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Social Aspects of Ageing

Selected Challenges, Analyses, and Solutions

Edited by Andrzej Klimczuk

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Aims and Scope of the Series

Education and Human Development is an interdisciplinary research area that aims to shed light on topics related to both learning and development. This Series is intended for researchers, practitioners, and students who are interested in understanding more about these fields and their applications.

Meet the Series Editor

Katherine Stavropoulos received her BA in Psychology from Trinity College, in Connecticut, USA and her Ph.D. in Experimental Psychology from the University of California, San Diego. She completed her postdoctoral work at the Yale Child Study Center with Dr. James McPartland. Dr. Stavropoulos' doctoral dissertation explored neural correlates of reward anticipation to social versus nonsocial stimuli in children with and without autism spectrum disorders (ASD). She has been a faculty member at the University of California, Riverside in the School of Education since 2016. Her research focuses on translational studies to explore the reward system in ASD, as well as how anxiety contributes to social challenges in ASD. She also investigates how behavioral interventions affect neural activity, behavior, and school performance in children with ASD. She is also involved in the diagnosis of children with ASD and is a licensed clinical psychologist in California. She is the Assistant Director of the SEARCH Center at UCR and is a faculty member in the Graduate Program in Neuroscience.

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Contents

Preface

This edited volume, *Social Aspects of Ageing – Selected Challenges, Analyses, and Solutions*, is a collection that emphasizes the primary challenges outlined by the United Nations during the Decade of Healthy Ageing (2021–2030). The contributions encompass research involving topics vital for older people, their families, and communities, such as confronting ageism, age-friendly environments, and care delivery. The book also addresses issues associated with the global, national, regional, and local implementation of age-specific and intergenerational responses, initiatives, and policies towards meeting the UN's Sustainable Development Goals.

The collection includes works that provide research and practical advice from areas such as critical studies, geographical gerontology, legal studies, public health, and sociology. It includes six chapters prepared by ten contributors from Australia, China, Poland, Portugal, South Africa, and Switzerland.

The chapters are organized into three sections. The first section, "Different Approaches to Combatting Ageism", covers studies on the challenges of developing social policies based on human rights. The second section, "Development of the Age-Friendly Environments", explores investigations on geographical gerontology and accessibility to primary healthcare services. The last section, "New Skills and Competencies", focuses on intergenerational relationships, community resources, and older adults' privacy and digital competencies.

This book is intended for academic and professional audiences interested in theories of ageing as well as public services and ageing policy. *Social Aspects of Ageing – Selected Challenges, Analyses, and Solutions* aims to assist students, practitioners, and individuals employed in government, business, and nonprofit organizations.

I want to thank the chapter authors for their excellent contributions. Collectively, we are taking a small step in advancing social gerontology. I would like to express gratitude to Karmen Daleta, Patricia Kerep, Jelena Vrdoljak, and Filip Lovricevic from IntechOpen for their outstanding organizational abilities in assisting with the editing and publishing process.

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Section 1

Different Approaches to Combatting Ageism

Chapter 1

Contemporary Human Rights Law and Ageism

Barbara Mikołajczyk

Abstract

The continuously and dynamically growing number of older persons worldwide experience various types of exclusion, negligence, isolation, degrading treatment, elder abuse and the deprivation of a long list of their human rights. Regardless of residence and standard of living in a given country, older adults are the most excluded from the mainstream. Just as racism or sexism leads to a violation of the dignity and rights of people of a different race or gender, so ageism has a similar effect. Therefore, combating ageism is a challenge to international human rights law. This chapter is based on the core human rights treaties and the latest developments of the international community in combating ageism. Selected human universal and regional rights treaties along with soft law documents are analysed. The activities of the human rights bodies, including the independent expert on the enjoyment of all human rights by older persons, are also reviewed as the author focuses on human rights law in action. The author intends to indicate the untapped potential of states' current international obligations, international mechanisms and gaps in addressing ageism at the international forum.

Keywords: older persons, ageism, human rights, age discrimination, international human rights bodies

1. Introduction

Like the phenomena of sexism, racism and ableism, it is clear that ageism also existed before it was given a name and analysed by scholars from various scientific disciplines and perspectives. However, we usually count the 'history of ageism' from the time when Robert N. Butler used the term 'age-ism' during a Washington Post interview in 1969 [1]. He coined it as the 'prejudice of one age towards other age groups' [2]. Later, when relating to ageism against older adults, he described it as 'a process of systematic stereotyping and discrimination against people because they are old, just like racism and sexism' [3]. He aligned ageism with negligence, ignorance and the damaging assumption that older adults are old-fashioned, unproductive, incompetent, slow-thinking, inflexible, unattractive, sexless, etc. [4].

Ageism manifests itself in various individual and institutionalised forms, ranging from elder speak, disregard and mockery, through neglect, segregation, social isolation and financial and corporal abuse, to extermination, defined as a conscious attempt to shorten the 'worthless' or suffering-ridden life of an older person [5].

Moreover, new forms of ageism are constantly being identified, for example, those that include the introduction of policies and strategies that are designed to meet the needs of older people but which, in fact, stigmatise them or require them to be constantly active, regardless of their capabilities [6, 7]. Regardless of the gravity of the manifestation of ageism, its form and scale, ageism always leads to a violation of human dignity. For this reason, ageism should be a concern of international human rights law, as human dignity is the essence and source of all human rights. That is why states' and societies' awareness of ageism is a preliminary condition for the effective protection of older persons' rights.

Along with ongoing research, the concept of ageism has been evolving. It has appeared, for example, that ageism should not be put into the same box as sexism and racism, as the group of older adults exposed to ageism is heterogeneous and, therefore, unlike sexism and racism, is much more difficult to identify [8]. Paradoxically, age lacks a clear threshold and is not a connecting factor for older persons, as they are people of different ages, living conditions, health and needs [9]. Indeed, the older population is much more similar to people with disabilities, who are also of various ages, types of disability and with diverse needs.

This chapter is a study in human rights law, so the newest analysis of 'ageism' proposed at the international forum should be presented here. In March 2021 the World Health Organisation (WHO) published 'Kicking Off a Global Conversation about Ageism: the Launch of the First UN Global Report on Ageism' (Global Report on Ageism). This report brings together the global output in identifying ageism and its determinants and explores three levels of manifestation of ageism – institutional, interpersonal and self-directed. Explicit [conscious] and implicit [unconscious] forms of expression of ageism are also addressed in the report [10]. Finally, it proposes interventions to reduce this phenomenon.

However, what is particularly relevant to this study, the report contains a comprehensive description of ageism. It is defined as a multifaceted social phenomenon that has stereotypes, prejudice and discrimination directed towards others or oneself based on age. The first relates to human thoughts, prejudices towards feelings, and finally, discrimination of actions or behaviours. Age stereotypes [positive or negative] tend to differ by context and culture. Prejudice is an emotional reaction or feeling (positive or negative) that is directed towards a person based on their perceived (age) group membership, and it contributes to creating or maintaining hierarchical status relations between groups. Age discrimination is the easiest to identify as it relates to behaviours – including actions, practices and policies – that are directed towards people based on their age [10].

This conception of ageism seems to unite previous proposals for definitions, which often assumed that ageism is a unique form of age discrimination [11–13], or conversely treated ageism as a source of discrimination and other negative behaviours towards older adults, and have usually qualified it as a feeling, idea or belief, or even an ideology [5, 14].

Over the years, the phenomenon of ageism, its determinants, aspects, consequences and scale have been the subject of diverse multidisciplinary studies, analyses and meta-analyses on ageism, provided by gerontologists, psychologists, psychiatrists, sociologists, medics and researchers from other disciplines [11, 12, 15–28]. This phenomenon is also the subject of research from the perspective of the international protection of human rights and the obligations of states in this area [29–38]. However, as the world's population is ageing, and the global treaty on the rights of older persons is constantly 'under construction', the research in this area needs further development.

Therefore, the formal dogmatic method in legal science is applied in this chapter. The primary research material is act of international law (hard and soft) and the output of human rights bodies in identifying, condemning, and redressing ageism. Moreover, a review of human rights literature supports the analysis of legal acts. The contributions from other scientific disciplines are used only as auxiliary.

Such an approach should help confirm the hypothesis that international law has the potential, currently untapped, to counter ageism affecting older persons, especially those belonging to vulnerable groups. That is why the main goal of this chapter is to assess the progress in the visibility of 'ageism' in international documents that are able to (at least potentially) affect states' policies and laws to reduce ageism at domestic levels. Another goal of this chapter is to identify new or still underestimated areas in which the international community's action against ageism is desirable.

2. Blindness of the treaties

Any discourse on the elimination of ageism in international human rights treaties should begin with the Universal Declaration of Human Rights (UDHR), even though it is not a treaty. This is primarily because it is ascribed the force of customary international law, and because it gave rise to all presently binding international human rights treaties. According to its Preamble, 'recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world'. Its Article 1 states that 'Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status [39]'.

