



Published in final edited form as:

*J Gerontol Soc Work*. 2012 ; 55(8): 682–707. doi:10.1080/01634372.2012.703763.

## Long Distance Caregiving: A Systematic Review of the Literature

John G. Cagle, Ph.D. and

University of North Carolina at Chapel Hill

Jean C. Munn, Ph.D.

Florida State University

### Abstract

There are an estimated 5–7 million long distance caregivers in the United States, but relatively little is known about this growing subpopulation of caregivers. This study systematically reviewed the existing empirical literature on long distance caregiving and critically examined 15 identified studies: 8 quantitative, 2 mixed-method, and 5 qualitative. Although studies defined long distance caregiving very differently, a composite description of who long distance caregivers are and what they do is presented. Long distance caregivers make substantial contributions to care in terms of physical, financial, and social support. Distance complicates the exchange of information about the care recipient's health and care needs, as well as the types of care that can be provided. Related to this, geographic separation can exacerbate care-related stressors. Implications for future research are also identified.

### INTRODUCTION

Providing eldercare from afar is a reality for millions of Americans. Nationwide samples suggest there are between five million (MetLife, 2004) and seven million (Wagner, 1997c) long distance caregivers (LDCs) in the United States, and those numbers are projected to double by 2020 (National Council on Aging [NCOA], 2006). Benefield (2005) estimates that nearly one third of all informal caregiving occurs from a distance. Even though proximal family members are more likely to take on the bulk of responsibilities, a surprising number of LDCs play a principal role in their loved one's care. In an NCOA study, 11% of LDCs indicated they were the only caregiver, 14.5% identified themselves as the primary caregiver, 31% said they were sharing responsibilities equally, and almost half (49%) indicated they were providing support to a primary caregiver (Wagner, 1997c). Similarly, Koerin and Harrigan (2002) concluded that, "between one-third and one-half of long distance caregivers are *not* secondary helpers, as might be assumed given the distance between them and the care receiver" (p. 79; emphasis retained).

Interestingly, this growth is occurring despite a decline in rates of geographic mobility in previous decades (Wolf & Longino, 2005). The prevalence of geographically dispersed

Address correspondence to: John G. Cagle, Ph.D., M.S.W., Research Fellow, University of California, San Francisco, Division of Geriatrics, 4150 Clement Street, 306E, San Francisco, CA 94121; john.cagle@ucsf.edu.

Jean C. Munn, Ph.D., Associate Professor at the Florida State University, College of Social Work, University Center, Building C, Tallahassee, FL 32306-2570; jmunnn@fsu.edu

caregivers is due, in part, to shifting demographics within the American population (i.e., aging baby boomers, healthy aging, and increased longevity), a declining birth rate, and the rapid movement of women into the labor market (Brody, Hoffman, Kleban, & Schoonover, 1989; Tennstedt, 1999; Stone, 2000).

Despite the large numbers of LDCs, our knowledge of this substantial population is sparse. More specifically, empirical evidence about their unique needs and experiences of those providing care to loved ones from many miles away, and our understanding of how geographic proximity impacts caregivers and care-recipients, is limited (Benefield, 2005; Koerin & Harrigan, 2002; Kosberg, 2002; Thompsell & Lovestone, 2002). This article provides a review of the existing literature on LDCs, an examination of how the term LDC has been operationalized, and a synthesis of what is known about this population. Our research primarily focused on LDCs in the U.S., which is where the bulk of research on LDCs was conducted. However, our review was not limited to research emanating from the U.S.

## METHODS

We conducted a systematic review of the literature in May of 2010 using the following electronic databases: Google Scholar, Ageline, Social Science Abstracts, Medline, and PubMed. We sought scholarly literature using search terms relating to LDCs (Table 1). Specifically, our inclusion criteria were limited to quantitative, qualitative, or mixed-methods studies in which: (1) LDCs were recruited (regardless of the operational definition being used); (2) LDCs were the main focus of the research; or (3) a subset of data from LDCs were analyzed and reported. Abstracts for all identified articles were reviewed to ensure they met the criteria for inclusion. If it was unclear whether an article should be included based on the abstract, the full article was reviewed. Only peer reviewed articles that collected empirical evidence from LDCs, or studies that used nationwide probability samples of caregivers, were included in the critical evaluation. Graduate theses, government issued reports, and other sources of original data on LDCs were identified, but not subjected to critique.

## RESULTS

A review of the existing literature on long distance caregiving resulted in the identification of twelve peer reviewed empirical studies (five quantitative; five qualitative; two mixed methods) that specifically address the subject of providing care across extensive geographic distances. Three additional non-refereed quantitative studies were identified for inclusion because they used nationwide probability samples to gather information on LDCs. Thus, a total of 15 studies were included in the critical review. It should be noted that several scholarly publications (i.e., four graduate theses; one white paper; and an edited text) have addressed the topic of LDCs but did not meet the criteria for critical review (Table 2). We also identified a number of publications relating to LDCs which did not offer any original empirically-derived data (Table 3). The following section provides brief descriptions of the 15 studies identified during the literature review and a summary of their findings.

## Quantitative Studies

This joint study by the National Alliance for Caregiving (NAC) and AARP (2004) was a nationwide survey to gather information about the state of caregiving in the United States. The survey used random digit dialing and telephone interviews to recruit a sample of 1247 self-identified caregivers. Of the total caregiver sample, 15% ( $N = \sim 187$ ) were identified as LDCs. The study found LDCs tended to be secondary caregivers, relatively well educated, and of higher socio-economic status. LDCs also expressed greater levels of emotional distress than proximate or co-residing caregivers.

MetLife (2004), in conjunction with NAC, conducted an on-line survey of LDCs. A total of 1,130 individuals met the inclusion criteria of “helping someone 55+ during the past year, who has ‘chronic physical, cognitive, or mental health problems’ and who lives more than an hour away” (p. 4). Results indicated nearly a quarter (23%) of LDCs were the primary or only caregiver for the care recipient. Just over half of the respondents (51%) reported visiting at least a few times a month; even though a sizable majority (80%) was employed either full or part-time.

Koerin and Harrigan (2002) conducted a secondary data analysis of the 1997 NAC/AARP caregiver survey to explore the characteristics and activities of LDCs. In this study, LDCs were defined as living two or more hours away. The initial sample included 1,509 caregivers, with a sub-sample of 109 respondents meeting the definition of long distance caregiver. The authors found a greater proportion of men were LDCs compared to the larger population of caregivers as a whole, and on average LDCs had been providing care for an extended period of time (4.5 years).

