

Epistemological assumptions of age-friendly cities: a scoping review

Pressupostos epistemológicos das cidades amigas das pessoas idosas: revisão de escopo

Presupuestos epistemológicos de las ciudades amigables con las personas mayores: revisión de alcance

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Abstract

Objective: To identify the concepts and theoretical perspectives that underlie studies on age-friendly city.

Methods: This is a scoping review using six databases to identify studies published in indexed journals between 2007 and 2021 using the keywords 'age-friendly' OR 'age friendly' OR 'cidade amiga'.

Results: A total of 2,975 studies were found, which, after applying the exclusion criteria, resulted in 227. There was wide variation in the concept of the term, but many authors did so by replicating the WHO, and in 59.5% of studies there was no mention of any theoretical perspective. The ecological theory was the most frequent reference (26%), the term being used as an equivalent to active aging. Authors from four countries account for most articles (61%).

Conclusion: It is necessary to articulate the concept of age-friendly city with a theoretical and cultural approach to understand more deeply the urban and social perspectives under the logic of population aging, mainly for Latin America. Theoretical analysis in these studies and in gerontology will favor more critical discussions about aging, ageism and the growing social inequality in progress.

Resumo

Objetivo: Identificar os conceitos e perspectivas teóricas que fundamentam os estudos sobre Cidade Amiga da Pessoa Idosa.

Métodos: Revisão de escopo utilizando seis bancos de dados para identificar estudos publicados em revistas indexadas entre 2007 e 2021 usando as palavras-chave 'age-friendly' OR 'age friendly' OR 'cidade amiga'.

Resultados: Foram encontrados 2.975 estudos que após aplicação de critérios de exclusão resultaram em 227. Observou-se ampla variação no conceito do termo, porém muitos autores o fizeram replicando a OMS, sendo que em 59,5% dos estudos não houve menção de nenhuma perspectiva teórica. A teoria ecológica foi o referencial mais frequente (26%), sendo o termo usado como um equivalente a envelhecimento ativo. Autores de quatro países respondem pela maioria dos artigos (61%).

Conclusão: É necessário articular o conceito de Cidade Amiga da Pessoa Idosa com uma abordagem teórica e cultural para compreender mais profundamente as perspectivas do urbano e do social sob a lógica do envelhecimento populacional principalmente para a América Latina. A análise teórica nestes estudos e na gerontologia favorecerão discussões mais críticas sobre o envelhecimento, o idadismo e a crescente desigualdade social em curso.

Resumen

Objetivo: Identificar los conceptos y perspectivas teóricas que fundamentan los estudios sobre Cuidades Amigables con las Personas Mayores.

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Métodos: Revisión de alcance utilizando seis bancos de datos para identificar estudios publicados en revistas indexadas entre 2007 y 2021, con las palabras clave 'age-friendly' OR 'age friendly' OR 'ciudad amigable'.

Resultados: Se encontraron 2975 estudios que, luego de aplicar los criterios de exclusión, quedaron 227. Se observó una amplia variación del concepto del término, aunque muchos autores replicaron a la OMS. En el 59,5 % de los estudios no se mencionó ninguna perspectiva teórica. La teoría ecológica fue la referencia más frecuente (26 %), y el término se usó como un equivalente al envejecimiento activo. La mayoría de los artículos (61 %) son de autores de cuatro países.

Conclusión: Es necesario unir el concepto de Ciudades Amigables con las Personas Mayores con un enfoque teórico y cultural para comprender más profundamente las perspectivas de lo urbano y lo social de acuerdo con la lógica del envejecimiento poblacional, principalmente en América Latina. El análisis teórico en estos estudios y en la gerontología permitirán discusiones más críticas sobre el envejecimiento, el edadismo y la creciente desigualdad social en curso.

Introduction

Aging and urbanization represent global trends in both developing and developed countries.⁽¹⁾ Despite this, among those in development, the challenges and coping with these two phenomena are different in terms of resources and political support for active and healthy aging. This discrepancy is aggravated by social structures and inequalities in the life course of the most vulnerable population.⁽²⁾

Therefore, the study of human aging becomes a complex and challenging task when considering all variables involving older adults and heterogeneous old age.⁽³⁾

One of the possibilities to understand and study how intersectionality and the multiple forms of disadvantage of urban, social and political space impact the aging process,^(3,4) is possibly by screening academic production.⁽¹⁾ Mainly from Latin American countries that can contribute to this gap and expand the impact of research and public policies focused on the subject.

In addition to identifying and characterizing these policies and populations, investigations must be based on a relevant theoretical lens to bring about constructive discussions about the experiences of aging, their urban, political, social, economic and cultural contexts articulated with gender issues, structural racism, disabilities, and other constituents of an intersectional agenda.^(3,4)

The study of aging in cities involves interdisciplinarity that demand theoretical perspectives and conceptual delimitations in the production of evidence.⁽⁵⁾ Only then will we be able to broaden our understanding of how social position and multiple and overlapping identities can affect the results of active, healthy and citizen aging.

In 2007, in order to provide opportunities for active and healthy aging globally, the World Health Organization (WHO) released the Global Age-Friendly City Guide,⁽⁶⁾ promoting the term that was gradually coined in history.