The recognition of human dignity and non-discrimination, as stipulated in the UDHR, became an inspiration for the whole human rights system. Thus, human dignity is invoked in various international acts, including the International Covenant on Civil and Political Rights [40] and the International Covenant on Economic, Social and Cultural Rights [41] adopted in 1966. In addition, the concept of dignity has been introduced into treaties protecting particular groups of people, such as children, women, migrant workers, disabled persons and victims of involuntary disappearances, as well as into treaties protecting specific human rights and freedoms, especially freedom from torture and racial discrimination. We can also find some references to human dignity in the international labour and environmental and humanitarian laws [42–46].

Indeed, the protection of human dignity underpins protection against phenomena such as sexism, racism, ableism and ageism, but it would be naive to believe that general references to dignity in international law are sufficient to protect older adults from ageism. First of all, 'human dignity' is not defined in international acts and, in spite of a common appreciation, it is unclear, disputable and causes many interpretive difficulties [8, 10, 14, 38]. Usually, understanding a violation of human dignity requires an in-depth case study and sensitivity to various nuances. As indicated above, seemingly beneficial solutions can conceal ageist attitudes against older persons, which is why ageism needs targeted, legal and extra-legal actions to combat it. General references to human dignity are simply starting points for further developments.

Unfortunately, there is no universal, sectoral convention on the protection of human rights in old age that could play an educative role among the international

community and raise awareness of decision makers on the rights of older persons and the harmful effects of ageism.

Surprisingly, two treaties that are considered milestone achievements of regional communities – the Inter-American Convention on Protecting the Human Rights of Older Persons of 2015 [47] and the Protocol on the Rights of Older Persons to the African Charter on Human and Peoples' Rights of 2016 [48] – do not mention ageism' at all. On the other hand, they contain provisions obliging the state parties, to take steps towards eradicating prejudices, stereotypes, stigmatisation and marginalisation resulting in preventing older persons from fully enjoying their human rights.

In addition, these particular treaties recognise the prohibition on age discrimination as one of their main principles. The clear recognition of the prohibition on (old) age discrimination in international law is an important step, as the anti-discrimination clauses contained in the core international human rights treaties, following the UDHR, usually do not contain such a prohibition. The International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families of 1990 [49] is an exception. Moreover, the Convention on the Rights of Persons with Disabilities of 2006 mentions age as one of the reasons for multiple or aggravated forms of discrimination [50].

Certainly, the premise of 'other status/circumstances/conditions' should be recognized as the premise covering young and old age. However, it took years before the Committee on the Economic, Social and Cultural Rights (CESCR) and the Human Rights Committee (HCR) finally confirmed in their general comments and case law that both covenants prohibit age discrimination [34].

It may be also observed that the international community and the human rights bodies providing the interpretation of relevant treaties were more willing to oblige states to take measures against stereotypes, prejudices and stigmatisation than to address age discrimination. For example, already in 1995, the Committee on Economic, Social and Cultural Rights, in its general comment No. 6 on the Economic, Social and Cultural Rights of older persons, called on governments, non-governmental organisations and older persons themselves to make efforts to overcome negative stereotyped images of older persons as suffering from physical and psychological disabilities, incapable of functioning independently and having neither a role nor a status in society [51].

Moreover, the human rights treaties dedicated to the protection of women and people with disabilities, who are particularly exposed to stereotypes and prejudices, contain provisions to counter these phenomena and could become a model of solutions applicable to older persons.

The Convention on the Rights of Persons with Disabilities (2006) should be considered the most advanced in combating stereotypes and prejudices, including those based on sex and age, in all areas of life [Article 8]. What is particularly important, the CRPD promotes an approach to people with disabilities, not through the prism of the assistance they receive, but through the prism of human rights [human rights-based approach –HRBA]. HRBA is also the best way to prevent ageism and protect older persons' rights [52].

Meanwhile, Article 5 of the Convention on the Elimination of All Forms of Discrimination against Women of 1979 obliges states to take all appropriate measures to modify social and cultural patterns and eliminate stereotypes and prejudices about the roles and behaviours of men and women [53]. Interpreting this provision, the Committee on the Elimination of Discrimination against Women (CEDAW), in its General Recommendation on the Rights of Older Women [No. 27 of 2010], stressed

the states' obligation to 'eliminate negative stereotyping and modify social and cultural patterns of conduct that are prejudicial and harmful to older women…' [54]. The transformation of incumbent social and cultural patterns of older persons into intergenerational solidarity is another factor in the elimination of ageism.

It is also worth noting that the protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, the Maputo Protocol of 2003 [55] obliges states to ensure the right of older women to freedom from discrimination based on age, and the right to be treated with dignity. The protocol also refers to various kinds of stereotyping and prejudices against women in general.

However, similarly to both covenants, the regional human rights treaties of general character, including the European Convention for the Protection of Human Rights and Fundamental Freedoms [56], do not indicate an age premise in their anti-discrimination clauses. It appears that age discrimination has not been deeply examined by the international tribunals, and the evident cases of ageism may not be addressed. The best example is *the case Carvalho Pinto de Morais v. Portugal considered by the* European Court of Human Rights (ECtHR) [57]. This case referred to the Portuguese court's decision to reduce compensation for medical errors during gynaecological surgery. The national judges justified their judgement arguing that sexuality was not important for a 50-year-old woman and that she did not need any substantial compensation to cover the costs of employing a domestic helper because, with the children grown up, the applicant's domestic duties were mainly looking after her husband.

The ECtHR found that Portugal had violated the convention, but the majority of the ECtHR judges focused more on gender discrimination, comparing judgements of the Portuguese courts in cases referred to male victims of medical malpractice with the applicants' situation, and did not deeply analyse age discrimination, ageism and evident stereotyping. The ECtHR did not give a more in-depth interpretation of the premise of age, which was as important to the applicant as that gender. The ECtHR admitted that age could fall within the criterion of 'other status' within the meaning of Article 14 of the Convention, but did not confirm that age discrimination had 'the same force' as the other grounds for discrimination. Above all, the Court decided not to compare the situation of younger and older women with regard to the stereotype concerning their sexual life. In this respect, the Court seems to have passed over the chance to establish a line of case law on stereotyping [33].

Unlike the international human rights law, the prohibition on age discrimination is present in the European Union [EU] framework, in its primary law, including the Charter of Fundamental Rights [58], in the EU secondary law, as well as in the jurisprudence of the Court of Justice of the European Union [59]. However, ageism, age stereotyping and prejudices are not directly indicated there [30, 60, 61].

It is easy to note that general references to human dignity, and imprecise 'other status/condition/circumstances' permissions of non-discrimination, are not sufficient to protect older persons' rights and prevent them against all aspects of ageism.

With this in mind, the United Nations General Assembly established the Open-Ended Working Group on Ageing [OEWGA] in December 2010 [62]. The first task of this body, composed of delegations from states and civil society organisations, was to analyse the existing international framework for the protection of the human rights of older persons and identify possible legal gaps and propose the best possible solutions for the future. In 2012, the UN General Assembly commissioned OEWGA to draft a treaty to protect the rights and dignity of older persons [63].

Over the course of 12 sessions, OEWGA considered the scope of the future convention, addressing the issues of autonomy, independence, non-discrimination,

long-term and palliative care, elder abuse, social protection, education and lifelong learning, capacity building, access to justice and the labour market, economic security, and older persons' right to contribute to sustainable development. Calls to combat ageism have certainly been present at the OEWGA sessions, especially at the third and sixth, though perhaps surprisingly, ageism has not been the principal, separate topic of any of the sessions.

3. Outside the treaties

The first milestone, though not legally binding, acts on older persons' rights adopted on the international forum did not refer to ageism. The first complex international instrument on ageing – the Vienna International Plan of Action on Ageing – adopted at the World Assembly on Ageing in 1982 [64], does not mention 'ageism' itself, but certainly refers to various symptoms of ageism, especially on the labour market and in the media. Another crucial UN document is the United Nations Principles for Older Persons of 1991 this does not address ageism either, though it does contain important guidelines on older persons' dignity. It states that: 'Older persons should be able to live in dignity and security and be free from exploitation and physical or mental abuse. Older persons should be treated fairly regardless of age, gender, racial or ethnic background, disability or another status and be valued independently of their economic contribution' [65].

Finally, the Madrid International Plan of Action on Ageing (MIPAA) and the Political Declaration adopted at the Second World Assembly on Ageing in April 2002, being a milestone in addressing the key challenge of 'building a society for all ages [66]', indicated 'ageism'. However, it happens only once, when calling on the media and the private and public sectors to avoid ageism in the workplace and to present positive images of older persons as wise, productive and experienced. Certainly, there are many recommendations in the MIPAA encouraging states to combat stereotypes and prejudices, including intersectional, in various spheres of life, especially in employment.

