support adult children, especially among families of low SES, is one group to explore in future research to further understand how and why living with others is linked to poor SWB among older Black women.

The Association of Living with a Spouse on SWB Does Not Differ for Black and White Women

Black women have different outcomes related to marriage than White women. Compared to Whites, Black women have more marital discord (Broman 2005, 1993), report more ambivalence about marriage (Burton and Tucker 2009), and are less likely to every marry (West et al. 2014). Furthermore, in comparison to White women, Black women are likely to become widowed sooner (CDC 2017), report somewhat different SWB after the loss of a spouse (Carr 2004), place less value on marriage (Sarkisian and

Gerstel 2004), and report less happiness with their marriages than all other race and gender subgroups (Corra et al. 2009). For these reasons, I theorized that the associations of living with a spouse in later life on SWB would vary for Black and White women. My results show that living with a spouse has a positive association with life satisfaction for older women, but this association was not different by race.

The lack of significant differences by race and gender in this analysis might be understood through considering that a selection effect is occurring. Blacks who feel ambivalent about or place less value on marriage are probably less likely to ever marry than Blacks who do not endorse these attitudes. Therefore, despite both differences in attitudes toward and the prevalence of marriage by race, those who do marry may not differ in how their spouse affects their SWB in later life. There is some evidence to the contrary, such as evidence that shows Black women have more marital discord and that this produces variation in how they cope with the death of a spouse when compared to White women (Carr 2004). But the results of this analysis suggest that among those who are married, the presence of a spouse does not detract from Black women's SWB. Evidence from research with younger Black and White couples finds very few differences in how couples fair on measures like relationship commitment (Kurdek 2008). Therefore, while Black women both report attitudes and patterns that suggest that marriage may be a less salient part of their adult lives, this analysis suggests that among those who do marry, the benefits of living with a spouse on later life are not diminished for Black women compared to White women.

Limitations

This analysis has seven limitations. While the MIDUS sample was originally constructed via national random-digit-dialing (Brim et al. 2004), the SES of the MIDUS sample is positively skewed compared to national estimates from 2005 (ICPSR 2019). As shown in Table 4.7, the MIDUS 2 sample has higher educational attainment than estimates of the U.S. population from the 2005 American Community Survey (ACS). The proportion of MIDUS 2 respondents with 12 or fewer years of education is less than half of the 2005 ACS estimate (6% versus 16%), and the proportion with 16 or more years of education is 10% higher in the MIDUS 2 (37% versus 27%). Much of the theory that grounds this analysis is based on issues of SES, specifically that older Blacks' history of economic exclusion has influenced their overrepresentation in living arrangements that are associated with poorer health in prior research. The positive SES skew of the MIDUS sample may not be able to fully capture the full extent of experiences of SES disadvantage that exist for Blacks at the national level. Furthermore, the MIDUS sample may also be comparatively advantaged in terms of health and social integration, which are also key measures in this analysis. Participation in the MIDUS includes a phone interview of approximately 30 minutes in length and 2 self-administered questionnaires of approximately 45 pages in length each (Brim et al. 2004). Health declines, being unmarried, and changes in social participation are risk factors for attrition in longitudinal research (Weinert, Cudney, and Hill 2008), and the retention of participants across multiple waves of data collection in the MIDUS may also be skewed toward healthier, more socially integrated individuals.

While I cannot explicitly link patterns in my analytic sample to biases in the MIDUS sample, reports of women's living arrangements in my analytic sample differ substantially from estimates from the 2000 U.S. Census (see Table 4.8). There is no reason of which I am aware related to the sample selection or measurement construction for this analysis that could account for this discrepancy, though the magnitude of difference in rates of living arrangements in my sample and national estimates likely limits the generalizability of my findings. The proportion of older women living alone in my analytic sample is especially smaller than national estimates, and because these respondents represented the reference category in my analysis, the ability of my models to detect differences between these respondents and others may have been limited.

Additionally, social conditions and health are often mutually influential, and so to assess causal ordering between these two factors, it is therefore critical to use a baseline measure of health. MIDUS currently includes three waves of data collection. However, the Milwaukee African American oversample was only collected at Wave 2, precluding the possibility of obtaining a baseline measure of health from a previous wave of data for these respondents. Comparing the experiences of Black and White respondents was a key part of this analysis, and so to maximize the number of Black respondents in my analytic sample, I chose to include the oversample and use only Wave 2 of MIDUS in the analysis. To establish a baseline measure of health using only one wave of data, I control for the respondents' self-assessment at the time of the survey of their health ten years ago. This measure is significantly associated with respondents' current self-rated health, which suggests that it can be a suitable proxy for baseline health in the absence of multiple waves of data. Despite this, I cannot totally eliminate the possibility of recall

bias in this measure. Self-report measures are particularly subject to recall bias in survey research (Raphael 1987). Furthermore, because there is a ten-year gap between the baseline and present measures of health included in this analysis with no interim measures, I cannot account for how respondents' physical health status may have changed during this interval. Thus, future research on living arrangements and health would benefit from more well-controlled methods for assessing causal ordering.

Furthermore, I use the Milwaukee African American oversample of the MIDUS to maximize the number of Black respondents in my analytic sample compared to Whites. However, the Milwaukee oversample measures Black and African American respondents as a single demographic, obscuring differences among African Americans, those with direct descent from African countries, and different Afro-Caribbean and Afro-Latinx ethnicities. Nationally representative survey data shows variation in mental health outcomes across subgroups of older Black Americans; for example, Afro-Caribbean older adults report better global mental health than older African Americans (Keane et al. 2009). Comparing groups with a longer family history in the United States to those with a more recent history of immigration yields further variation. Consistent with other research showing that the health advantages experienced among first-generation Americans disappear in subsequent generations (Mossakowski 2003), Williams and colleagues (2007) find the mental health of third-generation Afro-Caribbeans to be indistinguishable from their African American counterparts. Groups of Black Americans also have different outcomes related to social exchanges within families. For example, in a study comparing patterns of emotional support and negative interaction within African American and Afro-Caribbean families in the United States, Lincoln and colleagues

(2012) find that the being unmarried is associated with receiving more emotional support from family members among African Americans, but with more negative family interaction among Afro-Caribbeans. The data used for this analysis cannot account for this heterogeneity in measures of health and family relationships.

A fifth limitation of this analysis is that Black women accounted for only 12% of my analytic sample. This was to be expected, as the MIDUS is a nationally representative survey and Blacks account between 12-13% of the U.S. population (American Community Survey 2017). Therefore, while this is not a limitation in and of itself, as national surveys are an ideal source of data for documenting population-level trends, the smaller proportion of Blacks compared to Whites in my sample precluded the testing of more fine-grained analyses between race and living arrangements. I created relatively coarsely-cut categories of living arrangements, comparing experiences of respondents who live alone, live with a spouse (regardless of others who are present in the home), live with children but no spouse, and those who live with any people other than a spouse or children. Previous work on living arrangements and health for older adults suggests that more nuanced comparisons of household arrangements may be beneficial for understanding how and why living arrangements influence health, which I could not fully explore in this analysis. Furthermore, the living arrangement categories I did compare still included unequal proportions of respondents across groups (see Table 4.1).

Some of the measures included in the analysis also have limitations. I consider whether or not the respondent has given care to a friend or family member in the past 12 months and whether or not they live in the same household. These measures do not account for the frequency of caregiving during the past 12 months, however, and likely

reflect both regular, long-term caregiving responsibilities and short-term or event-specific assistance that cannot be measured separately. Additionally, while both family support and family strain were significantly associated with all three SWB outcomes, the MIDUS measures of family support and family strain do not ask respondents to consider only family members living in their household. The utility of these measures for accounting associations between race, living arrangements, and SWB is therefore limited.

Finally, exploratory analyses showed significant associations between cases with missing dependent variable data and demographic characteristics. Specifically, for all three dependent variables, respondents with missing data are significantly more likely to have 13-15 years of education and report poor health. Because I use listwise deletion to drop cases with missing data on my dependent variables, my findings may be biased in relation to these factors, limiting the generalizability of this analysis's results.

CONCLUSION

This study examines whether the effects of living arrangements on SWB vary for older Black and White women. I use national survey data to evaluate the association living arrangements on SWB for Black and White women 55+ and whether these associations differ by race. I also examine whether these differences can be accounted for by stressors or support and coping resources that Black and White women are likely to experience in older adulthood. I find that living with others is associated with poorer SWB among older Black women, and that perceived financial strain accounts for this association. Contrary to expectations, I find no differences in the association of living with a spouse on SWB for older Black and White women, which may be explained by the fact that despite having fewer expectations about marriage, Black women who do select

into marriage derive equal psychological benefits to that of White women in older adulthood compared to those who live alone. Taken together, the findings of this analysis show that living arrangements do not consistently have different associations with psychological health outcomes among older Black and White women, but may differ when living arrangements are related to older Black women's greater socioeconomic disadvantage compared to Whites.

Table 4.1 Frequencies and Percentages for Variables Used in Interaction Analyses, Midlife in the United States (2006) (N=1,133)

	White Women	Black Women	Total
Lives Alone	44 (4.4)	5 (3.6)	49 (4.3)
Lives with Spouse	596 (59.9)	29 (20.9)	625 (55.2)
Lives with Children (no spouse)	20 (2)	11 (7.9)	31 (2.7)
Lives with Others (no spouse)	334 (33.6)	93 (66.9)	427 (37.7)
Total	994 (87.7)	139 (12.3)	1133 (100)

Table 4.2 Means and Proportions for Women 55+ by Living Arrangement, Midlife in the United States (2006) (N=1,133)

	Total Sample	Lives Alone[a]	Lives With Spouse[b]	Lives with Children[c]	Lives with Others[d]	*F* (df=3)	Sig. Groups
Positive Affect (1= lowest; 5=highest)	3.54 (0.70)	3.57 (0.74)	3.60 (0.65)	3.54 (0.76)	3.45 (0.75)	3.90**	bd
Negative Affect (1= lowest; 5=highest)	1.51 (0.59)	1.41 (0.45)	1.45 (0.52)	1.45 (0.59)	1.61 (0.68)	7.01***	bd
Life Satisfaction (0=worst; 10=best)	7.68 (1.30)	7.48 (1.63)	7.98 (1.13)	6.70 (1.37)	7.31 (1.37)	28.31***	ab, bc, bd
Black (=1)	0.12	0.10	0.05	0.35	0.22	30.86***	ac bc, bd
No caregiving	0.83	0.82	0.82	0.81	0.8	0.69	
Caregiving (non-household member)	0.09	0.18	0.09	0.06	0.07	2.39	
Caregiving (household member)	0.08	0.00	0.09	0.13	0.07	2.09	
Family Strain (1 = least; 4 = most)	1.99 (0.60)	1.98 (0.64)	1.95 (0.55)	2.16 (0.74)	2.04 (0.64)	2.92*	
Friend Strain (1 = least; 4 = most)	1.75 (0.51)	1.98 (0.64)	1.71 (0.46)	1.77 (0.66)	1.80 (0.55)	2.54*	bd
< 12 Yrs. Education	0.09	0.04	0.05	0.23	0.14	10.62***	ac, bc, bd
12 Yrs. Education	0.34	0.24	0.36	0.32	0.33	1.07	
13-15 Yrs. Education	0.31	0.27	0.30	0.35	0.32	0.42	
16+ Yrs. Education	0.26	0.45	0.29	0.10	0.21	7.12***	ab, ac, ad, bd
Household income < poverty (= 1)	0.18	0.22	0.11	0.35	0.26	16.81***	bc, bd
Financial Situation (0=worst; 10= best)	6.52 (2.32)	6.86 (0.72)	7.14 (1.98)	4.39 (2.68)	5.76 (2.45)	43.91***	ac, ad, bc, bd, cd
Family Support (1 = least; 4 = most)	3.63 (0.52)	3.49 (0.72)	3.70 (0.44)	3.47 (0.60)	3.55 (0.57)	9.00***	ab, bd

Friend Support (1 = least; 4 = most)	3.42 (0.61)	3.51 (0.57)	3.46 (0.57)	3.46 (0.53)	3.33 (0.67)	4.42**	bd
Religious Coping (community) (2= lowest; 8=most)	6.20 (1.94)	5.88 (2.02)	6.10 (1.99)	6.74 (1.82)	6.35 (1.85)	2.70*	
Religious Coping (personal) 6= least; 24= most)	19.90 (3.65)	19.57 (3.71)	19.83 (3.60)	20.94 (3.32)	19.95 (3.73)	1.06	
Never Married (=1)	0.05	0.69	0.00	0.06	0.06	222.5***	ab, ac, ad, bd
<65 Yrs. Old	0.50	0.53	0.55	0.52	0.43	5.00***	bd
65-74 Yrs. Old	0.35	0.22	0.35	0.26	0.36	1.56	
75+ Yrs. Old	0.15	0.24	0.10	0.23	0.21	10.75***	ab, bd
Self-Rated Health (1=fair/poor)	0.19	0.16	0.13	0.19	0.27	10.63***	bd
Self-Rated Health 10 Yrs. Ago (0-5=1)(6-10=0)	0.11	0.12	0.09	0.10	0.13	1.72	
Life Satisfaction 10 Yrs. Ago (1= worst; 10=best)	7.85 (1.82)	7.59 (1.86)	8.02 (1.70)	7.87 (1.69)	7.62 (1.96)	4.56**	bd
N	1133	49	625	31	427		
%	(100)	(4)	(55)	(3)	(38)		

Note: Subgroup comparisons were conducted using analysis of variance (ANOVA) and Tukey's post hoc analyses. Significant ($p < 0.05$) subgroup differences are denoted as ab: lives alone versus lives with a spouse; ac: lives alone versus lives with children/grandchildren, ad: lives alone versus lives with others, bc: lives with spouse versus lives with children/grandchildren, bd: lives with spouse versus lives with others, and cd: lives with children/grandchildren versus lives with others. Asterisks denote the significance level of the F-statistic, where *p≤.05;**p≤.01;***p≤.001.