About 50 years ago, environmental gerontologists had already outlined the concept of age-friendly communities by examining the relationship between people, their environment and the quality of life of sixty-year-olds.⁽⁷⁾ However, in the 2000s, the term became popular with the WHO concept closely linked to active aging by proposing “opportunities for health, participation and security in order to enhance quality of life as people age.”⁽⁸⁾

To reinforce their importance, age-friendly communities are a central part of the discussion of the environmental influence on healthy aging within the dialogue of the United Nations Decade of Healthy Ageing (2021–2030). There is an expectation that age-friendly communities will be conducive environments to age safely, develop as a person, contribute to their communities, and maintain autonomy and health.^(9,10)

Today, many years after the guide was introduced, the age-friendly city concept is not fully developed and lacks a consensus on its definition,⁽⁵⁾ even though it generally shares ideas supported in promoting active and healthy aging.⁽¹¹⁾

Described as a complex, dynamic, multidimensional model,⁽⁶⁾ the term requires an explicit theoretical approach to demonstrate about which look it is being analyzed and applied. Initiatives can be based on the aging in place perspective, urban planning, socioecological models, environmental or geographic gerontology, ecological theories with models related to competence and pressure, among others.⁽⁵⁾

Although the concept of age-friendly communities and cities has been promulgated internationally, its implementation remains more of an aspiration than a coordinated reality. ⁽¹¹⁾ To this end, the theories function as lenses to observe, understand, explain and make predictions about reality. ⁽¹²⁾ Therefore, the clear support of theoretical perspectives is vital for understanding the obstacles and facilitators of the theme within the universe of aging. ⁽⁵⁾

During the constitution of the state of the art, it was possible to identify literature reviews focused on the analysis of barriers and determinants, ⁽¹³⁾ impacts, challenges and new directions ^(1,14) for the constitution of age-friendly communities in urban and rural environments. ⁽¹⁴⁻¹⁶⁾ None of the studies so far has been directed towards theoretical assumptions, as proposed here.

Given the above, this article aims to identify the concepts and theoretical perspectives that underlie studies on age-friendly city.

Methods

This is a scoping review conducted as recommended by the JBI and PRISMA-ScR. ⁽¹⁷⁾ The scoping review was chosen due to its systematic nature, designed to summarize current knowledge, identify gaps, and clarify concepts or definitions in the literature. ⁽¹⁷⁾

To construct the guiding question, the PCC strategy (population, concept and context) was used, with “P” being primary and secondary, qualitative and quantitative studies, “C” theoretical perspectives, and “C”, age-friendly city. Based on these criteria, the following questions were established: What theoretical perspectives were used throughout studies on age-friendly city? What concept of the term is being used in publications?

The searches were independently performed by two reviewers in December 2020, and updated in July 2022, in the CINAHL, LILACS, MEDLINE, Scopus, SocINDEX, and Web of Science databases. In the absence of descriptors indexed in DeCS/MeSH, we chose to use keywords and Boolean operators: ‘age-friendly’ OR ‘age friendly’ OR ‘cidade

amiga’, respecting each database’s specific characteristics. Searches were limited to the period from January 1, 2007 to December 31, 2021, given the purpose of identifying the evidence after the WHO Global Age-Friendly City Guide was released in 2007.

We included literature review articles or originals, with a quantitative and qualitative approach, empirical and non-empirical that conceptualized and articulated the term “age-friendly” in the context of a community or city, published in Portuguese, French, English and Spanish (Chart 1).

Chart 1. Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
The article should involve a primary or secondary study that is either empirical - broadly defined as one based on observation or qualitative or quantitative data - or non-empirical (e.g., reviews, concept papers, descriptions of age-friendly initiatives);	Studies presented as chapter of books, report, theses or dissertations, editorials, books, book review, guidelines;
The study should present an initiative based on the application of the term age-friendly within the community/city context;	Age-friendly initiative studies centered on a context different from the community/city, such as university, hospital, services or technology environment;
The study should mention the term age-friendly in the title or abstract.	Published in languages other than English, Spanish, Portuguese or French;
The study should address the term age-friendly;	Published before 2007 or after 2021.

The records identified were exported to Rayyan QCRI ⁽¹⁸⁾ to assist in the selection, organization and deletion of guidelines, books, book chapters, editorials, book reviews, letters and duplicates. The study selection process was carried out by two independent reviewers and disagreements were resolved by consensus. Study selection was performed in two stages. In the first one, titles and abstracts of identified references were assessed and potentially eligible ones were pre-selected. Studies were considered eligible that contained the term “age-friendly city” in their title, abstract or manuscript and that addressed the term within the context of a community or city, excluding those focusing on universities, hospitals or health services. In the second stage, the full assessment of selected studies was performed to confirm their eligibility. To this end, the study should first point out the concept of the term. If eligible, the study would be assessed on the existence of a theoretical perspective or an approach that could be assumed from the context (structure, model, theory and/or classification). The expectation for study

selection was that the author clearly presented the concept of age-friendly city and subsequently a theory or model that supported the study's point of view. To summarize the information and present identified gaps, the data reduction method was used, through critical reading and classification of results into conceptual categories. Result mapping occurred in descriptive form, with simple count presentation and summarization in charts. This process was carried out by the main researcher and reviewed by the second author (Chart 2).