Parker and co-investigators (2002) explored the concerns of senior military officers regarding their geographic separation from their parent(s). Two cohorts of enrollees in the United States Air War College (USAWC) were surveyed, one in the summer of 1997 and the other in the summer of 1998. A total of 277 individuals participated in the surveys. Findings provide some insights regarding how geographic separation from elderly parents contributes to worry, anxiety, and the need for proactive care planning. In particular, increased worry was associated with respondents having an angry temperament, and parents who were older or had a history of illness. The number of siblings and satisfaction with a “parent care plan” decreased levels of worry.

Joseph and Hallman (1998) explored the effects of distance on involvement in care by using a secondary data analysis of the 1991 Work and Family Survey originally conducted by the Canadian Aging Research Network (CARNET). The primary study enlisted a Canada-wide probability sample ( $n = 1149$ ) of employed persons who had provided assistance to an elderly relative, or relatives, within the past six months. The researchers categorized caregiver respondents by travel-time into one of three groups: 1–30 minutes ( $n = 703$ ), 31–120 minutes ( $n = 297$ ), and  $> 120$  minutes ( $n = 149$ ). The findings supported the *distance-decay* hypothesis, that is, fewer hours of direct care were related to greater distances from the care recipient. Furthermore, women were willing to drive further and more often than male LDCs.

Using a community-based registry of dementia cases and referral in the United Kingdom, Thompsell and Lovestone (2002) conducted case-controlled comparisons of two groups of relatives, one group (local) living < hour from the care recipient (n = 35) and the other group (distant) living > hour away (n = 29). Data were collected using phone interviews with both care recipients and their relative(s). LDCs reported similar levels of distress as local caregivers, but greater dissatisfaction with information received.

Neuharth and Stern (2002) investigated how caregiving responsibilities are negotiated among siblings when an elderly parent required care. They used data from the 1982 and 1984 National Long Term Care Survey (NLTCS) to conduct a secondary data analysis. From an original sampling frame of 25,401, only 2,635 elderly persons met the criteria for study inclusion in 1982, and 2,426 in 1984. The authors found that distance from the parent(s) was a key variable when care-related responsibilities were being delegated among siblings.

Sponsored by the NCOA, Wagner (1997c) conducted a cross-sectional survey of LDCs (note: related findings are reported in Wagner, 1997a and 1997b). Using a representative sample of the U.S. population, researchers paneled nearly 1000 individuals, of which 200 were LDCs. On average, LDCs in the study sample lived 304 miles away from the care recipients and half reported that care interfered with work, social, and family life.

### Mixed Methods

Watari and colleagues (2006) evaluated a Los Angeles-based program designed to support LDCs of dementia patients and comprised of five components: (1) a phone consultation with a professional care liaison; (2) receipt (by mail or internet) of a community resource guide and care-plan worksheet; (3) creation of a web-site to connect LDCs with local resources; (4) phone-based legal consultations to assist with advanced care-planning and financial assessments; and (5) use of a monitoring system to help locate, and safely return, persons with dementia who have wandered off. LDCs frequently used the program's written materials, website, and helpline; however, when responding to open-ended (qualitative) questions they reported unmet needs related to: (1) difficulties coordinating day-to-day services; (2) challenges related to locating dependable in-home assistance; and (3) concerns about family conflict over the recipient's care and care needs.

Schoonover and colleagues (1988) use mixed-methods to compare siblings (local and distant) who were providing care and support to a widowed mother. The majority of LDCs in this sample were not primary caregivers. Additionally, female LDCs were more likely to express guilt, distress and tension with other siblings. The authors hypothesize these differences are attributable to gendered expectations about who should provide care.

### Qualitative Studies

Using qualitative interviews, Baldock's (2000) study explored the experiences of 12 transnational LDCs who were living in Australia and providing care to a parent living overseas. All participants were employed by the author's home institution, Murdoch University. Baldock found that LDCs have a key role in providing care to aging parents including emotional support, help with decision-making, and respite for local caregivers while facing numerous challenges related of fulfilling both work and care obligations.

Although similar proportions of men and women served as LDCs, men were more involved in business, finances and household maintenance while women were more concerned with health and providing emotional support.

Collins and co-authors (2003) provided a first-hand account of the trials and travails of being a long distance caregiver within an African American family. This personal reflection highlighted a desire to keep the care recipient at home; the limited availability of services; and avoidance of formal care resulting in heavy initial reliance on informal support systems (i.e., a network of friends, neighbors and family). The significance of personal meaning, cultural, spirituality and a sense of obligation were also discussed.

Harrigan and Koerin (2007) share personal stories of becoming LDCs and offer practice implications based on these experiences. The authors' narrative accounts are juxtaposed against a review of the literature on providing care from afar and, in particular, their findings from the NAC/AARP caregiver study (see Koerin & Harrigan, 2002). Notable issues included both negative (e.g., feelings of guilt and frustration) and positive (e.g., a sense of accomplishment and "giving back") aspects of caregiving.

Kodwo-Nyameazea and Nguyen (2008) conducted interviews with five Ghanaian immigrants living in the United States. All participants were transnationals currently providing some type of care to elders living in Ghana. The purpose of this study was to collect pilot information for a larger study (see Kodwo, 2009). Researchers found strong family connections, feelings of commitment, unity, respect for elders, and a sense of "giving back" were cited as impetus for providing care. The importance of remittances and differing gender roles were also observed.

Roff and colleagues (2007) conducted a phenomenological study involving interviews with 22 LDCs and focused on providing a nuanced understanding of how siblings interact and negotiate caregiving responsibilities among themselves. All participants, 10 males and 12 females, were university faculty providing care to at least one parent who lived hour away. Findings revealed that adult siblings have differing perceptions about the care needs of their older parents and siblings who were LDCs took on a wide range of care-related activities such as specialized roles of financial management, coordination of formal care, and providing emotional support. LDCs frequently expressed frustration or disappointment about how well care was being provided by siblings who lived closer. Thus, disagreements among siblings were common and the researchers identified a need for improved communications and a thorough evaluation of the various strengths and contributions of family members.

## DISCUSSION

Based on the literature identified during our review, general information on LDCs emerged. In this section, we focus on how LDCs have been operationally defined, general demographic characteristics of this population and care recipients, LDCs activities, costs and benefits of providing care from a distance, and directions for future research.

