Emerging Trends in Family Caregiving Using the Life Course Perspective: Preparing Health Educators for an Aging Society

By: Elise K. Eifert, Rebecca Adams, Sharon Morrison, and Robert Strack

Elise K. Eifert, Rebecca Adams, Sharon Morrison & Robert Strack (2016) Emerging Trends in Family Caregiving Using the Life Course Perspective: Preparing Health Educators for an Aging Society, *American Journal of Health Education*, 47(3), 176-197, DOI: 10.1080/19325037.2016.1158674

Abstract:

Background: As life expectancy and morbidity related to chronic disease increase, the baby boomers will be called upon to provide care to aging members of their family or to be care recipients themselves. **Purpose:** Through the theoretical lens of the life course perspective, this review of the literature provides insight into what characteristics of baby boomers separate them from previous caregiving cohorts and how these characteristics will affect family caregiving. **Methods:** A systematic process to identify literature was completed using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. **Results:** Findings suggest multiple emerging trends related to caregiving, including (1) increasing use of digital technology for information gathering and support, (2) more diversity among caregivers and care recipients, (3) strained finances and loss of entitlements, (4) more complex care and care management, (5) demand for public policies related to caregiving, and (6) balancing work, family, chronic disease, and caregiving. **Discussion:** Examining the literature related to family caregiving and baby boomers through a life course perspective offers a unique and more complete understanding of emerging trends related to chronic disease management. **Translation to Health Education Practice:** These emerging trends offer health educators implications for strategies and best practices intended to support those involved in family caregiving.

Keywords: chronic disease | aging | caregiving | baby boomers

Article:

Background

Between now and 2030, the United States will experience rapid growth in its population of 65 and older, mostly because of baby boomers. As the older population increases, the prevalence of people with chronic illness or disability who need some type of intermittent or long-term care

will also increase. Many baby boomers may face providing care to their aging parents, chronically ill spouses, or needing care themselves. Common trends related to caregiving will emerge as the older population grows and more baby boomers become or depend on family caregivers. By predicting and examining these trends, we can effectively plan and implement strategies that support those in a caregiving situation. This report highlights emerging trends related to family caregiving as baby boomers age and addresses the needs of family caregivers through health education.

Demographics

The United States as well as many other developed nations is facing an unprecedented shift in demographics—the world is aging and the older population is growing. The prevalence of the baby boomers, individuals born after World War II between the years 1946 and 1964, is largely responsible for this demographic shift. Beginning in 2011, baby boomers began turning 65 years. By 2029, when all of the baby boomers will be 65 years and over, more than 20% of the U.S. population will be over the age of 65 years.[1] By 2050, the population 65 years and over is projected to become larger than the population under 18 years.[1]

Among the fastest growing segments of the older population is the oldest-old or those over 85 years. The 85-plus population is projected to increase from 5 million in 2010 to over 14 million in 2050.[2] This specific age group will nearly quadruple between 2000 and 2050 to over 4% of the total population and 21% of the older population. This growth is significant for the oldest-old often require the most personal care and support.[3,4]

Increase in family caregiving

Baby boomers are expected to have a longer life expectancy than previous generations. Unfortunately, they are living longer but not healthier. The average number of healthy years is slowly decreasing[5] and baby boomers are expected to have more morbidity than their elders.[6] The major cause of this expected decrease in healthy years and increase in morbidity is chronic disease. Baby boomers have higher rates of chronic disease than the previous generation at the same age.[6] Chronic diseases are "conditions that last a year or more and require ongoing medical attention and/or limited activities of daily living."[7 (p268)] According to the Centers for Disease Control and Prevention,[8] approximately 80% of Americans 65 years or older have at least one chronic disease and 65% have more than one chronic condition. Common chronic diseases among adults over the age of 65 years include congestive heart failure, hypertension, coronary heart disease, arthritis, hearing and vision disorders, diabetes, stroke, cancer, and dementia.[8] About one fourth of people with chronic conditions have one or more daily activity limitations,[9] which has serious implications for the diagnosed individual as well as for their families, some of whom may be baby boomers themselves, who will most likely be faced with providing this care and support.

According to Vincent et al.,[10] "inter-generational bonds of affection, frequency of association, and norms of filial obligation to provide emotional, financial, and functional support remain strong across generations at the start of the twenty-first century. …"[(p23)] Families in the United States play an essential role providing care and support to family members with acute and

chronic illnesses. Family caregivers provide an estimated 90% of long-term care in the United States1[1] with an economic value of unpaid work estimated between $196 billion[12] and $354 billion.[13] In 2009, it was estimated there were 48.9 million caregivers or 1 in 5 households providing care for a dependent adult.[14] The number of family caregivers is expected to increase by 85% between 2000 and 2050.[15]

Baby boomers

The next generation of older Americans will not only be unique in its size but in its characteristics and attributes. According to Feldman,[16] people are "products of the social times in which they live."(p9) Like any generation, the baby boomers were influenced by distinct circumstances that affected how they think and behave as well as what they value. Though there are never two people alike, there are commonalities among baby boomers that will affect how they age and respond to caregiving situations.

Baby boomers grew up with a sense of security found in postwar economic growth and prosperity. Generational markers include television, wars such as Vietnam and Korea, scandal such as Watergate, availability of oral contraceptives and legal abortions, and protests such as the women's and civil rights movements. As they came of age, baby boomers actively and purposefully chose to be different than their parents.[17] Baby boomers are far more likely than previous generations to have earned a college degree and have held a white-collar job.[18] They have lower rates of marriage, have higher rates of separation and divorce, and gave birth to fewer children.[19] They have more discretionary income (wealth) than any other age group; however, unlike their parents' generation, they are more likely to spend money than save it.[20]

Although baby boomers are a very like-minded group, they are not homogenous. Among baby boomers, there are differences between younger boomers (born between 1955 and 1964) and older boomers (born between 1946 and 1954).[21] According to Morton,[21] younger and older baby boomers have differing life influences, concerns, values, and attitudes. Older baby boomers are more often individualistic, focused on work, and make a difference in society. Younger baby boomers have abnormally high expectations, seek balance between work and family, and are more concerned with self-improvements. The oldest of the early boomers graduated from college during a more liberal time of "free love," whereas the youngest of the late boomers left college during the more conservative Reagan years.[17] Another key difference between younger and older boomers, especially among males, is their experience with military service. The last conscription (draft) was in 1973, meaning that many younger boomers never experienced the draft or military service, whereas older boomers have. Because of these circumstances and traits, it can be expected that baby boomers, younger and older, will approach caregiving differently than previous generations.

Purpose

Despite extensive literature on baby boomers and on family caregiving, the impact that baby boomers will have on family caregiving (care providers and recipients) has not been examined as a whole. Baby boomers will bring family caregiving to the forefront of aging in America as they are called upon to provide care to members of their family or they need care for themselves.

They will also bring a lifetime of experiences that could impact the dynamics and context of family caregiving. This article offers insight into (1) the generational impact of the baby boomer cohort on family caregiving and (2) what the most effective response by health educators might be. Specifically, the following research question will be answered—What trends in family caregiving are emerging because of baby boomers aging? This literature review will provide health educators with an overview of these emerging trends and offer implications for strategies and best practices intended to support baby boomer family caregivers and care recipients.

Theoretical lens

There is strong support for examining a generation's impact on certain experiences.[22,23] Each generation is unique, and examining the interplay between man and history offers context for understanding common occurrences.[24] To better understand the generational cohort effect of baby boomers on family caregiving, the life course perspective was chosen as a theoretical lens. The life course perspective "looks at how chronological age, relationships, common life transitions, and social change shape people's lives from birth to death."[25 (p9)] The life course perspective can generate useful insights and patterns related to family caregiving that will add rigor to the literature review. It offers a richer analysis of generational circumstances and examines the many layers of influence on baby boomers and the impact of prior and anticipated factors over time.

The core constructs of the life course perspective include cohorts, transitions, trajectories, life events, and turning points. They are defined as follows:

- *Cohort* or *generation* is a group of persons who share common characteristics or were born at the same historical time. The baby boomers are often referred to as a cohort or generation.[26]
- *Transitions* are changes in roles and statuses. An example would be going from single to married.[26]
- *Trajectory* is the long-term pattern that involves multiple transitions such as beginning college or having a child.[26]
- *Life event* is an abrupt occurrence that involves change and may produce serious and long-lasting effects.[25] This includes a death of a loved one or having a car accident.
- *Turning point* is a life event that alters the life course trajectory.[25] Examples may be migration to another country or imprisonment.

Method

A review of the literature using a systematic procedure was conducted with the purpose of identifying emerging trends related to family caregiving using the life course perspective as a theoretical lens. The process was guided by the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines on how to conduct a literature review.[27] The aim of the study was to locate valid and reliable literature that explored trends in family caregiving and report on the findings with regard to baby boomers and their role in these trends using the life course perspective.

Keywords

The term *family caregiver* is used broadly in this study to include relatives, friends, or loved ones who provide any *unpaid* help to an individual over the age of 18 such as assistance with health or personal needs, household chores, finances, or arranging for outside services. The term *caregiver* is also used interchangeably with *carer* or *care provider* in the literature. For the purpose of this research, any reference to caregiver will be in the context of family caregiving, as opposed to paid, professional caregivers. *Care recipient* is a person who is receiving care provided by a caregiver. She typically has been diagnosed with a chronic disease that demands complex care management or limits her ability to care for herself; hence the need for a caregiver. Older adults consist of anyone 65 years of age or older. They are often referred to as senior, aging, mature, or elderly. The term *baby boomers* or *boomers* refers to individuals born between the years 1946 and 1964. In the near future, these individuals will comprise the majority of the older adult population in the United States.

Inclusion criteria

The years of review ranged from 2000 to 2013 to reflect the increase in information related to aging in the 21st century. The inclusion criteria for article selection were broad and encompassed all studies and articles from both refereed and nonrefereed literature sources determined to be relevant to this literature review. A determination was made based on the literature's contribution to answering the research question. Included literature had to involve information related to (1) baby boomers and chronic disease or (2) baby boomers and family caregiving.

Exclusion criteria

Literature was excluded if it was not in the English language and did not explicitly focus on family caregiving of older adults or baby boomers in the United States.

Search strategy

The search process was undertaken in several stages and began with a general search of several major online databases. At the initial stage, various combinations and variations of keywords such as *caregiver*, *family caregiver*, *care recipient*, *caregiving*, *chronic disease*, *baby boomer*, and *boomer* were used. The main databases searched at this stage included Academic One File, Academic Search Complete, Ageline, CINAHL Plus, Health Source: Nursing/Academic Edition, MEDLINE, PsycINFO, and ProQuest. The first stage also included a general search of the Internet (using the same search terms and combinations and inclusion–exclusion criteria), including Google Scholar, to locate additional scholarly literature as well as any technical reports from reputable caregiving organizations or publications from governmental organizations. Based on titles and abstracts, content was chosen to be briefly examined to determine relevancy. The bulk of literature located through the Internet was considered unrelated to this review and was not considered for inclusion in the article pool.

