Using Ecological Frameworks to Advance a Field of Research, Practice, and Policy on Aging-in-Place Initiatives

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Initiatives to promote aging in place have emerged rapidly in the United States across various health care settings (e.g., acute care hospitals, skilled nursing facilities) and broader community settings (e.g., public social service agencies). Moreover, recent federal policies include a growing number of provisions for local efforts to promote aging in place. Despite emerging bodies of research that have described singular initiatives in their own right, there has been very little scholarship that forges conceptual linkages across this increasingly vast domain of research, practice, and policy. Integrative theory development is critical to ensure that aging-in-place initiatives do not become fragmented from each other. This article uses insights from ecological frameworks—specifically Urie Bronfenbrenner’s bioecological systems theory and M. Powell Lawton’s general ecological model of aging—to conceptualize a range of programs as aging-in-place initiatives and for describing their similarities and differences, particularly in terms of the features through which they intend to promote aging in place. Theoretically derived dimensions along which to characterize aging-in-place initiatives include environment-focused aspects (e.g., the types of social systems and structures that the initiatives target for change) and person-focused aspects (e.g., the extent to which the initiatives target particular subgroups of older adults). The article concludes with a discussion on how these theoretically derived dimensions can be used to advance and integrate research, practice, and policy to systematically develop and expand aging-in-place initiatives.

Key Words: Health care, Social services, Care coordination, Community interventions, Developmental theory

“Aging in place” refers to being able to remain in one’s current residence even when faced with increasing need for support because of life changes, such as declining health, widowhood, or loss of income (Pastalan, 1990). Studies estimate that approximately one third of community-residing elders face functional limitations that place them at risk for not being able to age in place (e.g., Fuller-Thomson, Yu, Nuru-Jeter, Guralnik, & Minkler, 2009). Given demographic changes, such as smaller family sizes and women’s participation in
the paid labor force, there is concern that families are becoming increasingly less available to serve as the “backbone” of long-term care in the United States (Szinovacz & Davey, 2008). Moreover, stakeholders continue to express concern that systems of health and social services to prevent involuntary relocation in later life are fragmented, inefficient, difficult to access, inconsistent across communities, and unresponsive to individuals’ changing needs and preferences over time (MetLife Mature Market Institute, 2010). Access to formal home- and community-based services is especially difficult for a growing population of near poor elders who typically do not qualify for publically funded services, yet for whom the costs of supportive services render them economically vulnerable (Sanders, Mutchler, Kuriansky, & McMahon, 2008).

Recognizing these issues, a growing number of initiatives have developed within the past two decades to transform social systems to promote aging in place (Scharlach, 2009). Moreover, recent federal legislation has provided support for organized efforts to promote aging in place. For example, the 2010 Patient Protection and Affordable Care Act provides additional federal support to enhance access to home- and community-based services under state-based Medicaid programs (McGuire Woods, 2010). Also, the 2006 Reauthorization of the Older Americans Act established the Community Innovations for Aging in Place Program (CIAIP) to support the efforts of local communities to promote aging in place (U.S. Administration on Aging, n.d.).

To date, much of the research on aging-in-place initiatives has focused on describing singular initiatives in their own right (see Table 1). There has been very little integrative scholarship that forges conceptual linkages to define and unify this increasingly vast domain of research, practice, and policy. Employing broad theoretical frameworks to identify similarities and differences among aging-in-place initiatives is critical for preventing these efforts from becoming fragmented from each other and perpetuating inefficiencies, redundancies, and confusion among policymakers, service providers, consumers, and advocates regarding these programs’ potentially complementary objectives and methods for promoting aging in place.

This article aims to address this gap by advancing ecological frameworks—specifically Urie Bronfenbrenner’s bioecological systems theory and M. Powell Lawton’s general ecological model of aging—as tools for conceptualizing a range of programs as aging-in-place initiatives and for characterizing these initiatives in comparison to each other. Ecological frameworks, which address mutually influential interactions among individuals and their diverse social and physical environments, are especially useful for conceptualizing the initiatives’ similarities and differences in terms of the features through which they intend to promote aging in place. The article concludes by demonstrating how integrative theory development in this area is critical for furthering a field of research, policy, and practice on aging-in-place initiatives.