## Defining Long Distance Caregivers

Constructing a useful definition of this growing segment of the population involves a nuanced assessment of what it means to be a “caregiver,” how “distance” can and should be measured, and establishing a meaningful cut-off point for what is considered far away or “long.” A general consensus on how to best define LDCs has not been established. Previous research has acknowledged that, regardless of location, caregivers may not readily self-identify themselves as such (Feinberg, Wolkwitz & Goldstein, 2006; Harding & Higginson, 2001). Furthermore, those living out-of-town may have a more difficult time recognizing that they are substantial providers of care. As Manthorpe (2001) notes, “Caring at a distance forces an examination of what is meant by ‘care’ and who can legitimately claim this as an emotion or status” (p. 593). Not surprisingly, the identified studies defined care and caregiving in a variety of ways. Many studies allowed participants to determine whether they considered themselves to be a caregiver, or that their relative required care (Kodwo-Nyameazea & Nguyen, 2008; Baldock, 2000; Roff et al., 2007). More stringent definitions used specific tasks to identify caregivers. For example, Wagner (1997c) and NAC/AARP (2004) used the number of activities of daily living (ADLs) or instrumental activities of daily living (IADLs) as a criterion for participant inclusion.

The disposition of the care recipient was also used to identify LDCs. For example, the health or functional state of the care recipient was sometimes restricted to a specific condition, like dementia (Thompson & Lovestone, 2002; Watari et al., 2006) or a more general state of problematic health (MetLife, 2004). The relationship was often adult children providing support to a parent (Roff et al., 2007; Baldock, 2000; Parker et al., 2002; Neuhauser & Stern, 2002), or relatives of a local caregiver (Schoonover et al., 1988; Thompson & Lovestone, 2002). However, other studies did not limit the care recipient to being a relative (e.g., Koerin & Harrigan; MetLife 2004). Additionally, some studies limited their definitions to exclude persons providing support to care recipients in long-term care settings (e.g., Joseph & Hallman, 1998; Schoonover et al., 1988). The lack of a clear definition of what constitutes caregiving makes it difficult to compare findings across studies and over time. In short, future research may benefit from using a more uniform definition of caregiver.

Past studies have attempted to operationally define “long distance” with varying degrees of success. Even though measures of distance can involve travel time, geographic distance, access to transportation, and/or economic feasibility, previous research has focused exclusively on geographic distance and travel time. Wagner (1997c) reported focus groups defined “long distance” as living 1+ hours away from the care recipient (p. 1). Other studies have adopted this definition, using a travel-time criterion to identify LDCs (MetLife, 2004; NAC & AARP, 2004; Thompson & Lovestone, 2002; Wagner). Interestingly, NCOA and the Pew Charitable Trust (Wagner, 1997c) found that LDCs averaged 4 hours (one-way) travel time to the care recipient while the Metlife (2004) study found LDCs reported living 7.23 hours travel time (450 miles) from their loved one. Another study used geographic proximity to identify LDCs, defining them as persons living 100+ miles away (MetLife, 2004). Furthermore, caregivers are not completely stationary; they often visit or relocate to provide direct care to their loved one (e.g., Harrigan & Koerin, 2007). Therefore, some equivocation remains about who is, and remains, a long distance care provider due to the transitory nature



of caregiving. In our review of the literature, Parker, Church and Toseland's (2006) definition of LDC seemed to be the most comprehensive and compelling. They denoted LDC as:

Anyone (1) who provides informal, unpaid care to a person experiencing some degree of physical, mental, emotional, or economic impairment that limits independence and necessitates assistance; and (2) who experiences caregiving complications because of geographic distances from the recipient, as determined by distance, travel time, travel costs, personal mobility problems, limited transportation, and other related factors that affect the caregiver's access to the care recipient (p. 391).

**Long Distance Caregivers: Who They Are**—Based on data from the preceding studies, it appears that a substantial number of people extend physical, emotional, social, and financial assistance from a distance. The MetLife (2004) survey estimated that there are as many as 5 million LDCs in the United States. Earlier, Wagner (1997c) estimated as much as 3.5% (7 million) of the adult population provides care from a distance. Although little is known about this sizable group, available evidence suggests LDCs are both similar to, and different from, their proximal counterparts.

**Gender:** Previous studies (Joseph & Hallman, 1998; Neuhaarh & Stern, 2002) indicate that gender is associated with informal care provision. In general, women are expected to take on the role of informal care provider when a family member becomes critically ill or injured. Notably, in the studies identified in our review, nearly half of LDCs were men. Two studies based on large nationwide surveys, Wagner (1997c), and Koerin and Harrigan (2002) respectively, found that women were only a slight majority (56% and 54 %). A third study, MetLife (2004) found more men (58%) than women (42%) provided care from a substantial distance. Men, therefore, seem to make up a larger proportion of LDCs than proximate or co-residing caregivers. Baldock (2000) also noticed gender-based differences among caregivers appear more equitable as distance increases, stating “a simple gendered construct of caring from a distance cannot be maintained” (p. 221).

Despite the similarity in proportion of men and women who provide care from afar gender differences remain. As Parker, Church and Toseland (2006) phrase it, women are confronted with a “triple-bind,” the demands of: career, raising children, and elder care (p. 393) resulting in career sacrifices, family conflict, and emotional distress. Overall, men tend to report fewer negative consequences (i.e., guilt, subjective burden, role engulfment, family conflict, depression, and anxiety) (Brody et al., 1987; Joseph & Hallman, 1998; Schoonover et al., 1988). Taken together, these findings suggest that distance may exacerbate these negative consequences as women fall short of the expectations they have of themselves in the caregiver role (Brody et al.) and the disparity between what women feel they *should* do, and what they *can* do increases.

This potential outcome is further supported since women tend to view geographic separation differently than men. For example, Brody et al. (1989) found that even when brothers and sisters live the same approximate distance from their parent(s), the women perceived

distance as more of a barrier than the men. Even so, female caretakers are more likely to travel farther and more frequently than male caregivers (Joseph & Hallman, 1998).

**Employment:** Many informal caregivers maintain outside employment. Survey results from the NAC/AARP (2004) study found that caregivers living further away are more likely to be employed (68%) than those living nearby (57%). In the MetLife (2004) study, a large majority (80%) of respondents reported being employed either full or part-time. Neuhauser and Stern (2002) also found a similar association between caregiver distance and employment status. As one might expect, employment is a key concern for geographically distant caregivers. Many need allowances for time off, phone access, and benefit information from their employer (Manthorpe, 2001).