Stage 2 of the search strategy was based on the results of stage one and used the technique known as *pearl growing*.[28] This method involves reviewing key pieces of literature to identify

additional keywords or subjects for further inquiry. This process allowed the researchers to expand the search and identify support or lack of support for emerging themes. As a result, stage 1 of the search strategy was repeated using more focused and narrow keywords based on the emerging topics found in stage 1. For example, during stage 1, *technology* was a reoccurring theme. In stage 2, we identified technology-related words such as *telehealth*, *telemedicine*, *online*, and *Internet* in combination with caregiver and baby boomer to determine additional literature during the search. See Figure 1 for a flow diagram of the search process.[27]

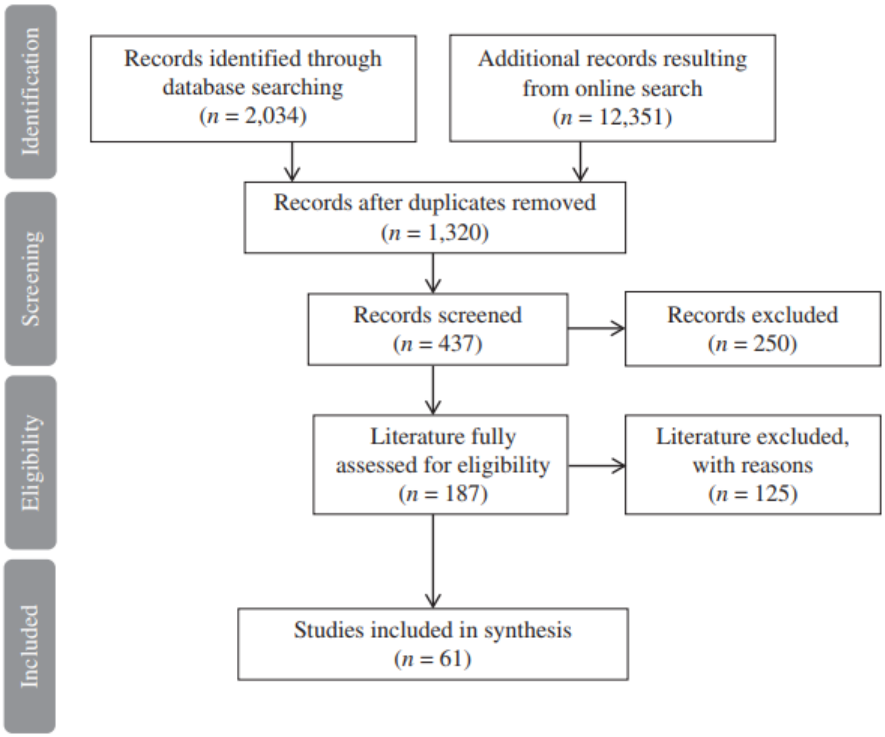


Figure 1. Flow diagram of systematic review process. Adapted from Moher et al. and the PRISMA Group.[27]

Analysis and theme development

The determination of major themes related to emerging trends in family caregiving encompassed the following steps: (1) familiarization of topics through reading key articles; (2) identification of significant topics; (3) validation of topic significance based on stage 2 search of the literature; (4) determination of topic relationship to 1 or more of the 6 core constructs of the life course perspective; (5) compilation and condensation of significant topics; (6) definition, examination, and revision of significant topics; and (7) classification of similar topics into themes. The results of the literature review and final themes are presented in the next section and summarized in Table 1.

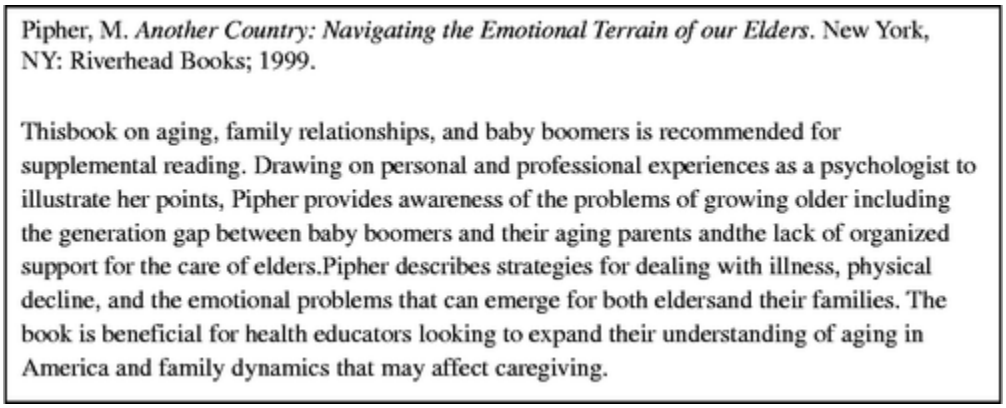
TABLE 1 MAY BE FOUND AT THE END OF THIS FORMATTED ARTICLE

Limitations

Despite the adherence to the PRISMA[27] approach to conducting and reporting literature reviews, it is possible that important articles were unintentionally overlooked.[29] It is recognized that there are likely numerous other articles that could have been relevant to this report. Additionally, theme development was conducted through the lens of the researchers. It is possible that there are alternative assessments or interpretations of the literature. Finally, this review was not intended to be a critical evaluation of the quality or robustness of study methodology. Instead, the literature presented here includes information related to broad themes related to how family caregiving will be affected by baby boomers.

Results

Overall, the search yielded more than 437 relevant publications. On review of abstracts of these sources, more than 187 books, dissertations, journal articles, reports, and other scholarly works were chosen to be studied in more detail and assessed for importance and eligibility. Upon evaluation, only 61 were included in this review (Figure 2). These sources were analyzed and used to develop the following emerging trends related to caregiving that will be distinct to older adults because of the uniqueness of the baby boomers and the time they are coming to age. Each section is devoted to one of the emerging trends, providing the background information and the rationale for each trend's importance. Additionally, an analysis of the themes in relationship to the life course perspective will be discussed (see Table 2).


Pipher, M. *Another Country: Navigating the Emotional Terrain of our Elders*. New York, NY: Riverhead Books; 1999.

Thisbook on aging, family relationships, and baby boomers is recommended for supplemental reading. Drawing on personal and professional experiences as a psychologist to illustrate her points, Pipher provides awareness of the problems of growing older including the generation gap between baby boomers and their aging parents andthe lack of organized support for the care of elders.Pipher describes strategies for dealing with illness, physical decline, and the emotional problems that can emerge for both eldersand their families. The book is beneficial for health educators looking to expand their understanding of aging in America and family dynamics that may affect caregiving.

Figure 2. Supplemental reading suggestion.

TABLE 2 MAY BE FOUND AT THE END OF THIS FORMATTED DOCUMENT

Increasing use of digital technology for information gathering and support

Baby boomers will be more technologically knowledgeable, experienced, and advanced than previous generations. Technologies like personal computers, tablets, cell and smart phones, MP3 players, Global Positioning Devices (GPS), game consoles, digital cameras, web cameras, and software applications (“apps”) were nonexistent or in their infancies during prior aging generations. Most baby boomers have some experience with one or more of these technologies at work or at home.[30] As baby boomers age, technology will provide opportunity to address some of the most challenging issues facing care recipients and care providers.

According to the Family Caregiver Alliance,[31] "As baby boomers age, the use of technologies to manage their own care and the care of others will increase. Increasingly, baby boomers will demand technology solutions to make their lives easier and this extends to help with caregiving."(¶4) Family caregivers understand how they can benefit from using technology to support their caregiving. They report saving time, making caregiving easier logistically, increasing feelings of being effective, reducing physical demands on their body, reducing their feelings of depression, and reducing stress as the primary benefits of technology.[32] There are also benefits to their care recipient, including feeling safer, helping the recipient be more independent, and feeling more connected to others.[32]

Baby boomers will have access and knowledge related to health, well-being, and caregiving at the tip of their fingers through the Internet. Personal computers are increasingly being used to enable individuals to share information about health.[33,34] According to a recent report,[34] 29 million or approximately 38% of baby boomers are heavy Internet users, with 8 million (~10%) of them spending over 20 hours a week online. The Pew Research Center's[30] Internet & American Life Project explored how different generations use the Internet. Among baby boomers, they found differences in Internet use between younger boomers (born between 1955 and 1964) and older boomers (born between 1946 and 1954). Approximately 81% of younger boomers and 76% of older boomers go online. The 5 most common online activities for younger boomers were using e-mail, using a search engine, looking for health information, getting news, and making travel reservations. Similarly, the 5 most common online activities for older boomers were using e-mail, using a search engine, looking for health information, getting news, and buying a product. Other popular activities for both boomer groups were online banking, using classifieds, and listening to music. The majority of family caregivers report that they have searched the Internet for information related to caregiving.[32] Popular sources of online information include medical websites like WebMD or the Mayo Clinic, government websites like Medicare or the Administration on Aging, and caregiving websites including forums.

Social media sites can also be useful tools for baby boomers in a caregiving situation.[35] Caregivers and care recipients can vent about a particularly stressful day, keep family and friends informed, or find volunteers when in need of help. Social media can also be informative by joining Facebook groups concerning caregiving or chronic disease or reading the latest caregiving-related news through Twitter. Social network sites such as Facebook, MySpace, or LinkedIn are more likely to be used by younger baby boomers. However, between 2008 and 2010, baby boomers had a dramatic growth in social network site use, increasing from 20% to 50% among younger boomers and from 9% to 43% among older boomers.[30] This growth is likely to continue as more tech-savvy boomers turn 65 years old and become caregivers.

Tools like "apps" are beginning to play a larger role in supporting those diagnosed with a chronic illness and caregivers. Health-related apps are some of the most popular downloaded apps, so it should come as no surprise that apps for caregivers and disease management are becoming widely available.[36] Caregiver apps such as Caregiver's Touch, CareZone, Caring Ties, Mobicare, or RX Personal Caregiver provide a variety of features including scheduling, medication tracking, journaling, personal and medication information, reminders, and much more. Many of these caregiver apps allow information sharing among family members so that they can coordinate care as well as security features to protect private information. Furthermore, apps are

available to help those with the chronic disease track symptoms and better manage their health. Every Dose, Every Day for HIV, Diabetes Pilot, Glucool Diabetes, or OnTrack Diabetes for diabetes, Livestrong for cancer, and BloodPressure+Pulse Grapher for hypertension are examples. Free and low-cost apps are available from the application marketplace of most mobile devices or on the Internet.