However, the MIPAA is not a one-off event, as it has its continuity. Every year since 2002, the UN Secretary-General has been submitting to the UN General Assembly reports entitled 'follow-up to the Second World Assembly on Ageing'. The notion of 'ageism' was mentioned for the first time in the report of 2009. The secretary-general argued at that time that 'systematic stereotyping and discrimination against people because they have reached a certain chronological point and are considered 'old', has come to be known as 'ageism'. Ageism reinforces a negative image of older persons as dependent people with declines in intellect, cognitive and physical performance, as well as other areas required for autonomous, daily functioning. As a result, older persons are often perceived as a burden, a drain on resources and persons in need of care. 'These perceptions contribute to their vulnerability, which puts their rights at risk [67]'.

Since 2009, 'ageism', its harmful consequences and calls to counteract them have been developed in the subsequent reports. For example, in the report of 2011, the secretary-general noted that, despite older persons playing an important role as custodians of culture and history, paradoxically, they are victims of ageism which is broadly tolerated in societies around the world [68]. In the report of 2012, he devoted an entire subsection to ageism in various spheres of life, arguing that, ten years after the adoption of the MIPAA, prejudicial attitudes and discriminatory practices on the part of individuals and institutions towards older persons continue to undermine their

participation in society. He also referred to the findings presented at the European Union forum on the occasion of the European Year for Active Ageing and Solidarity between Generations 2012, which reached the conclusion that ageist attitudes were not only the source of discrimination experienced by older persons but also served to justify that discrimination and, in many countries, a number of existing institutional and policy practices tended to create a 'culture of ageism' that reinforced ageist views and led to the further marginalisation and exclusion of older persons [69]. In 2014, the UN Secretary-General raised concerns that ageism is still a roadblock to the full implementation of the Madrid International Plan of Action on Ageing [70].

New aspects of ageism emerged in the 2021 report. The COVID-19 pandemic sharpened ageist attitudes towards older people. According to the report, data gathered before the crisis revealed that one in two people held ageist attitudes towards older persons globally, but the crisis amplified and exacerbated the widespread practice of discrimination against older persons, especially in the area of provision of health and other critical services and resources, and in long-term care facilities [71]. That is why the UN Secretary-General called to build stronger legal frameworks at the national and international levels to protect the human rights of older persons, including accelerated efforts to develop proposals for a convention that would be key to promoting and protecting the rights and dignity of older persons. He also called to combat ageism and age discrimination and address the intersectional discrimination that affects older persons, in particular women and persons with disabilities [71].

The MIPAA process within the UN framework is the most universal in promoting the rights of older people and in campaigning against ageism as a threat to human dignity. However, it is also worth referring to other international forums where the issue of ageism is or can be raised.

Potentially, this could happen at the International Labour Organisation [ILO] forum. The ILO's conventions do not address ageism, but ILO Recommendation No 162 of 1980 contains a whole chapter dedicated to the equality of opportunity and treatment of older workers [72]. However, since the adoption of this recommendation, the labour market has changed considerably, with the concept of ageism spreading beyond academic considerations. It, therefore, seems appropriate to include the problem of ageism in employment in the ILO's legal framework, as the negative multidimensional consequences and costs of ageism and age discrimination on the labour market are today well known and analysed [73]. For example, the European Commission's recent 'Green Paper on Ageing Fostering Solidarity and Responsibility Between Generations' mentions ageism specifically as a potential barrier to the economic activity of older adults [74].

At a regional level, the resolutions and recommendations drawn up on the Council of Europe forum should be mentioned here, as the states gathered on this forum, unlike the American and African states, have not yet decided on the adoption of a treaty on older persons' rights. The Parliamentary Assembly resolution entitled 'Promoting Active Ageing—Capitalising on Older People's Working Potential' of 2011 refers to 'ageism' and defines it as 'a harmful prejudice that results in a widespread lack of respect for older people… [75]'. Another resolution –'Combating Discrimination Against Older Persons on the Labour Market' – of 2013, also explicitly refers to ageism and age discrimination. It encourages states to start campaigns to change beliefs and attitudes in order to eliminate stereotypes and build a positive and accurate image of workers in all age groups [76].

The terms 'ageism', 'stereotypes' and 'prejudices' are not present in the most complex Council of Europe document on older persons – the Committee of Ministers

Recommendation on the Promotion of Human Rights of Older Persons. On the other hand, the recommendation aims to eliminate barriers denying older adults and their human rights, so potentially covers ageism [77].

The impact of this recommendation was revised after five years from its adoption, in 2019. It turned out that only one of the 21 reporting states – Austria – had addressed ageism in its report on the assessment of implementation of the recommendation. The Austrian authorities declared 'in light of the recommendation, we continue to mainstream these rights in all policies and programmes, in order to actively combat ageism, the marginalisation and social exclusion of older persons' [78].

Therefore, it may be stated that the states are not 'used to' addressing ageism. This dearth of references proves that, if a given notion is not introduced into a document, there is no further action, or this action is severely limited.

It seems clear that ageism has not become a 'popular' notion, either in human rights treaties or in the soft international law. However, we may expect changes in this area, as, on 7 October 2021, the Human Rights Council adopted a resolution on the rights of older persons. It goes hand in hand with the WHO Report adopted in the same year and recognises that ageism 'can be associated with stereotypes, prejudice and/or discriminatory actions or practices, including hate speech, against older persons based on their chronological age or on a perception that a person is "old", and that ageism can be implicit or explicit and be expressed at different levels [79]'. Among various recommendations to states and international bodies, the Human Rights Council calls to make the situation of older persons more visible in the international forum, including human rights procedures and reports of international bodies.

Therefore, attention should also be paid to reports, working papers, thematic studies and other analyses prepared and presented at the UN forum. Their publication may become a turning point in negotiations on a new document or a given issue, or at least may contribute to raising awareness among the international community. For example, Amnesty International's 1972 report on torture [80] launched a campaign that culminated in the adoption of the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment in 1984 [81]. Gerard Quinn and Theresa Degener's 2002 report identifying gaps in the protection of the human rights of people with disabilities [82] provided the impetus for the adoption of the Convention on the Rights of Persons with Disabilities in 2006 [50].

Therefore, particular attention should be drawn to the working paper, 'The necessity of a human rights approach and effective United Nations mechanism for the human rights of older persons' (known as the Chung Report) of 2009 [83], which contributed significantly to the establishment of OEWGA and initiating the work on the treaty on the rights of older persons. We can read in this study that 'ageism or stereotyping and prejudice against older people that can lead to age discrimination, ranges from negative stereotyping to witch-hunting'; 'ageism seems to be increasing over time, despite our growing awareness of the issue'; 'ageing is a double whammy for women, who get hit with more ageism and sexism' and 'ageism is more prevalent in America than racism [83]'.

Another important voice on ageism can be heard in the 'Normative Standards in International Human Rights Law in Relation to Older Persons. Analytical Outcome Paper' drawn up by the Office of the UN High Commissioner for Human Rights in 2012 [84] and in the study 'update to the 2012 Analytical Outcome Study on the Normative Standards in International Human Rights Law in Relation to Older Persons' provided in March 2021. It is easy to observe that in the study of 2012 there is just one passage on defining ageism and related concepts. Meanwhile, its updated version contains a depth analysis of ageism and its harmful consequences. Ageism

is not only barely noticed here, but it constitutes a starting point for all of the High Commissioner's further recommendations on the rights of older persons [85].

Finally, the mandate of the independent expert on the enjoyment of all human rights by older persons, established as a new UN Human Rights Council Special Procedure in 2013 [86], has introduced a new quality to the protection of older persons' rights. The two independent experts appointed so far – Rosa Kornfeld-Matte and Claudia Mahler – contributed significantly to raising awareness of the harmful effects of ageism in their annual reports, statements and observations on their country visits. Special attention should be drawn to the annual thematic report dedicated exclusively to ageism and age discrimination that Claudia Mahler presented in 2021 [87]. Following an in-depth analysis of ageism and age discrimination, Claudia Mahler called on states to take legislative and organisational steps against ageism and age discrimination and to simultaneously target the root causes of ageism. She stressed that working towards a cultural and societal transformation of how society sees ageing and older people is indispensable. Older persons and their organisations must be active actors in this transformation. She stressed the importance of awareness-raising efforts coupled with strategies to empower older persons, build up their skills and capacities and reduce internalised and self-directed ageism. She also called on states and other stakeholders to take measures to encourage the media to avoid stereotypical portrayals of older persons and promote a culture of tolerance, empathy, diversity and intergenerational solidarity, which are essential for anti-discrimination measures to be effective. She concluded her report with a message that ageism 'is largely invisible in treaty provisions and interpretations by monitoring treaty bodies. To address this gap in international and regional human rights law, age as a ground of discrimination must be explicitly recognised, including in a comprehensive binding legal instrument on the human rights of older persons [87].

4. The UN human rights machinery

As ageism and age discrimination are often not visible in the international treaties, condemning ageism by the international courts or the human rights treaty bodies in their judgements or views is more a matter for the future. However, it does not mean that there is no space for other actions against ageism in the current international human rights law.