Data on whether employers are considerate of the needs of those providing care are mixed. The MetLife (2004) study found the majority of LDCs described their employer as accommodating, allowing for time off, flexible hours, tardiness, and absences. Additionally, caregivers take advantage of these allowances. For example, 68% of caregivers living at a distance report more work-related adjustments than those living within an hours' travel time from the care recipient (57%) (NAC & AARP, 2004). Similarly, caregivers living further from their elderly relatives are more likely to take sick leave or relocate (Joseph & Hallman, 1996 cited in Joseph & Hallman, 1998).

Despite evidence that employers accommodate the needs of distance caregivers, a number of studies have concluded that few employers provide formal benefits to workers who are also family caregivers (Scharlach cited in Parker, Church & Toseland, 2006) and as many as 64% of LDCs report their caregiving situation has adversely impacted their employment (Koerin & Harrigan, 2002). LDCs are often put in the difficult position of balancing conflicting demands of family, career, and the care of their remote loved-one (Roff et al., 2003).

Due to the nature of their employment, armed service personnel and their families are a significant sub-population of LDCs. Military service often requires extended tours away from home and frequent changes in station assignment (Kosberg, 2002). As a group, military families may represent the most consistent group of LDCs (Roff et al., 2003). Previous studies on military populations found that more than 90% of senior military officers lived greater than 300 miles from their parents (Roff et al., 2003).

**Other Demographic Characteristics:** The vast majority of LDCs are adult children providing assistance to a parent, in-law, or step parent (Koerin & Harrigan, 2002; MetLife, 2004; Wagner, 1997c). Less than one percent of distant caregivers provide care for a spouse. LDCs also tend to be middle aged, with the average age ranging from 42 (NAC & AARP, 2004) to 51 (MetLife). This phenomenon is understandable as midlife is a time of convergence of established careers, family life, and "the increased probability of parental illness and parent care responsibilities" (Parker, et al., 2002, p. 271). In the identified studies, a large majority (95.5%) are Caucasian (MetLife), with between 23% (NAC & AARP) and 70% (MetLife) having obtained a college degree or reached graduate school. The majority is employed and half report an annual income of \$75,000 or more, well above the national average (MetLife). Nearly two-thirds of LDCs are married (MetLife; NAC &



AARP; Wagner) with more than a quarter reporting to have at least one child under the age of 17 living with them (MetLife).

**The Care Recipient:** Individuals who receive care from long distance caregivers have an average age ranging from 78 (Koerin & Harrigan, 2002; Wagner, 1997) to 89 (MetLife, 2004). Approximately two-thirds of the care recipients are female (MetLife; Wagner). In terms of living arrangements, 21–35% of care recipients live alone, while somewhere between 37–56% live with a spouse, relative or friend (Koerin & Harrigan; MetLife; Wagner). In order of frequency, care is being provided due to the care recipient's aging, diabetes, or cancer (NAC & AARP, 2004).

**Contact with the Care Recipient:** Despite the distances associated with LDCs, adult children who move away are, generally, still expected to maintain contact with their frail or ailing parent(s) (e.g., Collins et al., 2003); however, the nature, frequency, consequences and burden of maintaining contact are qualitatively different. Although LDCs make fewer face-to-face contacts with their care recipients as compared to proximate caregivers (Joseph & Hallman, 1998), and the primary forms of contact are by telephone or e-mail (Roff et al., 2003), contacts are frequent, with the vast majority of participants writing or calling their parents almost weekly (Parker et al.). In addition, it is likely that the internet and other forms of electronic communication will change the nature and extent of contact between LDCs and those for which they care (Parker et al., 2002).

On the other hand, some LDCs do make frequent face-to-face visits with the loved one(s). As many as 16% of those living > an hour away visit their loved one once a week or more (NAC & AARP, 2004). During a health crisis or emergency, LDCs are especially likely to visit care recipients and provide hands-on care or other assistance. However, these visits may only heighten the psychological worry and distress of a sustained separation (Parker et al., 2002).

Compromised mobility, costs, and travel time can, and do, greatly restrict the contact and care arrangements that LDCs can make. This incongruence often elicits a great deal of stress, worry and anxiety (Parker et al., 2002). Similarly, Crimmons and Ingegneri (cited in Joseph & Hallman, 1998) suggest that since geographically distant children have less direct contact with their parents, they may be less aware of increased debility or emotional care needs, making long distance caregiving by children more crisis-driven than proximate care.

The number of LDCs who eventually move in with, or near, the care recipient is unknown; however, several qualitative accounts reveal that some caregivers have the means and flexibility to relocate closer to their loved one (Baldock, 2000; Harrigan & Koerin, 2007). Given their propensity to visit for extended periods and, in some cases, change residence, LDCs should not be seen as a stationary population.

Despite the increased burden, reduced frequency and compromised nature of interactions between distant family members (Frankel & Dewit, 1989), relationships such as those between a parent and child can remain strong over long distances (Dewit, Wister, & Burch, 1988; Schoonover, Brody, Hoffman & Kleban, 1988), and distant children do not become

emotionally disconnected from their parents (Climo, 1992). Thus, physical closeness is not a prerequisite for preserving emotional attachments, and even though distance complicates contact between family members, frequent contacts (by phone or mail) can help to maintain these close relational ties (Baldock, 2000).

**Long Distance Caregivers: What They Do**—LDCs conduct a myriad of supportive activities to ensure the needs of their loved ones are met. Although the specific care-related tasks and responsibilities vary from family to family, the LDCs' role can include social and emotional support, advanced care-planning, financial assistance, care-coordination, and respite for local caregivers (Baldock, 2000; Harrigan & Koerin, 2007; MetLife, 2004; Parker et al., 2002). Notably, three fourths of LDCs helped with IADLs such as managing finances, assisting with medications, arranging transportation, and preparing meals (Koerin & Harrigan). To do these tasks, LDCs often rely on local support from nearby friends, family, or hired services (Collins, Holt, Moore, & Bledsoe, 2003). Orchestrating local services, however, can be difficult (Harrigan & Koerin; Heath, 1995), and to ensure that adequate care is being provided, LDCs not only coordinate care, but provide follow-up as well.