Table 4.3 Means and Proportions for Women 55+ by Race, Midlife in the United States (2006) (N=1,133)

	Total Sample	White	Black	Test Statistics
Positive Affect (1=lowest; 5=highest)	3.54 (0.70)	3.51 (0.69)	3.72 (0.74)	-3.31***
Negative Affect (1=lowest; 5=highest)	1.51 (0.59)	1.49 (0.57)	1.59 (0.73)	-1.80
Life Satisfaction (0=lowest; 10=highest)	7.68 (1.30)	7.74 (1.28)	7.24 (1.40)	4.25***
Lives Alone (ref)	0.04	0.04	0.04	0.20
Lives with Spouse	0.55	0.60	0.21	75.36***
Lives with Children (no spouse)	0.03	0.02	0.08	15.95***
Lives with Others (no spouse)	0.38	0.34	0.67	57.60**
No caregiving (ref)	0.83	0.84	0.81	0.43
Caregiving (non-household member)	0.09	0.09	0.09	0.01
Caregiving (household member)	0.08	0.08	0.10	0.73
Family strain (1 = least; 4 = most)	1.99 (0.60)	1.97 (0.57)	2.11 (0.76)	-2.62**
Friend strain (1 = least; 4 = most)	1.75 (0.51)	1.74 (0.48)	1.82 (0.66)	-1.79
<12 Yrs. Education	0.09	0.07	0.23	36.42***
12 Yrs. Education	0.34	0.34	0.31	0.62
13-15 Yrs. Education	0.31	0.31	0.29	0.16
16+ Yrs. Education	0.26	0.27	0.17	7.29**

Household Income < Poverty (=1)	0.18	0.16	0.28	11.32***
Financial Situation (0=worst; 10=best)	6.52 (2.32)	6.72 (2.20)	5.12 (2.72)	7.84***
Family Support (1 = least; 4 = most)	3.63 (0.52)	3.44 (0.58)	3.47 (0.65)	3.67***
Friend Support (1 = least; 4 = most)	3.42 (0.61)	3.44 (0.58)	3.27 (0.78)	3.17***
Religious Coping (community) (2=least; 8= most)	6.20 (1.94)	6.12 (1.97)	6.78 (1.57)	-3.74***
Religious Coping (personal) (6= least; 24=most)	19.90 (3.65)	19.67 (3.71)	21.52 (2.70)	-5.69***
Never Married (=1)	0.05	0.04	0.13	17.13***
<65 Yrs. Old	0.50	0.49	0.58	3.49
65-74 Yrs. Old	0.35	0.35	0.32	0.64
75+ Yrs. Old	0.15	0.16	0.11	2.37
Self-Rated Health (1=fair/poor)	0.19	0.16	0.37	37.38***
Self-Rated Health 10 Yrs. Ago (0=5=1; 6-10=1)	0.11	0.10	0.12	0.45
Life Satisfaction 10 Yrs. Ago (1=worst;10=best)	7.85 (1.82)	7.85 (1.77)	7.83 (2.13)	0.11
N	1133	994	139	
%	(100)	(88)	(12)	

Note: Independent sample t-tests were conducted to compare means for continuous measures. Chi-square tests were conducted to compare proportions for categorical measures. Asterisk denote the significance level of the test statistics, where *p≤.05;**p≤.01;***p≤.001.

Table 4.4 OLS Regression Models Predicting Positive Affect for Women, Midlife in the United States (2006) (N=1,133)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Lives with Spouse	0.07 (0.11)	0.08 (0.11)	0.07 (0.10)	0.03 (0.12)	-0.01 (0.12)	-0.02 (0.12)
Lives with Children (no spouse)	-0.07 (0.16)	-0.18 (0.19)	-0.12 (0.17)	-0.12 (0.18)	-0.15 (0.18)	-0.15 (0.18)
Lives with Others (no spouse)	-0.12 (0.11)	-0.12 (0.12)	-0.10 (0.10)	-0.04 (0.12)	-0.07 (0.12)	-0.06 (0.12)
Black (=1)	0.27*** (0.07)	0.33 (0.30)	0.46 (0.28)	0.36 (0.27)	0.31 (0.26)	0.27 (0.26)
Lives with Spouse x Race		-0.23 (0.33)	-0.22 (0.30)	-0.13 (0.29)	-0.03 (0.29)	0.01 (0.28)
Lives with Children x Race		0.29 (0.40)	0.42* (0.37)	0.49 (0.36)	0.47 (0.35)	0.45 (0.34)
Lives with Others x Race		-0.03 (0.31)	-0.09 (0.29)	-0.01 (0.28)	0.09 (0.27)	0.11 (0.27)
Caregiving (non-household member)			-0.15* (0.07)	-0.16* (0.07)	-0.17** (0.06)	-0.15* (0.06)
Caregiving (household member)			-0.11 (0.07)	-0.12 (0.07)	-0.14* (0.07)	-0.15* (0.07)
Family Strain (1 = least; 4 = most)			-0.17*** (0.04)	-0.09** (0.04)	-0.08* (0.04)	-0.07* (0.04)
Friend Strain (1 = least; 4 = most)			-0.16*** (0.04)	-0.14*** (0.04)	-0.14*** (0.04)	-0.13*** (0.04)
< 12 Yrs. Education			0.09 (0.07)	0.09 (0.07)	0.12 (0.07)	0.11 (0.07)
13-15 Yrs. Education			0.04 (0.05)	0.02 (0.05)	0.01 (0.04)	0.01 (0.04)
16+ Yrs. Education			0.02 (0.05)	0.02 (0.05)	-0.01 (0.05)	-0.01 (0.05)

Household Income < Poverty (=yes)			0.03 (0.05)	0.01 (0.05)	0.05 (0.05)	0.06 (0.05)
Financial Situation (0=worst; 10=best)			0.07*** (0.10)	0.06*** (0.01)	0.05*** (0.01)	0.05*** (0.01)
Family Support (1 = least; 4 = most)				0.14*** (0.04)	0.14*** (0.04)	0.12*** (0.04)
Friend Support (1 = least; 4 = most)				0.17*** (0.03)	0.14*** (0.03)	0.14*** (0.03)
Religious Coping (community) (2= least; 8=most)				-0.04*** (0.01)	-0.04** (0.01)	-0.04** (0.01)
Religious Coping (personal) 6= least; 24= most)				0.04*** (0.01)	0.04*** (0.01)	0.03*** (0.01)
Never Married (=1)				0.08 (0.10)	0.06 (0.10)	0.07 (0.10)
<65 Yrs. Old					-0.05 (0.04)	-0.03 (0.04)
75+ Yrs. Old					-0.10 (0.06)	-0.11* (0.06)
Self-Rated Health (1=fair/poor)					-0.40*** (0.05)	-0.39*** (0.05)
Self-Rated Health 10 Yrs. Ago (0-5=1)						-0.00 (0.06)
Life Satisfaction 10 Yrs. Ago (1= worst; 10=best)						0.05*** (0.01)
Constant	3.54*** (0.10)	3.55*** (0.10)	3.66*** (0.15)	1.95*** (0.25)	2.24*** (0.24)	1.92*** (0.25)
Adjusted R^2	0.03	0.03	0.17	0.23	0.28	0.29

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 4.5 OLS Regression Models Predicting Negative Affect for Women, Midlife in the United States (2006) (N=1,133)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Lives with Spouse	0.07 (0.09)	0.04 (0.10)	0.06 (0.08)	0.08 (0.10)	0.11 (0.10)	0.12 (0.10)
Lives with Children (no spouse)	0.05 (0.14)	0.15 (0.16)	-0.01 (0.15)	0.04 (0.15)	0.08 (0.15)	0.07 (0.15)
Lives with Others (no spouse)	0.20* (0.09)	0.18 (0.10)	0.10 (0.09)	0.09 (0.10)	0.11 (0.10)	0.11 (0.10)
Black (=1)	0.06 (0.06)	-0.07 (0.26)	-0.24 (0.24)	-0.14 (0.23)	-0.10 (0.22)	-0.08 (0.22)
Lives with Spouse x Race		0.18 (0.28)	0.22 (0.26)	0.14 (0.25)	0.05 (0.24)	0.03 (0.24)
Lives with Children x Race		-0.21 (0.34)	-0.29 (0.31)	-0.38 (0.30)	-0.37 (0.29)	-0.36 (0.29)
Lives with Others x Race		0.16 (0.26)	0.21 (0.24)	0.14 (0.24)	0.03 (0.23)	0.02 (0.23)
Caregiving (non-household member)			0.04 (0.06)	0.05 (0.06)	0.05 (0.05)	0.05 (0.05)
Caregiving (household member)			0.06 (0.06)	0.06 (0.06)	0.08 (0.06)	0.08 (0.06)
Family Strain (1 = least; 4 = most)			0.19*** (0.03)	0.13*** (0.03)	0.12*** (0.03)	0.11*** (0.03)
Friend strain (1 = least; 4 = most)			0.14*** (0.04)	0.12*** (0.04)	0.12*** (0.03)	0.12*** (0.03)
< 12 Yrs. Education			0.10 (0.06)	0.10 (0.06)	0.07 (0.06)	0.07 (0.06)
13-15 Yrs. Education			-0.04 (0.04)	-0.03 (0.04)	-0.01 (0.04)	-0.02 (0.04)
16+ Yrs. Education			-0.06 (0.04)	-0.07 (0.04)	-0.03 (0.04)	-0.03 (0.04)

Household Income < Poverty (=1)			0.08 (0.04)	0.09* (0.04)	0.06 (0.04)	0.06 (0.04)
Financial Situation (0=worst; 10=best)			-0.06*** (0.01)	-0.05*** (0.01)	-0.04*** (0.01)	-0.03*** (0.01)
Family Support (1 = least; 4 = most)				-0.08* (0.04)	-0.07* (0.03)	-0.07* (0.03)
Friend Support (1 = least; 4 = most)				-0.15*** (0.03)	-0.12*** (0.03)	-0.12*** (0.03)
Religious Coping (community) (2= least; 8=most)				0.05*** (0.01)	0.04*** (0.01)	0.04*** (0.01)
Religious Coping (personal) 6= least; 24= most)				-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)
Never Married (=1)				0.01 (0.09)	0.03 (0.08)	0.02 (0.08)
<65 Yrs. Old					0.06 (0.03)	0.06 (0.03)
75+ Yrs. Old					0.08 (0.05)	0.08 (0.05)
Self-Rated Health (1=fair/poor)					0.38*** (0.04)	0.37*** (0.04)
Self-Rated Health 10 Yrs. Ago (0-5=1)						0.03 (0.05)
Life Satisfaction 10 Yrs. Ago (1= worst; 10=best)						-0.01 (0.01)
Constant	1.38*** (0.09)	1.40*** (0.09)	1.19*** (0.13)	2.41*** (0.21)	2.14*** (0.21)	2.23*** (0.21)
Adjusted R^2	0.02	0.02	0.18	0.23	0.29	0.29

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 4.6 OLS Regression Models Predicting Life Satisfaction for Women, Midlife in the United States (2006) (N=1,133)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Lives with Spouse	0.35** (0.19)	0.38** (0.21)	0.40** (0.13)	0.47** (0.16)	0.41** (0.15)	0.39** (0.14)
Lives with Children (no spouse)	-0.58* (0.29)	-0.45 (0.35)	0.40 (0.23)	0.47* (0.24)	0.40† (0.23)	0.41* (0.22)
Lives with Others (no spouse)	-0.29 (0.20)	-0.28 (0.21)	0.28* (0.14)	0.38* (0.16)	-0.48 (0.35)	0.36** (0.14)
Black (=1)	-0.25* (0.12)	-0.08 (0.55)	0.93* (0.37)	0.84* (0.36)	0.76* (0.33)	0.65* (0.32)
Lives with Spouse x Race		-0.33 (0.61)	-0.77 (0.40)	-0.68 (0.39)	-0.49 (0.36)	-0.37 (0.35)
Lives with Children x Race		-0.46 (0.72)	-0.51 (0.48)	-0.49 (0.47)	-0.50 (0.44)	-0.57 (0.42)
Lives with Others x Race		-0.10 (0.57)	-0.74* (0.38)	-0.69† (0.37)	-0.48 (0.35)	-0.42 (0.33)
Caregiving (non-household member)			-0.12 (0.09)	-0.14 (0.09)	-0.13 (0.08)	-0.10 (0.08)
Caregiving (household member)			-0.01 (0.09)	-0.03 (0.09)	-0.08 (0.08)	-0.10 (0.08)
Family Strain (1 = least; 4 = most)			-0.31*** (0.05)	-0.19*** (0.05)	-0.17*** (0.05)	-0.12** (0.05)
Friend Strain (1 = least; 4 = most)			-0.15** (0.06)	-0.15** (0.06)	-0.14** (0.05)	-0.11* (0.05)
< 12 Yrs. Education			0.03 (0.10)	0.04 (0.09)	0.10 (0.09)	0.06 (0.08)
13-15 Yrs. Education			0.01 (0.06)	-0.01 (0.06)	-0.04 (0.06)	-0.03 (0.05)
16+ Yrs. Education			-0.02 (0.07)	0.01 (0.06)	-0.08 (0.06)	-0.08 (0.06)

Household Income < Poverty (=1)			-0.06 (0.07)	-0.07 (0.07)	-0.00 (0.06)	0.02 (0.06)
Financial Situation (0=worst; 10=best)			0.39*** (0.01)	0.38*** (0.01)	0.35*** (0.01)	0.34*** (0.01)
Family Support (1 = least; 4 = most)				0.29*** (0.06)	0.28*** (0.05)	0.24*** (0.05)
Friend Support (1 = least; 4 = most)				0.14*** (0.04)	0.10* (0.04)	0.10* (0.04)
Religious Coping (community) (2= least; 8=most)				-0.02 (0.02)	-0.02 (0.02)	-0.01 (0.02)
Religious Coping (personal) 6= least; 24= most)				0.03** (0.01)	0.03** (0.01)	0.02* (0.01)
Never Married (=1)				0.20 (0.14)	0.16 (0.13)	0.19 (0.12)
<65 Yrs. Old					-0.12* (0.05)	-0.06 (0.05)
75+ Yrs. Old					-0.09 (0.07)	-0.12 (0.07)
Self-Rated Health (1=fair/poor)					-0.79*** (0.06)	-0.75*** (0.06)
Self-Rated Health 10 Yrs. Ago (0-5=1)						-0.07 (0.07)
Life Satisfaction 10 Yrs. Ago (1= worst; 10=best)						0.13*** (0.01)
Constant	7.63*** (0.19)	7.61*** (0.20)	5.67*** (0.20)	3.49*** (0.33)	4.01*** (0.31)	3.18*** (0.31)
Adjusted R^2	0.07	0.07	0.59	0.62	0.67	0.69

Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Table 4.7 Educational Attainment (in Years) of the MIDUS 2 Sample (2004-2006) and U.S. Population Estimates (2005)

	MIDUS 2 (N=4,963)[a]	American Community Survey (ACS) (N=188,950,759)[b]
<12 Yrs.	6%	16%
12 Yrs.	27%	30%
13-15 Yrs.	30%	28%
16+ Yrs.	37%	27%