Online communities and forums are one of the oldest and most popular tools for caregiver and chronic disease support.[37] They provide a place for individuals who have similar experiences to interact and communicate. Typically these communities and forums allow individuals to "ask questions, give answers, exchange messages and get support from others"[38 (¶1)] who understand exactly what he or she is going through. A baby boomer can find online communities and forums on everything from dementia to cancer to incontinence. Many times these online communities and forums are the only way individuals can receive support because of driving restrictions, full-time jobs, rural living, and unavailability of local support services.[39]

Along with direct support for caregivers and care recipients, health care and health interventions will be more technologically orientated. Telemedicine, including telehealth, has grown tremendously. The World Health Organization[40] has adopted the broad description of telemedicine and telehealth as

> The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.[(p9)]

Telemedicine can help health care providers deliver, monitor, track, and coordinate the health of the caregiver or care recipient. The growth and promise of telemedicine could play a key role in controlling costs, improving access, and simplifying communication and paperwork, while also providing high-quality care.[41]

Recent findings suggest that telehealth has implications for both the caregiver and the person trying to manage their chronic disease. According to Glueckauf and colleagues,[42] telehealth interventions offer the following benefits: (1) expand access to health care information and services; (2) improve quality of intervention services; (3) increase adherence to health-promoting intervention strategies through frequent, repeated contacts; (4) enhance transfer of training and permanence of effects; and (5) reduce the escalating costs of specialty services. In a review of caregiver telehealth studies, 18 of the 25 programs investigated had a positive effect on key caregiver health and psychosocial outcomes such as improved sleep, decreased distress or depression, and improved caregiver function or quality of life.[43] Additionally, a literature review to determine the value of telemedicine in the management of 5 chronic diseases including asthma, chronic obstructive pulmonary disease, diabetes, heart failure, and hypertension found that most of the randomized control trials included in the study reported "favorable" effects such as improvement in quality of life, reduced emergency department visits and hospitalization, and lower mortaility.[44]

Through the lens of the life course perspective, we can make several observations regarding technology use and baby boomers in a caregiving situation. First, the baby boomer cohort is aging during a time of great technology development and advancements. Technology and the availability of technology have increased dramatically during their life span. Life course theory recognizes that baby boomers are situated in a specific time and place and that individuals in this cohort experienced the emergence of the Internet as an everyday technology. Previous generations of family caregivers did not have this luxury available to them. Second, as seen in the Pew Research Center's Internet & American Life Project,[30] there are differences in Internet use between younger boomers and older boomers. Younger baby boomers may be tech savvy because of their educational or work experiences. However, older baby boomers may not have acquired the same savviness and therefore be less versed in technology use. The timing of the Internet's arrival in the life trajectory would have a differing effect on each group within the baby boomer cohort. Finally, the use of technology for information and support is contextual and may be contingent on when in the individual's life he or she becomes a caregiver or care receiver. The choice by a baby boomer to use technology may be impacted by specific life stages and events such as being a parent and having children in the home, moving to an unfamiliar area to be nearer to care recipient, or ceasing full-time work (i.e., retirement, quitting, or moving to part-time) to provide care. This implies that the intersection of caregiving and movement along the life trajectory might prove useful to understand individual agency and technology use.

More diversity among caregivers and care recipients

The next generation of older adults will be more diverse than ever before.[2] The varied composition of baby boomers will impact the stereotypical caregiver profile and traditional support for caregivers and care recipients. The ensuing information pertains to the diversity of baby boomers and the impact on caregiving in terms of race/ethnicity, gender, and sexual orientation.

Race and Ethnicity

In terms of race, the portion of the older population that is white is projected to decrease by 10% between 2010 and 2050 and all other racial groups are projected to increase.[2] In 2000, 16.3% of persons 65 years and older were members of racial or ethnic minority populations such as African American (not Hispanic), Asian or Pacific Islander (not Hispanic), American Indian or Native Alaskan (not Hispanic), Hispanic (any race), or 2 or more races.[45] By 2050, there will be approximately 20.2 million Americans 65 years or older who belong to a racial or ethnic minority.[45] Among those aged 65 years and over in 2050, 12% are projected to be black, 9% are projected to be Asian, and 20% are projected to be Hispanic.[2]

A more diverse aging population will create diverse caregiving experiences based on cultural backgrounds. Differing values and beliefs about aging, disease and disability, family, and caregiving will emerge as the aging population of the United States becomes more diverse.[46] The need to understand caregivers and care recipients who come from traditional minority populations will arise.

Disparities in chronic disease occur by race and ethnicity, with minorities having a higher prevalence of heart disease, cancer, and stroke and multiple risk factors for these conditions.[47] Racial and ethnic minorities are 1.5 to 2.0 times more likely than whites to have most of the major chronic diseases.[48] American Indian and Alaska Native adults are twice as likely as white adults to have diabetes.[49] The incident rate of cancer among African Americans is 10% higher than among whites.[49] African Americans and Latinos are also approximately twice as likely to develop diabetes as white people are.[49] In addition, around 2 million Hispanics/Latinos have asthma and the incident rate of asthma is 28% higher among African Americans than among whites.[49] The disparities between white and African Americans are striking when examining cardiovascular disease. African American women have a higher prevalence than white women for 4 related conditions—heart failure, hypertension, coronary heart disease, and stroke.[49] African American men have a higher prevalence than white men for 3 of the 4 conditions—heart failure, hypertension, and stroke.[49]

Moreover, racial and ethnic minorities are more likely than whites to have significant risk factors for major chronic disease.[47] For example, African Americans are more likely than whites to be overweight or obese (69% compared to 54%, respectively), a major risk factor for heart disease, diabetes, cancer, and arthritis.[49] Data also show differences in smoking rates, another significant risk factor, by race and ethnicity. American Indians/Alaska Natives are more likely than whites to smoke.[49] However, African Americans, Hispanics, and Asians are all less likely than whites to smoke.[49] These data could suggest that baby boomers of color will be more likely than their white counterparts to need a caregiver because they are disproportionately affected by chronic disease.

In 2009, three fourths of family caregivers were white, 1 in 10 was Hispanic, and 1 in 9 was African American.[14] The National Alliance for Caregiving (NAC) and AARP[50] provided great insight into key differences between white, African American, Hispanic, and Asian American caregivers in their report, *Caregiving in the U.S*. African American caregivers are more likely than white caregivers to be caring for someone single under the age of 50. Asian American caregivers and white caregivers report higher household incomes than African American caregivers or Hispanic caregivers, which may explain why Asian American caregivers are least likely to say that caregiving is a financial hardship and African American caregivers are more likely to say that caregiving is a financial hardship. Hispanic caregivers are more likely than white caregivers to live with the person they care for. Hispanic and African American caregivers spend more time caregiving (approximately 30 hours per week) than white caregivers.

Other studies have found significant differences between minority caregivers and white caregivers. Pinquart and Sörensen[51] found that minority caregivers were more likely to receive support from family members and friends, provided more care than white caregivers, and have stronger filial obligation beliefs than white caregivers. Pinquart and Sörensen[51] also reported that minority caregivers have worse physical health than white caregivers. However, African American caregivers have lower levels of caregiver burden and depression than white caregivers, whereas Hispanic and Asian American caregivers are more depressed than white caregivers. The National Academy on an Aging Society[52] found that among care recipients, whites are the most likely to receive help from their spouses, Hispanics are the most likely to receive help from their

adult children, and African Americans are the most likely to receive help from a non-family member.

A more racially and ethnically diverse aging population will also affect the typical average age and marital status of caregivers. Hispanic caregivers tend to be younger than white and African American caregivers.[50] Hispanic caregivers are also less likely to be married than white caregivers but more likely to be married than African American caregivers.[50] African American caregivers are more likely to be under the age of 50 and single than white or Hispanic caregivers.[50]

There are also important differences in minority and white caregivers coping mechanisms and use of formal support services. NAC and AARP[50] found that though many caregivers report praying as a way to cope with the demands of caregiving, African American and Hispanic caregivers use this method of coping significantly more than white or Asian American caregivers. African American caregivers are also more likely to say that they cope with caregiver stress by talking to a professional or spiritual counselor. Several studies demonstrated that minority caregivers make limited use of formal support services.[53,54] Scharlach and colleagues[46] found that there are several themes related to why minority caregivers refuse support services including: "(1) reliance on informal support networks rather than formal services; (2) lack of knowledge of available services; (3) mistrust of formal service providers; and (4) unavailability of culturally appropriate services."(p143)

Gender

In 2009, the majority of care recipients were female (62%).[14] This could be explained by the fact that life expectancy for females is longer than males. The average life expectancy for a 65-year-old American is 17.7 years for a male and 20.3 years for a female.[55] That is almost 4 more years of life expectancy compared to the prior generation at the same age.[55] Gender demographics for boomer care recipients will likely not be affected because life expectancy for women have consistently been longer than men.

Women also currently provide the majority of informal care to family members, although the number of male caregivers is increasing.[14] The societal trend toward smaller families and more working women means that women may be less available to take on the role of family caregiver. This may suggest that more males will fulfill the role in the future. Between 1996 and 2011, the percentage of men among adults caring for a family member with Alzheimer's disease or dementia doubled, from 19% to 40%.[56] Half of Asian American caregivers are male.[14] This has certain implications because men often respond to and handle caregiving differently.[57] Male caregivers cope with caregiver stress more successfully and are more reluctant to seek formal support than female caregivers.[58]

Sexual Orientation

Baby boomers will be the first generation of lesbian, gay, bisexual, and transgender (LGBT) people to live openly gay lives in significant numbers.[59] Estimates suggest that there are 1.4 to 3.8 million LGBT people 65 years and older in the United States, and by 2030 that number will

double to 3.6 to 7.2 million.[60] This has an impact on caregiving because people in the LGBT community "are more likely to be single, childless, and estranged from biological family. …"[59] (p7) This will leave LGBT baby boomers dependent on their family of choice rather than blood relatives. Friends and significant others of LGBT baby boomers may face stigma, discrimination, and legal issues while participating in a caregiving situation.[61]

Using a life course perspective, we can understand the impact of greater diversity on baby boomers and family caregiving. Baby boomers will be affected differently by social divisions, social and kinship networks, cultural norms, and structural inequalities, which will, in turn, impact their response to caregiving. A relevant notion in the life course perspective is *human agency*. According to Hutchison,[25] human agency is related to how "the individual life course is constructed by the choices and actions individuals take within the opportunities and constraints of history and social circumstances."(p20) Baby boomers who feel filial responsibility will consider the caregiver role a natural duty; thus, they will direct their own life course in response to age norms and family context. Another important concept related to diversity in the life course perspective is *cumulative advantage–disadvantage*. Dannefer[62] defines cumulative advantage–disadvantage as the "systematic tendency for interindividual divergence in a given characteristic (e.g., money, health, status) with the passage of time."(p327) This is relevant to caregiving because there will be individual social differences in opportunities and resources for individuals who need a caregiver or become a caregiver. We must consider the intersections between gender, race and ethnicity, and sexual orientation in order to understand the impact of greater diversity on baby boomer caregivers.

Strained finances and loss of entitlements

Many baby boomers will face tough economic times with strained finances and the loss of government entitlements. According to Meschede et al.,[63] "the costs associated with getting older are rising while the resources traditionally available to pay for the 'golden years' are becoming ever more tenuous."(p2) Over 23 million Americans over the age of 60 years were economically insecure and living in poverty in 2012.[64] A single catastrophic life event can make many who are making ends meet financially vulnerable. Older Americans are typically on a fixed income with limited ability to recoup lost finances or recover from large expenses. Among those most at risk for economic insecurity are women and minorities. Almost half of single female seniors are economically insecure and over half of minority seniors do not have the resources required to support themselves over the remainder of their lives.[62]

Baby boomers are less likely than previous generations to have pensions and benefit plans provided by their employers.[62] Pension plans often provide a fixed monthly income for life that seniors can rely on regardless of the economy. Currently, if retirement plans are offered, they are grossly underfunded. Most employers have shifted the investment risk of retirement onto the employee. Regrettably, this means that many baby boomers will depend on Social Security as their primary source of income throughout their retirement.