In addition, LDCs make significant financial contributions to ensure their loved one's care needs are being met (MetLife, 2004; Parker et al., 2002; Wagner, 1997c). According to Manthorpe (2001) monetary contributions are expressions of concern and emotional closeness. On average LDCs provide approximately \$200 per month for goods and services for care recipients (MetLife, 2004) and \$200 per month for travel. Furthermore, those who live further away spend more. The MetLife (2004) study found distance adds to caregiver expenses based on travel costs and difficulties managing family and work responsibilities.

**Costs and Benefits of Long Distance Caregiving:** The struggles and opportunities involved in caring for a distant loved one is something that researchers are just beginning to explore (Parker et al., 2002). Yet, existing studies suggest that distance caregiving is "both painful and rewarding" (Harrigan & Koerin, 2007, p. 13) and that providing care, even at a distance, offers both challenges as well as benefits (Baldock, 2000;; Koerin & Harrigan, 2002; MetLife, 2004; Parker et al., 2002; Thompsell & Lovestone, 2002). Some of the rewards include fulfilling a personal obligation, ensuring good care, a sense of personal satisfaction, and time spent together (Koerin & Harrigan; Wagner, 1997c).

The burdens of LDCs are also noteworthy. Collins et al. (2003) caution against underestimating negative effects, such as stress and depression, on LDCs. Approximately one third of LDCs report their role is either stressful or very stressful (Wagner, 1997c). Seventy-nine percent (79%) of LDCs report being adversely affected by caregiving; and a quarter are substantially affected, noting declining health, social impairment, or anxiety (Wagner). Similarly, the NAC/AARP (2004) survey found a larger percentage of caregivers who lived furthest away reported emotional distress (47%) more so than those living with the care recipient (43%) or those residing an hour or less away (28%). This study supports Thompsell and Lovestone's (2002) earlier findings that compared perceptions of support between near and distant relatives of dementia patients. They found that both groups experienced equally high levels of stress. The social expectation for children to provide care for their parents and the obstacles of time, distance, and resources may lead LDCs to feel

that their contributions to the patient's care are inadequate (Climo, 1992; Collins et al., 2003; Joseph & Hallman, 1998). Indeed, the relationship between distance and stress is an important issue that requires additional research (Thompson & Lovestone, 2002).

## Future Research

**Vulnerable Populations**—Studies on LDCs largely involved White, affluent, and well-educated subjects. Some studies have recognized these shortcomings, and attempted to offset them by over-sampling diverse populations (e.g., NAC & AARP). In other studies, lower socio-economic and minority groups may have been under-represented due to design limitations and biased sampling strategies (e.g., use of internet surveys). Also, since the surveys were conducted in English, non-English speaking individuals, or those with lower literacy levels, may have been systematically excluded from the pool of potential respondents. Future research should strive to include more diverse populations, in terms of race/ethnicity, education, and socio-economic status. The latter is particularly crucial since the ability to negotiate distance is tied to financial status. Another avenue for future research includes the needs and experiences of transnational caregivers, which are not fully understood, but are particularly important in our increasingly global, multicultural world (United Nations Social and Economic Council, 2004).

**Use of Technology**—Technological innovations, such as user friendly video communication, tele-health services, assistive devices, remote alert systems, and smart home technologies, are anticipated to help bridge the distance between LDC and care recipients (Benfield, & Beck, 2007; Bevan & Sparks, in press). These technologies are hypothesized to improve communication and feelings of connectedness while allaying worry and frustration; however, future research is needed to confirm these assumptions and evaluate the affordability and accessibility of such technologies across socio-economic class.

**The Social and Political Context of LDC**—The phenomenon of LDCs is shaped by myriad social and political forces. Migration patterns (both intra-national and transnational), population density, health care infrastructure, cultural norms, and public policy all contribute to the rise and legitimacy of LDCs (Fast, Eales, & Keating, 2001; Tennstedt, 1999; Stone, 2000). A number of countries have observed rural-to-urban migration patterns among younger generations, leaving many older adults without natural family support systems nearby (Joseph, Leach, & Turner, 2007). Additionally, the prevalence (and social acceptability) of LDCs may be inversely related to the weight a given culture places on the familial obligation to provide hand-on care for older relatives. Similarly, the reliance on institutionalized care (in the U.S., for example) may contribute to the prevalence of LDCs, whereas some countries do not have a developed system of long term care.

The reviewed studies were largely conducted within the U.S. and, thus, findings these may have limited relevancy across countries and cultures. Interestingly, the few selected studies that came from outside the U.S. were from well-developed English-speaking countries (i.e., Australia, Canada, and the U.K.), which further calls into question the applicability of these findings to diverse populations. It is important to note that social policies, such as laws governing health coverage and employee rights, are instrumental in determining how care is

provided and by whom (Fast, Eales, & Keating, 2001). The U.S., Australia, Canada and the U.K. all have differing policies pertaining to the rights and benefits afforded to caregivers. Canada's Compassionate Care Leave (Canadian Labour Code §206.3, 2–3), for example, is a federal mandate that permits employees to take prolonged leaves of absence to care for a terminally-ill close family member. Future research on LDCs should include an analysis of how government and employer policies impact the type of care and support LDCs can provide.

**Social Obligations and Feelings of Guilt and Inadequacy**—More research is needed to understand better the negative emotional and psychological impact of being an LDC. According to Collins, Holt, Moore and Bledsoe (2003) “there is a nagging realization that caregiving from a distance can be at best only partial” (p. 331). A number of caregiving researchers have echoed this assertion (Baldock, 2000; Koerin & Harrigan, 2002; Manthorpe, 2001). Manthorpe, for example, argues that feelings of self-blame and negative self-appraisals about one's caregiving efforts are commonly experienced by those who live far away from their frail or ailing loved ones. Many remotely located family members and friends may feel they are not meeting their caregiving obligations. Falling short of one's perceived caregiving responsibilities, whether appraised by one's self or others can lead to these intense feelings of regret, remorse, and insufficiency. Related to this, the field would benefit from further research on how caregiving from a distance affects the care recipients.