**Brief Overview of Ecological Frameworks and Aging-in-Place Initiatives**

Ecological frameworks have developed rapidly over the past century within both the natural and social sciences (Rotabi, 2008). This article focuses on two ecological frameworks that were developed within gerontology and the field of human development: the general ecological model of aging (Lawton & Nahemow, 1973) and bioecological systems theory (Bronfenbrenner & Morris, 2006). As ecological frameworks, both theories focus attention to the mutually influential and dynamic transactions among individuals and diverse environmental contexts that shape continuity and change in functioning across the life span (Satariano, 2006).

Classic gerontological theorizing on “environmental press” explicitly orient attention to aging in place as a person–environment phenomenon (Lawton, 1990). According to the general ecological model of aging, a person’s functioning is the result of their biological, psychological, and social resources; environmental characteristics; and the “fit” between ever-changing individuals and their ever-changing environments. When demands from social and physical environments overwhelm an individual’s resources—because of changes within the environment or the individual—the individual is less likely to age in place (Lawton, Weisman, Sloane, & Calkins, 1997). For example, if a person who becomes unable to climb stairs lives in a single-story home, their ability to remain safely and comfortably within their current residence likely persists in spite of their functional health change. However, if that person lives in a two-story home and does not have supports to help them access the second floor, then they are less likely to be able to age in place.

Bioecological systems theory similarly orient attention to how person–environment transactions
influence individuals’ functioning over time. Biocological systems theory conceptualizes human development as “the phenomenon of continuity and change in the biopsychological characteristics of human beings” (Bronfenbrenner & Morris, 2006, p. 279). According to this perspective, development occurs as the result of individuals being embedded within overlapping layers of environmental contexts that are organized as “a set of nested structures, each inside the other like a set of Russian dolls” (Bronfenbrenner, 1979, p. 3). Levels of context include the microsystem (which consists of activities and interaction patterns in individuals’ immediate surroundings), the mesosystem (which involves connections among microsystems), the exosystem (which consists of settings that do not contain the individual directly, yet still affect them), the macrosystem (broader systems of values, laws, customs, and resources), and the chronosystem (systems and markers of time, such as life transitions). Biocological systems theory orients attention to (a) the interrelationship among these layers of context, (b) how they influence individuals’ biopsychosocial functioning over time, and (c) how individuals shape and interpret the environmental contexts in which they develop (see Bronfenbrenner & Morris, 2006, for a discussion). For example, biocological systems theory provides a lens for understanding how older adults’ psychological resources (such as a strong sense of mastery, optimism, self-esteem) can help them better manage challenges within their environments (such as difficulty climbing stairs following health decline), which potentially helps them to maintain and further develop their psychological resources over time.

In summary, biocological systems theory and the general ecological model of aging orient attention to dynamic person–environment processes. According to ecological frameworks, therefore, aging-in-place initiatives can be conceptualized broadly as organized efforts to strengthen facilitators and minimize impediments to optimal transactions among persons and environments for the purposes of aging in place. Unlike other types of interventions that privilege a particular class of behavior (e.g., falls prevention programs that focus on reducing falls and associated risk factors), ecological frameworks’ attention to multiple domains of development highlights the initiatives’ aim to promote aging in place by optimizing many domains of individual functioning, including biological, social, and psychological.

In addition to allowing for this overarching conceptualization of aging-in-place initiatives, ecological frameworks are further useful for describing features of the processes through which aging-in-place initiatives potentially benefit older individuals. By advancing concepts and propositions regarding person–environment transactions over time, ecological frameworks suggest specific dimensions along which to characterize the processes through which these initiatives potentially promote aging in place. These dimensions, which are developed below and organized under the categories of “environment-focused dimensions” and “person-focused dimensions,” are presented as “ideal types” or “pure” categories that serve as useful theoretical tools to clarify aspects of complex social realities (Hekman, 1983). To provide examples of initiatives that most clearly demonstrate these categories, the article highlights initiatives that strongly differ from each other on each dimension. Most initiatives are likely to fall along a continuum between extremes on the dimensions. Table 1 lists initiatives that have been implemented across various regions of the country and that have been organized, in part, by a national or international entity, as well as a summary of each initiative’s characteristics according to the dimensions described below.