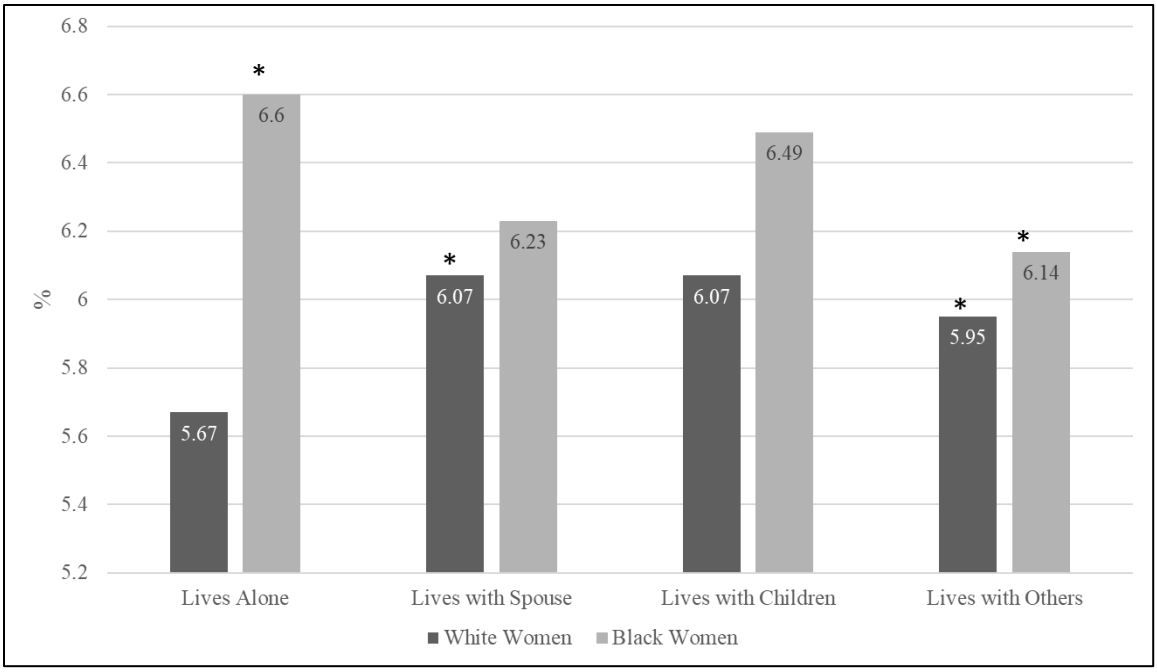
[a]Source: Inter-University Consortium for Political and Social Research (ICPSR 2019)
[b]Source: American Community Survey (2005)

Table 4.8 Living Arrangements for Women 65+ in the MIDUS 2 Sample (2004-2006) and U.S. Population Estimate (2000)

	Analytic Sample (N=1,133)	2000 U.S. Census
Lives Alone	4%	36%
Lives with Spouse	55%	38%
Lives with Children	3%	13%
Lives with Others	38%	6%

[a]Source: 2000 U.S. Census, as cited in Stepler 2016

Note: The measurement of living arrangement categories for each sample varies. My analytic sample measures respondents who live with any minor children, while the 2000 Census data measures respondents living only with their own children, regardless of age. Furthermore, the 2000 Census data also include respondents living in an institutionalized setting, which accounted for an additional 7% of women and 4% of men in 2000.



Note: Asterisks denote the significance level of the coefficients, where *p≤.05;**p≤.01;***p≤.001.

Figure 4.1 Life Satisfaction Scores by Living Arrangements and Race for Women, Midlife in the United States (2006) (N= 1,133)

REFERENCES

Addo, Fenaba R. and Daniel T. Litcher. 2013. "Marriage, Marital History, and Black-White Wealth Differentials among Older Women." *Journal of Marriage and Family* 75(2):343-362.

Baker, Rachel, Daniel Klasik, and Sean F. Reardon. 2018. "Race and Stratification in College Enrollment over Time." CEPA Working Paper No. 16-24. Stanford, CA: Stanford Center for Education Policy Analysis. Published 2018. Accessed September 10, 2019. (https://cepa.stanford.edu/content/race-and-stratification-college-enrollment-over-time).

Barber, Jennifer S., Jennifer Eckerman Yarger, and Heather H. Gatny. 2015. "Black-White Differences in Attitudes Related to Pregnancy among Young Women." *Demography* 52(3):751-786.

Barnes, Sandra L. 2005. "Black Church Culture and Community Action." *Social Forces* 84(2):967-994.

Belle Deborah. 1982. *Lives in Stress: Women and Depression*. Beverly Hills, CA: Sage.

Braboy Jackson, Pamela and Alexandra Berkowitz. 2005. "The Structure of the Life Course: Gender and Racioethnic Variation in the Occurrence and Order/Sequencing of Role Transitions." *Advances in Life Course Research* 9:55-90.

Brim, Orville G., Carol D. Ryff, and Ronald C. Kessler, R.C. 2004. "The MIDUS National Survey: An Overview." Pp. 1-36 in *How Healthy Are We? A National Study of Well-Being at Midlife.* Chicago, IL: University of Chicago Press.

Brody, Elaine M. 2010. "On Being Very, Very Old: An Insider's Perspective." *The Gerontologist* 50(1): 2-10.

Brody, Elaine M., Pauline T. Johnsen, and Mark C. Fulcomer. 1984. "What Should Adult Children Do for Elderly Parents? Opinions and Preferences of Three Generations of Women." *Journal of Gerontology* 39(6): 736-746.

Broman, Clifford L. 2005. "Marital Quality in Black and White Marriages." *Journal of Family Issues* 26(4):431-441.

-----. 1993. "Race Differences in Marital Well-Being." *Journal of Marriage and the Family* 55(3):724-732.

Burgess, Norma. J. 1995. "Female-Headed Households in Sociohistorical Perspective. Pp. 21-36 in *African American Single Mothers: Understanding Their Lives and Families,* edited by Bette J. Dickerson. Thousand Oaks, CA: Sage.

Burr, Jeffrey A. and Jan E. Mutchler. 1999. "Race and Ethnic Variation in Norms of Filial Responsibility among Older Persons." *Journal of Marriage and Family* 61(3): 74-687.

Burton, Linda M. and M. Belinda Tucker. 2009. "Romantic Unions in an Era of Uncertainty: A Post-Moynihan Perspective on African American Women and Marriage." *The ANNALS of the American Academy of Political and Social Science* 621(1):132-148.

Burton, Lynda C., Bozena Zdaniuk, Richard Schulz, Sharon Jackson, and Calvin Hirsch. 2003. "Transition in Spousal Caregiving." *The Gerontologist* 43(2):230-241.

Carr, Deborah. 2004. "Black/White Differences in Psychological Adjustment to Spousal Loss among Older Adults." *Research on Aging* 26(6):591-622.

Centers for Disease Control [CDC] 2017. *Health, United States, 2016, With Chartbook on Long-Term Trends in Health.* Hyattsville, MD: CDC. Accessed September 10, 2019. (https://www.cdc.gov/nchs/data/hus/hus16.pdf).

Chatters, Linda M., Robert Joseph Taylor, James S. Jackson, and Karen D. Lincoln. 2008. "Religious coping among African Americans, Caribbean Blacks and Non-Hispanic Whites." *Journal of Community Psychology* 36(3):371-386.

Chatters, Linda M., Robert Joseph Taylor, and Rukmalie Jayakody. 1994. "Fictive Kinship Relations in Black Extended Families*." Journal of Comparative Family Studies* 25(3):297-312.

Chatters, Linda M., Robert Joseph Taylor, and James S. Jackson. 1985. "Size and Composition of the Informal Helper Networks of Elderly Blacks." *Journal of Gerontology* 40(5):605-614.

Chen, Yixin, and Thomas Hugh Feeley. 2014. "Social Support, Social Strain, Loneliness, and Well-Being among Older Adults: an Analysis of the Health and Retirement Study." *Journal of Social and Personal Relationships* 31(2):141-161.

Chodorow, Nancy. 1978. *The Reproduction of Mothering.* Berkeley, CA: University of California Press.

Christ, Amber and Tracey Gronniger. 2018. *Older Women and Poverty*. Justice in Aging. Washington, D.C.: Justice in Aging. Published December 2018. Accessed September 10, 2019. (https://www.justiceinaging.org/wp-content/uploads/2018/12/Older-Women-and-poverty.pdf?eType=EmailBlastContent&eId=39e399a6-78b2-4df2-be9a-d60b85d001c9).

Cohen, Phillip N. and Lynne M. Casper. 2002. "In Whose Home? Multigenerational Families in the United States, 1998–2000." *Sociological Perspectives* 45(1): \1-20.

Cohn, D'Vera and Jeffrey S. Passel. 2018. "A Record 64 Million Americans Live in M Multigenerational Households." Pew Research Center. Published April 5, 2018. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-Americans-live-in-multigenerational-households/).

Coleman, Lerita M., Toni C. Antonucci, Pamela K. Adelmann, and Susan E. Crohan. 1987. "Social Roles in the Lives of Middle-Aged and Older Black Women." *Journal of Marriage and Family* 49(4):761-771.

Collins, Patricia Hill. 1986. "Learning from the Outsider Within: The Sociological Significance of Black Feminist Thought." *Social Problems* 33(6):S14-S32.

Conway, Francine, Samuel Jones, and Amandia Speakes-Lewis. 2011. "Emotional Strain in Caregiving among African American Grandmothers Raising Their Grandchildren." *Journal of Women & Aging* 23(2):113-128.

Corra, Mamadi, Shannon K. Carter, J. Scott Carter, and David Knox. 2009. "Trends in Marital Happiness by Gender and Race, 1973 to 2006." *Journal of Family Issues* 30(10):1379-1404.

Cox, Kiana and Jeff Diamant. 2018. "Black Men are Less Religious than Black Women, But More Religious than White Women and Men." Pew Research Center. Published September 26, 2018. Accessed September 10, 2019.

(https://www.pewresearch.org/fact-tank/2018/09/26/black-men-are-less-religious-than-black-women-but-more-religious-than-white-women-and-men/).

Crenshaw, Kimberle. 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics." *University of Chicago Legal Forum* 1(8):139-167.

Cronin-Stubbs, Diane, Carlos F. Mendes de Leon, Laurel A. Beckett, Terry S. Field, Robert J. Glynn, and Denis A. Evans. 2000. "Six-Year Effect of Depressive Symptoms on the Course of Physical Disability in Community-Living Older Adults." *JAMA Internal Medicine* 160(20):3074-3080.

Cuellar, Norma G. 2002. "Comparison of African American and Caucasian American Female Caregivers of Rural, Post-Stroke, Bedbound Older Adults." *Journal of Gerontological Nursing* 28(1):36-45.

Davis, Edin M., Kyungmin Kim, and Karen L. Fingerman. 2018. "Is an Empty Nest Best? Coresidence with Adult Children and Parental Marital Quality Before and After the Great Recession." *Journals of Gerontology, Series B, Psychological Sciences and Social Sciences* 73B(3):372–381.

Diamont, Jeff and Besheer Mohamed. 2018. "Black Millennials are More Religious than Other Millennials." Pew Research Center. Published July 20, 2018. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2018/07/20/Black-millennials-are-more-religious-than-other-millennials/).

Dow, Dawn Marie. 2015. "Negotiating 'The Welfare Queen' and 'The Strong Black Woman': African American Middle-Class Mothers' Work and Family Perspectives." *Sociological Perspectives* 58(1):36-55.

Edin, Kathryn, and Maria J. Kefalas. 2005. *Promises I Can Keep: Why Poor Women Put Motherhood before Marriage.* Berkeley, CA: University of California Press.

Fengler, Alfred P., Nicholas Danigelis and Virginia C. Little. 1983. "Later Life Satisfaction and Household Structure: Living with Others and Living Alone." *Ageing & Society* 3(3):357-377.

Fontenot, Kayla, Jessica Semega, and Melissa Kollar. 2018. "Income and Poverty in the United States: 2017." U.S. Census Bureau Current Population Reports, P60-263. Washington, D.C.: U.S. Census Bureau. Published September 2018. Accessed September 10, 2019. (https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-263.pdf).

Frazier, Franklin E. 1939. *The Negro Family in the United States* Chicago, IL: University of Chicago Press.

Fry, Richard. 2016. "For the First Time in Modern Era, Living with Parents Edges Out Other Living Arrangements for 18-to 34-Year-Olds." Pew Research Center. Published May 24, 2016. Accessed September 10, 2019. (https://www.pewsocialtrends.org/2016/05/24/for-first-time-in-modern-era-living-with-parents-edges-out-other-living-arrangements-for-18-to-34-year-olds/)

Gangl, Markus and Andrea Ziefle. 2009. "Motherhood, Labor Force Behavior, and Women's Careers: An Empirical Assessment of the Wage Penalty for Motherhood in Britain, Germany, and the United States." *Demography* 46(2): 341-369.

Gove, Walter R and Michael Hughes. 1979. "Possible Causes of the Apparent Sex

Differences in Physical Health: An Empirical Investigation." *American Sociological Review* 44(1):126-146.
Gove, Walter R. 1972. "The Relationship between Sex Roles, Marital Status and Mental Illness." *Social Forces* 51(1):34-44.
Graf, Nikki, Anna Brown, and Eileen Patten. 2019. "The Narrowing, But Persistent, Gender Gap in Pay." Pew Research Center. Published March 22, 2019. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2019/03/22/gender-pay-gap-facts/).
Hampton, Keith, Lee Rainie, Weixu Lu, Inyoung Shin, and Kristen Purcell. 2015. "Social Media and the Cost of Caring." Pew Research Center. Published January 15, 2015. Accessed September 10, 2019. (http://www.pewinternet.org/2015/01/15/the-cost-of-caring/#fn-12667-30).
Haxton, Clarisse L. and Kristen Harknett. 2009. "Racial and Gender Differences in Kin Support: A Mixed-Methods Study of African American and Hispanic Couples." *Journal of Family Issues* 30(8):1019-1040.
Henning-Smith, Carrie. 2014. "Quality of Life and Psychological Distress among Older Adults: The Role of Living Arrangements." *Journal of Applied Gerontology* 35(1):39-61.
Hill, Shirley A. 2005. *Black Intimacies: A Gender Perspective on Families and Relationships.* Lanham, MD: Altamira Press.
-----. 2000. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment.* 2nd ed. New York, NY: Routledge.
Hochschild, Arlie. 1989. *The Second Shift: Working Parents and the Revolution at Home.* New York, NY: Avon Books.
Hughes, Mary Elizabeth and Linda J. Waite. 2002. "Health in Household Context: Living Arrangements and Health in Late Middle Age." *Journal of Health and Social Behavior* 43(1):1-21.
Hurlbert, Jeanne S. and Alan C. Acock. 1990. "Social Network Analysis: A Structural Perspective for Family Studies." *Journal of Social and Personal Relationships* 7(2):245-264.
Inter-University Consortium for Political and Social Research [ICPSR]. 2019. "Midlife in The United States (MIDUS 1), 1995-1996." ICPSR 2760. Accessed September 10, 2019. (http://icpsr.umich.edu).
Jones, Jacqueline. 2010. *Labor of Love, Labor of Sorrow: Black Women, Work, and Family from Slavery to the Present.* New York, NY: Basic Books.
Joslin, Daphne and R. Harrison. 1998. "The 'Hidden Patient:' Older Relatives Raising Children Orphaned by AIDS." *Journal of the American Women's Medical Association* 53(2):65-76.
Kane, Emily W. 2000. "Racial and Ethnic Variations in Gender-Related Attitudes." *Annual Review of Sociology* 26 419-439.
-----. 1992. "Race, Gender, and Attitudes toward Gender Stratification." *Social Psychology Quarterly* 55(3):311-320.
Kawachi, Ichiro, and Lisa F. Berkman. 2001. "Social Ties and Mental Health." *Journal of Urban Health* 78(3):458-467.
Kiecolt, Jill K., Michael Hughes, and Verna M. Keith. 2008. "Race, Social Relationships, and Health." *Personal Relationships* 15(2):229-245.