The United Nations human rights machinery, under the auspices of the Human Rights Council, has at its disposal procedures that have the potential to shape the international community's awareness of the harmful effect of ageism, even in a situation when there is no sectoral treaty on older persons' rights. This is possible as the special procedures mandate holders are guided in their actions by the Universal Declaration of Human Rights and soft law documents. Moreover, states participate in this system not because treaties bind them, but because they belong to an international community within the framework of the UN.

The mandate holders act as independent experts, operate in dialogue with the relevant government authorities and cooperate with civil society organisations and other stakeholders [35]. Therefore, the mandate of the independent expert on the enjoyment of all human rights by older persons should be indicated here. The mandate covers, among other things, country visits allowing experts to examine and evaluate the situation of older people on the spot and make targeted recommendations to governments and other actors, for example, business and civil society.

The independent expert's recommendations are sometimes very practical. For example, in a report on a visit to China in 2020, the independent expert noted that there

is no semantic and linguistic equivalent of 'ageism' in many languages and dialects used in China. Insufficient awareness and appreciation of this phenomenon were observed in China, so the independent expert recommended the translation and mainstreaming of the term 'ageism', along with its notional conception and the adoption of specifically targeted policies and a dedicated normative anti-ageism response. She also encouraged the authorities to establish an independent national equality body to monitor and report discrimination issues, including discrimination against older persons or ageism [88].

In the reports on visits to China, Mozambique and Montenegro, the independent experts noted the concern about ageism mixed with gender-based discrimination arising from patriarchal attitudes and stereotypes regarding the roles and responsibilities of women and men, placing women at a disadvantage [88–90].

In Mozambique, the independent expert also observed ageism and age discrimination in many spheres and contexts, from household decision-making about scarce resources to ageist attitudes of health professionals towards older persons. She noted that older adults are frequently refused treatment or are treated with disrespect due to their age [90]. The reports on the visits to Montenegro and Uruguay focused on ageism leading to violence against older persons, maltreatment and elder abuse [89–91].

In 2015, the independent expert encouraged the Austrian authorities to continue mainstreaming the rights of older persons in all policies and programmes, which should actively combat ageism as well as the marginalisation and social exclusion of older persons, thereby reducing their vulnerability, including abuse and violence [92].

In addition to governments, the private sector is also the addressee of the independent expert's recommendations. In the reports on visits to Montenegro and Uruguay, she expressed her concern about ageism and the stereotyping of older persons, which goes hand in hand with certain forms of discrimination. She reminded businesses that they should comply with the guiding principles on Business and Human Rights [89, 91].

Ageism against older women was also of interest under another thematic mandate within the Human Rights Council – the special rapporteur on violence against women, its causes and consequences. The reference to ageism can be found in the special rapporteur's report on her visit to Australia in 2018. The Australian government was advised to develop a national plan to promote the autonomy and agency of older people by addressing ageism and promoting community understanding of elder abuse, achieving national consistency in standards, safeguarding at-risk adults and improving responses, as well as building the evidence base for responding to elder abuse [93].

Apart from the Human Rights Council Special Procedures, the Universal Periodic Review [UPR] is another mechanism that can be taken into account. It is a review of the achievements and shortcomings in a state's respect for human rights and fulfilment of its obligations. It is carried out periodically and is a form of the inter-state dialogue. While it is certainly flawed and vulnerable to politicisation, due to its universal coverage it has the potential to disclose ageism as a harmful phenomenon internationally. During recent UPR cycles, older persons' rights and dignity and the dangers of age discrimination are more and more frequent topics of this dialogue. However, states rarely address ageism *expressis verbis* in their recommendations to other states. Therefore, Vietnam's call on Singapore to enhance measures to ensure the protection of the rights and well-being of older persons, including efforts to reduce ageism, is unique. It is possible that the Vietnamese recommendation formulated during the UPR cycle of 2021 may become a model for other states in subsequent reviews [94].

Finally, it should be noted that today it is difficult to imagine a system of international human rights protection without NGOs in the reporting procedure in all human rights treaty bodies, or in the course of the Universal Periodic Review and the special

procedures of the Human Rights Council. Moreover, NGOs act as *amicus curiae* before international tribunals, as well as before quasi-judicial bodies, reviewing notifications of violations of human rights treaties. They can play a crucial role within the framework of these diverse procedures, providing expertise on ageism and all its aspects.

5. Conclusions

Although many years have passed since ageism was first identified, and although there is no doubt that this phenomenon lies at the root of social exclusion, it was hardly visible in the international forum just a decade ago. Today, this notion is present mainly in reports and observations of specialised human rights bodies, though it is not widely used in legal and law-related language. The notion of ageism does not appear *expressis verbis* in the core human rights treaties, nor even in the regional treaties on older persons' rights. It is true that stereotypes, prejudices and age discrimination are frequently referred to in sectoral treaties [mainly referring to women and persons with disabilities], but it is rare that all these aspects are equally stigmatised there, and certainly, they are not directly linked with older persons.

Consequently, ageism is not addressed in the general conclusions and recommendations provided by the human rights treaty bodies when interpreting the states' obligations under human rights treaties. Moreover, this notion is not as widely used as expected in resolutions and recommendations issued by international organs. Generally speaking, international hard and soft human rights laws are still dragging their heels in naming 'ageism', which severely weakens combating it on international and, consequently, national levels.

Hence, introducing this concept into international hard law as a 'keyword' covering age discrimination, stereotypes and prejudices would be a clear message to the whole international community. Therefore, a global treaty on the rights of older people or human rights in old age condemning ageism and all ageism's dimensions is desirable. Such a treaty would impose positive obligations on states to eliminate various obstacles, including ageism, to older people's enjoyment of human rights. Human rights can only be achieved when states are legally obliged to respect them and where monitoring mechanisms are thoughtfully operationalised [95].

However, one cannot be naïve and assume that merely introducing a call to combat ageism into hard international law will prove sufficient. It is clear that raising awareness of the international community is a long-term effort and requires dealing with new challenges.

It, therefore, seems worth using hitherto unused or rarely used mechanisms such as the UPR to raise awareness of this phenomenon. Above all, however, new varieties and forms of ageism, especially the hidden ones, should be analysed and revealed to the international community. Thus, any extra-legal action by international bodies, states, NGOs and other stakeholders, should also be appreciated.

It seems essential to bring new areas and aspects of ageism to the attention of both scholarship and international bodies. It is clear that life and the political situation in the world constantly pose new challenges, with ageism during emergencies being one such challenge. The best recent example of this is the COVID-19 pandemic when older adults were blamed for being the reason for lockdowns and other restrictions [96, 97]. As a result, in May 2020, 146 states at the United Nations forum signed a statement expressing their deep concern over the escalation of ageism, including age discrimination and the stigmatisation of older persons, which aggravates their vulnerabilities [97].

Another issue to be explored is conscious and unconscious ageism against older persons during armed conflicts. In February 2022, Human Rights Watch published a report revealing older persons' vulnerability in recent international and war conflicts, both those who remained in their homes and those who became war refugees or internally displaced persons [98]. The report does not cover the war in Ukraine, where the situation of older adults, regardless of whether people left their homes or stayed, is dramatic. HelpAge International, referring to this humanitarian crisis, noted that 'while war does not discriminate, the international response does. Time and again, the toll of war on older people is overlooked as they struggle to survive and piece together a new normal [99]'.

Finally, it also seems that the fight against ageism internationally should become 'more specialised' and more attentive to the combination of ageism and other inequalities. The double standards concerning ageing between man and woman are best known and described in the doctrine and in international reports [100]. The stigma, stereotyping and discrimination of older adults with disabilities are also well-explored [101]. However, international law does not address all disadvantaged groups. Various groups, like LGBTQ people, similarly to older persons, do not enjoy 'their own' treaty. Others, like indigenous peoples, are selectively protected by international regulations. This leaves the older members of such groups 'doubly invisible'. It appears that addressing ageism against older adults belonging to diverse, disadvantaged populations is another challenge to the international community.

This chapter had its limitations and focused on legal issues; however, the non-legal initiatives that have been taken internationally cannot be underestimated in the fight against ageism. Thus, one of the goals of the global campaign, the UN Decade of Healthy Ageing [102], which is compatible with the Sustainable Development Goals (SDG), is to prevent an older population from ageism in order to improve the lives of older people, their families and the communities in which they live. In turn, the central message of the 2030 SDG Agenda, 'to leave no one behind [103]', is critical to changing attitudes toward older persons and protecting people of all ages.

Conflict of interest

The author declares no conflict of interest.

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Chapter 2

Perspective Chapter: Social Ageing Challenges Faced by Older Adults Exposed to Conditions of Underdevelopment and Extreme Poverty

Ntobeko Bambeni

Abstract

Ageing is a crucial era at the last stage in the lifespan of human beings, particularly for those who survive and pass through other stages of the life cycle. There has been a considerable increase in the number of people who reach this stage and live longer across the globe. The rampant increase of this population group has yielded unprecedented challenges to the both the developed and underdeveloped world due to the psychological, health, economic and social needs of this population cohort. In most developing countries, these social challenges faced by older the older persons are to a certain extent mitigated by the cohesive structure within the community. However, the social, living arrangements from families and communities that are available to the older population are under threat due ongoing demise in the traditional forms of care is as a result of families having suffered from the impact of social change, including urbanisation, geographical spread, migration, the trend towards nuclear families, and participation of women in the workforce. Ageism as a concept is viewed as the theoretical, policy and practical underpinning for how ageism is perceived and dealt with. The negative stereotypes that often shape the theoretical framework with regard to ageism is the root cause of negative attributes associated with ageing. This chapter therefore, concludes with the key recommendation that governments from the developing economies should strive towards development of policies for the protection of advancement of the wellbeing of older population and make resources available for the implementation of the policies.