Results

A total of 2,975 studies were screened, of which 1,035 duplicate publications were excluded, 40 types of documents other than articles and reviews, 35 studies in languages other than English, French, Spanish, or Portuguese, and 70 outside the 2007-2021 time limit. A total of 1,795 files had their titles and abstracts screened based on inclusion and exclusion criteria, which, in turn, led to the exclusion of 1,002 publications, as they explored the use of the investigated term in a context other than community/city. For content analysis, searches were limited to open access studies. In the end, 280 articles remained, which were read in full. The final review sample consisted of 227 articles. Figure 1 shows the study selection process flowchart.

There was a predominance of publications with the first author from the United States of America (22.9%), followed by studies from Canada (14.5%), United Kingdom (12.8%) and Australia (11%) (Chart 2). All these four countries together represent 61% of articles included in this study. Between 2011 and 2015, 23.79% (n = 54) of articles were published, an average of 10.8 annual publications on the subject, and between 2016 and 2020, 56.39% (n = 128), an average of 25.6 publications. In the last five years, the average number of publications has doubled. The age-friendly city concept has been presented in a number of ways, including: (i) active aging 59.5% (n = 135); (ii) well-being 18.06% (n = 41); (iii) ageing in place 11.89% (n = 27); (iv) social inclusion 7.93% (n = 18); and (v) successful aging

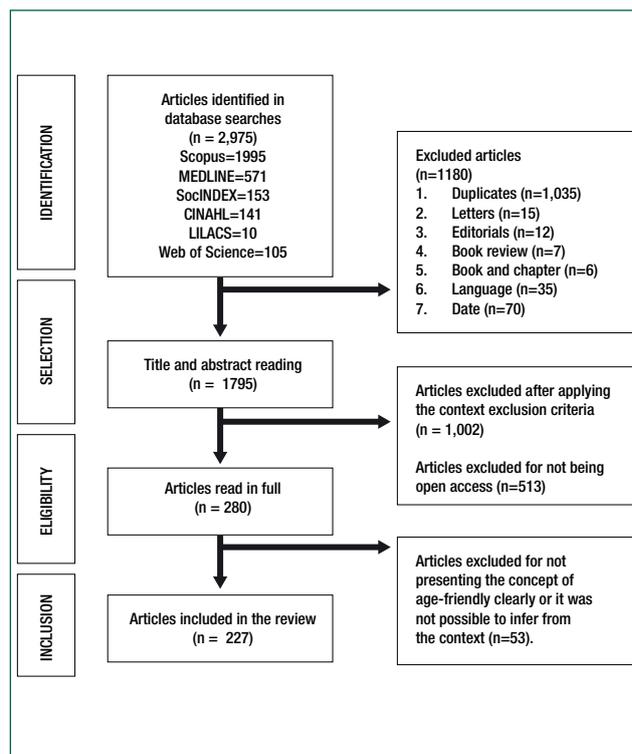


Figure 1. PRISMA flowchart diagram

2.2% (n = 5). Articles that presented more than one approach to the age-friendly city concept were accounted for in more than one category (Table 1). Ecological perspective was observed in 26% (n = 59) of articles; however, most studies (59.47%) did not mention any theoretical perspective to support using the term “age-friendly city” (Chart 2).

Discussion

The increase in the average number of annual publications on the age-friendly city over the past five years confirms the growing interest in the topic. The United States, Canada, the United Kingdom and Australia were the countries with the highest number of publications on the subject, which corroborates their political and organizational actions linked to the “age-friendly” movement.⁽¹³⁾

The finding reinforces the discrepancy between countries with central and peripheral economies, conjecturing the volume of academic production is a reflection of the importance that their governments attribute to science and to the structure of

Table 1. Sample descriptive characteristics (n=227)

Descriptive variables	Amount n(%)
Concepts of age-friendly cities	
Active aging	135(59.47)
Ageing in place	27(11.89)
Well-being	41(18.06)
Social inclusion	18(7.93)
Successful aging	5(2.20)
Theoretical perspective	
Ecological theory	59(25.99)
Competence-environment press model	7(3.08)
Environmental gerontology	5(2.20)
Life course	2(0.88)
Person-environment fit	8(3.52)
Empowerment theory	2(0.88)
Socio-cognitive perspective	2(0.88)
Urban planning and universal design	2(0.88)
Social connectivity	2(0.88)
Social determinants of health	1(0.44)
Capability approach	1(0.44)
Identity theory	1(0.44)
No theoretical perspective	135(59.47)
Date of publication	
2007-2010	6(2.64)
2011-2015	54(23.79)
2016-2020	128(56.39)
2021	39(17.18)
Authors with more publications	
Buffel, T.	11(4.85)
Van Hoof, J.	8(3.52)
Greenfield, E.	6(2.64)
Menec, V.	6(2.64)
Glicksman, A.	5(2.20)
Scharf, T.	5(2.20)
Garon, S.	4(1.76)
Phillipson, C.	4(1.76)
Lehning, A.	4(1.76)
First author's country	
United States of America	52(22.91)
Canada	33(14.54)
United Kingdom	29(12.78)
Australia	25(11.01)
China	21(9.25)
Netherlands	18(7.93)
Taiwan	13(5.73)

The most representative countries and authors in academic production on the topic under study were considered.