Environment-Focused Dimensions

Relative Focus on Physical and Social Aspects of Older Adults’ Environments

Ecological frameworks delineate different types of environments that can inhibit or facilitate individuals’ development (Bronfenbrenner, 1994; Lawton, 1980). Both theories distinguish between physical environments—which consist of inanimate objects, spaces, and material structures with which an individual directly or indirectly engages (e.g., having wide door frames within one’s home through which wheelchairs can pass)—and social environments, which consist of interpersonal relationships (e.g., the relationship between a care recipient and caregiver) and broader social institutions and arrangements (e.g., the provision of tax credits for family caregivers). Biocological systems theory especially emphasizes how social environments—such as families and other social institutions—impact individuals’ functioning over time (e.g., Bronfenbrenner, 1986) and the general ecological model on aging places considerable attention on aspects of built environments—such as
Table 1. U.S. Nationally Implemented Aging-in-Place Initiatives and Characterizations Along Six Ecologically Derived Dimensions

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Brief description</th>
<th>Focal type of environment targeted for initial change</th>
<th>Focal level of environment targeted for initial change</th>
<th>Focal social systems and structures targeted for initial change</th>
<th>Older adults as leaders</th>
<th>Target subgroups of older adults</th>
<th>Attention to times of life transitions</th>
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</thead>
<tbody>
<tr>
<td>Age-Friendly Communities</td>
<td>Developing and applying frameworks to make communities more livable for older adults, such as through community needs assessments, strategic planning, community education campaigns, and community interventions (Hanson, 2006; World Health Organization, 2007)</td>
<td>Explicit focus on transforming both physical and social</td>
<td>More proximal, as oftentimes led by municipal governments and local partners</td>
<td>Typically led by community-based organizations</td>
<td>Acknowledgment of older adults as informants and partners in community decision making</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^a)</td>
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<tr>
<td>Aging and Disability Resource Connections</td>
<td>A government initiative to develop streamlined access to long-term care services among adults of all ages with disabilities (O’Shaughnessy, 2010)</td>
<td>Main focus on social (e.g., linking people with service providers)</td>
<td>More distal, as organized largely by state governments and implemented by county or regional offices</td>
<td>Typically led by community-based organizations (e.g., public agencies)</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^a)</td>
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<tr>
<td>Care Transition Programs</td>
<td>Programs to ensure that older adults move safely and comfortably across levels and settings of care, such as hospitals, skilled nursing facilities, and single-residence homes (Coleman &amp; Boul, 2003)</td>
<td>Main focus on social (e.g., ensuring that service providers communicate with each other)</td>
<td>More proximal, as implemented by local health and social service providers</td>
<td>Oftentimes led by both health care organizations and community-based organizations</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^a)</td>
<td>Focus on when individuals move across settings or levels of care</td>
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<tr>
<td>Community Partnerships for Older Adults</td>
<td>Facilitate partnerships among diverse community stakeholders to develop innovative ways to meet the long-term care needs of older adults within a particular community (Bailey, 2009)</td>
<td>Main focus on social (e.g., convening stakeholders’ meetings)</td>
<td>Varies, as could be organized at the municipal, county, or regional levels</td>
<td>Largely led by community-based organizations</td>
<td>Older adults typically considered primary partners and leaders</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^a)</td>
</tr>
<tr>
<td>Medicaid Long-Term Care Programs</td>
<td>Provide and integrate home- and community-based services for older adults who typically are financially and medically eligible for publicly funded nursing home residency (U.S. Department of Health and Human Services, 2011)</td>
<td>Main focus on social (e.g., linking clients with formal service providers)</td>
<td>More distal, as organized largely by state governments and implemented by county or regional offices</td>
<td>Largely led by community-based organizations (e.g., public agencies)</td>
<td>Not explicitly(^a)</td>
<td>Typically older adults with high levels of medical and financial needs</td>
<td>Not explicitly(^a)</td>
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\(^a\) Table continues on next page
Table 1. (Continued)