The baby boomers have been aptly nicknamed the "entitled" generation because they were the first to have government programs available from birth to support the aging and poor.[65] Unfortunately, entitlement and social programs offered through the federal government,

like Social Security and Medicare, are unsustainable in their current form. The number of people using programs is growing quickly while the number of workers paying taxes into the system is declining. To illustrate, the dependency ratio is the number of persons in the "dependent ages" (younger than 18 years and above 64 years) per 100 persons in the "independent ages" (ages 18–64 years). The dependency ratio is expected to increase from 67 to 85 (per 100) between 2010 and 2050.[66] The dependency ratio is an indicator of the potential burden of an aging population. An aging population can strain government budgets, which could mean that many seniors will not have the full entitlements they were promised. Without changes to the current system, it is estimated that by 2036, Social Security and Medicare will be taking in only enough money to pay a portion of promised benefits to retirees.[67]

Poverty and outliving one's resources will be a reality for many older Americans in the future.[62] It is estimated that almost three fourths of all senior households will "find themselves in an economically precarious position with little or no buffer against financial ruin should they be faced with an unexpected illness or other traumatic life event."[62 (p2)] Poverty among the elderly is supposed to be a problem resolved through Social Security. However, in 2008, nearly 1 in 6 older adults was poor or near poor, with an income below 125% of the federal poverty level.[68] Unfortunately, poverty among the elderly is frequently mismeasured and underestimated. Using the Supplemental Poverty Measure, recent census data showed that less than 10% of older adults were living in poverty but once medical care and other costs of living are factored in, the number of people 65 years and older living in poverty jumps to 16.1%.[69]

Chronic disease and caregiving are a serious threat to financial stability in older age. Vast amounts of money out of patients' pockets are spent for the treatment of chronic diseases. Average health care costs for someone who has one or more chronic conditions is 5 times greater than for someone without any chronic conditions.[70] Direct medical costs and indirect costs vary from chronic disease to chronic disease.[48] Additionally, many caregivers make sacrifices that compromise their financial and retirement security.[71] Almost 42% of caregivers pay more than $5000 a year in out-of-pocket expenses and almost 70% report making work accommodations.[72] Many caregivers reduce their hours at work, forfeit promotions and benefits, and miss opportunities for returns on 401(k) and other retirement benefits.[50] Some caregivers leave the workforce all together. For caregivers over age 50 years old who do leave the workforce, it is estimated that the lifetime income related losses include $116 000 in wages, $138 000 in Social Security, and $50 000 in pension benefits.[72] Another estimated suggest that caregivers lose close to $659 000 in lifetime earnings and benefits as a result of caregiving responsibilities.[73] Those lifetime earnings and benefits are necessary for their own independence and care in older age. Without this, they begin to lean on the next generation and a cycle of poverty and care can begin.

A life course perspective can help us understand future trends related to caregiving and the finances of baby boomers. First, most individuals pass "through several stages which tend to correspond with particular social and economic events, beginning with primary education in one's youth, moving through marriage, parenthood, and career advancement, and ending with retirement."[74 (p1)] Ideally, assets and wealth accumulate over a lifetime so that when a person retires, he or she can continue to live the lifestyle they are accustomed to. Unfortunately, the majority of the baby boomer cohort, and especially women and minorities, have not been able to

accrue the assets and wealth to secure a financially stable retirement. Second, there are a variety of factors that contribute to the risk of poverty and outliving resources in later life. Life events such as a major health problem or transitions like caregiving have shown to be a huge personal expense. Furthermore, the baby boomer cohort has experienced the erosion of employment based social benefits and government program so that "social risks have shifted from collective intermediaries—government, employers, large insurance pools—onto individuals and families."[75 (p252)] Third, as the baby boomers age and federal entitlement programs dissolve, many older adults will be faced with financial challenges. The interplay of human lives and historical time is an important theme in the life course perspective. Considering that baby boomers have benefited from government entitlements throughout their lives, they may have difficulty adapting to these benefits being less available to them in later life.

More complex care and care management

Chronic disease management requires collaboration between health care workers and the person with the disease as well as their caregiver to ensure that they have the knowledge, tools, and skills needed for management of chronic disease. The focus of chronic disease management is rarely on a cure but on slowing the progression and limiting functional limitations. Baby boomers and their families will be faced with the ongoing management of health and the complications that result from chronic disease.

Effective management of chronic disease requires a comprehensive and integrated approach to care. Unfortunately, our current health care system is complex and more suited to acute care rather than chronic disease management. According to Wagner[76]:

> Primary care practice was largely designed to provide ready access and care to patients with acute, varied problems, with an emphasis on triage and patient flow; short appointments; diagnosis and treatment of symptoms and signs; reliance on laboratory investigations and prescriptions; brief, didactic patient education; and patient-initiated follow-up. Patients and families struggling with chronic illness have different needs, and these needs are unlikely to be met by an acute care organization and culture. They require planned, regular interactions with their caregivers, with a focus on function and prevention of exacerbations and complications. This interaction includes systematic assessments, attention to treatment guidelines, and behaviorally sophisticated support for the patient's role as self-manager. These interactions must be linked through time by clinically relevant information systems and continuing follow-up initiated by the medical practice.[(¶2)]

Our current health care system is segmented, with very little communication between different sectors. Most individuals with chronic diseases are faced with multiple health care providers, specialists, and facilities to navigate. This makes the coordination of care time consuming and challenging. For this reason, individuals with chronic disease need emotional and physical support, which is often provided by their family and loved ones.

Family caregivers assume many different responsibilities in providing care and support for their loved ones.[11] This includes organizing multidisciplinary healthcare teams and locating

community resources. Most caregivers advocate for their family member with care providers and government agencies and coordinate the various health care professionals and service providers for the care recipient.[77] In addition to providing support, they often "influence a patient's psychological adjustment and management of the illness, adoption of behaviors that influence recovery, functioning and adherence to treatments."[78 (p41)] Growing evidence suggests that improving health care delivery for older adults with chronic disease may benefit their caregivers just as much as the patient themself.[79,80]

Family members are not only coordinating the professional care of their loved one but are also providing care themselves. Family caregiving traditionally consists of some personal care and household chores. The majority of caregivers help their loved one with at least one activity of daily living (ADL) such as getting in and out of bed, getting dressed, helping with bathing or showering, feeding, and toileting.[77] Many caregivers also assist with instrumental activities of daily living (iADL) such as transportation, housework, grocery shopping, meal preparation, and managing finances.[77] Though these remain typical tasks completed by caregivers, responsibilities have dramatically expanded because of chronic diseases. Many caregivers of individuals with chronic disease report "performing medical/nursing tasks of the kind and complexity once provided only in hospital"[(p10)] such as medication management including administering IVs and injections, wound care, operating specialized medical equipment, and physical or medical therapies or treatments.[77] Much of the advanced care provided is done with little to no training.[78]

The type as well as amount of care the caregiver provides is significant because it is directly related to levels of burden in the caregiver. Caregiver burden is described as a negative reaction to the impact of providing care on caregivers' social, occupational, and personal roles.[81] The average family caregiver spends 20 hours a week performing caregiver responsibilities and 13% provide more than 40 hours of care per week, including some who provide care around the clock.[14] Greater and more intense responsibilities produce greater physical, emotional, and financial consequences for family caregivers.[50] Papastavrou and colleagues[82] estimate that 68% of caregivers are highly burdened. With increases in responsibilities related to caring for someone with a chronic disease, burden is likely to increase.

To understand chronic disease management and baby boomers through the life course perspective, it is important to understand family. Even when services are available and accessible, few individuals look beyond themselves or close family members for help and support. Bengston and Allen[83] suggest that we "examine the unfolding history of intimate connections in families and the social context of such long-term relationships. …"[(p469)] The life course perspective proposes that human lives are interdependent, and the family is the primary focus. The interdependence of life trajectories of family members means that role transitions and family obligations influence each other. Due to increasing life expectancies, baby boomers will live much longer than their parents did. Generations before the baby boomers were less likely to care for aging parents or be dependent on their spouse or children because of less chronic disease and lower life expectancies. Family caregiving was once a nonnormative life event. For many baby boomers, caregiving will become a "normative influence on individual development."[84 (p101)] Furthermore, unlike their parents, many baby boomers moved far from the place of their birth, as did their children. In the context of family caregiving, many baby boomers will be providing or receiving care long distance.

Demand for public policies related to caregiving

Family caregiving has slowly gone from being mostly invisible, private affair to being recognized as the largest long-term care provider in the United States. Unfortunately, the benefit of family caregiving to society has not resonated with government officials and policy makers who need to understand the value of family caregiving to our health care and economic systems. Baby boomers are celebrated for their strong moral sense and are more empowered than previous generations of older Americans.[65] They will not sit back idly but press for changes that will create the services and support that will benefit them.

Traditionally, older adults have higher voter turnout rates than any other age group.[85] Most politicians court older voters as a reliable segment of the American electorate. If baby boomers remain as civic minded in their later years as they have been the rest of lives, they will be a voting powerhouse that few politicians will want to go up against.[86]

Now more than ever, the United States needs to develop responsible policies that address the needs of caregivers and care recipients. Historically, there have been several policies at the federal level to assist caregivers of older Americans, including (1) the Older Americans Act and XX of the Social Security Act; (2) tax policy including the Dependent Care Tax Credit and the Dependent Care Assistance Program; (3) the National Family Caregiver Support Program; and (4) the Family and Medical Leave Act.[87] These policies demonstrate an ongoing interest in helping family caregivers and supporting families. However, few caregiving policy initiatives have actually been passed into law or obtained any appropriations. According to Feinberg et al.[88]:

> …the National Family Caregiver Support Program (NFCSP), enacted under the Older Americans Act Amendments of 2000, along with respite care funded by Medicaid home and community-based services (HCBS) waivers and some state-funded family caregiver support programs, provide the bulk of public financing to support family caregiving.(p6)

Unfortunately, these limited policies do not cover the majority of needs of caregivers and offer little assistance. Baby boomers will not be satisfied with the current policies in place that are supposed to support family caregiving.

There are several ways that public policy could improve the lives of family caregivers and those they care for. The Family Caregiver Alliance[89] included in their National Policy Statement the following recommendations for government officials concerning caregiving: (1) authorize and fund a National Resource Center on Caregiving; (2) modernize Medicare and Medicaid to better support family caregivers; (3) commission an Institute of Medicine study on family caregiving; (4) provide adequate funding for programs that assist family caregivers; (5) expand the Family and Medical Leave Act and other paid leave policies; (6) promote policies that expand the geriatric care workforce; (7) enact legislation providing refundable tax credits for family caregivers and employers; and (8) strengthen Social Security by recognizing the work of family caregivers. These recommendations could be beneficial to government officials when determining how to support boomers in a family caregiving situation.

From a life course perspective, the baby boomer cohort came of age in a period when the United States was experiencing radical shifts in beliefs regarding politics, war, and social justice. They witnessed some of the greatest social revolutions in the country's history including the women's and civil rights movements as well as the Vietnam War. These historical circumstances shaped many baby boomers identity as civic minded and activists. Secondly, baby boomers are, as a social and generational cohort, often characterized as narcissistic, individualistic, and demanding. Baby boomers will engage in politics with clear self-interest in mind and only on issues that directly affect them. As mentioned previously, baby boomers are used to entitlements and governmental support. Baby boomers with chronic diseases will likely depend on the government for their health care needs, and baby boomer caregivers will feel that the government has an obligation to support them considering the great sacrifices they are making by providing care to a family member.

Balancing work, family, chronic disease, and caregiving

For many baby boomers, caregiving will occur while they are still employed and have dependent children. For caregivers, the combination of work, family, and caregiving responsibilities will likely be a great source of struggle. For care recipients, the inability to work or support a family while dealing with a loss of independence related to chronic disease may be agonizing. Caregiving may cause new conflicts to develop or aggravate existing conflicts that can be detrimental to the work and/or family. Caregiving often comes at a great cost to the individual, family, employer, and society.

Many baby boomers will choose to delay retirement or return to the workforce after retirement for financial reasons or for the health insurance and benefits.[93] It is estimated that by 2050, 19.6 million American workers or 19% of the total U.S. workforce will be 65 years or older.[93] Chronic disease, the decrease in economic security, loss of pensions, and reduction of entitlement programs while trying to support their families could force many baby boomers to work well past the time they intended. This increases the length of time and the opportunity for baby boomers to have to balance work, family, disease management, and caregiving.