Chart 2. Synoptic table with studies that presented the age-friendly concept and theoretical perspective

Author	Date	Country	Title	Age-friendly concept	Theoretical perspective
Lehning et al. ⁽¹⁹⁾	2010	United States	A Web-Based Approach for Helping Communities Become More "Aging Friendly"	Social inclusion	Ecological perspective
Plouffe et al. ⁽²⁰⁾	2010	Canada	Towards global age-friendly cities: determining urban features that promote active aging	Active aging	Ecological perspective
Menec et al. ⁽²¹⁾	2011	Canada	Conceptualizing Age-Friendly Communities	Active aging	Ecological perspective
Emler et al. ⁽²²⁾	2012	United States	The importance of social connectedness in building age-friendly communities	Ageing in place	Ecological perspective
Keating et al. ⁽²³⁾	2013	Canada	Age-Friendly Rural Communities: Conceptualizing 'Best-Fit'	Active aging	P-E fit perspective
De Donder et al. ⁽²⁴⁾	2013	Belgium	Perceptual quality of neighbourhood design and feelings of unsafety.	Social inclusion	Environmental gerontology
Lehning et al. ⁽²⁵⁾	2014	United States	Age-friendly environments and self-rated health: an exploration of Detroit elders.	Quality of life Active aging	Ecological perspective

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Continuation.

Author	Date	Country	Title	Age-friendly concept	Theoretical perspective
Provencher et al. ⁽⁶⁶⁾	2014	England	Ageing and Community: Introduction to the Special Issue.	Social inclusion Ageing in place	Ecological perspective
Vitman et al. ⁽²⁷⁾	2014	Israel	Ageism and social integration of older adults in their neighborhoods in Israel.	Active aging	Ecological perspective
Menec et al. ⁽²⁸⁾	2014	Canada	Examining the relationship between communities' 'age-friendliness' and life satisfaction and self-perceived health in rural Manitoba, Canada.	Active aging	Ecological perspective
Liddle et al. ⁽²⁹⁾	2014	United Kingdom	Exploring the age-friendliness of purpose-built retirement communities: evidence from England.	Active aging	Ecological perspective
Bigonnesse et al. ⁽³⁰⁾	2014	Canada	Meaning of Home in Later Life as a Concept to Understand Older Adults' Housing Needs: Results from the 7 Age-Friendly Cities Pilot Project in Québec.	Social inclusion Ageing in place	Ecological perspective
Yan et al. ⁽³¹⁾	2014	China	Modeling satisfaction amongst the elderly in different Chinese urban neighborhoods.	Active aging	Competence-environment press model
Novak et al. ⁽³²⁾	2014	Canada	Older adults' perceptions of age-friendly communities in Canada: a photovoice study.	Active aging	Ecological perspective
Greenfield et al. ⁽³³⁾	2015	United States	Age-Friendly Community Initiatives: Conceptual Issues and Key Questions.	Ageing in place	Ecological perspective
Santinha et al. ⁽³⁴⁾	2015	Portugal	Ambiente construído, saúde pública e políticas públicas: uma discussão à luz de percepções e experiências de idosos institucionalizados	Ageing in place	Ecological perspective
Lehning et al. ⁽³⁵⁾	2015	United States	Do age-friendly characteristics influence the expectation to age in place? A comparison of low-income and higher income Detroit elders.	Quality of life Ageing in place	Ecological perspective
Menec et al. ⁽³⁶⁾	2015	Canada	How 'age-friendly' are rural communities and what community characteristics are related to age-friendliness? The case of rural Manitoba, Canada.	Active aging	Ecological perspective
Steels, S. ⁽³⁷⁾	2015	United Kingdom	Key characteristics of age-friendly cities and communities: A review.	Social inclusion	Ecological perspective
Kerbler et al. ⁽³⁸⁾	2015	Slovenia	Population ageing and urban space.	Active aging	Social perspective