Keywords: ageing population, developing countries, social challenges, older persons, ageism

1. Introduction

Ageing is one of the essential element of the life cycle of a human being. it is regarded as the last stage in the lifespan of human beings, particularly for those who

survive and pass through other stages of the life cycle. There has been a noticeable increase in the number of people who reach this stage and live longer across the globe. The phenomenon of continued increase in the population ageing is prevalent in both developed and developing parts of the world. The rampant increase of this population group has yielded unprecedented challenges to the both the developed and underdeveloped world due to the psychological, health, economic and social needs of this population cohort. Therefore, this may have serious implications for the social policies of governments from both the developed and developing countries as they may find themselves compelled to devise means to secure more resources to meet the increasing needs associated with the growing ageing population. The increase in the population ageing has created many challenges for older persons, especially in developing countries as they are mainly characterised by underdevelopment and poverty. However, there are convergent challenges besetting the ageing population which are detrimental to their well-being and these may range from inadequate healthcare and discrimination as a result of ageism. Despite all the challenges, the population ageing is faced the increase in their numbers has become a global phenomenon.

2. Methods for data collection and analysis

The data used for the writing of this chapter was collected through a literature review. The purpose of this section is to describe the data collection and analysis methods applied during the review of the literature by getting into details about the exact procedures and processes that were followed during data collection and analysis.

2.1 Data collection

The type of data review that was utilised is narrative review. Sylvester et al. [1] describe narrative review as the 'traditional' way of reviewing knowledge. On the one hand, the purpose of the narrative review is to summarise or synthesise what has been written on a particular topic, and on other hand, does not see seek to make a generalisation or cumulative from what it is reviewed [2]. It can be helpful in gathering together a volume in a specific subject area and synthesising it [3]. To achieve the objectives of this study, the author utilised the narrative review in order to summarise the literature pertaining to the social challenges faced by the older adults in developing countries. Through the narrative review, the researcher's undertaking is to accumulate and synthesise the literature to demonstrate the value of a particular point of view [4]. The narrative review was used to summarise the assembled data from the literature to demonstrate social challenges of older adults across the world and in the developing countries. Lastly, the narrative review can be used for writing of educational articles for practitioners to be updated with certain topical issues [2]. The data collection process was implemented through different stages, namely, literature review design and conducting of the review.

2.1.1 Review design

The process of data collection began with the designing of the literature review. This stage of designing literature was implemented by searching the internet for appropriate

articles. Mainly, this stage is devoted to searching for the literature and making decisions about the suitability of material to be considered in the review [5]. The appropriate articles were searched by using the phrase 'population ageing in developing countries' and challenges of ageing in developing countries. According to Snyder [6], a search strategy for identifying relevant literature must be developed by selecting search terms and appropriate data base that assist in deciding on the criteria to use about which elements of data to be included and excluded. The search terms for identifying the appropriate data could be words or phrases used to identify articles, books and reports and these words, terms and concepts should be related to the research question [6]. Out of the various sources derived out from the search, the author selected those that under the search phrase had words or concepts that relate to healthcare, social protection, socio-economic situations and challenges faces by ageing population in the developing countries. The reason for the author to identify certain sources is that some of the sources were not relevant answering the research question. Snyder [6] asserts that because the initial search almost yields many articles, a strategy may be needed to identify, which are actually relevant and, therefore, inclusion in the literature review should be guided by the research question. As a consequence, the quality of the literature is dependent on, among other aspects, what literature is included and on how it was selected [7].

2.1.2 Conducting review

This stage of data collection refers to the process of how the data was extracted by the author from the literature sources that were selected for review. This stage of data collection involves extracting applicable information from each primary source included in the sample and deciding what is relevant to the problem of interest [8]. In the case of journal articles, the author would first read the abstracts of the journal articles in order to determine whether were there any summary of the literature review, findings and discussions that are related to the healthcare, social protection, socio-economic and challenges faced by older adults in developing countries. With regard to the reports of the international organisations such as the United Nation's Agencies, the author would first read through the executive summaries and within the table of content to identify the most relevant titles and subtitles for review. The author also made use of the lists of references from some of the journal articles to identify other articles that because of their titles were considered valuable for the review. To avoid reading each piece of extracted literature in full, the author selected to read the abstracts first, made selection of the relevant literature to be reviewed based on the abstracts read and subsequently read the full articles that he finally selected [6]. The nature of data that is recorded from extracted sources depends on the research question [9].

2.2 Data analysis

The data analysis is conducted after literature review was conducted and the decision is taken about the final sample and which standardised means of extracting appropriate information from the literature sources to be used [6]. The data were analysed through identification of key concepts and themes that persistently featured prominently in the literature sources. The concepts identified showed significant relevance to the research question of the chapter. Webster and Watson [10] suggest that when the reading is complete, it must be followed by synthesis of the literature, develop a logical approach to grouping to representing the key

concepts that have been identified and followed by discussion of each identified concept. The reciprocal translation analysis was applied as a data analysis technique to identify key metaphors, themes or concepts in each study or literature source [11]. Some of the concepts derived from different literature sources that share common relationship were brought together and discussed under one broad theme. The identified concepts were subsequently discussed as broad themes and sub-themes. The reciprocal translation analysis involves the translation of concepts from individual studies into one another and in the process evolves overarching concepts or metaphors [12].

3. Population ageing: a global phenomenon

The proportion of the world's population aged 60 and above is increasing more rapidly than in any previous era [13]. This growing trend among this cohort of the world population disregards borders including developed, developing and underdeveloped regions [14]. Population ageing in developing countries is growing at three times the speed of population than in developed countries [15]. This rapid increase even transcends to the world's poor countries wherein those who survive the disease of infancy and childhood have a very good chance of reaching ageing [13]. The United Nations Population Division has estimated that the number of older adults over the age of 60 years will rise from 800 million (11% of the world's population) in 2011 to over 2 billion (22% of the world's population) in 2050 [16]. The number of older adults aged 80 and above is estimated to increase by 270% over the same period and with the greatest increase of older persons expected to occur in low and middle-income countries.

The contributing factors to the increase in the ageing population are declining fertility and increased life expectancy [17, 18]. The improved increased understanding of medicine, major developments in medical technology in recent years [19] and prevention of diseases previously responsible for huge numbers of premature deaths [13] are attributed to the increased life expectancy. While life expectancy has substantially increased, the total fertility has fallen below the stable rate level [19]. The steady increase in the ageing population has enormous implications for population demographics, which may have a direct bearing on already over-burdened global healthcare and social services systems. Population ageing will have a profound impact, especially as many governments around the world have yet to put in place the policy framework to respond to the challenges brought by the ageing of their populations [20]. Bennet and Zaidi [20] further argue that there is a disparity between advances in longevity and in the development of policies that protect and empower older persons. There is a deficiency in the awareness of the potential of older persons in being net contributors to the development process, especially in sub-Saharan, Middle Eastern and Asian countries.

4. Overall social challenges facing older persons

The increasing ageing population indicates that the society may have a large number of people who require special needs due to disability as a result of chronic illness and physical immobility due to old age and mental-related illnesses. These conditions may have a direct impact on the health care and social protection systems.

4.1 Physical immobility and impaired mental ability

Older persons are likely to experience chronic conditions, physical degeneration and frailty as a result of the ageing process [21]. It is also noted by Nabalamba and Chikoko [22] that population ageing is highly correlated with physical and mental disability and an increase in the number of health conditions. According to the 2006 World Health Organisation's projections, the diseases associated with the ageing such as Alzheimer and other forms of dementia accounted for 6.3% of disability-adjusted years. This percentage is proportionately higher than the contribution to the disability-adjusted years of HIV and AIDS (5.5%), all cancers (5.3%), heart disease (4.2%) and respiratory diseases (4.0%) [22]. Most notably, it is the contribution of Alzheimer and other forms of dementia alone as it accounts for 12% of other neurological disorders [22]. There is a likelihood also to see an increase in other chronic conditions such as strokes, chronic obstructive pulmonary disease and diabetes mellitus [23]. The increase in the number of older persons with chronic conditions will account for greater disability [23]. Physical limitations that older persons endure may lead to functional decline and the inability to care for themselves in addition to increasing risks for falls, a decline in physical activity, depression, loneliness and hospitalisation [24]. Both the increase in physical disability and chronic illness may necessitate the need to provide increased health care and social care as the management of long-term chronic conditions, and related disabilities require a substantial amount of resources (both human and financial) from governments, communities and families [22].