Chronic disease has a negative effect on employed individuals. The relationship between having a chronic disease and job performance is well documented. According to Lerner and colleagues,[94] work impairment and limitations with respect to physical or psychosocial demands are common. Furthermore, workers with chronic disease are more likely to miss work than peers without a chronic disease. This is even more of an issue with age because older workers with multiple chronic conditions miss 1.5 times more workdays than younger workers who also have more than one chronic condition.[95] Individuals with a chronic disease lose an estimated $36 billion yearly in wages.[96]

Caregiving has a negative effect on employed caregivers. Caregiving effects their work life in the following ways: (1) “distractions at work that reduce their presenteeism and satisfaction with work products, (2) unplanned absences from work, (3) increasing dependence on co-workers to help with unfinished projects and absences, (4) lack of personal time outside of work, and (5) health effects.”[97 (p14)] Many caregivers will have to modify their work schedules, including

leaving early and taking time off from work. Some caregivers will be forced to take a leave of absence, move from full-time work to part-time work, or give up work entirely.[50]

Caregiving also cost employers. It has been found that caregiving cost employers approximately $13.4 billion per year nationally.[98] This is a result of reduced productivity, lost time, and replacement costs for employees who have left the workplace.[97] It is also related to the poor health of the caregiver. The cost of medical care among caregivers is approximately 8% higher than that of non-caregivers overall.[98] This is attributed to the depression, diabetes, hypertension, and pulmonary disease as well as participation in risky health behaviors such as smoking and drinking that employees providing care are more likely to report than their non-caregiving coworkers.[98]

Baby boomers are frequently referred to as the "sandwich" generation because they are currently the cohort squeezed in between caring for their children and their elderly parents.[99] Currently, about 1 in 7 middle-aged adults provides financial support to both an aging parent and a child.[100] The most significant issue that arises from this situation is that the caregiver must find "the time, energy, and resources to balance the competing demands of the needs of aging parents, and the needs of dependent children.…"[101 (p53)]This conflict causes a great deal of stress, guilt, as well as fear of disappointing one or the other.

Using a life course perspective, we can understand the issue of balancing work, family, health, and caregiving for baby boomers. As a cohort, baby boomers had different opportunities for education, work, and family life than previous generations. Baby boomers are far more likely than previous generations to have earned a college degree, held a white-collar job, and, for women, to be employed outside the home.[18] Additionally, they delayed childbirth.[15] These generational markers altered the trajectories for many baby boomers toward simultaneous, demanding roles—something previous generations did not have to balance to the same extent. A life event or transition like a chronic disease diagnosis or caregiving can add to existing or create new marital or professional difficulties.

Discussion

The baby boomers will dominate the national landscape and reshape cultural, political, and economic beliefs about aging. This article sought to provide a comprehensive review of emerging trends related to family caregiving and baby boomers using the life course perspective. Guberman and colleagues[102] stated that "knowledge of baby boomer caregivers remains limited and fragmented."(p211) To the best of our knowledge, this study is the first to provide a review of the generational impact of the baby boomers on family caregiving using the life course perspective. Examining the literature related to family caregiving and baby boomers through a life course perspective offers a unique and more complete understanding of emerging trends by providing context. Mills[24] stated, "Neither the life of an individual nor the history of a society can be understood without understanding both."(p3) We cannot comprehend the baby boomer impact on family caregiving without examining their shared past. The review included literature published between May 2000 and August 2013. Overall, findings suggest that there will be 6 significant trends that will emerge from the baby boomer generation as caregivers and care recipients, including (1) increasing use of digital technology for information gathering and

support, (2) more diversity among caregivers and care recipients, (3) strained finances and loss of entitlements, (4) more complex care and care management, (5) demand for public policies related to caregiving, and (6) balancing work, family, chronic disease, and caregiving.

The future of technology and caregiving is a wide, expanding horizon. It is likely that rapid changes in technology will continue and different opportunities available to help and support family caregivers and care recipients will be revealed over time. The field of telehealth and telemedicine are quickly becoming commonplace for health care organizations to utilize as are the use of cellular phone apps. Baby boomers will have the choice to embrace these technologies and the possibilities they provide to them.

Given the statistics on the diversity of baby boomers, the traditional caregiving scenario may change. Currently, the typical caregiver is a white married women in her 40s (average 49.2 years of age).[14] The typical care recipient is a white widowed women in her 60s (average 69.3 years of age).[14] As baby boomers age, the traditional caregiver will be more likely to be male, younger, and single and the traditional care recipient will be more likely to be a person of color, married, and younger. The diversity of baby boomers will make apparent that "caregiving experiences, care-related values and beliefs and care practices differ.…"[45 (p148)] In the coming years, our understanding of diverse family caregiving experiences and perspectives will only increase as more baby boomers are diagnosed with chronic disease and need caregivers or become caregivers themselves.

The potential for many baby boomers, especially women and minorities, to experience tough economic times as they age is great. According to the life span development perspective,[103] "Each major period of life has its own developmental challenges and accomplishments, and that adaptive processes are at work within all periods of the life span."[(p39)] Chronic diseases and caregiving have both shown to be a huge personal expense. As the baby boomers age and take on the responsibility of caregiving or needing care themselves, many will be at risk for poverty and outliving resources in later life.

As more baby boomers age and develop chronic diseases, they and their caregivers will be faced with the difficult task of care management and navigating a segmented health care system. Caregiving is a more complicated and precarious experience than ever before. Baby boomers with chronic disease will have to seek help managing their complex health needs. Many boomer caregivers will face overwhelming stress and burden as the tasks related to chronic disease management increase and become more complicated. Due to the nature of chronic disease, caregiving may be over an extended period of time, adding to the already challenging task of chronic disease management.

A federal policy agenda related to family caregiving is greatly needed. The civic-mindedness and sheer number of baby boomers will make them a powerful force. There is little doubt that baby boomers will be active in local, state, and federal advocacy efforts. They will demand that elected officials develop public policy and funding priorities that benefit them, including support for those among them who provide care to a family member or need care themselves.

Baby boomers will often be caught between managing the needs of their family, demands of work, and caregiving. The likelihood that baby boomers will work past the traditional retirement age is great. This has serious implications for those who are struggling with the responsibilities of caregiving or needing care and raising children. Employers will have to be more cognizant of issues related to an aging workforce especially employees who are family caregivers or struggling with a chronic disease.

Translation to Health Education Practice

Family caregiving is challenging and wrought with personal, financial, physical, and emotional sacrifices. A growing body of evidence indicates that disease education and caregiver support programs can partially mitigate the stress and burden brought on by family caregiving.[104] According to the life course perspective, the potential for a positive as well as a negative caregiving experience may depend on moderators such as "external conditions that support or undermine their abilities to meet the demands of the situation."[83 (p105)] One moderator is interventions that include health education. Currently, our society depends on families to provide care for members with chronic disease but does little to teach (1) people with chronic disease how to manage their illness themselves or (2) caregivers how to provide care and get support in this stressful role. Health education can offer caregivers and care recipients the information, access to resources, and support they require to be successful.

The following takes into consideration the aforementioned trends in caregiving and discusses the role health education can have in informing and supporting baby boomers who are involved in family caregiving. The seven areas of responsibility for certified health education specialists[105] were used as a guide to determine the knowledge and skills health educators should have to support baby boomers.

Use of digital technology

According to Hahn and Nicholson,[106] "Health educators should investigate in what areas the computer can help, in what areas use of computers may prove counterproductive, and the proper place of computers in education."[(p65)] For example, it may be appropriate to use online surveys for younger baby boomers because they are, for the most part, tech savvy. However, older boomers may need the option of traditional paper surveys because a large portion is not familiar with technology (Responsibility III). Health educators will need to be knowledgeable of research and evaluation procedures that use technology (Responsibility IV). Apps and other digital technology should be considered an appropriate method for performing needs assessments, implementing health education, conducting evaluation, and communicating health information (Responsibilities I, III, IV, and VI). Health educators will need to be able to help baby boomers face an overload of information and difficulties determining the quality of information available through the Internet (Responsibilities VI and VII).

More diversity among caregivers and care recipients

Health education will need to be appropriate for a variety of audiences. Assessing, planning, and implementing health education for baby boomers must include various approaches based on the

individual and/or community of caregivers and care recipients (Responsibility I). Needs assessments will be an absolute necessity and critical part of program planning to determine health related data specific to certain populations (Responsibilities I and II). Health education information, strategies, interventions, and programs must meet the diversity standard of being appropriate, accessible, acceptable, and adaptable[107] and health educators will need to be culturally competent (Responsibilities III and VII). It may be helpful for all health educators to participate in cultural competency trainings in preparation for working with racially and ethnically diverse individuals and communities. Haber[108] offers several areas for health educators to focus on when working with culturally diverse older populations. He recommends increasing trust and communication, being aware of different beliefs regarding certain health content areas (i.e., cultural traditions that influence diet), recognizing the value of social support, and being familiar with nontraditional medicine or healing practices. Data gathering instruments and survey techniques may need to be adjusted to be appropriate (Responsibility IV). Health education planning will need to involve people from and organizations that serve a variety of diverse populations (Responsibilities II and V). When serving as a resource person, health educators must tailor health messages to diverse target audiences (Responsibility VI).

Strained finances and loss of entitlements

Health educators will need to be familiar with the economics of aging and caregiving. Needs assessments may need to include information pertaining to income and poverty (Responsibility I). Health education strategies, interventions, and programs will have to consider financial cost as a major barrier to participation (Responsibility I). For example, this may include recognizing that although the program or intervention is free or low cost, caregivers may need to pay someone to watch their loved one while they participate. Partnering with organizations that care for older adults and who would be willing to provide free respite may be an option (Responsibility II). Securing fiscal resources and financial support for health education programs may lower cost for participants (Responsibility V). Additionally, while serving as a resource person, health educators should be aware of federal, state, and local sources of financial support for caregivers (Responsibility VI). Communicating and advocating for health and health education may include developing policies that promote financial support for caregiving (Responsibility VII).

More complex care and care management

Educational and supportive interventions directed at helping patients to change risky behaviors or become better self-managers is growing.[109] These interventions will be excellent opportunities for health educators to apply their knowledge and skills of chronic disease. Effective interventions will emphasize health education and the acquisition of skills as well as bolster the person's motivation and self-efficacy. This approach encourages independence and lessens the burden on family caregivers. Marks et al.[110] offer suggestions for health educators on how to enhance interventions in chronic disease with an emphasis on self-efficacy. Marks and colleagues[110] focus on self-regulation and an individual's capacity to manage their chronic disease. Their suggestions are summarized in Table 3 and should be considered by health educators when planning health education for individuals with chronic diseases and their family caregivers.