King, Anthony E.O. 1999. "African American Females' Attitudes Toward Marriage: An Exploratory Study." *Journal of Black Studies* 29(3) 416-437.

Kluegel, James R. and Eliot R. Smith. 1986. *Beliefs about Inequality: Americans' Views of What Is and What Ought to Be.* New York, NY: Aldine.

Knight, Bob G., Merril Silverstein, T.J. McCallum, and Lauren S. Fox. 2000. "A Sociocultural Stress and Coping Model for Mental Health Outcomes among African American Caregivers in Southern California." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 55B(3):142-150.

Koenig, Harold G. 1997. *Is Religion Good for Your Health? The Effect of Religion on Physical and Mental Health.* Binghamton, NY: The Haworth Press.

Konstam, Varda, Samantha Karwin, Tevana Curran, Meghan Lyons, and Selda Celen-Demirtas. 2006. "Stigma and Divorce: A Relevant Lens for Emerging and Young Adult Women?" *Journal of Divorce and Remarriage* 57(3):173-194.

Kornrich, Sabino, Julie Brines, and Katrina Leupp. 2013. "Egalitarianism, Housework, and Sexual Frequency in Marriage." *American Sociological Review* 78(1):26-50.

Kramer, Karen Z., Laurelle L. Myhra, Virginia S. Zuiker, and Jean W. Bauer. 2016. "Comparison of Poverty and Income Disparity of Single Mothers and Fathers across Three Decades: 1990–2010." *Gender Issues* 33(1):22-41.

Krause, Neal. 2002. "Church-Based Social Support and Health in Old Age: Exploring Variations by Race." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 57B(6):332-347.

Kulik, L. 2002. "His and Her Marriage: Differences in Spousal Perceptions of Marital Life in Late Adulthood." Pp. 21-32 In *Advances in Psychology Research*, edited by Serge P. Shohov. Huntington, NY: Nova Science.

Kurdek, Lawrence A. 2008. "Differences between Partners from Black and White Heterosexual Dating Couples in a Path Model of Relationship Commitment." *Journal of Social and Personal Relationships* 25(1):51-70.

Lang, Frieder R. and Laura L. Carstensen. 2002. "Time Counts: Future Time Perspective, Goals, and Social Relationships." *Psychology and Aging* 17(1):125-139.

Lang, Frieder R. 2001. "Regulation of Social Relationships in Later Adulthood." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 56B(6):321–326.

Liebler, Carolyn A. and Gary D. Sandefur. 2002. "Gender Differences in the Exchange of Social Support with Friends, Neighbors, and Co-Workers at Midlife." *Social Science Research* 31(3):364-391.

Lima, Julie C., Susan M. Allen, Frances Goldscheider, and Orna Intrator. 2008. "Spousal Caregiving in Later Midlife versus Older Ages: Implications of Work and Family Obligations. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 63B(4):S229–S238.

Lin, I-Fen, Susan L. Brown, and Anna M. Hammersmith. 2017. "Marital Biography, Social Security Receipt, and Poverty." *Research on Aging* 39(1):86-110.

Lincoln, Karen D., Robert Joseph Taylor, and Linda M. Chatters. 2012. "Correlates of Emotional Support and Negative Interaction among African Americans and Caribbean Blacks." *Journal of Family Issues* 34(9):1262-1290.

Lincoln, Karen D., Robert Joseph Taylor, and Linda M. Chatters 2003. "Correlates of

Emotional Support and Negative Interaction among Older Black Americans." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 58B(4):225-233.

Loscocco, Karyn and Susan Walzer. 2013. "Gender and the Culture of Heterosexual Marriage in the United States." *Journal of Family Theory and Review* 5(1):1-14.

Martin, Cathy D. 2000. "More than the Work: Race and Gender Differences in Caregiving Burden." *Journal of Family Issues* 21(8):986-1005.

Masci, David. 2018. "5 Facts about the Religious Lives of African Americans." Pew Research Center. Published February 7, 2018. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2018/02/07/5-facts-about-the-religious-lives-of-african-americans/).

Mather, Mark. 2015. "Effects of the Great Recession on Older Americans' Health and Well-Being." Washington, D.C.: Population Reference Bureau. Published November 4, 2015. Accessed September 10, 2019. (https://www.prb.org/todays-research-aging-great-recession-2/)

Mattis, Jacqueline S. and Carolyn R. Watson. 2008. "Religiosity and Spirituality." Pp. 91-102 in *Handbook of African American Psychology,* edited by Helen A. Neville, Brendesha M. Tynes, and Shawn O. Utsey. Thousand Oaks, CA: Sage.

Mattis, Jacqueline S. and Robert J. Jagers. 2001. "A Relational Framework for the Study of Religiosity and Spirituality in the Lives of African Americans." *Journal of Community Psychology* 29(5):519-539.

McCann, Judith J., Liesi E. Hebert, Laurel A Beckett, Martha Clare Morris, Paul A. Scherr, and Denis A. Evans. 2015. "Comparison of Informal Caregiving by Black and White Older Adults in a Community Population." *Journal of the American Geriatrics Society* 48(12):1612-1617.

McCann, Judith J., Liesi E. Hebert, Laurel A. Beckett, Martha Clare Morris, Paul A. Scherr, and Denis A. Evans. 2000. "Comparison of Informal Caregiving by Black and White Older Adults in a Community Population." *Journal of the American Geriatrics Society* 48(12): 1612-1617.

Mendenhall, Ruby, Phillip J. Bowman, and Libin Zhang. 2013. "Single Black Mothers' Role Strain and Adaptation across the Life Course." *Journal of African American Studies* 17(1):74-98.

Mossakowski, Krysia N. 2003. "Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health?" Journal of Health and Social Behavior 44(3): 318–331.

Mouzon, Dawne M. 2013. "Can Family Relationships Explain the Race Paradox in Mental Health?" *Journal of Marriage and Family* 75(2):470-485.

Moynihan, Daniel Patrick. 1965. *The Negro Family: The Case for National Action.* Washington, D.C.: Office of Policy Planning and Research of the U.S. Department of Labor.

Mui, Ada C. 1992. "Caregiver Strain among Black and White Daughter Caregivers: A Role Theory Perspective." *The Gerontologist* 32(2):203-212.

Nelsen, Hart M. and Anne K. Nelsen. 1975. *Black Church in the Sixties*. Lexington, KY: University of Kentucky Press.

Newsom, Jason T., Masami Nishishiba, David L. Morgan, and Karen S. Rook. 2003. "The Relative Importance of Three Domains of Positive and Negative Social

Exchanges: A Longitudinal Model with Comparable Measures." *Psychology and Aging* 18(4):746–754.

Pagel, Mark D., William W. Erdly, and Joseph Becker. 1987. "Social Networks: We Get By With (And In Spite Of) A Little Help from Our Friends." *Journal of Personality and Social Psychology* 53(4):793-804.

Pew Research Center. 2015. "Married Adults are More Likely to be Upper Income than Unmarried Adults." Pew Research Center. Published December 8, 2015. Accessed September 10, 2019. (http://www.pewsocialtrends.org/2015/12/09/the-American-middle-class-is-losing-ground/st_2015-12-09_middle-class-13/).

-----. 2013. "Incarceration Gap Widens Between Blacks and Whites." Pew Research Center. Published September 6, 2013. Accessed September 10, 2019. (http://www.pewresearch.org/fact-tank/2013/09/06/incarceration-gap-between-Whites-and-Blacks-widens/).

-----. 2010. "The Return of the Multi-Generational Household." Pew Research Center. Published March 2010. Accessed September 10, 2019. (https://www.pewresearch.org/wp-content/uploads/sites/3/2010/10/752-multi-generational-families.pdf)

Pinn, Anne H. 2002. *Fortress Introduction to Black Church History.* Minneapolis, MN: Augsburg Fortress.

Pollard, Kelvin and Paola Scommegna. 2013. *The Health and Life Expectancy of Older Blacks and Hispanics in the United States.* Washington, D.C.: Population Reference Bureau. June 2013, Issue 28. Accessed September 10, 2019. (http://www.prb.org/pdf13/TodaysResearchAging28.pdf).

Pruchno, Rachel A. and Dorothy McKenney. 2000. "Psychological Well-Being of Black and White Grandmothers Raising Grandchildren: Examination of a Two-Factor Model." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 57B(5):444-452.

Pudrovska, Tetyana, Scott Schieman, and Deborah Carr. 2006. "The Strains of Singlehood in Later Life: Do Race and Gender Matter?" *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 61B(6):315-322.

Raley, R. Kelly.1995. "Black-White Differences in Kin Contact and Exchange among Never Married Adults." *Journal of Family Issues* 16(1):77-103.

Reed, Tamilia D. and Helen A. Neville. 2013. "The Influence of Religiosity and Spirituality on Psychological Well-Being among Black Women." *Journal of Black Psychology* 40(4):384-401.

Reid, La Verne, John Hatch, and Theodore Parrish. 2003. "The Role of a Historically Black University and the Black Church in Community-Based Health Initiatives: The Project DIRECT Experience." *Journal of Public Health Management and Practice* 9(S1):S70-S73.

Ryff, Carol, David Almeida, John Ayanian, Deborah S. Carr, Paul D. Cleary, Christopher Coe, and David Williams. 2018. "Midlife in the United States (MIDUS 2): Milwaukee African American Sample, 2005-2006." Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], Updated March 9, 2018. Accessed September 10, 2019. (https://doi.org/10.3886/ICPSR22840.v5).

Sarkisian, Natalia and Naomi Gerstel. 2004. "Kin Support among Blacks and Whites:

Race and Family Organization." *American Sociological Review* 69(6):812-837.
Seltzer, Judith A. and Jenjira J. Yahirun. 2013. *Diversity in Old Age: The Elderly in Changing Economic and Family Contexts.* Russell Sage Foundation. Published November 6, 2013. Accessed September 10, 2019. (https://s4.ad.brown.edu/Projects/Diversity/Data/Report/report11062013.pdf).
Schieman, Scott and Gabriele Plickert. 2007. "Functional Limitations and Changes in Levels of Depression among Older Adults: a Multiple-Hierarchy Stratification Perspective." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 62B(1):S36-S42.
Schuster, Tonya L., Ronald C. Kessler, and Robert H. Aseltine. 1990. "Supportive Interactions, Negative Interactions, and Depressive Mood." *American Journal of Community Psychology* 18(3):423-438
Shelton, Beth A. and Daphne John. 1996. "The Division of Household Labor." *Annual Review of Sociology* 22:299-322.
Simon, Robin W. 2002. "Revisiting the Relationships among Gender, Marital Status, and Mental Health." *American Journal of Sociology* 107(4):1065-1096.
Singh Manoux, Archana, Alice Gueguen, Jane Ferrie, Martin Shipley, Pekka Martikainen, Sebastian Bonenfant, Marcel Goldberg, and Michael Marmot. 2008. "Gender Differences in the Association between Morbidity and Mortality among Middle-Aged Men and Women." *American Journal of Public Health* 98(12): 2251-2257.
Simon, Robin W. 2002. "Revisiting the Relationships among Gender, Marital Status, and Mental Health." American Journal of Sociology 107(4):1065-1096.
Sirkisian, Natalia and Naomi Gerstel. 2004. "Kin Support among Blacksand Whites: Race and Family Organization." *American Sociological Review* 69(6):812-837.
Silverstein, Merril and Linda J. Waite. 1993. "Are Blacks More Likely than Whites to Receive and Provide Social Support in Middle and Old Age? Yes, No, and Maybe So." *Journal of Gerontology* 48(4):S212-S222.
South, Scott J. 1993. "Racial and Ethnic Differences in the Desire to Marry." *Journal of Marriage and the Family* 55(2):357–370.
Sudarkasa, Niara. 2007. "Interpreting the African Heritage in Afro-American Family Organization. Pp. 27-47 in *Black Families,* edited by Harriette Pipes McAdoo. Thousand Oaks, CA: Sage.
Sundquist, Jan, Marilyn A. Winkleby, and Sonja Pudaric. 2001. "Cardiovascular Disease Risk Factors among Older Black, Mexican-American, and White Women and Men: An Analysis of NHANES III, 1988–1994." *Journal of the American Geriatrics Society* 49(2):109-116.
Taylor, Robert Joseph, Linda M. Chatters, and Aaron Celious. 2003. "Extended Family Households among Black Americans." *African American Research Perspectives* 9(1):133-151.
Taylor, Robert Joseph. 1986. "Receipt of Support from Family among Black Americans: Demographic and Familial Differences." *Journal of Marriage and the Family* 48(1):67-77.
Taylor, Robert Joseph, and Linda M. Chatters. 1986. "Church-Based Informal Support among Elderly Blacks." *The Gerontologist* 26(6):637-642.
Thorpe, Robert James, Ruth G. Fesahazion, Lauren Parker, Tanganiyka Wilder, Ronica

N. Rooks, Janice V. Bowie, Caryn N.Bell, Sarah L. Szanton, and Thomas A. LaViest. 2016. "Accelerated Health Declines among African Americans in the U.S.A."" *Journal of Urban Health* 93(5):808-819.

Tucker, Jasmine, and Caitlin Lowell. 2016. *National Snapshot: Poverty among Women and Families, 2015.* National Women's Law Center (NWLC) Fact Sheet September 2016. Washington, D.C.: NWLC. Published September 14, 2016. Accessed September 10, 2019. (https://nwlc.org/resources/national-snapshot-poverty-among-women-families-2015/).

Turney, Kristen. 2014. "The Intergenerational Consequences of Mass Incarceration: Implications for Children's Co-Residence and Contact with Grandparents." *Social Forces* 93(1):299-327.

U.S. Department of Health and Human Services. 2004. "The 2004 HHS Poverty Guidelines." Washington, D.C.: U.S. Dept. of HHS. Published December 1, 2004. Accessed September 10, 2019. (https://aspe.hhs.gov/2004-hhs-poverty-guidelines).

U.S. Department of Labor, Office of Policy Planning and Research. 1965. *The Negro Family: The Case for National Action*. Washington, DC: U.S. Department of Labor. (http://www.dol.gov/oasam/programs/history/webidmeynihan.htm).

Verbrugge, Lois Marie. 1985. "Gender and Health: An Update on Hypotheses and Evidence." *Journal of Health and Social Behavior* 26(3):156-182.

Vespa, Jonathan. 2017. "Historical Living Arrangements of Older Adults: 1976-2016." U.S. Census Bureau. Working Paper Number SEHSD-WP2017-30. Washington, D.C.: U.S. Census Bureau. Published April 2017. Accessed September 10, 2019. (https://www.census.gov/library/working-papers/2017/demo/SEHSD-WP2017-30.html).

Vitaliano, Peter P, Jianping Zhang, and James M. Scanlan. 2003. "Is Caregiving Hazardous to One's Physical Health? A Meta-Analysis." *Psychological Bulletin* 129(6):946–972.

Waddell, Erin L. and Joy M. Jacob-Lawson. 2010. "Predicting Positive Well-Being in Older Men and Women." *The International Journal of Aging and Human Development* 70(3):181-197.