4.2 Inadequate provision of healthcare services

Despite the poor quality of life experienced by many older persons and the challenges faced by the planners and professionals in providing the much-needed health and welfare services for the growing number of frail older persons, it is disturbing to notice the lack of enthusiasm in promoting the joys and triumphs of older persons in the latter part of the twentieth century [13]. The poor quality of life experienced by older persons is characterised by challenges such as inadequate retirement pension, social exclusion, lack of access to basic services, health care, food insecurity and a lack of affordable accommodation [17]. Inouye [25] points out at ageism to be a fundamental causal factor for the inadequate and inappropriate health care services to older persons. Inouye [25] criticises ageism for its adverse impact on the healthcare system by leading to inequities in healthcare delivery and poor clinical outcomes. In the context of healthcare, ageism is defined as age-related discrimination, including explicit age cut-offs for treatment or resource allocation or implicit age-related biases, which limit access or create a barrier to healthcare [25]. The above assertion about ageism is confirmed by a landmark study on COVID-19 whereby healthcare professionals were found to have been significantly more likely to withhold life-sustaining treatments for older persons compared with younger persons even after controlling for prognosis and patient preferences, a practice that is claimed to have persisted to date [26]. Ageism has also led to inadequate or inappropriate care and decreased or delayed access to health care services, resulting in decreased survival, power quality of life, increased cognitive and functional impairment, emergency visits and hospitalisation [27].

The older persons also suffer depleted welfare services and a lack of family and community-based care support. This contributes towards making the older persons

consistently becoming the poorest in all societies and material security is one of their greatest preoccupations [13]. Despite experiencing the same lack of physical essentials, assets and income suffered by other people, they are without the resources that younger, fitter and more active adults can use to compensate [13]. The problem of poverty among older persons is not only restricted to material needs. Their inability to participate effectively in economic, social and political life finds them socially excluded and isolated from decision-making processes and thus, not only affecting their income and wealth but also contributing to poor housing, ill-health and personal insecurity [13].

The lack of community and family-based care, which used to be rooted in traditional family and community-based care, also negatively impacted the psycho-social and economic well-being of many of the older persons. Ferreira [28] points out that diminishing care that used to be provided to older persons by family members is a result of changes in family structures ushered in by modernisation and urbanisation, particularly in developing countries. Globalisation is also considered to have contribution to the reduction of the family into a non-viable economic institution for older persons as it promotes values of individualism and the pursuit of self-interests [29]. Sen [30] also observes from a vantage point the challenge of strain experienced by families due to chronic and complex problems associated with ageing as they would put pressure on authorities to put their older persons who require more extensive care in residential institutions. The broad overview of the adverse situation of the increasing ageing population as described above has also specific features peculiar to the context of the developing countries.

5. Ageing in the developing countries

It is estimated that the number of older persons in developing countries will be more than double over the next century reaching 850 million by 2025, which will be 12% of the total population [13]. The number of older persons aged 80 years and above is expected to increase by 270% in 2050 with the greatest increase of older persons in the developing countries [16]. Patel [17] attests that the majority of the world's population of older persons (60%) live in developing countries. In Africa, alone projections show that the older adults could account for 4.5% of the total population by 2030 and nearly 10% by 2050 [22]. Sen [30] argues that though population ageing is a feature in all countries, its consequences are more devastating in poor countries where it is occurring at a very fast pace. This growth in the ageing population in the developing countries presents significant challenges to economic resources and other significant competing health and social challenges [31, 32]. The population ageing poses great challenges to society concerning for example health care, caregiving and a suitable pension system especially for developing and underdeveloped countries that often have limited resources [33]. The Madrid Plan of 2002 provides the framework to incorporate discussions of population ageing into the international debates on development and the implementation of national policies to respond to the challenges of building societies for all ages [34]. The Madrid Plan of 2002 gives priority to ensuring that ageing is made an integral part of the international development agenda; to advanced health and wellbeing into old age and to creating enabling and supportive environments for older persons [34].

5.1 Poverty

The probability of being poor at old age does not only depend on being covered by a pension scheme [34]. The degree of poverty among older persons varies with the level of educational attainment, gender and living arrangements [34]. Nabalamba and Chikoko [22] argue that the efforts to understand poverty have dominated much of the debate on development in recent years, however, the poverty experienced by the majority of older persons, particularly in developing countries, has been largely ignored as a result of competing interests such as education, health, housing, sanitation and water as they were considered as pressing. Hutton [35, 36] affirms that the older persons in developing countries experience disproportional high levels of poverty as it is estimated that about 80% of older adults have no regular income. The poverty facing the population of older persons is exacerbated by a plethora of other urgent and pressing demographic problems such as rapid population growth, high youth population and high unemployment; high infant and child mortality rate and high maternal mortality rates [22]. The increasing population ageing in developing countries has significant implications for poverty reduction strategies [37]. Nabalamba and Chikoko [22] affirm that these urgent and pressing challenges have resulted in governments and societies deprioritising older persons in favour of other more vocal age groups. Nabalamba and Chikoko [22] further aver that government development policies tend to favour expenditure that invests in the long-term productive potential of the younger adults because of high levels of unemployment among this age group and being also aware of their potential to create social and political unrest if their demands and life chances are not fulfilled. The undervaluing of the contribution of older persons by policy makers and planners marginalises them from development thinking and policy and thus contributes to the persistence of the poverty among older adults [38].

Barrientos et al. [38] identified a number of trends in developing countries that could make matters worse regarding old age poverty. Barrientos et al. [38] point out at the economic adjustments brought by globalisation, changes in labour markets and especially social sector reforms have in different manners adversely affected the livelihoods of older persons. The absence of formal pension coverage causes the majority of older persons in developing countries to face considerable income insecurity [34]. The poverty situation worsens for the unprotected who are often small farmers, rural labourers and informal sector workers as for them, the notion of retirement does not exist [34]. As they had not held any formal jobs, they do not qualify for a pension and if they were unable to accumulate enough assets, they have no choice but to work on their own [34]. The situation of poverty often persists for those who were already poor during their working years as they are likely to remain poor in old age [34]. Lastly, those who might have lived above the poverty line but were unable to build up precautionary savings to finance consumption during their old age face the risk of poverty as they grow older [34].

5.2 Healthcare

Despite few studies that have been conducted, there is a general consensus in the literature that access to care and health system responsiveness in developing countries is poor and the healthcare system frequently fails to meet the needs of older persons [32, 39]. Developing countries experience high incidents of communicable diseases such as hypertension, obesity, heart disease and diabetes [40]. Boutayeb

[41] describes the combined effect of chronic communicable and non-communicable diseases as a burden for developing countries.

Older adults in developing countries have limited resources to access healthcare [34]. Access to health becomes a major challenge for those who reside in rural areas as the hospital resources are concentrated in urban areas [40]. The lack of access to healthcare is aggravated by the inadequate healthcare workers in rural areas and such workers are difficult to recruit and retain [40]. Henriques-Camacho et al. [40] identify the lack of literacy among older persons in rural areas to have a significant role to decrease access to health and similarly, large geographical areas and distant villages are a challenge to providing access to healthcare in developing countries.

5.3 Social protection

In developing countries, alone about 342 million older adults lacked adequate income security and the number would rise to 1.2 billion by 2050 if the coverage current mechanism design to provide old age income security is not expanded [34]. The case in point is the African continent, which is not well prepared for a major increase in its ageing population with regard to expanding social pension coverage [22]. The bigger challenge for Africa is the decline of informal systems of social protection in the form of cash and support from both extended family and community sources [22]. Until recent, contributory pension schemes cover very few older persons due to the informality of most livelihood activities and employment and most of the older persons' societies are pre-dominantly rural and much of the population operates outside the formal social security sector and wage-dependent markets.

Traditionally, especially among African people, the informal social protection has been effective for generations as it provided a major share of support to the older parents and the most vulnerable [22, 42]. Shetty [42] asserts that depending on various cultural practices, in countries where it is expected for children to look after their older parents, the evidence shows that they do better when living with their families. The provision of social protection by family members is still the basis for determining the nature of social protection policies aimed at older persons in many developing countries. This increasingly filial responsibility of family members to care for the older persons in developing countries is not just culturally expected, it is often legally mandated [42]. Shetty [42] refers to the Maintenance and Welfare of Parents and Senior Citizens Act of 2007 in India, which requires that adult children who neglect their parents either by refusing to make provisions for their care, or by inadequately caring for their older parents in their homes, can be imprisoned up to 3 months or fined an amount of US$10 or both. Through the established tribunals older persons can take their own children to court to demand maintenance of up to US$220 a month and similar laws exist in countries, such as Singapore and China [42]. Despite the harsh nature of these laws, there could be an argument in favour of them given the severe lack of social security and pension schemes as well as government-funded infrastructure for older adults such as old age homes and geriatric clinics [42]. In Southern Africa, the care for older persons is a shared responsibility of the nuclear family, government and voluntary organisations [29]. For example in Lesotho, the government through the Department of Social Development has the responsibility for administering welfare programmes, including personal social services for older persons and it is separated from the old age pension scheme as it is administered by a different Ministry, the

Department of Pensions within the Ministry of Finance [29]. Lesotho's universal old age pension scheme caters exclusively for older persons who are 70 years and above [29]. There is also a public assistance scheme for vulnerable groups in the population including older persons that are administered by the Ministry of Social Development in Lesotho [29]. The public assistance scheme is also means-tested and as a result, not all applicants qualify for it and this inadvertently excludes many older persons as it is operated under very strict eligibility criteria and is always poorly funded [29].