Moulaert et al. ⁽³⁹⁾	2015	Belgium	Researchers Behind Policy Development: Comparing 'Age-Friendly Cities' Models in Quebec and Wallonia.	Active aging	Ecological perspective
Van Dijk et al. ⁽⁴⁰⁾	2015	Netherlands	The ideal neighbourhood for ageing in place as perceived by frail and non-frail community-dwelling older people.	Active aging Ageing in place	P-E fit perspective
Spina et al. ⁽⁴¹⁾	2015	Canada	What Community Characteristics Help or Hinder Rural Communities in Becoming Age-Friendly? Perspectives From a Canadian Prairie Province	Active aging	Environmental gerontology
Jeste et al. ⁽⁴²⁾	2016	United States	Age-Friendly Communities Initiative: Public Health Approach to Promoting Successful Aging.	Successful aging Ageing in place	Ecological perspective
Glicksman et al. ⁽⁴³⁾	2016	United States	Defining a Framework for Age-Friendly Interventions.	Active aging	Ecological perspective
John et al. ⁽⁴⁴⁾	2016	United States	engAGE in Community: Using Mixed Methods to Mobilize Older People to Elucidate the Age-Friendly Attributes of Urban and Rural Places.	Active aging	Socio-ecological perspective
Ncube et al. ⁽⁴⁵⁾	2016	United Kingdom	Exploring Ageing, Gender and Co-producing Urban Space in the Global South.	Social inclusion	Capability approach
Menec et al. ⁽⁴⁶⁾	2016	Canada	How Important Is Having Amenities Within Walking Distance to Middle-Aged and Older Adults, and Does the Perceived Importance Relate to Walking?	Quality of life	Ecological perspective
Lai et al. ⁽⁴⁷⁾	2016	Malaysia	Modeling Age-Friendly Environment, Active Aging, and Social Connectedness in an Emerging Asian Economy.	Active aging	Ecological perspective
Winterton, R. ⁽⁴⁸⁾	2016	Australia	Organizational Responsibility for Age-Friendly Social Participation: Views of Australian Rural Community Stakeholders.	Quality of life	Ecological perspective
Au et al. ⁽⁴⁹⁾	2017	Hong Kong	Age-Friendliness and Life Satisfaction of Young-Old and Old-Old in Hong Kong.	Quality of life Ageing in place Active aging Successful aging	Ecological perspective
Park et al. ⁽⁵⁰⁾	2017	South Korea	Age-friendly environments and life satisfaction among South Korean elders: person-environment fit perspective.	Social inclusion Active aging	P-E fit perspective
Levasseur et al. ⁽⁵¹⁾	2017	Canada	Capturing how age-friendly communities foster positive health, social participation and health equity: a study protocol of key components and processes that promote population health in aging Canadians.	Active aging	Ecological perspective
Menec, VH. ⁽⁵²⁾	2017	Canada	Conceptualizing Social Connectivity in the Context of Age-Friendly Communities.	Active aging	Ecological perspective
DeLaTorre et al. ⁽⁵³⁾	2017	United States	Ecological Approaches to an Age-Friendly Portland and Multnomah County.	Active aging	Social connectivity Ecological perspective
Frochen et al. ⁽⁵⁴⁾	2017	United States	Housing for the Elderly: Addressing Gaps in Knowledge Through the Lens of Age-Friendly Communities.	Ageing in place	Competence-environment press model (P-Efit)
Greenfield et al. ⁽⁵⁵⁾	2017	United States	Participation in community activities through Naturally Occurring Retirement Community (NORC) Supportive Service Programs.	Social inclusion	Ecological perspective
Hartt et al. ⁽⁵⁶⁾	2017	Canada	Prepared for the silver tsunami? An examination of municipal old-age dependency and age-friendly policy in Ontario, Canada.	Active aging	Press-congruence model
Lehning et al. ⁽⁵⁷⁾	2017	United States	Research on Age-Friendly Community Initiatives: Taking Stock and Moving Forward.	Active aging	Ecological perspective