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</tr>
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<tr>
<td>Program of All-Inclusive Care for the Elderly</td>
<td>Interdisciplinary health care teams—typically based within adult health day centers—that integrate acute and long-term care for older adults with severe chronic conditions and functional health problems (Lynch, Hernandez, &amp; Estes, 2008)</td>
<td>Main focus on social (e.g., linking clients with formal service providers)</td>
<td>More proximal, as typically administered by local health and social service organizations</td>
<td>Typically led by health care organizations (e.g., adult day health centers)</td>
<td>Not explicitly(^a)</td>
<td>Typically older adults with high levels of medical and financial need</td>
<td>Not explicitly(^b)</td>
</tr>
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<td>NORC-SSPs(^2)</td>
<td>Efforts to coordinate and provide individual and group services and programs for older adults in a particular community (Ormond, Black, Tilly, &amp; Thomas, 2004)</td>
<td>Main focus on social (e.g., connecting community members with each other)</td>
<td>More proximal, as typically led by local social service organizations</td>
<td>Typically led by community-based organizations (i.e., social service agencies)</td>
<td>Older adults viewed as informants and program partners</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^b)</td>
</tr>
<tr>
<td>Villages</td>
<td>Typically membership organizations that enhance social connections and supportive services among older adults within a particular community (McDonough &amp; Davitt, 2011)</td>
<td>Main focus on social (e.g., connecting community members with each other)</td>
<td>More proximal, as led by local group of community members</td>
<td>Largely led by community-based groups of volunteers</td>
<td>Older adults typically instigate and lead the program</td>
<td>Not explicitly(^a)</td>
<td>Not explicitly(^b)</td>
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Notes: Descriptions are based on initiative “ideal types” as described within cited references. NORC-SSPs = Naturally Occurring Retirement Community-Supportive Services Programs.

\(^a\)“Not explicitly” designates instances in which the highlighted aspect of the dimension is not a formal focus of the program model, yet programs could incorporate the aspect within their practice. For example, the “Age-Friendly Community” framework does not explicitly call for targeting particular subgroups of older adults; however, programs that use this model could target its efforts toward specific subgroups.
The frameworks’ collective attention to how physical and social aspects of environments influence individuals indicates one dimension along which to differentiate aging-in-place initiatives: “To what extent does the initiative focus on both physical and social aspects of environments as initial and primary catalysts for promoting aging in place?”

The Community Partnerships for Older Adults program provides an example of an initiative that begins with a focal emphasis on altering aspects of individuals’ social environment. The model explicitly aims to create and strengthen relationships among diverse organizations and individuals—such as business owners, housing managers, older adults, and government officials—to develop innovative and community-specific measures to help older adults to age in place (Bolda, Saucier, Maddox, Wete, & Lowe, 2006). Although these social interactions might lead to changes in older adults’ physical environments, such as a community group working collaboratively to improve the infrastructure of business districts to attract older adults (City of Boston, 2004), the initiative focuses largely on social environments as initial catalysts for change. In contrast, many age-friendly community initiatives explicitly emphasize the physical environment as well as the social environment (Hanson, 2006). For example, the World Health Organization’s (2007) global age-friendly cities initiative offers standards for outdoor spaces, community buildings, and housing to support older adults, as well as accessible social events and activities for older adults’ participation.

Relative Focus on Proximal and Distal Environments and Their Interrelationships

Ecological frameworks orient attention to the diverse levels of environments in which individuals are embedded. Lawton (1989), for example, distinguishes across four levels of social environments, including: (a) personal environments that consist of people with whom the focal individual interacts directly; (b) small group environments that have emergent properties beyond the individual level, such as group norms or goals; (c) characteristics of broader social networks that are relatively physically close to the person, such as the average age of residents within ones’ neighborhood; and (d) broader sociocultural factors, such as laws, social institutions, and cultural values. Similarly, bioecological systems theory classifies various levels of environments according to their relative proximity to individuals (Bronfenbrenner, 1979). More proximal environments are physically closer to individuals and afford more opportunities for direct face-to-face interactions (Goodnow, 1995). A key insight of bioecological systems theory is that processes that occur in more distal settings influence individuals by altering aspects of progressively more proximal environments (Bronfenbrenner, 1979). For example, social policy that affords family members paid leave for caregiving theoretically influences care recipients first by changing transactions among caregivers and their employers (as a type of “exosystem,” which is more distal to individuals), which then might change transactions among caregivers and care recipients (as a type of “microsystem,” which is more proximal individuals), which then might influence individuals’ aging in place.