Table 3. Summary of primary characteristics of successful self-efficacy-enhancing strategies for people with chronic diseases and coordinating certified health education specialist's responsibility.[110]

1. Use a variety of learning strategies, including lectures, discussions, brainstorming, demonstrations, goal setting, contracting, modeling, mental practice, homework, recall-enhancing methods, workbooks, texts, and videotapes, and provide mutual aid and support. (Responsibilities II and III)
2. Involve significant others, such as spouse or family members, and encourage collaboration with other health care providers and self-efficacy of caregivers. (Responsibility II)
3. Foster self-management of exercise, food selection, weight control, fear, pain, depression and anxiety, and related self-monitoring strategies in small steps. (Responsibilities III and VI)
4. Apply encouragement, persuasion, and direct or indirect support for the desired changes. (Responsibility III)
5. Foster self-appraisal of emotional and physiological responses, decision making, and the necessary knowledge, skills, and problem-solving ability to deal with disease-related issues across different domains. (Responsibility III)
6. Use trained educators, a detailed manual, and multicomponent teaching strategies with content drawn from both patients and practitioners. (Responsibilities II, III, and V)
7. Use both individual and small-group intervention approaches, especially collaborative and active participation strategies. (Responsibilities II and III)

Each individual with a chronic disease and their caregivers will have unique needs and challenges to be addressed. Health educators will need to be able to effectively assess these needs (Responsibility I) and plan interventions accordingly (Responsibility II). Using an ecological perspective may be helpful to understanding influences on the caregiver and care recipient that need to be addressed.111 More continuing education opportunities related to disease management need to be available. Health educators will also need to be knowledgeable on a number of chronic diseases and theory-based chronic disease management interventions (Responsibility VI). They may benefit from getting training or certification in health coaching or care management to better serve individuals and families dealing with complex care management. Revisions to health education curriculum to include aging and health and family systems/dynamics are recommended. Finally, health educators will need to be familiar with local, state, and federal resources related to specific chronic diseases that are available to individuals and their families (Responsibility VI).

Public policies related to caregiving

Health educators can play a very active role in public and social policy development that benefit those involved in family caregiving. Although quite old by academic literature standards, Steckler and Dawson[112] make relevant points on the relationship between health education and policy. They present five roles that health educators have in policy development. The first is about being a source of policy related information by identifying relevant policy issues and communicating them to consumers or other health educators (Responsibility VI). Second, health educators should be willing and able to provide technical assistance to policymakers by being a consultant or actually writing a policy (Responsibilities IV and VII). Thirdly, health educators should organize and bring together consumers and professionals in a variety of ways that promote good policy decision making at the local, state, and federal levels (Responsibility VII). Fourth, health educators should influence policy makers through participation in formal associations and professional organizations such as the Family Caregiver Alliance or the American Public Health Associations aging section as well as local and state human service

agencies (Responsibilities VI and VII). Finally, health educators can take direct policy action through political appointment or by running for public office (Responsibility V).

Balancing work, family, chronic disease, and caregiving

A focus on worksite wellness will provide health educators with an opportunity to apply their knowledge and skills related to chronic disease management and caregiving. Health educators will need to assess individual and worksite needs for health education related to caregiving and chronic disease management (Responsibility I). When planning and implementing health education strategies, interventions, and programs; health educators will need to consider the caregiver's and the care recipient's work and family commitments (Responsibilities II and III). Involving those in a caregiving situation in program planning may provide important information related to program development and implementation (Responsibility II). Evaluation of these programs will provide employers and health educators with important information related to health and wellness interventions (Responsibility IV). Additionally, health educators may want to take a more macrolevel approach to support family caregivers. Education may need to include the family as a whole rather than the person with the chronic illness or just the primary caregiver. According to Metlife and NAC,[98] employers have traditionally focused on benefits related to corporate eldercare service as their main response to employees who are caregivers. However, an "integration of eldercare services and wellness initiatives may open up new avenues of innovation to benefit both the employee and the employer."[97 (p23)] In addition, health educators may need to communicate and advocate for policies that allow more flexible work schedules for caregivers and those with chronic disease (Responsibility VII).

References

1. Administration on Aging. Projected future growth of the older population—older population as a percentage of the total population (Table 12). http://www.aoa.gov/Aging_Statistics/future_growth/future_growth.aspx#age. Published 2008. Accessed August 2013.
2. Vincent GK, Velkoff VA. The next four decades—the older population in the United States: 2010 to 2050. http://www.census.gov/prod/2010pubs/p25-1138.pdf. Published 2010. Accessed August 2013.
3. Gondo Y, Hirose N, Arai Y, et al. Functional status of centenarians in Tokyo, Japan: developing better phenotypes of exceptional longevity. J Gerontol A Biol Sci Med Sci. 2006;61:305-310.
4. Zikic L, Jankelic S, Milosevic D, Despotovic N, Erceg P, Davidovic M. Cross-sectional study on health and social status of the oldest old patients at home care in Belgrade. Adv Gerontol. 2008;21:614-624.
5. Crimmins EM, Beltrán-Sánchez H. Mortality and morbidity trends: is there compression of morbidity? J Gerontol B Psychol Sci Soc Sci. 2011;66:75-86.
6. King DE, Matheson E, Chirina S, Shankar A, Broman-Fulks J. The status of baby boomers' health in the United States—the healthiest generation? JAMA Intern Med. 2013;173(5):385-386.

7. Hwang W, Weller W, Ireys H, Anderson G. Out-of-pocket medical spending for care of chronic conditions. Health Aff. 2001;20(6):267-278.

8. Centers for Disease Control and Prevention. Percent of U.S. adults 55 and over with chronic conditions. http://www.cdc.gov/nchs/health_policy/adult_chronic_conditions.htm. Published 2009. Accessed August 2013.

9. Anderson G. Chronic Conditions: Making the Case for Ongoing Care. Baltimore, MD: John Hopkins University; 2004.

10. Vincent JA, Philipson CR, Downs M, eds. The Futures of Old Age. London, UK: Sage Publications; 2006.

11. Institute of Medicine. Retooling for an aging America. http://www.nap.edu/catalog/12089.html. Published 2008. Accessed August 2013.

12. Arno PS, Levine C, Memmott M. The economic value of informal caregiving. Health Aff (Millwood). 1999;18(2):182-188.

13. Gibson Am Houser MJ. Valuing the invaluable: the economic value of family caregiving, 2008 update. http://assets.aarp.org/rgcenter/il/i13_caregiving.pdf. Published 2007. Updated 2008. Accessed August 2013.

14. National Alliance for Caregiving and AARP. Caregiving in the U.S.http://assets.aarp.org/rgcenter/il/caregiving_09_fr.pdf. Published 2009. Accessed August 2013.

15. Department of Health and Human Services & Assistant Secretary for Planning and Evaluation. The Future Supply of Long-term Care Workers in Relation to the Aging Baby Boom Generation. Washington, DC: http://aspe.hhs.gov/daltcp/reports/ltcwork.pdf. Published 2003. Accessed August 2013 Department of Health and Human Services & Assistant Secretary for Planning and Evaluation.

16. Feldman RS. An introduction to life span development. In: Feldman RS, ed. Development Across the Lifespan. Upper Saddle River, NJ: Prentice Hall, Inc; 2010;2-40.

17. Howe N. What makes the boomers the boomers? http://www.governing.com/generations/government-management/gov-what-makes-boomers.html. Published September 2012. Accessed August 2013.

18. Freedman M. How Baby Boomers will Revolutionize Retirement and Transform America. New York, NY: ublicAffairs; 1999.

19. Court D, Farrell D, Forsythe JE. Serving aging baby boomers. McKinsey Q. 2007;4:102-113.

20. Hughes ME, O'Rand AM. The Lives and Times of the Baby Boomers. Washington, DC: Population Reference Bureau; 2004.

21. Morton LP. Segmenting publics: segmenting baby boomers. Public Relat Q. 2001;46(3):46-47.

22. Mannheim K. The problem of generations. In: Manneheim K, ed. Essays on the Sociology of Knowledge. NY: Oxford University Press; 1952;276-320.

23. Strauss N, Howe N. Generations: The History of America's Future, 1584–2069. New York, NY: William Morrow Paperbacks; 1991.

24. Mills CW. The sociological imagination. In: Macionis JJ, Benokraitis NV, eds. Seeing Ourselves: Classic, Contemporary, and Cross-cultural Readings in Sociology 7th ed. Upper Saddle River, NJ: Pearson Education Inc; 2007;1-5.

25. Hutchison ED. A life course perspective. In: Hutchison ED, ed. Dimensions of Human Behavior—The Changing Life Course 4th ed. Thousand Oaks, CA: SAGE Publications; 2007;1-38.

26. Green L. Understanding the life course: sociological and psychological perspectives. Cambridge, UK: Polity Press; 2010.

27. Moher D, Liberati A, Tetzlaff J, Altman DG, and the The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-analyses: The PRISMA Statement. PLoS Med. 2009;6:e1000097.

28. Schlosser RW, Wendt O, Bhavnani S, Nail-Chiwetalu B. Use of information-seeking strategies for developing systematic reviews and engaging in evidence-based practice: the application of traditional and comprehensive Pearl Growing. A review. Int J Lang Commun Disord. 2006;41:567-582.

29. Dickersin K. Publication bias: recognizing the problem, understanding its origins and scope, and preventing harm. In: Rothstein HR, Sutton AJ, Borenstein M, eds. Publication Bias in Meta-analysis—Prevention, Assessment and Adjustments. Chichester, UK: John Wiley & Sons; 2005;11-33.

30. Pew Research Center. Internet and American Life Project. http://pewinternet.org/~/media//Files/Reports/2010/PIP_Generations_and_Tech10.pdf. Published 2010. Accessed August 2013.

31. Family Caregiver Alliance. Digital technology for the family caregiver. http://www.caregiver.org/caregiver/jsp/content_node.jsp?nodeid = 2587 Published 2012. Accessed August 2013.

32. United Healthcare, National Alliance for Caregiving. e-Connected family caregiver: bringing caregiving into the 21st century. http://www.unitedhealthgroup.com/news/rel2011/eConnected_Family_Caregiver_Study_Jan_2011.pdf. Published 2011. Accessed August 2013.

33. Cline RJW, Haynes KM. Consumer health information seeking on the Internet: the state of the art. Health Educ Res. 2001;16(6):671-692.

34. Neilson BoomAgers. Introducing boomers: marketing's most valuable generation. http://boomagers.com/sites/boomagers/files/Boomers__Marketing%27s_Most_Valuable_Generation.pdf. Published 2012. Accessed August 2013.

35. Hamm MP, Chisholm A, Shulman J, et al. Social media use among patients and caregivers: a scoping review. BMJ Open. 2013;3:e002819.

36. Hasman L. An introduction to consumer health apps for the iPhone. J Consum Health Internet. 2011;15:322-329.

37. Colvin J, Chenoweth L, Bold M, Harding C. Caregivers of older adults: advantages and disadvantages of Internet-based social support. Fam Relat. 2003;53:49-57.

38. Aging Care. Caregiver support forum. http://www.agingcare.com/Caregiver-Forum. Published 2013. Accessed August 2013.

39. Glueckauf RL, Loomis JS. Alzheimer's caregiver support online: lessons learned, initial findings, and future directions. NeuroRehabilitation. 2003;18(2):135-146.

40. World Health Organization. Telemedicine: opportunities and developments in member states. http://www.who.int/goe/publications/goe_telemedicine_2010.pdf. Published 2010. Accessed August 2013.

41. Ludwig W, Klaus-Hendrik W, Duwenkamp C. Health-enabling technologies for the elderly: an overview of services based on a literature review. Comput Methods Programs Biomed. 2012;106(2):70-78.

42. Glueckauf RL, Sharma D, Davis WS. Telephone-based cognitive–behavioral intervention for distressed rural dementia caregivers: Initial findings. Clin Gerontol. 2007;31:21-41.

43. Glueckauf RL, Noel LT. Telehealth and family caregiving: developments in research, education, and health care policy. In: Toseland RW, Haigler DH, Monahan DJ, eds. Education and Support Programs for Caregivers: Research, Practice, Policy. New York, NY: Springer; 2011;85-105.