5.4 Ageism

Despite the contributions, many older adults have made to society and their diversity, negative attitudes about older persons continue to persist across societies and are rarely challenged [43]. Ageism is one barrier that prevents older persons from acquiring the essential care and services and it also discourages older persons from active ageing as if often undervalues their active role in society. Ayalon and Tesch-Romer [44] define ageism as stereotypes, prejudice or discrimination against (but also in favour of) people because of their chronological age or on the basis of a perception of them as being old [45]. Barrientos et al. [38] affirm that for individuals, the ageing process is an inescapable biological reality but is the social construction of individual ageing that generates both constraints and opportunities. Ageism can be implicit or explicit and can be expressed on a micro, mezzo or macro or macro level and thus underlines the individual, social and institutional significance of the phenomenon [46].

Chang et al. [27] argue about the rising prejudices over the years that have been spread concerning the older persons who are seen as thwarting productivity and social dynamism. Ageism creates stereotypes about ageing, which go beyond influencing behaviour and ways of managing the care for older persons' population, but can also impact personal experiences of ageing [46]. The negative self-perceptions of ageing involve reduced self-efficacy, which may directly result in depression [26] along with repercussions for physical illness due to effects on immune system [47]. Ageism tends to reinforce social inequalities as it is more pronounced towards older women, poor people or those with dementia [48]. Ageism as it relates to older persons is most prevalent in the health care sector [49]. This could be attributed to the fact that healthcare utilisation and whereby costs are higher among older persons compared with younger adults and are expected to increase further with the life-span [50]. The ageism phenomenon has led to argument by some philosophers that older adults pose a huge burden on the healthcare system [51]. Harrigan et al. [52] regard healthcare professionals as being more likely to communicate in patronising and disrespectful ways with older persons as compared to younger adults.

5.5 Gender

By 2050, most of the 80 years old will live in rural areas and most of them will be women [42]. This is due to women living longer than men worldwide and this gender bias is not specific to low-income countries, but in developing countries, there can be less autonomy and less financial independence than in the developed countries [42]. According to Srivastava et al. [53] globally, there are about 90 million older persons who are estimated to be living alone of which about 60 million are females. In addition, a great majority have only been in one union and often decide not to marry after the spousal bereavement at older age [54].

The process of ageing affects males and females differently due to economic, social and cultural factors. The study conducted in five countries (China; Ghana; India; Russia and South Africa) showed that the male participants across generally reported a better quality of life as compared to their female counterparts across all five countries [33]. The study results indicate that gender inequality regarding the quality of life exists and that gender may play a critical role in the quality of life among older adults in low and middle-income countries [33]. According to Denton et al. [55], previous studies have also argued that men and women are exposed to different cultural norms and social factors. Lee et al. [33] assert that female participants' overall social status was found to be lower than that of their male counterparts and they were likely to have a more limited income, more barriers concerning access to health care and more responsibilities regarding household chores and these factors could affect their perceived quality of life.

5.6 Widowhood

Intrinsic to the exposure of adult women in relation to cultural and social factors is the phenomenon of widowhood, which has a direct effect on inequality regarding the quality of life among older persons. Widowhood is described by Wilcox et al. [56] as a catastrophic event at any stage of life for the surviving partner with serious repercussions on their physical, economic and emotional well-being, particularly in the first year of the loss or for a longer term in some cases. In spite of that, the emotional response as a result of the loss of a spouse is considered to be different depending on various socio-economic demographic characteristics such as age, gender, widowhood duration, living arrangements, functional ability to perform activities, health status and other factors such as community involvement and economic conditions of the survivor [57]. There is also an assertion that differences between two sexes in depression due to the loss of a spouse are argued to differ according to gender roles as women are found to invest less in their financial security and more in familial relationships as compared to their men counterparts [53]. In many instances, after the bereavement of the spouse, their only source of income diminishes, which increases their economic hardship in old age leading to an adverse impact on their psychological well-being [58, 59].

Widowhood plays a significant role in the poverty of older widows especially in developing countries [60]. Hurd [61] argues that the issue of poverty is particularly trouble-some for the population segment of widows since they have fewer possibilities to recover from a drop in income. In the traditional African society, poverty, deprivation, malnutrition, neglect or isolation among older persons were not common as children, members of the extended family and community members provided care and support for them [62]. The care and support for older persons were seen as collective responsibility and expectation of the entire society [62]. Consequently, upon the death of a husband, a widow relied on her children and members of the extended family for her wellbeing [60]. This responsibility for care and support for older persons was premised on the social relationship and structure of the extended family since it promoted closeness among members, thus reducing the problems of poverty and deprivation.

Nowadays as a result of intergenerational relationships, older widows are currently the most vulnerable and marginalised groups in the rural areas [60]. In contrast to the traditional practice, they are now faced with what Eboiyehi [60] describes as a quadruple danger of being old, poor, widowed and alone. Eboiyehi [60] argues that

in some cases the customs that were used to protect them in the past are now used to oppress and exploit them. For example, the poverty experienced by older adult widows can be linked to discrimination in inheritance customs, the patriarchal nature of society and the supremacy of the repressive traditional practices and customary rules [60], which take precedence over constitutional guarantees of equality, modern laws and international women's human rights [63]. This is often characterised in the rural communities by "chasing off' and 'property grabbing', which become the common features orchestrated by brothers of widow's husband being driven by greed and deceitfulness as they deprive the older widows of their homes, agricultural land and assets [60]. Therefore, the passing of a husband means a loss of income and property that the deceased spouse owned and left for the widow [63]. The psychological maltreatment of older widows exposed them to become more likely to be in poor health conditions and they are either childless or do not have a son or daughter nearby to provide assistance when needed [62]. Another challenge faced by older widows in Africa and in some parts of Asia is traditional mourning and burial rites involving harmful and degrading treatment that constitutes gender-based violence and they are coerced to participate in these rites through their fear of losing status and protection against being evicted from the family home [63].

5.7 Witchcraft accusations

The witchcraft accusation often laid against older women is rife, particularly in Africa. Witchcraft is defined as the ability of a person or group of people to cause harm to others [64]. Those accused of witchcraft are believed to have the evil propensity to harm innocent persons in an inexplicable concealed manner [65]. They are believed to possess the magical powers to fly at night and travel far and wide to kill innocent people, cause diseases in humans, sudden death, impotence, sickness in animals, bad luck and other misfortunes [65]. It is believed that during the process of harming their victims they are able to transform from human beings into animals, birds, reptiles and insects [66]. They are sometimes blamed and punished for being responsible for strong winds, drought, hunger, misery and all other disasters [67]. In many communities, people who have suffered misfortune, illness or death often utilise the services of soothsayers or traditional healers (sangomas) to identify who in the community has been bewitching them [67]. Unfortunately, in most cases, the fingers are often pointed at older women who then have to suffer the consequences [68, 69].

The rise in accusations of witchcraft and counter-killing of alleged witches is associated with illiteracy [70], poverty, diseases and ignorance [71]. Meels [68] argues that sometimes even rational and literate people do believe in witchcraft especially when events cannot be explained or when people fail to establish causes of complex issues, such as regular misfortunes and failure to succeed in life. The accusations of witchcraft are also associated with demographic, socio-economic, psychological and cultural factors [65]. Mencej [72] points out at factors such as economic well-being and strained relationships among community members play a major role in accusing older women as witches. The challenge of witchcraft accusations represents a serious violation of the human rights of the victims, more particularly in Africa [73]. As a consequence, people accused of witchcraft are subjected to physical and psychological abuse by their respective communities [74]. This witchcraft accusation is the source of unacceptable levels of mistreatment perpetrated against older women in Africa [73]. The older persons that are prone to be accused of witchcraft

are those that are too old, have bad health, have red or yellow eyes, wrinkled skin, missing teeth or have a hunchback stance [75, 76].

5.8 Abuse

The abuse of older persons features prominently in the current literature on ageing as it is becoming one of the significant challenges facing the ever-increasing ageing population. The concern about older person abusers increases as the global population ages [77]. It is recognised internationally as an extensive and serious problem, which urgently requires the attention of health care system, social welfare agencies, policymakers, and the general public [78]. The World Health Organisation (WHO) [43] reveals that in a 2017 review of 52 studies conducted in 28 countries from diverse regions across the world is estimated that 15.7% of people aged 60 years and older are subjected to forms of abuse. Rates of older person abuse are reported to be high in institutions such as nursing homes and other long-term care facilities [43] with up to 64% of staff admitting to elder abuse based on self-report. The abuse of older persons is reported to have increased during the COVID-19 pandemic [43].