Waite, Linda J., and Maggie Gallagher. 2001. *The Case for Marriage: Why Married People are Happier, Healthier, and Better Off Financially.* New York, NY: Broadway Books.

Walen, Heather R. and Margie E. Lachman. 2000. "Social Support and Strain from Partner, Family, and Friends: Costs and Benefits for Men and Women in Adulthood." *Journal of Social and Personal Relationships* 17(1): 5-30.

Weissman, Judith D. and David Russell. 2018. "Relationships between Living Arrangements and Health Status among Older Adults in the United States, 2009-2014: Findings from the National Health Interview Survey." *Journal of Applied Gerontology* 37(1):1-19.

West, Loraine A., Samantha Cole, Daniel Goodkind, and Wan He. 2014. "65+ in the United States: 2010." Current Population Reports P23-212. Washington, D.C.: U.S. Census Bureau. (https://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf).

Weinert, Clarann, Shirley Cudney and Wade G. Hill. 2008. "Retention in a Computer-Based Intervention for Chronically Ill Rural Women" *Applied Nursing Research* 21(1):23-29.

Wethington, Elaine, Jane D. McLeod, and Ronald C. Kessler. 1987. "The Importance of Life Events for Explaining Sex Differences in Psychological Distress. Pp. 144-156 in *Gender and Stress*, edited by Rosalind C. Barnett RC, Lois Biener, and Grace K. Baruch. New York, NY: The Free Press.

Williams, David R., Hector M. Gonzalez, Harold Neighbors, Randolph Nesse, Jamie M. Abelson, Julie Sweetman, and James S. Jackson. 2007. "Prevalence and Distribution of Major Depression Disorder in African Americans, Caribbean Blacks, and Non-Hispanic Whites: Results from the National Survey of American Life." *Archives of General Psychiatry* 64(3):305-315.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy.* Chicago, IL: University of Chicago Press.

CHAPTER 5

Conclusion

The goal of this dissertation was to bridge the study of older adult living arrangements with that of race disparities in older adult health, and in doing so, allow both of these areas of research to inform and further contextualize the state of knowledge in the other. In doing so, I aim to heed the call to bridge the gap between gerontologists and race scholars, both of whom study the role of environments in social outcomes, but rarely allow their work to inform one another (Byrnes 2016). To achieve this goal, I construct and test two kinds of relationships among living arrangements, race, and health. First, I take existing findings about how living arrangements are associated with self-rated health and functional limitations, and assess the relevance of this body of research for explaining well-documented patterns of race disparities in older adult health. I then consider how race and living arrangements may be associated with subjective aspects of well-being, and test whether variation in the statistical and cultural normativity of living arrangements produces different subjective well-being (SWB) outcomes for older Blacks and Whites. Finally, I consider that femininity is closely associated with the home in Western culture, and compare the associations of living arrangements for Black and White women, as well as the ways in which these associations may be accounted for by the different stressors and support and coping resources that are common to the experiences of being an older Black or White women in the United States. By considering the association of living arrangements and race in older adult health outcomes, clinicians, researchers, and policymakers can be better prepared to understand

and meet the needs of more racially/ethnically diverse future cohorts of the U.S. older adult population.

SUMMARY OF KEY FINDINGS

Chapter 2: Black and White Disparities in Older Adult Self-Rated Health and Functional Limitations: Evaluating the Role of Living Arrangements

Research on living arrangements and older adult physical health has found consistent patterns of associations. Specifically, living with a spouse is associated with better physical health, whereas living with other family and/or non-family members is associated with poorer health. I test whether these findings can contribute to knowledge on later-life race disparities in health. I find that race disparities in self-rated health are not explained by living arrangements, but that living with others accounted for 45% of the race disparity in functional limitations. Furthermore, I find that family strain mediates the association of living arrangements with this race disparity, meaning older Blacks' greater functional limitations may be partially accounted for by higher proportions of older Blacks living in households that promote poorer health via family strain. However, these associations were ultimately explained away when other demographic characteristics, including sex, age subgroup, educational attainment, and marital history, were accounted for, though none these measures were independently responsible for this finding when considered separately. Taken together, these findings suggest that living arrangements account for race disparities in older adult health only to the extent that living arrangements are patterned across a wide range of sociodemographic characteristics.

Chapter 3: Variation in the Effect of Living Arrangements on Subjective Well-Being between Black and White Older Adults

In this chapter, I consider later life subjective well-being (SWB) (positive and negative affectivity and life satisfaction), and theorize a different set of associations between living arrangements, race, and health. Specifically, I test whether living arrangements are associated with SWB in different ways for Black and White older adults. In bivariate analyses, I first replicate findings from previous research showing that living with a spouse has positive emotional benefits, but do not replicate findings about the negative consequences of living with others on emotional well-being. To account for these findings, I consider that positive affect is more strongly related to sociality than negative affect, and also that older adults tend to focus more on positive than negative experiences to account for this findings. Furthermore, I find a complex association among race, living with children, and family strain on positive affect. Namely, I find that the association of living with children differs for Blacks and Whites, where older Blacks who live with children report greater levels of positive affect than Whites, and that this association was suppressed by family strain. I argue that older Blacks may become custodial caregivers for children, primarily grandchildren, as a result of adverse life events affecting Black families, but despite these stressful circumstances, grandparenting plays a historically and socially significant role in the lives of Black grandparents that has positive outcomes for their SWB compared to Whites.

Chapter 4: Older Adult Living Arrangements at the Intersection of Race and Later Life Womanhood: Associations with Subjective Well-Being

In the final analytic chapter of the dissertation, I consider that household roles are highly gendered, especially for women, but also that the experience of being a woman is socially different for Blacks and Whites. Given this, I explore whether living arrangements are associated with SWB differently for older Black and White women, and whether these differences can be accounted for by both positive and negative experiences that older Black and White women are likely to have. I find that the positive association of living with children on positive affect persists when only women are considered. I also find that living with others is associated with poorer SWB among older Black women compared to living alone, and that perceived financial strain accounts for part of this association, suggesting that living with someone other than a spouse or children is a reflection of socioeconomic disadvantage for older Black women, which has negative consequences for their SWB. Finally, I find a positive association of living with a spouse on life satisfaction compared to living alone, but that this association was not significantly different by race. This indicates that despite Black women's lower likelihood of marriage and less positive attitudes toward marriage, the positive association of living with a spouse on life satisfaction among Black women who do marry is not relatively weaker than that of White women in older adulthood.

MAJOR PATTERNS AND THEMES ACROSS ANALYSES

The Social and Economic Circumstances through which Living Arrangements Arise for Older Blacks Has Negative Consequences for Their Physical and Mental Health

The findings of this dissertation show multiple indicators that living with "others" (i.e., someone other than a one's spouse or children) has negative consequences for the health of older Blacks, and that these associations can be accounted for by social and economic stressors. Living with others partially accounts for older Blacks' greater functional limitations compared to Whites via the mediating effect of family strain, and is associated with less life satisfaction than living alone among older Black women via perceived financial strain. Taken together, these findings suggest that older Blacks who live with others experience stressful social and economic circumstances related to their living arrangements, which in turn has negative consequences for their physical and mental health.

The relationship between living with others and poor functional health for older Blacks is mediated by family strain. This may suggest that the household members' relationships are negatively affected by living together, or that these individuals may not have chosen to live together in the absence of some external circumstance that made sharing a home necessary. The most common causes of family strain in the United States are financial difficulties, health issues, and the spill-over effects of work-related stress into the home (Boss, Bryant, and Mancini 2016). These are issues that may necessitate living arrangement changes within families, such as when family members who have experienced a job loss temporarily move into the home of more financially stable family members, or a person moves to help an elderly parent deal with a debilitating medical condition. Living with extended families to pool economic resources is more common in Black than White families (Cohen and Casper 2002; Raley 1995), and Blacks are more likely than Whites to agree that people have a duty to help struggling family members by

offering them a place to live (Taylor, Chatters, and Celious 2003). However, feeling a sense of obligation or duty to help another person can sometimes have a negative effect on interpersonal relationships by fostering feelings of resentment in the help provider toward the help receiver (Groger and Mayberry 2001). The role of family strain in the association between living with others and poor functional health for older Blacks may reflect that this living arrangement can arise through stressful, external circumstances affecting Black families.

Among women, living with others is associated with poor life satisfaction via perceived financial strain. Older women of color are particularly economically vulnerable in the United States, especially if they have dependents to support financially (Christ and Gronniger 2018). Older Black women in particular have a historically significant role of supporting kin (Peterson 2008), and recent demographic trends indicate that older Black mothers, especially those of low socioeconomic status (SES), provide financial and housing support to their adult children more frequently than older Whites (Fry 2016). Older Black women are more likely to have fewer financial resources than older White women but also more people to provide for, and my findings indicates that older Black women who live with others experience hardship that takes a toll on their mental health.

Common to both of these findings about living with others and poor health for older Blacks is the salience of social disadvantage. The negative health consequences of living with other relatives and/or non-relatives for older Blacks may reflect the role of socioeconomic hardship in their living arrangements, which in turn contributes to poor health. This living arrangement may therefore often be a manifestation of the social and economic inequality that characterizes the lives of older Black Americans.

The Subjective Meaning Attached to Living Arrangements May Influence Their Relationship with Older Blacks' and Whites' Health

An important goal of this dissertation was to consider older adults' race as a context for when and why living arrangements are associated with their health. In my chapters on SWB, I consider that Blacks and Whites report different patterns and attitudes related to marriage and extended kinship bonds, and evaluate whether these differences mean that the associations of living arrangements with SWB are significantly different for older Blacks and Whites. My findings show that experiences unique to older Blacks create different subjective associations between their living arrangements and health than that of older Whites, though not in all circumstances.

I find that living with children is associated with greater positive affect for older Blacks, but not older Whites. I argue that differences in the meaning older Blacks attach to living with children may account for this. Specifically, older Blacks report a greater sense of pride in being providers for their grandchildren than their White counterparts, and cite being a grandparent as a more central part of their personal identity (Pruchno and McKenney 2002). The reasons why Black grandparents become providers for their grandchildren have historically been socially distinct from that of White grandparents, and more directly linked to social structural problems. Black grandparents are also more likely than Whites to know other custodial grandparents and thus have a sense of shared identity related to their grandparenting role (Pruchno 1999). Therefore, despite the stressful circumstances that may lead to taking on responsibility for grandchildren, there is a social significance to the role of grandparenting in Black families that has no parallel

among Whites, and my findings suggest that this subjective assessment of their grandparent role has benefits for their SWB.

Not All Dimensions of Physical and Mental Health are Significantly Associated with Living Arrangements for Older Blacks and Whites

The findings of this dissertation also demonstrate that different dimensions of older adults' physical and mental health are affected by living arrangements through different pathways. In terms of physical health, living with others is negatively associated with functional health for older adults in my sample, but not self-rated health. The non-significant associations between living arrangements and self-rated health in my analysis contradicted findings from prior research with older adults. This finding could not be explained by variation in sample characteristics or variable measurement. The contribution of living arrangements to Black/White *disparities* in older adult health, however, has not previously been documented, and my analysis shows that living with others contributes to older Blacks' poorer functional health compared to older Whites. Furthermore, functional health may be affected by living with others in ways that are distinct from self-rated health. In this analysis, self-rated health and functional limitations were included as different dimensions of a larger construct of physical health. Functional health is affected by the quality of one's personal relationships, and neuroscience research has produced evidence that this association operates at the biological level by activating the same physiological stress response activated in response to perceived threats (Eisenberger and Cole 2012). Self-rated health, by contrast, is a cognitive evaluation, and though it is a strong predictor of outcomes like mortality (Idler and Benyamini 1997), it is likely influenced by a wider range of physiological, psychological,

and cultural factors than the purely physiological process of increased allostatic load. Older Blacks are more likely than Whites to live in households that are experiencing family strain, and the results of my analysis suggest that living arrangements produce negative social interactions that can have physiological conseuqences, contributing to their higher rates of functional limitations in older adulthood compared to Whites.

Explicit comparisons of all three dimensions of SWB—positive affect, negative affect, and life satisfaction—and their associations with older adults' living arrangements have not been tested in prior research. The analyses of this dissertation show a pattern of associations between living arrangements and positive affect, but not negative affect. Specifically, living with a spouse was significantly associated with greater positive affect in the aggregate, and living with children was associated with increases in positive affect for older Blacks, but not older Whites. Negative affectivity, however, had no significant associations with living arrangements or race in my analyses. Positive and negative affect are independent constructs, as the presence of one emotional state does not indicate the absence of the other (Watson, Clark, and Tellegen 1988), and unlike negative affect, positive affect is related to patterns of social activity (Berry and Hansen 1996; Watson et al. 1992; Watson 1988). This relationship is thought to be cyclical; people with high levels of positive affectivity may derive more personal meaning from social interaction than people with lower levels, leading them to seek out more social interaction and leading other people to desire interacting with them. This in turn reinforces the quality of their social interactions, furthering promoting high levels of positive affectivity for these individuals (Berry and Hansen 1996). The responsiveness of positive affect to living arrangements, but not to negative affect, in the analyses supports such theories about

positive affect and sociality. The individuals with whom one lives are their most proximal sources of social interaction, and are likely to be among their most frequent sources of interaction. In my analyses, living with a spouse improved positive affect over living alone, possibly because people with high positive affect were more likely to seek out and maintain meaningful spousal relationships, which then reinforced their positive affectivity. Race also influenced how living arrangements were associated with positive affect. Living with children was associated with increases in positive affect for older Blacks, but not older Whites. Older Blacks are thought to derive more cultural and personal meaning from caring for children in later life due to the sociohistorical significance of caring for grandchildren in the Black community. Perhaps due to the absence of this significance, caring for children did not have the same associations for older Whites.

Therefore, the significance of living arrangements for positive affectivity, but not negative affectivity, is consistent with theory that positive affectivity is more sensitive to a person's social interactions. There has been scant research on living arrangements and positive affect for older adults, and most research has focused on the potential for living arrangements to promote negative emotions among older adults. More research that instead considers the sensitivity of positive affect to social interaction may be useful for understanding how living arrangements influence older adult mental health.

Finally, I find no category of living arrangements that has associations with both affective and evaluative components of SWB in the analyses. The benefits of living with children for older Blacks' positive affect did not also extend to their reports of life satisfaction, and living with others had negative associations with older Black women's

life satisfaction, but not their affective state. This is somewhat consistent with research that finds Blacks are less likely to endorse mood-based symptoms of psychological distress than Whites (Das et al. 2006; Iwata, Turner, and Lloyd 2002). However, these differences also indicate that living arrangements affect both the daily emotions and cognitive evaluations of older adults, but through different pathways. Specifically, affect may be influenced by the personal significance attached to living arrangements, while life satisfaction is influenced by the larger, external circumstances that are the cause or consequence of particular living arrangements, such as living with others indicating socioeconomic disadvantage among older Blacks.