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Continuation.

Author	Date	Country	Title	Age-friendly concept	Theoretical perspective
Neville et al. ⁽⁶⁸⁾	2018	New Zealand	"Engaging in my rural community": perceptions of people aged 85 years and over	Ageing in place	Environmental gerontology
Buffel et al. ⁽⁶⁹⁾	2018	United Kingdom	A Manifesto for the Age-Friendly Movement: Developing a New Urban Agenda.	Social inclusion Active aging	Ecological perspective
Xie, L. ⁽⁶⁰⁾	2018	China	Age-Friendly Communities and Life Satisfaction Among the Elderly in Urban China.	Active aging	P-E fit perspective Environmental docility
Vitman et al. ⁽⁶¹⁾	2018	Israel	Aging in place and quality of life among the elderly in Europe: A moderated mediation model.	Quality of life Ageing in place	Ecological perspective
Liu et al. ⁽⁶²⁾	2018	Taiwan	Current Status and Policy Planning for Promoting Age-Friendly Cities in Taitung County: Dialogue Between Older Adults and Service Providers.	Quality of life Ageing in place Active aging Healthy aging	Ecological perspective
Del Barrio et al. ⁽⁶³⁾	2018	Spain	From active aging to active citizenship: The role of (age) friendliness	Active aging	Social environment
Wanka et al. ⁽⁶⁴⁾	2018	Germany	From environmental stress to spatial expulsion - rethinking concepts of socio-spatial exclusion in later life.	Social inclusion	Socio-environmental perspective
Wang et al. ⁽⁶⁵⁾	2018	United States	Neighborhood and Depressive Symptoms: A Comparison of Rural and Urban Chinese Older Adults.	Active aging	Ecological perspective
Toohey et al. ⁽⁶⁶⁾	2018	Canada	Pets, Social Participation, and Aging-in-Place: Findings from the Canadian Longitudinal Study on Aging.	Active aging Social inclusion	Socio-ecological perspective
Van Hoof et al. ⁽⁶⁷⁾	2018	Netherlands	The Challenges of Urban Ageing: Making Cities Age-Friendly in Europe.	Active aging	Ecological perspective
Lindqvist et al. ⁽⁶⁸⁾	2018	Sweden	The contrasting role of technology as both supportive and hindering in the everyday lives of people with mild cognitive deficits: a focus group study.	Active aging	Person-Environment-Occupation Model
Cramm et al. ⁽⁶⁹⁾	2018	Netherlands	The creation of age-friendly environments is especially important to frail older people.	Active aging Ageing in place	Ecological perspective
Marston et al. ⁽⁷⁰⁾	2019	United Kingdom	A Review of Age Friendly Virtual Assistive Technologies and their Effect on Daily Living for Carers and Dependent Adults.	Active aging	Identity theory
Amoah et al. ⁽⁷¹⁾	2019	Hong Kong	Achieving the age-friendly city agenda: an interventional study in Hong Kong's Islands district.	Active aging	Ecological theory
Paiva et al. ⁽⁷²⁾	2019	Portugal	Age-friendly Coimbra city, Portugal, perception and quality of life in a sample of elderly persons.	Active aging	Socio-ecological perspective
Nykiforuk et al. ⁽⁷³⁾	2019	Canada	Canadian policy perspectives on promoting physical activity across age-friendly communities: lessons for advocacy and action.	Active aging	Socio-ecological perspective
Hebert et al. ⁽⁷⁴⁾	2019	United States	Dementia friendly initiatives: A state of the science review.	Active aging	Environmental press model theory of personhood
Wanka et al. ⁽⁷⁵⁾	2019	Germany	Everyday discrimination in the neighbourhood: what a 'doing' perspective on age and ethnicity can offer.	Active aging Ageing in place	Competence press model
Evans et al. ⁽⁷⁶⁾	2019	United Kingdom	Making Homes More Dementia-Friendly through the Use of Aids and Adaptations.	Social determinants	Environmental press model,
Zheng et al. ⁽⁷⁷⁾	2019	Shanghai	Neighborhood Environment, Lifestyle, and Health of Older Adults: Comparison of Age Groups Based on Ecological Model of Aging.	Active aging	Ecological perspective
Golant, SM. ⁽⁷⁸⁾	2019	United States	Stop bashing the suburbs: Mobility limitations of older residents are less relevant as connectivity options expand.	Active aging	Connectivity theory
Zheng et al. ⁽⁷⁹⁾	2019	China	Transfer of promotion effects on elderly health with age: From physical environment to interpersonal environment and social participation.	Social inclusion	Socio-ecological perspective
Choi et al. ⁽⁸⁰⁾	2020	United States	Access to Employment, Volunteer Activities, and Community Events and Perceptions of Age-Friendliness: The Role of Social Connectedness.	Active aging Ageing in place	Ecological perspective
Cao et al. ⁽⁸¹⁾	2020	United States	Age-friendly communities and perceived disconnectedness: the role of built environment and social engagement.	Active aging	Social determinants of health
Choi, Y.J. ⁽⁸²⁾	2020	United States	Age-Friendly Features in Home and Community and the Self-Reported Health and Functional Limitation of Older Adults: the Role of Supportive Environments.	Active aging	P-E fit theory,
Sun et al. ⁽⁸³⁾	2020	Hong Kong	Age-friendly urbanism: intertwining 'ageing in place' and 'place in ageing'	Active aging	P-E fit theory,
Woolrych et al. ⁽⁸⁴⁾	2020	United Kingdom	Ageing in Urban Neighbourhoods: Exploring Place Insideness Amongst Older Adults in India, Brazil and the United Kingdom.	Active aging	P-E fit perspective
Hsu, H.-C. ⁽⁸⁵⁾	2020	Taipei	Associations of City-Level Active Aging and Age Friendliness with Well-Being among Older Adults Aged 55 and Over in Taiwan	Active aging	Ecological perspective
Liddle et al. ⁽⁸⁶⁾	2020	United Kingdom	Connecting at Local Level: Exploring Opportunities for Future Design of Technology to Support Social Connections in Age-friendly Communities	Active aging	Environmental gerontology
Naah et al. ⁽⁸⁷⁾	2020	Cameroon	Determinants of Active and Healthy Ageing in Sub-Saharan Africa: Evidence from Cameroon.	Active aging	Competence-environmental press theory
King et al. ⁽⁸⁸⁾	2020	United States	Employing Participatory Citizen Science Methods to Promote Age-Friendly Environments Worldwide.	Active aging	Socio-ecological perspective

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Continuation.