The articulation of proximal and distal environments—as well as their interrelationships—suggests a second dimension along which to characterize aging-in-place initiatives: “How proximal or distal to the individual is the environment that the initiative most forcefully and initially targets for change?”

Aging and Disability Resource Centers (ADRCs) provide an example of an initiative that initially creates changes within more distal environments so as to affect changes within older adults’ progressively more proximal environments. With support from the U.S. Administration on Aging, ADRCs are initially organized at the state level, such as within state units on aging. These government offices are likely to be outside of an older adults’ immediate physical environment, and many older adults are unlikely to have direct contact with their employees. Under the ADRC initiative, states designate proximal entities to make long-term care services more easily accessible, person centered, community based, and integrated. Key partners in implementing the initiative at the local level typically include area agencies on aging, local Medicaid offices, and centers for independent living, who are positioned to engage in direct social interactions with older adults, such as by providing options counseling (O’Shaughnessy, 2010). In contrast, Villages exemplify an aging-in-place initiative that emerges more immediately within older adults’ proximal environments. As largely
grassroots organizations, Villages typically emerge from hyperlocal settings, such as an older adults’ specific neighborhood within a larger municipality (McDonough & Davitt, 2011). Core activities of the initiatives—such as hosting community events and facilitating peer support—occur in places that are physically close to individuals and that facilitate a variety of opportunities for face-to-face interactions among community members.

Relative Focus on Particular Types of Social Structures and Systems and Their Interconnections

Bioecological systems theory views individuals as embedded within interlocking social systems comprising various social structures—such as health care organizations, voluntary organizations, families, and religious congregations. Interconnected social systems are posited to influence individuals’ development independently, as well as in conjunction with each other (Bronfenbrenner, Moen, & Garbarino, 1984). For example, a health care organization might refer an individual to a social service provider or a neighbor might help an older individual attend a group exercise class at a community center. Similarly, the general ecological model of aging identifies the various actors from diverse social systems that potentially comprise an individual’s social environment, including family members, neighbors, local business owners, housing managers, and health and social service providers (Lawton, 1980).

The articulation of interlocking social structures and systems suggests a third dimension along which to characterize aging-in-place initiatives: “Which social systems and structures, as well as inter-relationships among systems, do the initiatives emphasize to promote aging in place?”

Although aging-in-place initiatives typically aim to influence a variety of social systems and structures, initiatives can be distinguished from each other on this dimension regarding the focal types of systems and structures that they emphasize. For example, Naturally Occurring Retirement Community-Supportive Services Programs (NORC-SSPs) exemplify an initiative that largely incorporates community-based organizations. The model is typically led by a social service agency, which develops partnerships with a wide range of community-based partners, such as housing managers, faith-based organizations, neighborhood associations, voluntary groups, and community-based health care organizations, such as visiting nurse services (Vladeck, 2004). In contrast, the Program of All-Inclusive Care for the Elderly (PACE) exemplifies an initiative that focuses its activities within more traditionally defined health care systems. PACE aims to provide integrated acute and long-term health services largely within licensed adult day health centers and primary care clinics (Lynch et al., 2008). The program serves to initiate and maintain interdisciplinary health care teams and ancillary staff that operate from these centers to provide a range of services to individuals.