44. Wootton R. Twenty years of telemedicine in chronic disease management—an evidence synthesis. J Telemed Telecare. 2012;18(4):211-220.

45. Administration on Aging. A profile of older Americans: 2012. http://www.aoa.gov/AoARoot/Aging_Statistics/Profile/2012/2.aspx. Published 2012. Accessed August 2013.

46. Scharlach AE, Kellam R, Ong N, Baskin A, Goldstein C, Fox PJ. Cultural attitudes and caregiver service use: lessons from focus groups with racially and ethnically diverse family caregivers. J Gerontol Soc Work. 2008;47(1/2):133-156.

47. Adler NE, Rehkopf DHUS. disparities in health: descriptions, causes, and mechanisms. Annu Rev Public Health. 2008;29:235-252.

48. Partnership to Fight Chronic Disease. Almanac of Chronic Disease. http://almanac.fightchronicdisease.org/Home. Published 2008. Accessed August 2013.

49. National Center for Health Statistics. Health, United States. With Chartbook on Trends in the Health of Americans. Hyattsville, MD: National Center for Health Statistics; 2006.

50. National Alliance for Caregiving and AARP. Caregiving in the U.S. http://assets.aarp.org/rgcenter/il/us_caregiving_1.pdf. Published 2005. Accessed August 2013.

51. Pinquart M, Sorensen S. Differences between caregivers and noncaregivers in psychological health and physical health: a meta-analysis. Psychol Aging. 2003;18:250-267.

52. National Academy on an Aging Society. Caregiving: helping the elderly with activity limitations. http://www.agingsociety.org/agingsociety/pdf/Caregiving.pdf. Published 2000. Accessed August 2013.

53. Dilworth-Anderson P, Williams I, Gibson B. Issues of race, ethnicity, and culture in caregiving research: a 20-year review (1980–2000). Gerontologist. 2002;42:237-272.

54. Toseland R, McCallion P, Gerber T, Banks S. Predictors of health and human services use by persons with dementia and their family caregivers. Soc Sci Med. 2002;55:1255-1266.

55. Glei DA, Mesle F, Vallin J. Diverging trends in life expectancy at age 50: a look at causes of death. In: Crimmins EM, Preston SH, Cohen B, eds. International Differences in Mortality at Older Ages: Dimensions and Sources. Washington, DC: National Academies Press; 2010.

56. Alzheimer's Association. Alzheimer's disease facts and figures. http://www.alz.org/downloads/facts_figures_2012.pdf. Published 2012. Accessed August 2013 2012.

57. Pinquart M, Sörensen S. Gender differences in caregiver stressors, social resources, and health: an updated meta-analysis. J Gerontol B Psychol Sci Soc Sci. 2006;61:P33-P45.

58. Lin I, Fee HR, Wu H. Negative and positive caregiving experiences: a closer look at the intersection of gender and relationships. Fam Relat. 2012;61:343-358.

59. LGBT Movement Advancement Project, Services and Advocacy for Gay, Lesbian, Bisexual and Transgender Elders. Improving the lives of LGBT older adults. http://www.lgbtmap.org/file/improving-the-lives-of-lgbt-older-adults.pdf. Published 2010. Accessed August 2012.

60. Grant JM, National Gay and Lesbian Task Force. Outing age. http://www.thetaskforce.org/downloads/reports/reports/outingage_final.pdf. Published 2010. Accessed August 2013.

61. MetLife Mature Market Institute. Still out, still aging. https://www.metlife.com/assets/cao/mmi/publications/studies/.

62. Dannefer D. Cumulative advantage/disadvantage and the life course: cross-fertilizing age the social science theory. J Gerontol B Psychol Sci Soc Sci. 2003;58(6):S327-S337.

63. Meschede T, Sullivan L, Shapiro T. From bad to worse: senior economic insecurity on the rise. http://iasp.brandeis.edu/pdfs/2011/Bad_to_Worse.pdf. Published 2011. Accessed August 2013.

64. National Council on Aging. Economic security for seniors. http://www.ncoa.org/assets/files/pdf/FactSheet_EconomicSecurity.pdf. Published 2012. Accessed August 2013.

65. Roszak T. The Making of an Elder Culture. Gabriola Island, BC, Canada: New Society Publishers; 2009.

66. Age Works. Demographics of an aging population. http://www.ageworks.com/course_demo/200/module2/module2.htm. Published 2004. Accessed August 2013.

67. Social Security Administration. A summary of the 2013 annual report—Social Security and Medicare boards of trustees. http://www.ssa.gov/oact/trsum/. Published 2013. Accessed August 2013.

68. O'Brien E, Wu KB, Baer D. Older Americans in poverty: a snapshot (AARP Policy Brief). http://assets.aarp.org/rgcenter/ppi/econ-sec/2010-03-poverty.pdf. Published 2010. Accessed August 2013.

69. Short KS, U.S. Census Bureau. Who is poor? A New Look with the supplemental poverty measure. http://www.census.gov/hhes/povmeas/methodology/supplemental/research/SGE_Short.pdf. Published 2011. Accessed August 2013.

70. Centers for Disease Control and Prevention. Chronic Disease Overview: Costs of Chronic Disease. http://www.cdc.gov/nccdphp/overview.htm. Updated May 2013. Accessed August 2013.

71. Wakabyashi C, Donato KM. Does caregiving increase poverty among women in later life? Evidence from the Health and Retirement Survey. J Health Social Behav. 2006;247(3):258-274.

72. Feinberg L, Reinhard SC, Houser A, Choula R. Valuing the invaluable: 2011 update. The growing contribution and costs of family caregiving. http://assets.aarp.org/rgcenter/ppi/ltc/i51-caregiving.pdf. Published 2011. Accessed August 2013.

73. MetLife Mature Market Institute, National Alliance for Caregiving, Center for Long Term Care Research and Policy. Caregiving costs to working caregivers. http://www.aarp.org/content/dam/aarp/livable-communities/learn/health/metlife-study-of-caregiving-costs-to-working-caregivers-2011-aarp.pdf. Published 2011. Accessed August 2013.

74. Rank MR. Asset building over the life course. http://aspe.hhs.gov/hsp/07/PoorFinances/LifeCourse/. Published 2008. Accessed August 2013.

75. Hacker JS. Privatizing risk without privatizing the welfare state: the hidden politics of social policy retrenchment in the Unites States. Am Polit Sci Rev. 2004;98:243-260.

76. Wagner EH. Chronic disease management: What will it take to improve care for chronic illness. http://www.acponline.org/clinical_information/journals_publications/ecp/augsep98/cdm.htm. Published 2013. Accessed August 2013.

77. Reinhard SC, Levine C, Samis S. Home alone: family caregivers providing complex chronic care. http://www.aarp.org/content/dam/aarp/research/public_policy_institute/health/home-alone-family-caregivers-providing-complex-chronic-care-rev-AARP-ppi-health.pdf. Published 2012. Accessed August 2013.

78. Goldberg A, Solloway Rickler K. The role of family caregivers for people with chronic illness. Rhode Island Med J. 2011;94(2):41-42.

79. Callahan C, Boustani M, Unverzagt F, et al. Effectiveness of collaborative care for older adults with Alzheimer's disease in primary care: a randomized controlled trial. JAMA. 2006;295:2148-2157.

80. Reinhard SC, Given B, Petlick NH, Bemis A. Supporting family caregivers in providing care. In: Hughes RG, ed. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville, MD: Agency for Healthcare Research and Quality; 2008;1-64.

81. Given B, Wyatt G, Given C, et al. Burden and depression among caregivers of patients with cancer at the end-of-life. Oncol Nurs Forum. 2001;31:1105-1117.

82. Papastavrou E, Kalokerinou A, Papacostas SS, Tsangari H, Sourtzi P. Caring for a relative with dementia: family caregiver burden. J Adv Nurs. 2007;58:446-457.

83. Bengston VL, Allen KR. The life course perspective applied to families over time. In: Boss PG, Doherty WJ, LaRossa R, Schumm WR, Steinmetz SK, eds. Sourcebook of Family Theories and Methods: A Contextual Approach. New York, NY: Plenum Press; 1993;469-504.

84. Roberto KA, Jarrott SE. Family caregivers of older adults: a lifespan perspective. Fam Relat. 2008;57:100-111.

85. Binstock RH. Older people and voting participation: past and future. Gerontologist. 2000;40:18-31.

86. Martinson M, Minkler M. Civic engagement and older adults: a critical perspective. Gerontologist. 2006;46:318-324.

87. Riggs JA. A family caregiver policy agenda for the twenty-first century. Generations. 2008;27(4):68-73.

88. Feinberg LF, Wolkwitz K, Goldstein C. Ahead of the curve: emerging trends and practices in family caregiver support. http://assets.aarp.org/rgcenter/il/2006_09_caregiver.pdf. Published 2006. Accessed August 2013.

89. Family Caregiver Alliance. National policy statement. https://www.caregiver.org/national-policy-statement. Published 2009. Accessed August 2013.

90. Owram D. Born at the Right Time: A History of the Baby Boom Generation. Toronto, ON, Canada: University of Toronto Press; 1997.

91. Smith JW, Clurman A. Generation Ageless. New York, NY: HarperCollins Publishers; 2007.

92. Steinhorn L. The Greater Generation: In Defense of the Baby Boom Legacy. London, UK: St. Marin's Press; 2007.

93. Kromer B, Howard D. Labor force participation and work status of people 65 years and older. http://www.census.gov/prod/2013pubs/acsbr11-09.pdf. Published 2013. Accessed August 2013.

94. Lerner DJ, Amich BC III, Malspeis S, Rogers WH. A national survey of health-related work limitations among employed persons in the United States. Disil Rehabil. 2000;22:225-232.

95. Munir F, Khan HTA, Yarker J, et al. Self management of health-behaviors among older and younger workers with chronic illness. Patient Educ Couns. 2009;77:109-115.

96. Druss BG, Marcus SC, Olfson M, Taniclian T, Elinson L, Pincus HA. Comparing the national economic burden of five chronic conditions. Health Aff. 2001;20:233-241.

97. Wagner DL, Niles KJ. Looking into the future of family caregiving in the U.S. http://www.towson.edu/gerontology/documents/WHCoA-MiniConf.pdf. Published 2005. Accessed August 2013.

98. MetLife Mature Market Institute, National Alliance for Caregiving. Working caregivers and employer health care costs. https://www.metlife.com/assets/cao/mmi/publications/studies/2010/mmi-working-caregivers-employers-health-care-costs.pdf. Published 2010. Accessed August 2013.

99. Grundy E, Henretta JC. Between elderly parents and adult children: a new look at the intergenerational care provided by the "sandwich generation." Ageing Soc. 2006;26:707-722.

100. Parker K, Patten E. The sandwich generation: rising financial burdens for middle-aged Americans. http://www.pewsocialtrends.org/2013/01/30/the-sandwich-generation/. Published 2013. Accessed August 2013.

101. Riley LD, Bowen C. The sandwich generation: challenges and coping strategies of multigenerational families. Fam J. 2005;13:52-58.

102. Guberman N, Lavoie J, Blein L, Olazabal I. Baby boomer caregivers: care in the age of individualization. Gerontologist. 2012;52:210-218.

103. Chibucos TR. Life-span development theory. In: Chibucos TR, Leite RW, Weis DL, eds. Readings in Family Theory. Thousand Oaks, CA: Sage; 2005;39-93.

104. Toseland RW, and the Family Caregiver Alliance. Caregiver education and support programs: best practice models. http://www.caregiver.org/caregiver/jsp/content/pdfs/Education_Monograph_01-20-05.pdf. Published 2004. Accessed August 2013.