**Do Distant Caregivers Lack Context?**—Although LDCs are interested in receiving information about care recipients, often they must make decisions without first-hand knowledge of the situation (Harrigan & Koerin, 2007; Joseph & Hallman, 1998). Second-hand information can be vague, biased, or lack important circumstantial factors. Furthermore, proximal informants may distort the patient's needs, by exaggerating or minimizing pressing concerns (Harrigan & Koerin, 2007). Not surprisingly, LDCs have reported higher levels of dissatisfaction with the amount of information they receive compared to those living close to, or with, the care recipient (Thompson & Lovestone, 2002)

**Limitations**—Our study was limited in a number of ways. The term “long distance caregiver” is a contemporary construct that only recently entered the academic lexicon. In fact, in our review the earliest use of the term was in 1989. Therefore, our sample of electronic databases may not include all scholarship on LDCs, particularly older studies. Previous studies may have reported the intersecting topics of caregiving and geographic proximity using different terminology. In order to examine this potential deficit, we utilized less contemporary terms (such as filial piety) to look for earlier research. However, we found that while some studies existed, they tended to examine attitudes (e.g., feelings of obligation to care for family members) rather than geographic distance or care-related behaviors. Therefore, these studies were not included in our review. Additionally, our review criteria may have overlooked important and related work on transnational caregiving. To address this we conducted a supplemental, yet cursory, literature search using key words such as “migrant” and “immigrant” paired with variants of “long distance caregiving.” Much of the resulting scholarship explored migrant caregivers who were providing care to local family

members or to citizens of the host country – but we were unable to identify any additional studies to add to our review.

**Conclusion**—The topic of LDCs is timely as this population is expected to grow to nearly 14 million by 2020 (NCOA, 2006). Current research on this topic is limited. Our systematic review identified only 15 studies meeting our inclusion criteria. Indeed, a consistent definition of LDCs has not been established. Existing research suggests a number of issues pertinent to all care providers as well those specific to care provision from a distance. Gender and employment have been associated with care provision and resultant caregiver burden regardless of geographic proximity. However, the literature on long distance care provision indicates that men are nearly as likely as women to provide care. Furthermore, these studies indicate that stress from employment is exacerbated for LDCs by the inability to leave work and travel, preventing direct contact with the care recipient and first-hand knowledge of the care recipient's condition. Furthermore, LDCs experience high levels stress and dissatisfaction, perhaps because they receive less information than those able to see what is occurring first-hand. Taken together, these data suggest that additional research is required to better determine the needs of LDCs and develop new models of care that mitigate the knowledge deficits and psychosocial conflicts associated with care provision by those who are geographically distant.

## Acknowledgments

This study was supported by a doctoral fellowship through the John. A. Hartford Foundation. Dr. Cagle's efforts were also supported, in part, by T-32 training grants from the National Institute on Aging (NIA), 2T32AG000272-06A2 and 5T32AG000212-19, and a McGrath-Morris fellowship and residency. The authors would like to thank Pam Kovacs, PhD, Maggie Clifford, MSW, and the reviewers for their help with preparing this manuscript.

## References

- Baldock CV. Migrants and their parents: Caregiving from a distance. *Journal of Family Issues*. 2000; 21(2):205–224.
- Benefeld LE. Ways to support long-distance family caregivers. *Home Health Nurse*. 2005; 23(3):196.
- Benefeld LE, Beck B. Reducing the distance in distance-caregiving by technology innovation. *Clinical Interventions in Aging*. 2007; 2(2):267–272. [PubMed: 18044143]
- Bevan JL, Sparks L. Communication in the context of long-distance family caregiving: An integrated review and practical applications. *Patient Education & Counseling*. in press.
- Brody E, Hoffman C, Kleban MH, Schoonover CB. Caregiving daughters and their local siblings: Perceptions, strains, interactions. *Gerontologist*. 1989; 29(4):529–538. [PubMed: 2521114]
- Cagle, JG. Informal caregivers of advanced cancer patients: The impact of geographic proximity on social support and bereavement adjustment. VCU Digital Archives. 2008. Retrieved from: <http://hdl.handle.net/libproxy.lib.unc.edu/10156/1974>
- Canadian Labour Code. Compassionate Care Leave. Canadian Labour Code; §206.3, 2–3
- Carton, E. Long distance caring. Caregiver.Com. Today's Caregiver Magazine. 2000. Retrieved from: [http://www.caregiver.com/articles/general/long\\_distance\\_caring.htm](http://www.caregiver.com/articles/general/long_distance_caring.htm)
- Cicirelli, VG. Family caregiving: Autonomous and paternalistic decision making. Newbury Park, CA: Sage; 1992.
- Climo, J. Distant parents. Rutgers University Press; New Brunswick, NJ: 1992.

- Collins WL, Holt TA, Moore SE, Bledsoe LK. Long-distance caregiving: A case study of an African-American family. *American Journal of Alzheimer's Disease and Other Dementias*. 2003; 18(5): 309–316.
- DeWit D, Wister A, Burch T. Physical distance and social contact between elders and their adult children. *Research on Aging*. 1988; 10(1):56–80. [PubMed: 3387660]
- Donorfio LKM, Kellett K. Filial responsibility and transitions involved: A qualitative exploration of caregiving: Daughters and frail mothers. *Journal Adult Development*. 2006; 13:158–167.
- Fast, J., Eales, J., Keating, N. Economic impact of health, income security and labour policies on informal caregivers of frail seniors. *Status of Women in Canada*; Ottawa: 2001.
- Feinberg, LF., Wolkwitz, K., Goldstein, C. Ahead of the curve: Emerging trends and practices in family caregiver support. Washington, DC: AARP Public Policy Institute; 2006.
- Frankel BG, Dewit D. Geographic distance and intergenerational contact: An empirical examination of the relationship. *Journal of Aging Studies*. 1989; 3:139–162.
- Harding R, Higginson I. Working with ambivalence: Informal caregivers of patients at the end of life. *Supportive Cancer Care*. 2001; 9(8):642–645.
- Harrigan MP, Koerin BB. Long distance caregiving: Personal realities and practice implications. *Reflections*. 2007; 13(2):5–16.
- Harvard Women's Health Watch. Miles to go: Long-distance caregiving. 2004 Apr 6–7.
- Heath A. Creating partnerships with long distance caregivers. *Caring*. 1995; 14(4):48–49.
- Joseph AE, Hallman BC. Over the hill and far away: Distance as a barrier to the provision of assistance to elderly relatives. *Social Science & Medicine*. 1998; 46(6):631–639. [PubMed: 9522424]
- Joseph, G., Leach, B., Turner, S. Centre for Families, Work & Well-Being. Ottawa, Canada: Status of Women Canada; 2007. Caring at a distance: Working women, rural to urban migration and the compassionate care challenge.
- Kodwo, SR. Determinants of international long-distance eldercare: Evidence from Ghanaian immigrants in the United States. VCU Digital Archives. 2009. Retrieved from: <http://hdl.handle.net.libproxy.lib.unc.edu/10156/2508>
- Kodwo-Nyameazea Y, Nguyen PV. Immigrants and long-distance elder care: An exploratory study. *Ageing International*. 2008; 32:279–297.
- Koerin BB, Harrigan MP. P.S. I love you: Long-distance caregiving. *Journal of Gerontological Social Work*. 2002; 40(1–2):63–81.
- Kosberg JI. Gerontological social work: Issues and imperatives for education and practice. *Electronic Journal of Social Work*. 2002; 1(1):1–15.
- Manthorpe J. Caring at a distance: Learning and practice issues. *Social Work Education*. 2001; 20(5): 593–602.
- Mazanec, PM. Distance caregiving a parent with advanced cancer. Ohiolink. 2009. Retrieved from: <http://etd.ohiolink.edu/send-pdf.cgi/Mazanec%20Polly%20M.pdf?case1247250761>
- MetLife. Miles away: The MetLife study of long-distance caregiving: Findings from a national study. 2004 Jul. Retrieved from: <http://www.metlife.com/WPSAssets/12665529041106064686V1FLong%20Distance%20Caregiving.pdf>
- National Alliance for Caregiving/American Association of Retired Persons. Caregiving in the US. 2004 Apr. Retrieved from: [www.caregiving.org/data/04finalreport.pdf](http://www.caregiving.org/data/04finalreport.pdf)
- National Council on Aging. Nearly 7 million long-distance caregivers make work and personal sacrifices. 2006 Mar. Retrieved from: <http://www.ncoa.org/content.cfm?sectionID=105&detail=49>
- Neuharth TJ, Stern S. Shared caregiving responsibilities of adult siblings with elderly parents. *Journal of Human Resources*. 2002; 37:441–478.
- Parker MW, Call VR, Dunkle R, Vaitkus M. “Out of sight” but not “out of mind”: Parent care contact and worry among military officers who live long distances from parents. *Military Psychology*. 2002; 14(4):257–277.
- Parker MW, Call VR, Toseland R, Vaitkus M, Roff L. Employed women and their aging family convoys: A life course model of parent care assessment and intervention. *Journal of Gerontological Social Work*. 2003; 40(1):101–122.