Person-Focused Dimensions
Relative Focus on Older Adults as Leaders of Changes in Person–Environment Transactions

Although bioecological systems theory and the general ecological model of aging are widely celebrated as theories of how environments influence individuals’ functioning over time (Ceci, 2006; Kendig, 2003), both theories also orient attention to ways in which individuals can influence the very environments in which they develop. Bronfenbrenner and Morris (2006) conceptualize individuals as active agents that shape their environment by instigating particular types of transactions with their environments. For example, an older adult who is willing to accept other people’s help is more likely to incorporate relationships with helping professionals as part of their social environments than an older adult who goes to great lengths to avoid receiving help from others. The general ecological model of aging similarly recognizes that individuals potentially initiate environmental changes, such as by purposely altering one’s environment to “maximize the congruity between one’s own needs and the offerings of the environment” (Lawton, 1974, p. 258).

This attention to individuals’ role in creating and shaping their environments suggests a fourth dimension along which to characterize aging-in-place initiatives: “To what extent does the initiative involve older adults as the leaders of the environmental changes that the initiative seeks to make?”

While many aging-in-place initiatives do not explicitly call for older adults as leaders of the programs, NORC-SSPs and Villages are examples of initiatives that do. NORC-SSPs conceptualize older adults not only as service recipients but also as integral partners to the lead agency in implementing and sustaining the program. NORC-SSPs
facilitate older adults’ contributions by providing opportunities for mutual exchanges of support among community members, soliciting older adults’ input into program development, and having older adults help to administer the program itself (Vladeck, 2004). Villages further exemplify initiatives that involve older adults as leaders of environmental changes. As Villages are typically grassroots organizations, older adults are often largely responsible for initiating, developing, and governing the program (McDonough & Davitt, 2011). Although Villages potentially develop as formal nonprofit organizations with some paid staff, older adults who benefit from the initiative oftentimes remain as the organization’s primary leaders.

**Targeting Subgroups of Older Adults**

Ecological frameworks further orient attention to individuals in terms of their biopsychosocial resources—characteristics which are posited to influence how environments affect individuals (Bronfenbrenner, 1979; Lawton, 1989). Bronfenbrenner and Morris (2006) distinguish biopsychosocial liabilities, which limit people’s functional abilities and make them more vulnerable to adverse environmental conditions, from biopsychosocial assets, which enhance people’s ability to derive benefits from advantageous environments. Similarly, a core insight of the general ecological model on aging is that individuals’ abilities and disabilities alter the extent to which environmental changes influence their functioning. For example, Lawton (1989) hypothesized that an “incremental improvement in the environment should disproportionately enhance outcome(s) for the more disabled as compared to the effect of the same improvement for the most competent” (p. 64).

This attention to the ways in which individual characteristics influence how environments affect individuals suggests a fifth dimension along which to characterize aging-in-place initiatives: “To what extent does the initiative target subgroups of older adults by characteristics that potentially influence their ability to age-in-place?”

Medicaid home and community-based services waivers exemplify a class of initiatives that largely targets older adults with biopsychosocial liabilities that make them especially vulnerable to environmental conditions that undermine aging in place. Medicaid waiver programs, such as the 1915(c) waivers, typically serve individuals who qualify for publically funded long-term care services, which are based on individuals’ medical and financial need (Kaiser Family Foundation, 2006). Older adults deemed eligible can use Medicaid funding to access home- and community-based services as determined by the state and the particular waiver program. The Community Partnerships for Older Adults Program, on the other hand, largely does not target older adults by their existing levels of resources. Instead, this initiative intends to improve service delivery systems for older adults as a whole within a particular community (Bolda et al., 2006), such as by launching community-wide public awareness campaigns on aging services or training aging service professionals who serve diverse elders (Robert Wood Johnson, n.d.).

**Initiating Person–Environment Changes at the Time of a Life Transition**

A core assumption of ecological frameworks is that person–environment transactions take place over extended periods of time (Satarianno, 2006). Reflecting this emphasis, the general ecological model of aging highlights the dynamic nature of both individuals and environments, stating that they both have “a past, a present, and a future” (Lawton & Nahemow, 1973, p. 623). Similarly, in his later work, Bronfenbrenner explicitly drew on principles from the life course perspective to specify how time influences transactions between persons and environments. One such principle is “timing in lives (which) states that the developmental impact of a success of life transitions or events is contingent on when they occur in a person’s life” (Bronfenbrenner & Morris, 2006, p. 821). In other words, the impact of a change in conditions on individual human development depends on its timing relative to other events in an individual’s life.