Author	Date	Country	Title	Age-friendly concept	Theoretical perspective
Sánchez-González et al. ⁽¹⁶⁾	2020	Spain	Environmental and Psychosocial Interventions in Age-Friendly Communities and Active Ageing: A Systematic Review.	Healthy aging	Ecological perspective
Black et al. ⁽⁹³⁾	2020	United States	Examining Older Adults' Perspectives on the Built Environment and Correlates of Healthy Aging in an American Age-Friendly Community.	Healthy aging	Ecological perspective
Blakey et al. ⁽⁹⁰⁾	2020	New Zealand	Knowing, Being and Co-Constructing an Age-Friendly Tamaki Makaurau Auckland.	Active aging	Ecological perspective
Luciano et al. ⁽⁹¹⁾	2020	Italy	Measuring Age-Friendly Housing: A Framework.	Active aging	Ecological perspective
Au et al. ⁽⁹²⁾	2020	Hong Kong	Sense of Community Mediating Between Age-Friendly Characteristics and Life Satisfaction of Community-Dwelling Older Adults.	Quality of life	Ecological perspective
Kim et al. ⁽⁹³⁾	2020	South Korea	Spatio-Temporal Trend of Aging Regions and Their Neighborhood Environment: Findings from Daegu Metropolitan City, Korea.	Active aging	Ecological perspective
Portegijs et al. ⁽⁹⁴⁾	2020	Finland	Older Adults' Physical Activity and the Relevance of Distances to Neighborhood Destinations and Barriers to Outdoor Mobility.	Barrier-free environments	Socio-ecological perspective
Torku et al. ⁽¹⁾	2021	Hong Kong	Age-friendly cities and communities: a review and future directions.	Active aging	Ecological perspective
Woolrych et al. ⁽⁹⁵⁾	2021	United Kingdom	Constructing and negotiating social participation in old age: experiences of older adults living in urban environments in the United Kingdom.	Active aging Ageing in place	Social participation
Dutka et al. ⁽⁹⁶⁾	2021	Poland	Creativity based on new technologies in design of age-friendly cities: Polish seniors about their needs – research reflection.	Accessibility	Universal design
Patch et al. ⁽⁹⁷⁾	2021	United States	Engaging older adults as advocates for age-friendly, walkable communities: The senior change makers pilot study.	Healthy aging	Empowerment theory Cognitive social theory
Bosch-Meda, J. ⁽⁵⁾	2021	Spain	Is the Role of Urban Planning in Promoting Active Ageing Fully Understood? A Comparative Review of International Initiatives to Develop Age-Friendly Urban Environments.	Active aging	Urban planning
Shi Ying et al. ⁽⁹⁸⁾	2021	Malaysia	Modelling age-friendly environment for social connectedness: A cross-sectional study.	Active aging	Ecological perspective
McDonald et al. ⁽⁹⁹⁾	2021	United Kingdom	Older people's lived experience and the World Health Organization age-friendly policy framework: a critical examination of an age-friendly county programme in Ireland.	Active aging	Environmental gerontology
Pan et al. ⁽¹⁰⁰⁾	2021	China	Research on the Construction of Age-Friendly Community Based on Fuzzy Comprehensive Evaluation Model: Evidence from Community in Hefei of Chin.	Active aging	Ecological perspective
Wang et al. ⁽¹⁰¹⁾	2021	United States	Rethinking the urban physical environment for century-long lives: from age-friendly to longevity ready cities.	Active aging Healthy aging	Life-course
Hsu et al. ⁽¹⁰²⁾	2021	Taiwan	Social and Built Environments Related to Cognitive Function of Older Adults: A Multi-Level Analysis Study in Taiwan.	Accessibility	Ecological perspective
Phillipson et al. ⁽¹⁰³⁾	2021	United States	Urbanization and ageing: Ageism, inequality, and the future of "age-friendly" cities.	Active aging Healthy aging	Empowerment theory Cognitive social theory

their society to accommodate the growth of the older adult population.^(1,104)

Before the COVID-19 pandemic, it was estimated that by 2050 just over 80% of the world's oldest individuals will live in developing countries.⁽¹⁰⁵⁾ Despite this, even this transition occurring quickly and challengingly in these countries, the performance in publishing articles on the investigated topic is not significant either in English or in Latin languages.

With the ongoing pandemic, these numbers still need to be revised, but there is a clear need to advance the agenda favorable to older adults around the world, especially in developing countries. Encouraging scientific publication and providing for the local development of policies for

older adults in Latin American countries and India will be relevant.⁽¹⁰⁶⁾

Despite the identification of several terms commonly used to refer to the term "age-friendly city", the wide mention of the concept proposed by the WHO was already expected.⁽¹⁾ Among the most cited passages, the following stand out: (i) "In an age-friendly community, policies, services and structures related to the physical and social environment are designed to support and enable older people to "age actively"" (p.5), which defines a friendly city as a place where active aging is made possible (ii) "an age-friendly city encourages active ageing by optimizing opportunities for health, participation and security in order to enhance quality of life as people age"(p.72).⁽⁶⁾ Although there is no consensus

on the definition of the term “age-friendly”,^(21,107) many share the WHO designations as a tool related to active aging.^(1,81) The frequent presence of the concept coined by the WHO corroborates the important role of the institution, its respect and influence worldwide.⁽¹⁾

The authors also used the contributions of researchers such as Alley, Liebig, Pynoos, Benerjee, & Choi,⁽¹⁰⁸⁾ who defined an age-friendly environment as a place where: “older people are actively involved, valued, and supported with infrastructure and services that effectively accommodate their needs”.⁽¹⁰⁸⁾

Being age-friendly is also positively related to satisfaction with life, and self-perception of quality of life with health and well-being.⁽¹⁰⁹⁾ It is a term that refers to a favorable environment for older adults to live in, which means environments suitable for needs with convenient facilities.⁽³⁾ Age-friendly environments are accessible, equitable, inclusive, safe, secure, and supportive;⁽⁸⁰⁾ promote health and prevent or delay the onset of disease and loss of functional capacity;⁽¹¹⁰⁾ promote and maintain salutogenic conditions throughout life;⁽¹¹¹⁾ and encourage social and community participation to eradicate ageism and reduce social isolation.^(81,112)

Common to all studies is the assumption that age-friendly environments encompass factors that encompass the physical and social environment and have an important impact on older adults’ quality of life.