THEORETICAL AND PRACTICAL SIGNIFICANCE

Culturally Competent Care for a Diversifying Older Adult Population

Older adults are often assumed to be a homogenous group in U.S. society. Cultural stereotypes portray older adults as uniformly frail and dependent (Chrisler, Barney, and Palatino 2016), lonely and isolated (Pikhartova, Bowling, and Victor 2016), cognitively deficient (Cuddy, Norton, and Fiske 2005), and "set in their ways" (Ory et al. 2003). Professionals are not immune to stereotypes about the populations they serve, and evidence of implicit bias has been found within multiple professions that often serve the interests of older adults, including physicians (Chapman and Carnes 2013; Sabin et al. 2009), social workers and counselors (Peris, Teachman, and Nosek 2008), nurse researchers (Vanderberg and Hall 2011), and social researchers (McKenry 1989). As the U.S. older adult population continues to diversify, it is important to recognize that older adults are not a monolith. In order for professionals who provide care to older adults to

design effective, culturally appropriate strategies for maintaining good health and quality of life for their patients and clients, it is necessary to have empirical evidence for the ways in which the needs, beliefs, abilities, and preferences of older adults vary across social subgroups.

This includes evidence about variation in living arrangements. About 60% of older adults manage multiple chronic conditions (Ward, Schiller, and Goodman 2014), and more adults are living to age 80 or older, when the risk of developing significant physical or cognitive impairment is highest (National Academies of Sciences 2016). To help patients manage these age-related changes, the National Institute on Aging (NIA) (2017) recommends that physicians gather information about living arrangements when taking the medical history of an older patient, as this information can help physicians understand the resources and sources of support available in an older patient's life to help them manage their conditions, and also help them identify realistic interventions to address the patient's health concerns. In the general population, living alone has been linked to risk of having more unmet needs among older adults with chronic conditions (Miranda-Castillo, Woods, and Orrell 2010; Gilmour, Gibson, and Campbell 2003). However, my findings suggest that the circumstances surrounding living arrangements and the health-related consequences they have for older adults are associated with race, and so physicians must also have knowledge of how the implications of living arrangements for illness risk and treatment plans vary across different groups of patients. I find that living with others contributes to poorer functional health for older Blacks via family strain, and is also associated with poorer life satisfaction among older Black women. Therefore, for older Black patients with chronic conditions, sharing a home with

other people is not necessarily indicative of having more met needs than living alone, and can instead have deleterious consequences for their health. This runs counter to long-standing assumptions about Black families that have more recently been challenged in social research, namely that Blacks have strong kinship ties that are protective of their well-being (Mouzon 2013). Understanding how barriers or facilitators to the self-management of chronic conditions within an older patient's home life varies across racial/ethnic groups like this can improve physicians' ability to avoid implicit biases and assumptions and develop appropriate treatment strategies to maintain their patients' health.

Implications for the "Strong Black (Older) Woman" in Research and Policy

Black women in the United States experience both race- and gender-based discrimination throughout their lives, and coping with this discrimination has given rise to the idea that Black women must be emotionally strong. The "Strong Black Woman" (SBW) archetype reflects the idea that Black women are psychologically resilient against the social disadvantage they face (Wallace 1978), an idea that is often internalized by Black woman themselves. Black women describe learning the importance of being "strong" from a young age by observing the women who raised them, often with few economic resources and without the support of men (Settles, Pratt-Hyatt, and Buchanan 2008). As a result of these early life experiences, Black women report feeling obligations to be caretaker for their kin (Settles et a. 2008), remain economically independent of men (Dow 2015), or be emotionally unaffected by the struggles that come their way (Settles et al. 2008; Wallace 1978). But despite being an adaptive response to social disadvantage, the SBW archetype can also promote negative psychosocial outcomes for Black women

if it encourages them to deny their needs for instrumental or emotional support (Sarakisian and Gerstel 2004; Jones and Shorter-Gooden 2003). Perceiving the need to be "strong" may be particularly dangerous for older Black women, as they are likely adjusting to stressful age-related changes, such as declines in physiological functioning and health and increased economic precarity (Baker et al. 2015). Two findings of this dissertation speak to the potential issues of perpetuating the SBW myth for older women within social research and policy.

First, I find that living with a spouse is associated with greater life satisfaction among older women, but that this association did not differ by race. I theorized that because Black women have lower rates of and expectations for marriage, and also report less satisfaction within marriage, that the benefits of living with a spouse for life satisfaction would not be as strong among older Black women compared to White women. My findings instead support that among older Black women who are married and living with their spouse, the psychological benefits derived from this living arrangement are not distinct from that of White women. The SBW stereotype can lead to depictions of Black women as aggressive, cold, and less desirable as intimate partners (Bany, Robnett, and Feliciano 2014; Childs 2005), and can also mask their need for emotional support by reinforcing the expectation that they remain invulnerable when dealing with adverse circumstances (Baker et al 2015; Sarkisian and Gerstel 2004). Understanding more about when, why, and how Black women's personal relationships may differ from White women can help prevent the perpetuation of the SBW archetype in both social research and daily life, thereby limiting its potential to create adverse social outcomes for Black women.

Secondly, I find that living with children is associated with greater endorsement of positive affect for older Blacks compared to Whites, and that this finding persists when only women are considered. This pattern addresses two diverging narratives about the experiences of older Black women and childcare, both of which have different implications for policy. One narrative describes Black grandmothers raising their grandchildren as products of a long cultural legacy, playing a critical role in children's well-being when structural problems separated them from their parents (Gibson 2002). This narrative is invoked in research which finds that Black grandmothers raising their grandchildren report less caregiving burden and fewer negative emotions than Whites, and assign greater centrality of their caregiving role to their personal identity (Pruchno and McKenney 2000; Pruchno 1999). As traditional kinkeepers, this research suggests, Black grandmothers attach a cultural significance to their role that White grandmothers do not, which improves their SWB. The other narrative also recognizes that the central role Black grandmothers often play in the lives of their grandchildren has sociohistorical significance, but rather than proud and resilient, this narrative characterizes Black grandmothers as a vulnerable group. Research invoking this narrative documents Black grandmothers' financial insecurity and struggles to access formal social services (Simpson and Lawrence-Webb 2009; Minkler and Fuller Thomson 2005), as well as the overwhelming demands they face by caring for both their grandchildren and their own adult children who are dealing with adverse circumstances (Dunlap, Tourigny, and Johnson 2000; Burnette 1997).

Finding evidence that either supports or refutes each narrative can guide the direction of policy aimed at addressing the needs of custodial grandparents, and

especially those of Black grandmothers. I find a significant association of raising children with positive affect for older Blacks, which persisted when considering only older women, lending support to the narrative that caring for children in later life has a positive impact on the psychological health of older Blacks. Children raised by custodial grandparents transition out of their parents' home often as a result of parental illness, addiction, incarceration, or neglect, and are thus at risk for more mental health problems than children living in other family arrangements (Smith and Palmieri 2007). Having a strong and supportive relationship with their custodial grandparent may be a protective factor that can help children compensate for these early adversities (Keller and Stricker 2003). If the mental health benefits of custodial grandparenting extend to the grandparent generation as well, as my findings suggest, the need to ensure that custodial grandparents have the resources they need to provide their grandchildren with safe and supportive home lives becomes even more important for skip-generation families.

However, despite the potential psychological benefits of raising grandchildren for Black grandparents, custodial grandparents still are a socioeconomically vulnerable group in the United States, who have higher rates of poverty than other grandparents (Dunifon 2012; Bachman and Chase-Lansdale 2005; Brandon 2005; Sun 2003) and experience greater difficulty accessing the social services for which they are eligible, such as Temporary Assistance to Needy Families (TANF) (Brandon 2005; Macomber and Geen 2002). Policies of the U.S. social welfare system contribute to this problem, as the values institutionalized within the system make a distinction between the private affairs of family life and public welfare responsibility of the government, and as a result, there may be more institutional supports available to non-kin than custodial caregivers (Baker,

Silverstein and Putney 2008). Grandparents may be especially likely to lack formal supports because they do not always provide care in the absence of a parent; many parents retain custody of their children and remain in their lives despite grandparents caring for them on a day-to-day basis (Baker, Silverstein, and Putney 2008). As a result, grandparents who assume care of their grandchildren without the assistance of the U.S. welfare system are less likely than those than those with formal ties to the welfare system to access financial, housing, nutritional, and healthcare assistance (Macomber and Geen 2002). Black grandparents are especially vulnerable within this policy structure, as they are more likely to be low-income (Christ and Gronniger 2018) and less likely to have a formal custodial caregiving arrangement with the U.S. welfare system than their White counterparts (Hill 1977). If there are multigenerational benefits to having supportive relationships between custodial grandparents and grandchildren in Black families, ensuring that the U.S. welfare system does not create undue burdens for them in accessing the services they need has potential benefits for the health of both older Blacks and the children to whom they provide care.

Largely in response to the opioid epidemic and its implications for custodial grandparenting, Congress has already begun to take steps in this direction. The Supporting Grandparents Raising Grandchildren Act (2018) established an advisory council to "identify, promote, coordinate, and publicly disseminate" existing resources to help older relatives raising a child in the absence of the child's parents, effectively creating a "one-stop" resource for older relatives to turn to for services and supports (Kelly 2018). Efforts like this can help ensure that both grandparents and their custodial grandchildren have the resources they need to thrive in their living arrangements.

However, the paradoxical nature of Black custodial grandparents deriving psychological benefits from a socioeconomically challenging situation may suggest another interpretation of my findings. Prior research finds that internalizing the SBW archetype may lead Black women to repress feelings of emotional distress when confronted with challenging situations and feel hesitant to seek out emotional support (Sarkisian and Gerstel 2004), meaning reports of high positive affect among this group could possibly be a coping resource for remaining resilient in the face of challenging caregiving responsibilities. More research is needed to verify this hypothesis, but the implication lends itself to discussions about access to mental healthcare for older Blacks, as this population is likely to have inadequate access to care. Older adults in the United States rely primarily on Medicare programs for their healthcare needs. While Medicare Part B covers a variety of outpatient mental health services, providers are not required to accept Medicare patients into their practice, and psychiatrists are less likely than other specialty physicians to accept patients enrolled in Medicare plans (Bishop et al. 2015). This can be especially problematic for older Blacks living in low-income areas that are medically underserved, leaving them with fewer opportunities to access care and less choice in their provider. Furthermore, current cohorts of older Blacks, including older Black women, report high levels of distrust in the U.S. healthcare system compared to older Whites (Sims 2010; Musa et al. 2009), especially the mental healthcare system (Vinson et al. 2013), and endorse stigmatizing attitudes toward seeking help for psychological problems (O'Connor et al. 2010). Programs that encourage more positive attitudes toward both self-care and formal mental health services are needed to address these barriers, especially to better assess the needs of vulnerable groups like custodial

grandparents. Black churches have traditionally acted as an informal source of mental health support for their congregations (Blank et al. 2011), and given the high levels of religiosity and religious coping among older Black women (Cox and Diamont 2018), efforts to build coalitions between church leaders and formal mental healthcare providers may be a useful strategy for connecting older Blacks dealing with stressful life events, such as custodial grandparents, to formal mental health services that they may not otherwise access.

Policy Implications for the Long-Term Care (LTC) of Diverse Older Adults

The individuals with whom one shares a home are only one component of their living arrangements. Of particular concern to older adults is also where one lives, as increasing age is associated the need to make changes to one's residence, and co-residents can help determine where older adults can live. Approximately half of all older adults in the United States will require long-term care (LTC) for their medical and daily self-care needs at some point in their remaining years of life (Nguyen 2017). As the majority of older U.S. adults also want to remain in their own homes as long as possible (AARP 2012), most would prefer residential LTC options when the need arises (Nguyen 2017). Despite this, the structure of the U.S. healthcare and legal systems are not currently designed to fully support "aging in place." Medicare, which is the primary healthcare payer for most U.S. adults ages 65 and older, does not currently cover costs of LTC facilities, assisted living facilities, or in-home custodial care, and offers only limited, part-time coverage for other in-home care services like physical therapy. Adults 65 and older in the United States can expect to pay costs not covered under Medicare or other privately purchased LTC insurance plans out-of-pocket. The median monthly cost

of home health aide care in the United States is estimated to be about $4,000 (U.S Dept. of Health and Human Services 2017), meaning those with less income will have fewer choices about their care. In response to the growing need for LTC in the U.S. older adult population, The Affordable Care Act established initiatives to help states balance Medicaid programs for LTC between nursing homes and community-based services (Gay, Katz, and Johnson 2019). While initiatives like this could help alleviate some of the disparities in access to community-based LTC options, eliminating disparities in the ability to age in place also requires addressing other issues that low-income older adults may face, including safe, accessible housing (Gay et al. 2019).

My findings suggest that living with extended family and non-family members may be a risk factor poor health among Blacks due to its association with social and economic strain. While I am unable to parse out the relationships between members of these households or identify heads-of-household in my analyses, the knowledge that living in these households promotes strain for older Blacks underscores the need expand opportunities for housing choice among racial/ethnic minority and low-income subgroups of older adults. Efforts to subsidize home modifications for seniors (Gay et al. 2019), and expand the availability and eligibility requirements of programs like Program of All-Inclusive Care (PACE) (Hirth et al. 2009), which helps older adults receive coordinated medical and social service care in their community, can help older adults with fewer financial means who may otherwise live in households characterized by social or economic strain maintain a better, more independent quality of life.

Projections of future living arrangements also vary by race. Blacks are significantly less likely than Whites to engage in end-of-life planning (Carr 2011) and

more likely to project that their LTC needs will be covered by informally by family members (Bradley et al. 2004). Given disparities in access to community-based LTC services, these patterns may leave some older Blacks with less choice about where they live and create more social and economic strain among family members who live together. Efforts to address race disparities in end-of-life and LTC planning can help prevent older Blacks from having living arrangements that will negatively affect their physical and mental health.

Finally, my findings speak to the need for more socially and economically accessible alternative housing options for older adults. Whether it is better for older adults to live in age-integrated or age-segregated communities is a hotly debated topic in gerontological research. Many gerontologists argue that age-integrated communities provide ideal opportunities for intergenerational civic engagement and break down barriers to equality for older adults like discriminatory attitudes toward aging (Portacolone 2014; Vanderbeck 2007; Riley and Riley 2000). By contrast, Golant (2015, 1985) takes a more defensive view of age-segregated communities, arguing that true intergenerational support in communities is idealistic, and that age segregation allows the unique needs of older adult populations to be more effectively addressed. Older adults in age-segregated communities may be less likely to slip "under the radar" of other community residents, who can more readily recognize and be empathetic to their needs for support (Golant 1985). Furthermore, greater proportions of older adults in communities creates greater demand for medical and social service programs to address their needs, meaning older adults in age-segregated communities will have more of these services available to them (Golant 2015). Senior co-housing developments are one type

of planned neighborhood, typically financed as a housing cooperative, that allows older adults to design communities to fit their needs, and can be an alternative option for older adults who experience challenges living independently in their current community, but want to avoid institutional care or being reliant on informal care from family members (Wardrip 2010).