This attention to time and the differential impact of events according to when they occur in a person’s life indicates a sixth dimension along which to characterize aging-in-place initiatives: “To what extent does the initiative explicitly focus on creating changes in person-environment transactions at the time of a life transition?”

Care transition programs exemplify an initiative that engages individuals during a time of life transition—the point at which the individual transitions from one health care setting to another (Coleman & Boul, 2003). For example, the
Using Integrative Theory to Advance a Field of Research, Policy, and Practice on Aging-in-place Initiatives

This article advances ecological frameworks to conceptualize a range of programs as aging-in-place initiatives and for conceptualizing these initiatives’ similarities and differences, particularly in terms of the features through which they intend to promote individuals’ aging in place. Bioecological systems theory (Bronfenbrenner, 1979) and the general ecological model of aging (Lawton & Nahemow, 1973)—which both orient attention to mutually influential person–environment transactions—are especially well suited for conceptualizing aging in place as a dynamic person–environment process. The frameworks are further useful for deriving dimensions along which to characterize aging-in-place initiatives, including environment-focused dimensions and person-focused dimensions.

Given that many aging-in-place initiatives have developed only with the past two decades, rich descriptions of singular initiatives have served the important purpose of documenting rapid developments in this newly emerging area. However, as the initiatives expand in their scope of implementation, it is critical to advance theory to understand these initiatives as a whole and particularly in relationship to each other. Similar to the ways in which many aging-in-place initiatives intend to reduce fragmentation across supportive service providers, funders, and settings, integrative theory development on aging-in-place initiatives is essential for preventing fragmentation across the initiatives’ efforts to promote aging in place. Although each initiative shares the goal of promoting aging in place, there are similarities and differences in the features through which they seek to achieve this goal. Advancing broad theoretical frameworks to identify similarities that unite these initiatives, while also identifying the initiatives’ differences, can help to prevent confusion among policymakers, consumers, and advocates and to advance efforts to optimize the initiatives’ complementary strengths and limitations to promote older adults’ aging in place.

Table 2 presents ways in which the ecologically derived dimensions can be used to advance research, practice, and policy on aging-in-place initiatives. For example, regarding implications for research and building from the dimension regarding the extent to which older adults initiate environmental changes, one might posit that having older adults as leaders of the initiatives is a critical aspect of effective change processes. Because consumer-led initiatives have greater “buy-in” from consumers, older adults who transact with these types of initiatives might be especially likely to use and benefit from the initiatives’ services and activities (Ormond et al., 2004). On the other hand, one might posit a contrasting theory of change along this dimension, surmising the importance of having established organizations—such as nonprofit organizations—lead the initiatives. Programs led by formal organizations are more likely to have diverse funding sources that will make them more sustainable and better positioned to respond to older individuals’ needs over time (Carroll & Stater, 2008). These hypotheses, as derived from the dimension regarding older adults as leaders of environmental changes, can potentially be tested through comparative evaluation research on both program processes (e.g., to what extent do programs that intend to engage older adults as leaders succeed in doing so?) and outcomes (e.g., are initiatives that engage older adults as leaders more effective at promoting older adults’ health and well-being than initiatives that do not?).

In addition to implications for research, the ecologically derived dimensions can be used to advance program and policy. Designers of national and international program models, as well as directors of individual program sites, can use this framework to develop and articulate program theories.
Table 2. Using Theoretically Derived Dimensions to Guide Research, Practice, and Policy on Aging-in-Place Initiatives