- Parker, MW., Church, W., Toseland, RW. Caregiving at a distance. In: Berkman, B., editor. Handbook on aging and social work. New York: Haworth Press; 2006. p. 391-406.
- Parker M, Fuller G, Koenig H, Bellis J, Vaitkus M, Eitzen J. Soldier and family wellness across the life course: A developmental model of successful aging, spirituality and health promotion, part II. *Military Medicine*. 2001; 166:561–570. [PubMed: 11469025]
- Roff LL, Martin SS, Jennings LK, Parker MW, Harmon DK. Long distance parental caregivers' experiences with siblings: A qualitative study. *Qualitative Social Work*. 2007; 6(3):315–334.
- Roff LL, Toseland R, Martin JA, Fine C, Parker M. Family-social tasks in long distance caregiving. *Geriatric Care Management Journal*. 2003; 13(1):29–35.
- Schoonover CB, Brody EM, Hoffman C, Kleban MD. Parent care and geographically distant children. *Research on Aging*. 1988; 10(4):472–492. [PubMed: 3227152]
- Smith C. Engaging the emotional, financial, and physical ramifications of long-distance caregiving. *Home Health Care Management & Practice*. 2006; 18(6):463–466.
- Stone, RI. Long-term care for the elderly with disabilities: Current policy, emerging trends, and implications for the twenty-first century. *Milbank Memorial Fund*; 2000. Retrieved from: <http://www.milbank.org/0008stone/>
- Thompson A, Lovestone S. Out of sight out of mind? Support and information given to distant and near relatives of those with dementia. *International Journal of Geriatric Psychiatry*. 2002; 17:804–807. [PubMed: 12221652]
- Tennstedt, S. Family caregiving in an aging society. 1999. Retrieved from: [www.aoa.gov/prof/research/famcare.pdf](http://www.aoa.gov/prof/research/famcare.pdf)
- United Nations Social and Economic Council. Emerging demographic dynamics: International migration and population ageing. 2004 Sep. Retrieved from: [http://www.unescap.org/esid/committee2004/SVG\\_3E.pdf](http://www.unescap.org/esid/committee2004/SVG_3E.pdf)
- Vasseur, JS. The geographical implications of Alzheimer's disease: An examination of the impact that Alzheimer's disease has on family caregivers in Connecticut. Central Connecticut State University Digital Collections. 2008. Retrieved from: [http://content.library.ccsu.edu/cdm4/item\\_viewer.php?CISOROOT=/ccsutheses&CISOPTR=1117&CISOBX=1&REC=1](http://content.library.ccsu.edu/cdm4/item_viewer.php?CISOROOT=/ccsutheses&CISOPTR=1117&CISOBX=1&REC=1)
- Wagner, DL. Comparative analysis of caregiver data for caregivers of the elderly 1987 and 1997. Bethesda, MD: National Alliance for Caregiving; 1997a.
- Wagner DL. Long-distance caregiving for older adults. *Innovations in Aging*. 1997b; 26(2):6–9.
- Wagner, DL. Caring across the miles: Findings of a survey of long-distance caregivers. Final Report for The National Council on the Aging; Washington, DC: 1997c.
- Watari K, Wetherell JL, Gatz M, Delaney J, Ladd C, Cherry D. Long distance caregivers: Characteristics, service needs, and use of a long distance caregiver program. *Clinical Gerontologist*. 2006; 29(4):61–77.
- Weaver, T. Caring for an elderly from far away: Geriatric care managers. *Caregiver.Com: Today's Caregiver Magazine*. 2001. Retrieved from: [http://www.golden-age-eldercare.com/Articles/caring\\_for\\_an\\_elder\\_from\\_far\\_awa.htm](http://www.golden-age-eldercare.com/Articles/caring_for_an_elder_from_far_awa.htm)
- Wolf DA, Longino CF. Our “increasingly mobile society”? The curious persistence of a false belief. *Gerontologist*. 2005; 45(1):5–11.

**Table 1**

## Search Terms used in the Systematic Review

---

**Key Terms**<sup>\*</sup>

Long Distance caregiving

Long Distance caregiver(s)

Long Distant caregiving

Long Distant caregiver(s)

Long Distance carer(s)

Long Distant carer(s)

Spatial proximity + care

Care from afar

Caregiving from afar

Caregivers from afar

Proximate + caregiver(s)

Proximate + caregiving

Proximate + carer(s)

Distal + caregiver(s)

Distal + caregiving

Distal + carer(s)

Out of town caregiver(s)

Immigrant caregiver(s)

Filial piety

---

<sup>\*</sup> Not all databases had full Boolean search capabilities, which limited our ability to use truncated, paired, or exclusionary terms.