However, planned communities like this are not often accessed by older Blacks, due to a combination of cultural beliefs about family caregiving, prohibitive entrance fees, and concerns about living in a predominantly White community (Gay et al. 2019). In addition to efforts to make existing planned communities more socially and economically accessible to older adults of color, planned communities specifically designed to meet the needs of more heterogeneous groups of older adults could address disparities related to living arrangements and health in later life. Older Blacks may benefit from features of planned communities distinct from that of older Whites, such as those that consider accommodations for custodial grandchildren or other dependents, or communities with opportunities to participate in religious congregations led by Black spiritual leaders. Older Blacks report more positive attitudes about having shared obligations to support kin, and so allowing older Blacks to receive this support in an alternative housing community that is affordable, safe, and receptive to their needs and experiences can limit the potential for community living arrangements to be a source of health decline among older Blacks.

DIRECTIONS FOR FUTURE RESEARCH

Future research on living arrangements and the health of older Blacks and Whites might address three gaps in the current state of knowledge. First, I was unable to address

the density of the "living with others" measure that has been linked to poorer outcomes in prior research, especially among older women. This category is likely to be very heterogeneous, inclusive of both family and non-family relationships and different circumstances for sharing a home, all of which may be differentially associated with physical or mental well-being. Without creating more distinct measures of living arrangements, the mechanisms of the association between living with others and poor health cannot be understood, which in turn limits the applied potential of this research.

Secondly, much of the theoretical link between living arrangements and older adult health relies on a relatively amorphous mediating effect of "household demands" (Hughes and Waite 2002). Demands imposed by one's living arrangements could include physical demands, such as caregiving responsibilities; emotional stressors, like mediating family conflict; or other psychological demands associated with living in a complex household. The household demands theoretically imposed by particular living arrangements have not yet been operationalized or tested. Mixed-methods research with qualitative observational and in-depth interview components may be an informative way to begin developing conceptualizations of household demands as older adults experience them, which can be then be measured and tested through quantitative analyses. This would improve the translation of research on older adult living arrangements into support programs aimed at reducing the physiological and psychological burdens of household demands for older residents.

Third, future cohorts of older adults will continue to become more socio-demographically diverse, and future research on living arrangements and older adult health can address how patterns and attitudes related to living arrangements vary across a

wider range social groups. While Black Americans currently represent the largest segment of minority elders, the percentage of both Hispanic and Asian Americans over age 65 is expected to almost triple by 2060 (Administration on Community Living 2019). The associations of living arrangements with older adult health may be distinct for these groups in ways that are not currently accounted for in social research. Hispanic Americans have more family-oriented identities than White Americans, and prior research suggests that this may make Hispanic older adults who live alone more vulnerable to depression than their non-Hispanic counterparts (Russell and Taylor 2009; Hughes and Waite 1999). Preferences are a key driver of racial/ethnic variation in living arrangements among older immigrants in the United States, and partially explain why older Hispanic and most older Asian immigrants are more likely than non-Hispanic White immigrants to live in multigenerational households in which they are not the householder (Wilmoth 2001). However, attitudes toward multigenerational households in which aging parents live with their adult children may differ for older immigrants and their American-born children, who may adopt more ambivalent views about these living arrangements (Yoo and Kim 2010). This could create self-discrepancies for older adults who expected that they would be cared for by their children in later life, leaving those who live alone at greater risk for negative mental health outcomes.

Future generations of older Americans will also include greater numbers of people in same-sex marriages and partnerships, as the number of lesbian, gay, bisexual, transgender, and other sexual and gender minority (LGBT+) older adults is expected to double between 2010 and 2030 (Frediksen-Goldsen et al. 2014). The average individual in this cohort will also have openly identified as LGBT+ since their early teen years

(Toomey et al. 2010). Existing theory for the study of older adult living arrangements and well-being, such as research that invokes gender roles typical of heterosexual couples, will need to adjust to account for this population. For example, while there is little evidence to suggest that same-sex and opposite-sex spouses differ on measures like communication and empathy (Wade and Donis 2007; Kurdek 2006, 2004; Julien et al. 2003), Reczek and Umberson (2016) find that both men and women in same-sex relationships who provide care to an aging parent report receiving more support from their partner than heterosexual women, who report only rarely receiving support from their male partner. LGBT+ people today are also less likely than past generations to have children, given that greater proportions of past LGBT+ cohorts entered into heterosexual marriages and had children (Frediksen-Goldsen et al. 2014). Adult children can be an important source of care for older adults today, and LGBT+ elders who don't have children may have fewer sources of support from younger generations. On the other hand, LGBT+ people are more likely than their heterosexual peers to form friend-centered networks and "families of choice," (Frost, Meyer, and Schwartz 2016; Dewaele et al. 2011), meaning key sources of social support may not be limited to family members and co-residential relationships for this population.

Interracial marriages and partnerships will also be significantly more common and culturally normalized for future cohorts of older Americans. The number of U.S. newlyweds who married someone of a different race or ethnicity quintupled between 1967 and 2015, and approximately 1 in 6 marriages today are comprised of interracial or interethnic couple (Livingston 2017). There are overwhelmingly positive attitudes toward marriage among the Millennial generation, born between 1980 and 2000 (Rosentiel

2010). Throughout prior research and the analyses included in this dissertation, older Blacks and Whites were presumed to have partners of the same race. Statistically, this is likely for current cohorts of older Americans. However, in future research, this can no longer be presumed. Research with older Blacks, or any racial/ethnic group, cannot assume that only the experiences related to the social history of one race or ethnicity has shaped the living arrangements of older adults.

Finally, non-marital cohabitation has become much more common and culturally normalized among all adult age groups in the United States, including older cohorts. In the past decade, the rate of cohabitation among adults 50 years and older grew by 75% (Stepler 2017). Cohabitation is thought to have equivalent benefits to marriage in terms of mental and physical health (Musick and Bumpass 2012), and despite indications from earlier research, premarital cohabitation is not considered a risk factor for divorce among current cohorts of married couples (Manning and Cohen 2012; Jose, O'Leary, and Moyer 2010). However, Brown, Manning, and Payne (2017), find that cohabiting couples who plan to marry report better relationship quality than cohabiters with no plans to marry, suggesting that the dynamics of married and unmarried cohabitating couples may vary. The association of living with a spouse versus with a non-marital partner may therefore indirectly influence health via their associations with different relationship dynamics, which will need to be assessed in future research.

Distinguishing between spouses and non-marital partners is especially important for further research on how the associations of living arrangements with older adult health vary across social groups, as cohabitation is selective of non-Whites, as well as those of low SES (Halliday Hardie and Lucas 2010), and prior work documents variation

in the meaning of cohabitation across racial, ethnic, and social class groups (Manning and Smock 1995). Furthermore, measuring cohabitation in this area of research would also help distinguish between never-married single and never-married cohabitating adults. For example, older widowed women experience more economic security than their never-married counterparts, though the way they differ from never-married women residing with a long-term partner versus single never-married women has not been tested. Accounting for cohabitation in future research is a necessary update needed to better capture experiences of living arrangements among the current U.S. population, including those of older adults.

REFERENCES

AARP. 2012. *Beyond 50.05: A Report to the Nation on Livable Communities: Creating Environments for Successful Aging.* Washington, D.C.: AARP. August 22, 2019. (https://assets.aarp.org/rgcenter/il/beyond_50_communities.pdf).

Administration on Community Living (ACL). 2019. "Minority Aging." Washington D.C.: U.S. Department of Health and Human Services. Published April 25, 2019. Accessed September 10, 2019. (https://acl.gov/aging-and-disability-in-america/data-and-research/profile-older-americans).

Bachman, Heather J., and P. Lindsay Chase-Lansdale. 2005. "Custodial Grandmothers' Physical, Mental, and Economic Well-Being: Comparisons of Primary Caregivers from Low-Income Neighborhoods." *Family Relations* 54(4):475-487.

Brandon, Peter D. 2005. "Welfare Receipt among Children Living with Grandparents." *Population Research and Policy Review* 24(5):411-429.

Baker, Tamara A., NiCole T. Buchanan, Chivon A. Mingo, Rosalyn Roker, and Candace S. Brown. 2015. "Reconceptualizing Successful Aging among Black Women and the Relevance of the Strong Black Woman Archetype." *The Gerontologist* 55(1): 51-57.

Baker, Lindsay A., Merril Silverstein, and Norella M. Putney. 2008. "Grandparents Raising Grandchildren in the United States: Changing Family Forms, Stagnant Social Policies." *Journal of Social Science Policy* 7:53-69.

Bany, James A., Belind Robnett, and Cynthia Feliciano. 2014. "Gendered Black Exclusion: The Persistence of Racial Stereotypes among Daters." *Race and Social Problems* 6(3):201-213.

Berry, Diane S. and Jane Sherman Hansen. 1996. "Positive Affect, Negative Affect, and Social Interaction." *Journal of Personality and Social Psychology* 71(4):796-809.

Blank, Michael B., Marcus Mahmood, Jeanne C. Fox, and Thomas Guterbock. 2002. "Alternative Mental Health Services: The Role of the Black Church in the South." *American Journal of Public Health* 92(10):1668-1672.

Boss, Pauline, Chalandra M. Bryant, and Jay A. Mancini. 2016. *Family Stress Management: A Contextual Approach.* 3rd ed. Thousand Oaks, CA: Sage.

Bradley, Elizabeth H., Leslie A. Curry, Sarah A. McGraw, Tashonna R. Webster, Stanislav V. Kasl, and Ronald Anderson. 2004. "Intended Use of Informal Long-Term Care: The Role of Race and Ethnicity." *Ethnicity & Health* 9(1):37-54.

Brown, Susan L., Wendy D. Manning, and Krista K. Payne. 2017. "Relationship Quality among Cohabitating Versus Married Couples." *Journal of Family Issues* 38(12): 1730-1753.

Burnette, Denise. 1997. "Grandparents Raising Grandchildren in the Inner City." *Families in Society* 78(5):489-501.

Byrnes, Mary E. 2016. "Grow Old with Me! Future Directions of Race, Age, and Place Scholarship." *Sociology Compass* 10(10):906-917.

Carr, Deborah. 2011. "Racial Differences in End-Of-Life Planning: Why Don't Blacks and Latinos Prepare for the Inevitable?" *Omega* 61(1):1-20.

Chapman, Elizabeth, Anna Kaatz, and Molly Carnes. 2013. "Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities." *Journal of General Internal Medicine* 28(11):1504-15010.

Childs, Erica Chito. 2005. “Looking Behind the Stereotypes of the ‘Angry Black Woman’: An Exploration of Black Women’s Responses to Interracial Relationships.” *Gender & Society* 19(4):544-561.

Chrisler, Joan C., Angela Barney, and Brigida Palatino. 2016. “Ageism Can Be Hazardous to Women’s Health: Ageism, Sexism, and Stereotypes of Older Women in the Healthcare System.” *Journal of Social Issues* 72(1):86-104.

Christ, Amber and Tracey Gronniger. 2018. *Older Women and Poverty*. Justice in Aging. Washington, D.C.: Justice in Aging. Published December 2018. Accessed September 10, 2019. (https://www.justiceinaging.org/wp-content/uploads/2018/12/Older-Women-and-Poverty.pdf?eType=EmailBlastContent&eId=39e399a6-78b2-4df2-be9a-d60b85d001c9).

Cohen, Phillip N. and Lynne M. Casper. 2002. “In Whose Home? Multigenerational Families in the United States 1998-2000.” *Sociological Perspectives* 45(1):1-20.

Cox, Kiana and Jeff Diamant. 2018. “Black Men are Less Religious than Black Women, But More Religious than White Women and Men.” Pew Research Center. Published September 26, 2018. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2018/09/26/black-men-are-less-religious-than-black-women-but-more-religious-than-white-women-and-men/).

Cuddy, Amy J. C., Michael I. Norton, and Susan T. Fiske. 2005. “This Old Stereotype: The Pervasiveness and Persistence of the Elderly Stereotype.” *Journal of Social Issues* 61(2):265-283.

Das, Amar K., Mark Olfson, Henry L. McCurtis, and Myrna M. Weissman. 2006. “Depression in African Americans: Breaking Barriers to Detection and Treatment: Community-Based Studies Tend to Ignore High-Risk Groups of African Americans.” *Journal of Family Practice* 55(1):30-39.

Dewaele, Alexis, Nele Cox, Wim Van den Berghe, and John Vincke. 2011. “Families of Choice? Exploring the Supportive Networks of Lesbians, Gay Men, and Bisexuals.” *Journal of Applied Social Psychology* 41(2):312-331.

Dow, Dawn Marie. 2015. “Negotiating ‘The Welfare Queen’ and ‘The Strong Black Woman’: African American Middle-Class Mothers’ Work and Family Perspectives.” *Sociological Perspectives* 58(1):36-55.

Dunifon, Rachel. 2012. “The Influence of Grandparents on the Lives of Children and Adolescents.” *Child Development Perspectives* 7(1):55-60.

Dunlap Eloise, Sylvie C. Tourigny, and Bruce D. Johnson. 2000. “Dead Tired and Bone Weary: Grandmothers as Caregivers in Drug Affected Inner City Households.” *Race and Society* 3(2):143–163.

Eisenberger, Naomi I. and Steve W. Cole. 2012. “Social Neuroscience and Health: Neurophysiological Mechanisms Linking Social Ties with Physical Health.” *Nature Neuroscience* 15(5):669-764.

Fredriksen-Goldsen, Karen I., Charles P. Hoy-Ellis, Jayn Goldsen, Charles A. Emlet, and Nancy R. Hooyman. 2014. “Creating a Vision for the Future: Key Competencies and Strategies for Culturally Competent Practice with Lesbian, Gay, Bisexual, and Transgender (LGBT) Older Adults in the Health and Human Services.” *Journal of Gerontological Social Work* 57(2-4):80-107.

Frost, David M., Ilan H. Meyer, and Sharon Schwartz. 2016. “Social Support Networks

among Diverse Sexual Minority Populations." *American Journal of Orthopsychiatry* 86(1):91-102.

Fry, Richard. 2016. "For the First Time in Modern Era, Living with Parents Edges Out Other Living Arrangements for 18-to 34-Year-Olds." Pew Research Center. Published May 24, 2016. Accessed September 10, 2019. (https://www.pewsocialtrends.org/2016/05/24/for-first-time-in-modern-era-living-with-parents-edges-out-other-living-arrangements-for-18-to-34-year-olds/)

Gay, Barbara, Ruth Katz, and James H. Johnson. 2019. "Preparing for LTC Financing Reform: How Can Racial Disparities Be Addressed?" *Journal of the American Society on Aging* 43(1):60-66.

Gilmour, Helen, Faith Gibson, and Jim Campbell. 2003. "Living Alone with Dementia: A Case Study Approach to Understanding Risk." *Dementia* 2(3):403-420.

Golant, Stephen M. 2015. *Aging in the Right Place.* Baltimore, MD: Health Professions Plus.

Golant, Stephen M. 1985. "In Defense of Age-Segregated Housing for the Elderly." *Aging* 348:22-26.

Groger, Lisa and Pamela S. Mayberry. 2001. "Caring Too Much? Cultural Lag in African Americans' Perceptions of Filial Responsibilities." *Journal of Cross-Cultural Gerontology* 16(1):21-39.