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Examples of questions for research</th>
<th>Examples of questions for practice</th>
<th>Examples of questions for policy</th>
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<tbody>
<tr>
<td>Relative focus on both social and physical environments</td>
<td>Are program models that explicitly focus on physical environments—in addition to social environments—more effective at promoting older adults’ ability to age in place in contrast to initiatives that largely do not consider older adults’ physical environments?</td>
<td>In what ways does the program offer services that change older adults’ immediate physical environments (e.g., increasing access to home modifications)? To what extent are professions such as urban planners and engineers involved in stakeholders’ meetings?</td>
<td>Does the policy provide funding at a sufficient level to expect changes in built environments in addition to social environments?</td>
</tr>
<tr>
<td>Relative focus on proximal and distal environments and their interrelationships with each other</td>
<td>Do initiatives that begin within older adults’ proximal environments have a more immediate impact on older adults’ ability to age in place in comparison to initiatives that originate within more distal environments?</td>
<td>To what extent does the program capitalize on older adults’ most proximal environments—such as next-door neighbors—to promote their aging in place?</td>
<td>What provisions are in place to ensure that a policy originating from a relatively distal level (e.g., state government) translates into effective changes within older adults’ more proximal environments (e.g., supports within one’s home)?</td>
</tr>
<tr>
<td>Relative focus on particular types of social structures and systems and their interconnections</td>
<td>Are initiatives that explicitly attempt to link community-based and health care settings more effective at promoting older adults’ aging in place in comparison to initiatives that focus largely only on health care settings or community-based settings?</td>
<td>Who are the primary partners for implementing the initiatives, and do they involve representatives from both community and more traditional health care organizations?</td>
<td>To what extent does the policy mandate that community-based organizations and health care organizations must both lead the development and implementation of the project?</td>
</tr>
<tr>
<td>Relative focus on older adults as leaders of changes</td>
<td>Do initiatives that are founded and led by older adults have greater success at bolstering informal support networks to promote aging in place in contrast to initiatives that are founded and led by formal service agencies?</td>
<td>What are challenges and opportunities for engaging older adults as leaders and champions of the initiatives, particularly older adults with significant functional impairment?</td>
<td>What are the advantages and disadvantages of policies that require older adults’ involvement in leading, planning, and maintaining the programs?</td>
</tr>
<tr>
<td>Targeting subgroups of older adults</td>
<td>Are initiatives that target individuals with greater financial resources more sustainable than initiatives that target individuals with fewer resources?</td>
<td>Who constitute the intended beneficiaries, and what outreach activities can help to ensure that the initiative reaches its focal population?</td>
<td>Does and should the policy target older adults with otherwise low levels of resources to help them age in place?</td>
</tr>
<tr>
<td>Initiating person–environment changes at the time of a life transition</td>
<td>Are initiatives that target individuals during or immediately after an acute loss event more cost-effective than initiatives that do not target individuals at this point in time?</td>
<td>What organizational practices are necessary to ensure that a program identifies and engages those who are experiencing, or preparing to experience, a loss event that jeopardizes their aging in place?</td>
<td>Does and should the policy have specific provisions for older adults at a point in their lives when they become at high risk for not being able to age in place?</td>
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</table>
Program theories help guide the evaluation of programs by explicating how an initiative aims to address a problem or need (Donaldson, 2007). The framework developed in this article can be used to communicate an aging-in-place program’s key intended processes. For example, the dimension regarding targeting subgroups of older adults encourages attention to articulating whether, how, and why a program is targeted toward a subgroup of older adults and how this targeting relates to the initiatives’ goal of promoting aging in place. Programs implemented in areas with large concentrations of older adult immigrants, for example, can use this dimension to explicate the importance of provisions that are socioculturally and sociolinguistically sensitive.

Considering aging-in-place initiatives as a whole, identifying similarities can elucidate shared interests among advocates for each initiative—interests that could be leveraged for unified policy advocacy, such as advocacy for additional funds to expand the implementation of aging-in-place initiatives. At the same time, identifying differences can help to inform decisions about which initiative to implement across diverse community and organizational contexts. Although features of some initiatives might be especially apropos for a particular type of community, organization, subgroup of elders, or intermediary objective, other initiatives might be especially well suited for other contexts. The ecologically derived framework provides a heuristic device to identify differences across models and to help practice leaders select elements from models that are best suited for their particular context. In these ways, continuing to develop and use broad theoretical frameworks on aging-in-place initiatives will not only help to define this area of academic research but also to advance applied efforts to strategically leverage the initiatives’ similarities and differences to better fulfill their potential to promote aging in place.

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References