Table 2

## Summary of Empirical Research on Long Distance Caregiving (Search Date 5/2010)

Author/Date	Peer Review	Design	N	Sample Description	Summary of Selected Findings
Ballock, 2000 <sup>†</sup>	Yes	Qualitative interviews	12	LDC <sup>*</sup> employed at an Australian university	Distant caregivers maintained contact and made key contributions through phone calls, letters and visits
Cagle, 2008	No	Prospective survey with repeated measures	106	Convenience; 25 LDC, 27 proximate, and 54 co-residing; care recipients were in hospice	Co-residing caregivers had more depressive symptoms than LDC; LDC were less likely to self-identify
Climo, 1992	No	Structured interviews	80(40 couples)	Per couple, at least one person was a university employee living 200 miles from a care recipient	Identified 3 groups of LDC, those: wanting to be reunited; who accept the distance; and, who are estranged
Collins et al., 2003 <sup>†</sup>	Yes	Case narrative	1	The lead author's account of her experience as an African-American LDC	A desire to keep the care recipient at home; the limited availability of services; avoidance of formal care were noted
Harrigan & Koerin, 2007 <sup>†</sup>	Yes	Case narratives	2	The authors describe their experiences as LDC	LDC can experience both burdens and benefits of providing care; distance poses challenges/opportunities for intervention
Joseph & Hallman, 1998 <sup>†</sup>	Yes	Secondary data analysis	1149	Canada-wide probability sample; employed carers	Found a distance-decay effect; the further away caregivers are, the less hours they devote to care; gender inequalities were also noted.
Joseph, Leach & Turner, 2007	No	2 phases of ethnographic interviews	19	Purposive; 9 LDC and 10 access agency workers; all women	Identified that many of the policies and resources available to support caregivers are insufficient for LDC and rural elderly
Kodwo, 2009	No	Cross-sectional survey	124	Convenience; Ghanaian immigrant LDC; 66 men and 58 women	Immigrant LDC's efforts were supported by local siblings; financial support and a sense of filial obligation were prevalent.
Kodwo-Nyameazea & Nguyen, 2008 <sup>†</sup>	Yes	Qualitative interviews	5	Convenience; 2 male and 3 female Ghanaian-Aken immigrants	Filial obligation, respect, and solidarity were identified as key motivators for immigrant LDC
Koerin & Harrigan, 2002 <sup>†</sup>	Yes	Secondary data analysis	1,509; 109 LDC	Nationwide probability sample NAC/AARP, 1997	More men are LDC compared to the general caregiver population; LDC tend to be upwardly mobile
Mazanec, 2009	No	Cross-sectional survey; mixed-methods	80	Convenience; 40 LDC and 40 local; all caring for a person with cancer	LDC had more distress, anxiety, and mood disturbance than local caregivers
MetLife, 2004 <sup>†</sup>	No	Cross-sectional survey	1,130 LDC	Nationwide probability sample	LDC often support the care efforts of local siblings; they contributed financially and juggled family/career priorities; gender differences were noted
NAC & AARP, 2004 <sup>†</sup>	No	Cross-sectional survey	1,247; 15% LDC	Nationwide probability sample	LDC tended to be secondary caregivers who were college educated, upper income;

Author/Date	Peer Review	Design	N	Sample Description	Summary of Selected Findings
NAC & AARP, 2009 <sup>†</sup>	No	Cross-sectional survey	1,307; 13% LDC	Nationwide probability sample	LDC's more often expressed distress than proximate or co-residing caregivers The proportion of LDCs remained steady since the 2004 survey wave; lower income LDCs visited their care recipients 3x as frequently as higher income LDCs.
Neuharth & Stern, 2002 <sup>†</sup>	Yes	Secondary data analysis	2,635 for '82; 2,462 for '84	Nationwide probability sample; '82 & '84 NLTCs <sup>**</sup>	Found that distance from a parent was the key determinant when siblings delegate caregiving responsibilities
Parker et al., 2002 <sup>†</sup>	Yes	2 cross-sectional surveys	277	Convenience; Senior male military officers	Worry increased with parents' age and illness, respondent anger; decreased with the presence of local siblings and a care plan
Roff et al., 2007 <sup>†</sup>	Yes	Qualitative interviews	22	Purposive; LDC who were adult children; 10 women and 12 men	LDC took on a wide array of care-related roles; some LDC expressed frustration with local siblings
Schoonover et al., 1988 <sup>†</sup>	Yes	Cross-sectional survey	55	Convenience; LDC supporting a local sister caring for a mother	Female LDC were more likely to express feelings of guilt and strain compared to their male counterparts
Thompson & Lovestone, 2002 <sup>†</sup>	Yes	Cross-sectional case controlled group comparison	29 LDC; 35 local	Recruited from a UK-based dementia registry	LDC reported similar levels of distress as with local caregivers, but greater levels of dissatisfaction with information received
Vasseur, 2008	No	Cross-sectional survey	59	Convenience; Connecticut caregivers; 3 of whom lived >60 miles from the care recipient	Observed virtually no difference in the relationship between caregiver stress and distance.
Wagner, 1997 <sup>†</sup>	No	Cross-sectional survey	200 LDC	Nationwide probability sample	On average, LDC lived 304 miles away; half reported that care interfered with work, social, and family life.
Watari et al., 2006 <sup>†</sup>	Yes	Cross-sectional survey and group comparison	90 LDC/187 local caregivers	Convenience; L.A.-based Alzheimer's support program	Found that a LDC support program was feasible and participant satisfaction was high

\* Long distance caregivers

\*\* National Long Term Care Survey

<sup>†</sup> Selected for critical review

**Table 3**

## Selected Non-Empirical Articles on Long Distance Caregiving

Article Description	Author and Date
Prescriptive advice	Harvard Women's Health Watch, 2004
Advocacy	Benefield, 2005 Heath, 1995 Manthorpe, 2001
General discussions	Carton, 2000 Donorfio & Kellett, 2006 Weaver, 2001 Smith, 2006
Models/intervention development	Benefield & Beck, 2007 Parker et al., 2003 Parker et al., 2001 Roff et al., 2003