Halliday Hardie, Jessica and Amy Lucas. 2010. "Economic Factors and Relationship Quality among Young Couples: Comparing Cohabitation and Marriage." *Journal of Marriage and Family* 72(5):1141-1154.

Hill, Robert B. 1977. *Informal Adoption among Black Families.* Washington, D.C.: National Urban League.

Hughes, Mary Elizabeth and Linda J. Waite. 2002. "Health in Household Context: Living Arrangements and Health in Late Middle Age." *Journal of Health and Social Behavior* 43(1):1-21.

Idler, Ellen L. and Yael Benyamini. 1997. "Self-Rated Health and Mortality: A Review of Twenty-Seven Community Studies." *Journal of Health and Social Behavior* 38(1):21-37.

Iwata, Norobu, R. Jay Turner, and Donald A. Lloyd. 2002. "Race/Ethnicity and Depression Symptoms in Community-Dwelling Young Adults: A Differential Item Functioning Analysis." *Psychiatry Research* 110(3):281-289.

Jones, Charisse and Kumea Shorter-Gooden. 2003. *Shifting: The Double Lives of Black Women in America.* New York, NY: HarperCollins Publishers.

Jose, Anita, K. Daniel O'Leary, and Anne Moyer. 2010. "Does Premarital Cohabitation Predict Subsequent Marital Stability and Marital Quality? A Meta-Analysis." *Journal of Marriage and Family* 72(1):105-116.

Julien, Danielle, Elise Chartrand, Marie-Claude Simard, Donald Bouthillier, and Jean Bégin. 2003. "Conflict, Social Support and Relationship Quality: An Observational Study of Heterosexual, Gay Male and Lesbian Couples' Communication." *Journal of Family Psychology* 17(3):419-428.

Kahneman, Daniel, Alan B. Krueger, David Schkade D, Norbert Schwarz, and Arthur A. Stone. 2006. "Would You Be Happier If You Were Richer? A Focusing Illusion." *Science* 312(5782):1908-1910.

Keller, Sally and George Stricker. 2003. "Links between Custodial Grandparents and

Psychological Adaptation of Grandchildren." Pp. 27-44 in *Working with Custodial Grandparents,* edited by Bert Hayslip Jr. and Julie Hicks Patrick. New York, NY: Springer.

Kelly, Katy. 2018. "New Help for Grandparents Raising Grandchildren." AARP. Washington, D.C.: AARP. Published July 10, 2018. Accessed September 10, 2019. (https://www.aarp.org/politics-society/advocacy/info-2018/congress-grandparents-grandchildren-bill.html).

Kurdek, Lawrence R. 2006. "Differences between Partners from Heterosexual, Gay, and Lesbian Cohabiting Couples." *Journal of Marriage and Family* 68(2): 509-528.

-----. 2004. "Are Gay and Lesbian Cohabiting Couples *Really* Different from Heterosexual Married Couples?" *Journal of Marriage and Family* 66(4):880-900.

Lee, Gary R. and Krista K. Payne. 2010. "Changing Marriage Patterns Since 1970: What's Going On, and Why?" *Journal of Comparative Family Studies* 41(4):537-555.

Livingston, Gretchen. 2017. "In U.S. Metro Areas, Huge Variation in Intermarriage Rates." Pew Research Center. Published May 18, 2017. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2017/05/18/in-u-s-metro-areas-huge-variation-in-intermarriage-rates/).

Macomber, Jennifer Ehrle and Rob Geen. 2001. "Children Cared for by Relatives: What Do They Need?" *New Federalism: National Survey of America's Families* B-47. Washington, D.C.: Urban Institute. Published June 26, 2002. Accessed September 10, 2019. (http://webarchive.urban.org/publications/310511.html).

Manning, Wendy D. and Jessica A. Cohen. 2012. "Premarital Cohabitation and Marital Dissolution: An Examination of Recent Marriages." *Journal of Marriage and Family* 74(2):377-387.

Manning, Wendy D. and Pamela J. Smock. "Why Marry? Race and the Transition to Marriage among Cohabitors." *Demography* 32(4):509-520.

McKenry, Patrick C., Joyce E. Everett, Howard P. Ramseur, and Carol J. Carter. 1989. "Research on Black Adolescents: A Legacy of Cultural Bias." *Journal of Adolescent Research* 4(2):254-264.

Minkler, Meredith and Esme Fuller-Thomson. 2005. "African American Grandparents Raising Grandchildren: A National Study Using the Census 2000 American Community Survey." *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 60B(2):S82-S92.

Miranda-Castillo, Claudia, Bob Woods, and Martin Orrell. 2010. "People with Dementia Living Alone: What Are Their Needs and What Kind of Support Are They Receiving?" *International Psychogeriatics* 22(4):607-617.

Mouzon, Dawne M. 2013. "Can Family Relationships Explain the Race Paradox in Mental Health?" *Journal of Marriage and Family* 75(2):470-485.

Muraco, Anna and Karen Fredriksen-Goldsen. 2011. "'That's What Friends Do:' Informal Caregiving for Chronically Ill Midlife and Older Lesbian, Gay, and Bisexual Adults." *Journal of Personal and Social Relationships* 28(8):1073-1092.

Musa, Donald, Richard Schulz, Roderick Harris, Myrna Silverman, and Stephen B.

Thomas. 2009. “Trust in the Health Care System and the Use of Preventive Health Services by Older Black and White Adults.” *American Journal of Public Health* 99(7):1293-1299.

Musick, Kelly and Larry Bumpass. “Reexamining the Case for Marriage: Union Formation and Changes in Well-Being.” *Journal of Marriage and Family* 74(1): 1-18.

National Academies of Sciences. 2016. *Families Caring for an Aging America.* National Academies of Sciences Report in Brief. Published September 2016. Accessed September 10, 2019. (http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2016/Caregiving-RiB.pdf).

Nguyen, Vivian 2017. “Long-Term Support and Services.” AARP Public Policy Institute Fact Sheet 27R. Washington, D.C.: AARP. Published March 2017. Accessed September 10, 2019. (https://www.aarp.org/content/dam/aarp/ppi/2017-01/Fact%20Sheet%20Long-Term%20Support%20and%20Services.pdf)

National Institute on Aging [NIA]. 2017. “Obtaining an Older Patient’s Medical History.” Washington, D.C.: U.S. Dept. of Health and Human Services. Published May 17, 2017. Accessed September 10, 2019. (https://www.nia.nih.gov/health/obtaining-older-patients-medical-history).

O’Connor, Kyaien, Valire Carr Copeland, Nancy K. Grote, Gary Koeske, Daniel Rosen, Charles F. Reynolds III, and Charlotte Brown. “Mental Health Treatment Seeking among Older Adults with Depression: The Impact of Stigma and Race.” *The American Journal of Geriatric Psychiatry* 18(6):531-543.

Ory, Marcia, Melane Kinney Hoffman, Margaret Hawkins, Brigid Sanner, and Robin Mockenhaupt. 2003. “Challenging Aging Stereotypes: Strategies for Creating a More Active Society.” *American Journal of Preventive Medicine* 25(3):164-171.

Peris, Tara S., Bethany A. Teachman, and Brian A. Nosek. 2008. “Implicit and Explicit Stigma of Mental Illness Links to Clinical Care.” *Journal of Nervous and Mental Disease* 196(10):752-760.

Peterson, Jane W. 2008. “Age of Wisdom: Elderly Black Women in Family and Church.” Pp. 368-369 in *The Cultural Context of Aging: Worldwide Perspectives,* edited by Jay Sokolovsky. 3rd ed. Westport, CT: Praeger Publishers.

Pikhartova, Jitka, Ann Bowling, and Christina Victor. 2014. “Is Loneliness in Later Life a Self-Fulfilling Prophecy?” *Ageing & Mental Health* 20(5):543-549.

Portacolone, Elena, Clara Berridge, Julene K. Johnson, and Silke Schnicktanz. 2014. “Time to Reinvent the Science of Dementia: The Need for Care and Social Integration.” *Aging & Mental Health* 18(3):269-275.

Pruchno, Rachel A. and Dorothy McKenney. 2000. “Psychological Well-Being of Black and White Grandmothers Raising Grandchildren: Examination of a Two-Factor Model.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 57B(5):44.452-.

Pruchno, Rachel A. 1999. “Raising Grandchildren: The Experiences of Black and White Grandmothers.” *The Gerontologist* 39(2):209-211.

Raley, R. Kelly. 1995. “Black-White Differences in Kin Contact and Exchange among Never Married Adults.” *Journal of Family Issues* 16(1):77-103.

Reczek, Corinne and Debra Umberson. 2016. “Greedy Spouse, Needy Parent: The

Marital Dynamics of Gay, Lesbian, and Heterosexual Intergenerational Caregivers." *Journal of Marriage and Family* 78(4):957-974.

Riley, Matilda White and John W. Riley Jr. 2000. "Age Integration: Conceptual and Historical Background." *The Gerontologist* 40(3):266-270.

Rosentiel, Tom. 2010. "Almost All Millennials Accept Interracial Dating and Marriage." Pew Research Center. Published February 1, 2010. Accessed September 10, 2019. (https://www.pewresearch.org/2010/02/01/almost-all-Millennials-accept-interracial-dating-and-marriage/#shift-in-public-attitudes-over-time).

Russell, David and John Taylor. 2009. "Living Alone and Depressive Symptoms: The Influence of Gender, Physical Disability, and Social Support among Hispanic and Non-Hispanic Older Adults." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 64B(1):95-104.

Sabin, Janice A., Brian A. Nosek, Anthony G. Greenwald, and Frederick P. Rivara. 2009. "Physicians' Implicit and Explicit Attitudes about Race." *Journal of Healthcare of the Poor and Underserved* 20(3):896-913.

Sarkisian, Natalia and Naomi Gerstel. 2004. "Kin Support among Blacks and Whites: Race and Family Organization." *American Sociological Review* 69(6):812-837.

Settles, Isis H., Jennifer S. Pratt-Hyatt, and NiCole T. Buchanan. 2008. "Through the Lens of Race: Black and White Women's Perceptions of Womanhood." *Psychology of Women Quarterly* 32(4):454-468.

Simpson, Gaynell Marie and Claudia Lawrence-Webb. 2009. "Responsibility Without Community Resources: Informal Kinship Care among Low-Income, African American Grandmother Caregivers." *Journal of Black Studies* 39(6):825-847.

Solomon, Jennifer Crew and Jonathan Marx. 1995. "To Grandmother's House We Go": Health and School Adjustment of Children Raised Solely by Grandparents." *The Gerontologist* 35(3):386-394.

Sims, Colette Marie. 2010. "Ethnic Notions and Healthy Paranoias: Understanding of the Context of Experience and Interpretations of Healthcare Encounters among Older Black Women." *Ethnicity & Health* 15(5):495-514.

Smith, Gregory C. and Patrick A. Palmieri. 2007. "Risk of Psychological Difficulties among Children Raised by Custodial Grandparents." *Psychiatric Services* 58(1):1303-1310.

Stepler, Renee 2017. "Number of U.S. Adults Cohabiting with a Partner Continues to Rise, Especially Among Those 50 and Older." Pew Research Center. Published April 6, 2017. Accessed September 10, 2019. (https://www.pewresearch.org/fact-tank/2017/04/06/number-of-u-s-adults-cohabiting-with-a-partner-continues-to-rise-especially-among-those-50-and-older/).

Sun, Yongmin. 2003. "The Well-Being of Adolescents in Households with No Biological Parents." *Journal of Marriage and Family* 65(4):894-909.

Supporting Grandparents Raising Grandchildren Act of 2018. Pub. L. 115-196. 1091 Stat. 7 July 2018.

Taylor, Robert Joseph, Linda M. Chatters, and Aaron Celious. 2003. "Extended Family Households among Black Americans." *African American Research Perspectives* 9(1):133-151.

Toomey, Russell B., Caitlin Ryan, Rafael M. Diaz, Noel A. Card, and Stephen T. Russell.

2010. “Gender-Nonconforming Lesbian, Gay, Bisexual, and Transgender Youth: School Victimization and Young Adult Psychosocial Adjustment.” *Developmental Psychology* 46(6): 1580-1589.

Vanderbeck, Robert M. 2007. “Intergenerational Geographies: Age Relations, Segregation and Re-engagements.” *Geography Compass* 1(2):200-221.

Vandenberg, Helen E.R., and Wendy A. Hall. 2011. “Critical Ethnography: Extending Attention to Bias Reinforcement of Dominant Power Relations.” *Nurse Researcher* 18(3):25-30.

Vinson, Latrice D., Martha R. Crowther, Audrey D. Austin, and Susan M. Guin. 2013. “African Americans, Mental Health, and Aging.” *Clinical Gerontologist* 37(1): 4-17.

Wade, Jay C. and Eric Donis. 2007. “Masculinity Ideology, Male Identity, and Romantic Relationship Quality among Heterosexual and Gay Men.” *Sex Roles* 57(9-10):777-786.

Waite, Linda J. and Mary Elizabeth Hughes. 1999. “At Risk on the Cusp of Old Age: Living Arrangements and Functional Status among Black, White, and Hispanic Adults.” *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 54B(3):136-144.

Wallace, Michele. 1978. *Black Macho and the Myth of the Superwoman.* New York: Verso.

Ward, Brian W., Jeanine S. Schiller, and Richard A. Goodman. 2014. “Multiple Chronic Conditions among U.S. Adults: A 2012 Update.” *Preventing Chronic Disease* 11: e62.

Wardrip, Keith. 2010. “Cohousing for Older Adults.” Fact Sheet 175. AARP Public Policy Institute. Washington, D.C.: AARP. Published March 2010. Accessed September 10, 2019. (https://assets.aarp.org/rgcenter/ppi/liv-com/fs175-cohousing.pdf).

Watson, David, Lee Anna Clark, and Auke Tellegen. 1988. “Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales.” *Journal of Personality and Social Psychology* 54(6):1063-1070.

Watson, David. 1988. “Intraindividual and Interindividual Analyses of Positive and Negative Affect: Their Relations to Health Complaints, Perceived Stress, and Daily Activities.” *Journal of Personality and Social Psychology* 54(6):1020-1030.

Watson, David, Lee Anna Clark, Curtis W. Mclntyre, and Stacy Hamaker. 1992. “Affect, Personality, and Social Activity.” *Journal of Personality and Social Psychology* 63(6):1011-1025.

Wilmoth, Janet M. 2001. “Living Arrangements among Older Immigrants in the United States.” *The Gerontologist* 41(2):228-238.

Yoo, Grace J. and Barbra W. Kim. 2010. “Remembering Sacrifices: Attitude and Beliefs among Second-Generation Korean Americans Regarding Family Support.” *Journal of Cross-Cultural Gerontology* 25(2):165-181.

U.S. Department of Health and Human Services [USDHHS]. 2017. “How Much Care Will You Need?” Washington, D.C.: USDHHS. Published October 10, 2017. Accessed September 10, 2019. (https://longtermcare.acl.gov/the-basics/how-much-care-will-you-need.html).