Importance of theoretical perspective

When analyzing the authors with the largest number of publications, institutions from different areas were evidenced, reinforcing the concept of multi and interdisciplinarity of gerontology.⁽⁵⁾ Buffel and Phillipson represent social sciences, Menec, health sciences, Van Hoof, environmental engineering, among others with social work and education. This multiplicity of areas confirms the importance of elucidating theoretical perspectives and conceptual delimitations in the production of evidence in gerontology.

The findings of this study are compared with those of by Bengtson et al.,⁽¹¹³⁾ and Alley et al..⁽¹¹⁴⁾

It is possible to create a timeline and demonstrate that using the theory has increased markedly in gerontology publications in recent decades. In 1997, Bengtson et al.⁽¹¹³⁾ found that 27% of gerontology articles published between 1990-1994 used some theoretical basis to discuss their objectives, against 39% between 2000-2004 by Alley et al.⁽¹¹⁴⁾ Although the present investigation only tracks studies within a restricted subject in the universe of gerontology, it is plausible to observe the increase in theoretical perspectives in this sample when compared to other studies.

Although this investigation does not intend to explore the reasons for the increase in publications and the use of theories in recent decades, it is possible to associate it with editor and reviewer demand.⁽¹¹⁴⁾ Calls from journals for special volumes with a predetermined theme and theoretical perspective encourage the submission of well-designed manuscripts. Thus, special editorials may have influenced using the theory in articles published in recent decades.

Nevertheless, it is important to state that even advancing in using theories in studies within gerontology, more than half of the analyzed sample (59%) did not use a theoretical framework to confront their findings. Without theoretical support, it is precarious to explain why some programs aimed at developing age-friendly cities have flourished and others have not. By stipulating the theoretical basis, it is possible to assess relationships, contributions and barriers to the success of friendship. Without theory, it is not safe to confirm or refute which problems are caused by the relationship between aging and environments, which are age-related singularities and which are not, or how much and under what circumstances social determinants are influential.⁽¹²⁾

Theories can not only allow us to predict the effects and assess the implementation of applied aging studies, but can also improve our learning from the success and failure of their applications. Theorizing is a process of developing ideas that allows us to understand and explain empirical observations.⁽¹¹⁴⁾ Making use of the theory in a more explicit way will be crucial to successful research in the field of aging and longevity.⁽¹²⁾

The results suggest that the authors of the selected studies need to be more explicit when discussing the friendly city theme. The aging data that is statistically collected and manipulated around the world is not just “facts”. They are also essential raw material for reasoning and theorizing about the social construction of reality. By leaving the theory implicit or not even mentioning it, the study can distort the interpretation of results and perform superficial analyzes of the phenomenon.

Mentioned in several articles as a theoretical basis, the ecological perspective has been applied in gerontology since 1960,⁽⁷⁾ arising from psychology, sociology and public health.⁽²¹⁾ Bronfenbrenner, in 1979, suggested an ecological framework for examining human behavior and development, explained by individual factors (microsystem), interpersonal relationships (mesosystem), external environment (exosystem), social values and beliefs (macrosystem), and life course transition (ecological transition).⁽¹¹⁵⁾

Ecological theory provides a coherent framework for conceptualizing an age-friendly city, as it clearly shows the interrelationships between the environment and the people who live in it. This framework allows the understanding of human behavior, health or well-being depending on the life course context.⁽⁶⁾ It is reasonable to assume that environmental factors at different levels can affect active aging, including the city element.

Menec et al.⁽²¹⁾ used the ecological perspective to justify the presence of factors in the environment that are interrelated and interact with each other to influence social connectivity. From the perspective of social ecology, daily human behavior is organized into recurrent patterns of activities carried out in highly structured environments and domains of life.⁽¹¹⁶⁾

Articulating the eight domains of the Global Age-friendly Cities Guide⁽⁶⁾ with Bronfenbrenner's ecological perspective,⁽¹¹⁵⁾ the authors assessed the determining and dominant aspects in the creation of friendly environments according to older adults' perception, identifying high-impact and intermediate points that can facilitate the implementation of interventions to promote health and well-being as well as measuring the results of the intervention over prolonged periods.^(21,117)

Regarding this investigation, there are some limitations to be pointed out. The search for articles limited by language and six databases limited the number of sources reviewed, thus removing potential studies that could contribute to a multicontextual perspective of other countries and realities. Additionally, limiting the search to journal articles meant that accounts in books, other media or gray literature were missed, mainly because conceptual discussions took place in books. Finally, some articles, when using the term “age-friendly”, were able to be sufficiently clear with their meaning, making exceptions for the absence of a theoretical basis.

Conclusion

The variety of terminologies and concepts associated with the term “age-friendly city” shows the range of policies and initiatives that are promoted by governments, community leaders and researchers to serve the heterogeneous older adult population. However, the scarcity of critical positioning in choosing a theoretical perspective can lead to a superficial or marginal reproduction of the WHO global guide conceptual framework. The term used from a regional and cultural perspective can gain direction to assess intersectionalities, ageism, coloniality of knowledge, among other theoretical lenses. The wide mention of the WHO concept shows the importance and credibility of organization. Moreover, the age-friendly cities agenda contributed to positive interventions in communities and cities, providing opportunities for older people to integrate the space in which they live. It is expected that future studies will pay due attention in the theoretical field, to the evolution and consolidation of knowledge in gerontology. For observation and understanding of scientific production from concrete and situated perspectives.

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