105. National Commission for Health Education Credentialing, Inc, Society for Public Health Education, American Association for Health Education. A Competency-Based Framework for Health Education Specialists—2010. Whitehall, PA: National Commission for Health Education Credentialing, Inc; 2010.

106. Hahn JS, Nicholson T. The role of computers in health education: some lessons from instructional technology. Fam Community Health. 1986;9(2):64-67.

107. Hodge FS, Toms FD, Guillermo T. Achieving cultural competency and responsive health care delivery. Cancer. 1999;83(Suppl 8):1714-1716.

108. Haber D. Cultural diversity among older adults: addressing health education. Educ Gerontol. 2005;31:683-697.

109. Osborne RH, Elsworth GR, Whitfield K. The Health Education Impact Questionnaire (heiQ): an outcomes and evaluation measure for patient education and self-management interventions for people with chronic conditions. Patient Educ Couns. 2007;66:192-201.

110. Marks R, Allegrante JP, Lorig K. A review and synthesis of research evidence for self-efficacy-enhancing interventions for reducing chronic disability: implications for health education practice (Part II). Health Promot Pract. 2005;6(2):148-156.

111. McLeroy KR, Bibeau D, Steckler A, Glanz K. The social ecology of health promotion interventions. Health Educ Q. 1988;15:351-377.

112. Steckler A, Dawson L. The role of health education in public policy development. Health Educ Q. 1982;9:275-292.

Table 1. Summary identified literature relating to emerging trends in family caregiving.[a]

	Reference	Key Points/Findings
Increasing use of digital technology for information gathering and support	[38]	Online communities and forums allow caregivers to get information and support from others who are experiencing the same thing
	[33]	Personal computers are increasingly being used to enable individuals to share information about health
	[37]	Online communities and forums are one of the oldest and most popular tools for caregivers
	[31]	As baby boomers age, they will use technology to manage their own care
	[39]	Online communities and forums are often the only way caregivers can receive education and support
	[43]	Key benefits of caregiver telehealth interventions include improved sleep, decrease distress or depression, and improved caregiver function or quality of life
	[42]	Telehealth interventions offer many benefits to caregivers
	[35]	Social media sites can also be useful tools for baby boomer caregivers
	[36]	Apps for caregivers are widely available
	[41]	Telehealth and telemedicine may be key in controlling costs, improving access, and simplifying communication related to health care
	[34]	Over one third of baby boomers report being heavy Internet users
	[30]	A majority of baby boomers have experience with technology such personal computers, tablets, cell and smart phones, MP3 players, GPS, game consoles, digital cameras, web cameras, and apps
	[32]	Among baby boomers, differences in Internet use are reported between younger and older boomers Baby boomers are increasingly using social network sites Family caregivers understand key benefits of using technology to support their caregiving as well as the benefits to the care recipient Family caregivers report they have searched the Internet for information related to caregiving including WebMD, Mayo Clinic, government websites, and caregiving websites
	[40]	Description of telehealth and telemedicine
Increasing diversity among aged	[1]	The percentage of persons 65+ who are members of a racial or ethnic minority is increasing
	[56]	The number of males who are caregivers doubled between 1996 and 2011
	[53]	Minority caregivers make limited use of formal support services
	[60]	Estimates suggest there are 1.4 to 3.8 million LGBT people 65 and older in the United States, and by 2030 that number will double to 3.6 to 7.2 million
	[58]	Men handle caregiving differently than women
	[59]	Baby boomers will be the first generation of LGBT people to live openly gay lives in significant numbers Members of the LGBT community are more likely to be single, childless, and estranged from biological family
	[61]	Friends and significant others of LGBT baby boomers may face stigma, discrimination, and legal issues while trying to provide care
	[52]	White caregivers are the most likely to receive help from their spouses, Hispanics are the most likely to receive help from their adult children, and African Americans are the most likely to receive help from a non-family member
	[50][b]	There are key differences between white, African American, Hispanic, and Asian American caregivers
	[14][b]	The majority of family caregivers are white Half of Asian American caregivers are male
	[51]	There are significant differences between minority caregivers and white caregivers
	[57]	There are differences between how male and female caregivers respond to caregiving

	Reference	Key Points/Findings
	[46]	Differing values and beliefs about aging, disease and disability, family, and caregiving will become more relevant as baby boomers age
	[54]	There are several reasons why minority caregivers refuse support services Minority caregivers make limited use of formal support services
	[2]	The next generation of older adults will be more diverse than ever before
Strained finances and loss of entitlements	[66]	Due to the baby boomers, the U.S. dependency ratio is expected to increase
	[72]	Almost 42% of caregivers pay more than $5000 a year in out-of-pocket expenses and almost 70% report making work accommodations
	[63]	Baby boomers will face rising costs associated with getting older with limited resources to pay for them
	[73]	Among those most at risk for economic insecurity are women and minorities For caregivers over age 50, it is estimated that the lifetime income-related losses include $116 000 in wages, $138 000 in Social Security, and $50 000 in pension benefits
	[64]	Over 23 million Americans over the age of 60 are economically insecure and living in poverty
	[50]	Many caregivers reduce their hours at work, forfeit promotions and benefits, and miss opportunities for returns on 401(k) and other retirement benefits
	[68]	Nearly 1 in 6 elderly has an income below 125% of the federal poverty level
	[65][b]	Baby boomers were the first generation to have government programs from birth that support the aging and poor
	[69]	Poverty among the elderly is frequently mismeasured and underestimated
	[67]	Without changes to the current system, it is estimated that by 2036, Social Security and Medicare will be taking in only enough money to pay a portion of promised benefits to retirees
	[71]	Many caregivers make sacrifices that compromise their financial and retirement security
More complex care and care management	[79]	Improving the health care delivery system for older adults with chronic disease may benefit their caregivers as well
	[8]	Rates of chronic disease among U.S. adults over the age of 65
	[81]	Definition of caregiver burden
	[78]	Family members of individuals with chronic disease often provide support but also help the person with adjusting to the disease Many family caregivers provide advanced care with little to no training
	[7]	Definition of chronic disease
	[11]	Family caregivers have diverse responsibilities in providing care and support for their loved one
	[6]	Baby boomers have higher rates of chronic disease than the previous generation at the same age
	[14]	Greater and more intense responsibilities are related to greater physical, emotional, and financial consequences for family caregivers
	[14]	Average amount of time per week that family caregivers perform caregiver responsibilities
	[82]	Percentage of caregivers who report being highly burdened
	[80]	Improving the health care delivery system for older adults with chronic disease may benefit their caregivers as well
	[77]	Caregivers advocate for their loved one and coordinate the various health care professionals and service providers for the care recipient Defining ADL and iADL Many caregivers report performing medical and nursing tasks traditionally only provided in hospital
	[76]	Chronic disease management is complicated by a complex health care system that is more suited to acute care rather than chronic disease management
Demand for public policies related to caregiving	[85]	Older adults typically have higher voter turnout rates than any other age group

	Reference	Key Points/Findings
	[89]	Recommendations from FCA's National Policy Statement for how the government can better support family caregivers
	[88]	Federal funding to support family caregivers is very limited
	[86]	Baby boomers have been civic minded in the past and may be a voting powerhouse if they continue to be
	[87]	Federal policies to family caregivers in the United States
	[65]	Baby boomers are known for their strong moral sense and empowered sense of self
Balancing work, family, and caregiving	[99]	Baby boomers are frequently referred to as the “sandwich” generation because they are squeezed in between caring for their children and their elderly parents
	[93]	Many baby boomers are delaying retirement or returning to the workforce after retirement
	[98]	Caregiving costs employers approximately $13.4 billion per year nationally
		Costs of medical care among caregivers are higher than those of non-caregivers
	[50]	Some caregivers will be forced to take a leave of absence, move from full-time work to part-time work, or give up work entirely
	[100]	One in 7 middle-aged adults provides financial support to both an aging parent and a child
	[101]	A sandwich baby boomer struggles with finding the time, energy, and resources to balance the demands of both aging parents and dependent children
	[97]	Caregiving has a negative effect on employed caregivers' work

[a] GPS indicates Global Positioning System; LGBT, lesbian, gay, bisexual, transgender; ADL, activities of daily living; iADL, instrumental activities of daily living; FCA, Family Caregiver Alliance.

[b] Several sources appear in more than one theme; however, they are only counted once in the total number of sources for the literature review.

Table 2. Articulation of the 6 emerging trends from the review of literature and the 5 core concepts of the life course perspective.[a]

	Life Course Perspective Core Constructs				
Emerging Trends	**Cohort/Generation**	**Transitions**	**Trajectory**	**Life Events**	**Turning Points**
Increasing use of digital technology	Baby boomers are the first cohort/generation to have a variety of technologies available and accessible to them	Experience transitions with each new development of technology (e.g., personal computers, cell and smart phones, MP3 players, GPS, digital cameras, web cameras, apps, etc.)	Develop a long-term pattern of using technology	Aging in an increasingly technology-dependent society (e.g., boomer must learn software to retain job)	The use of a technology (i.e., personal computer or cell phone) presents new opportunities and expectations for the individuals interested in utilizing it
Increasing diversity among caregivers	Baby boomers are first cohort/generation to have significant numbers of non-white, openly LGBT, and women working outside of the home as members	Experience changes in roles and statuses as a result of the women's and civil rights movements, as well as, the human rights movement (LGBT equality)	Develop a long-term pattern of awareness, acceptance, and tolerance of diversity	Aging in an increasingly diverse society (e.g., boomer receives occupational advancement as a result of affirmative action)	Exposure to different races and cultures can change a person's self-concept or beliefs
Strained finances and loss of entitlements	Baby boomers are first cohort/generation to receive government entitlements from birth and not to have extensive pensions and benefit plans for retirement	Experience changes in finances which brings changes to the person's status or role	Develop a long-term pattern of depending on the government	Aging in increasingly unstable economic times (e.g., boomer becomes ill and must use retirement savings to cover costs)	Entitlements make a lasting change on the person's expectations of the role of the government in supporting them
More complex care and care management	Baby boomers are first cohort/generation to struggle with long-term, chronic disease rather than acute illness	A chronic disease diagnosis may change the person's status or role within his or her family and society	Develop a long-term pattern of illness and care	Aging in an increasingly unhealthy society (e.g., boomer changes exercise or eating habits)	A chronic disease diagnosis may produce a shift in the life course trajectory of the ill person as well as the caregiver
Demand for public policy related to caregiving	The baby boomers as a cohort/generation experienced radical shifts in societal beliefs regarding politics and social justice	The longer a person is a caregiver, the more alterations he or she will make to his or her own life to accommodate their caregiving responsibilities	Develop a long-term pattern of advocating for injustices	Aging in an increasingly political society (e.g., boomer changes political party affiliation)	Becoming a caregiver alters the person's beliefs about caregiving and awareness develops of the lack of public policy for those who are in the same position
Balancing work, family, and caregiving	Baby boomers are first cohort/generation to experience caring for their aging parents for a long period of time while having dependent children and working full time	Experience a transition such as caring for an aging parent before it is expected (e.g., still working, still having dependent children)	Develop a long-term pattern of having multiple, demanding roles	Aging in an increasingly demanding society (e.g., boomer changes work schedule)	Having a parent become ill produces a shift in the life course trajectory of the caregiver as she tries to balance her parent's needs with her child's needs and work responsibilities

[a] GPS indicates Global Positioning System; LGBT, lesbian, gay, bisexual, and transgender.