The definition of older person abuse sometimes often rests upon various professionals to fit the purpose of the specific disciplines, such as legal, law enforcement, medical and welfare. [79]. Chalise [79] adds that as a result of these disconnected viewpoints about the phenomenon of older person abuse, it is a notion that is also understood differently by older persons themselves and caregivers. Wallace and Bonnie [80] argue that the use of widely varying and sometimes poorly constructed definitions of the older person abuse phenomenon is a major barrier to improving the understanding of older person abuse. To mitigate the misunderstanding as a result of this shortcoming, Wallace and Bonnie [80] proposed a widely accepted definition of older person abuse whereby they define it as intentional actions that cause harm or create a serious risk of harm (whether harm is intended or not) to a vulnerable older person by a caregiver or other person who stands in a trust relationship, or a failure by a caregiver to satisfy the older person's basic needs or to protect the older person from harm. However, the international accepted definition among scholars is the one that refers to older person abuse as a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person [43]. According to Chalise [79], the definition of older person abuse implies that an abusive act perpetrated against an older person could be either an act of commission or omission by any person in a position of trust such as a family member, friend or neighbour.

The older person's abuse constitutes a violation of human rights and includes physical, sexual, psychological and emotional abuse, financial and material abuse and abandonment, neglect and serious loss of dignity and respect [43]. WHO [43] adds that older person abuse has serious physical and mental health, financial and social consequences, including, for instance, physical injuries, premature mortality, depression, cognitive decline, financial devastation and placement in nursing homes. According to Ayalon [81], the consequences of older person abuse can be especially serious and recovery may take longer. Albeit there are various categories of older person abuse, for wider use the international scholars reached a consensus on five categories of older person abuse, namely, physical abuse, psychological abuse, financial abuse, sexual abuse and neglect [82]. The older person's abuse may be manifested by various signs depending on the category of abuse. The types and signs of abuse are demonstrated in **Table 1**.

Type of abuse	Symptoms
Physical	• browses especially on the head or upper body
	• unexplained burns
	• cuts sores or other injuries
Psychological	• intimidating or yelling
	• making threats
	• humiliating or ridiculing
	• isolation an older person from friends and keeping them away from activities they enjoy for no good reason
Financial	• unusual patterns of spending or withdrawals from an older adult's account
	• frequent purchases of inappropriate items
	• bills remain unpaid and sometimes the presence of a new 'best friend' in the older adults life who accept generous gifts from the older adult
Sexual	• presence of unexplained genital infection
	• unexplained and or vaginal bleeding
	• torn or bloodied underwear and bruises around breasts or genitals.
Neglect	• lack of clean clothing or clothing that is inappropriate for weather conditions
	• lack of basic hygiene,
	• cluttered home that is dirty, in need of repairs or a home that has fire and other safety hazards.
	• a home that lacks basic needed utilities that are essential for the older adult's daily sustenance.

Table 1.
Signs of older person abuse.

There are various risk factors that lead to the abuse. The main risk factors that lead older persons to become victims of abuse include the following: being a female, presence of cognitive impairment and being single or living in an older person or couple family, living in rural areas, having a poor self-perception of health and having a disability [83]. According to Pilleemer et al. [78] and WHO [43], these risk factors can be identified at an individual level, thus, both as a victim and perpetrator, victim-perpetrator relationship, community and societal level. The summary of older person abuse at the individual, community and societal levels and the associated risk factors are summarised in **Table 2**.

At an individual victim level, the risk factor is often functional dependency or disability, which generally becomes a challenge across all countries and has been consistently found to be associated with greater risks of older person abuse [78]. Other risk factors at individual victim level identified by [78] are poor physical health, cognitive impairment through dementia, poor mental health, low income and gender. The individual perpetrator risk factors include mental illness, which is viewed as a strong risk factor, substance misuse and abuser dependency whereby the studies have shown that abusers are likely to be depended on their victims for emotional support, financial help, housing and other forms of assistance [78]. At the level of the victim-perpetrator relationship, the older person's abuse is determined by marital status and varies from country to country [78] and through partner/spouse or child–parent relationships [43]. At community level, the risk factors are likely to be determined by geographical location thus whether it is rural or urban areas and varies with country [78]. In other

Levels	Risk factors
Victim	• functional dependency or disability
	• poor physical health
	• cognitive impairment through dementia
	• poor mental health
	• low income and gender
Perpetrator	• mental illness
	• abuser dependency
Victim-Perpetrator Relationship	• marital status
	• partner/spouse or child–parent relationships
Community	• geographical location (rural or urban areas)
Society	• negative views on ageism

Table 2.
Risk factors associated with older person abuse.

countries, older person abuse may become prevalent in rural areas while in other countries it may become more prevalent in urban areas. The societal risk factors identified are negative views on ageism and ageism may be attributed as a contributing phenomenon [78]. Negative attitudes and stereotypes associated with ageism may contribute to societal acceptance of older person abuse. The last risk factor for older person abuse is social and cultural norms that normalise violence as acceptable behaviour and may further perpetuate violent behaviour towards older persons [78]. In the South African context, Kotze [77] argues that older persons view poverty, unemployment and the subsequent use of alcohol and drugs as contributing factors to abuse. Kotze [77] also points out the breakdown of family structures, loss of respect for older persons, beliefs in witchcraft and high crime rates, including domestic violence and socio-economic inequalities.

Albeit the high prevalence of older person abuse, even today it continues to be a taboo, mostly underestimated and ignored by societies across the world [79]. The American Geriatrics Society's Foundation for Health in Ageing reveals that many cases of older person abuse are not reported. Even those who may consider reporting abuse often choose not to do so because they have been abused by a family member, a loved one, or a trusted caregiver [79]. The inability to report could be a result of extreme difficulty to reveal to others that someone trusted and loved by the victim is the one who is the perpetrator of abuse against the victim. Chalise [79] further argues that what makes matters worse is the blame that abusers often put on victims whereby they are told that it is their fault and also threatened if they reveal the abuse to anyone. The non-reporting of older person abuse also happens when the older person is dependent on the abuser for care, he or she may feel as if he or she has no option but to live in fear and pain [79].

5.9 Social care, living arrangements and social support

In most developing countries, the difficulties in supporting older persons are to a certain extent mitigated by the cohesive structure within the community [84]. The inherent responsibility of children to support their parents later on in their life has been an intrinsic part of their culture for many centuries [85]. This conception is

supported by United Nations [86] which asserts that in most developing countries a majority of older persons live with relatives and in many instances with their children. Traditionally, multigenerational households have provided the main social context for the sharing of family resources and the provision of mutual support as needs arise over the life course of the older persons [86]. The United Nations [86] further reveals that on average around three-quarters of the older persons over the age of 60 years in the developing countries live with children and or grandchildren as compared with about a quarter of the older population in the developed countries. Soni et al. [84] cite the examples of counties such as India, Nepal and China where family traditions and lineage are important with responsibility for the male children who are referred to as heads of households are expected to care for their parents, consequently creating a strong extended family unit. In Africa, family members are primarily responsible for providing care and support to older persons [87]. The caring by children of older adults is a reciprocated act, which is related to the African expression that roughly translates to 'Because you (i.e., one's older parent) have taken care of me (the child) to grow teeth, I will take care of you until your teeth fall out' [88]. In East and South sub-Saharan Africa, families provide most of the care for children, the sick and older persons due to few formal systems that exist [89]. According to the United Nations Population Fund [15], in East and South sub-Saharan formal care, where paid providers or governmental agencies provide assistance including day care centres, residential and care facilities, outside of urban centres, residential care facilities for older persons are rare and where present, they are generally financially accessible only to elite.

According to Kalache [90], these traditional forms of care available to the older population are under threat. The ongoing demise of the traditional forms of care is, as a result of families suffered from the impact of social change, including urbanisation, geographical spread, the trend towards nuclear families, and participation of women in the workforce [13]. The changes in the traditional forms of care have also been affected by migration whereby young people leave their country of birth searching for better opportunities and lifestyles [91]. The increased urbanisation and migration imply that people have to live a hundred miles away from their parents and simply cannot provide care and increased migration over the decades means that the younger generation may not even live in the same country as their parents [42]. The changes in the family structure have also been hugely affected by the effects of HIV and AIDS, particularly in the African continent.

There is a shift in the traditional form of caring, which is demonstrated by a change in the care responsibility. Instead of children taking care of their parents, older adults are the ones who take care of grandchildren and the sick in the household. Shetty [42] points out an uncertain employment environment whereby people are more likely to migrate for work or work much longer hours, therefore, meaning they can leave their children in the care of their grandparents. Therefore, this means that instead of older persons enjoying their retirement or being cared for, they have increasingly become care providers especially older women as they are becoming overwhelmed with care responsibilities and concern for their well-being and vulnerability is increasing [42]. The shift in care responsibility is also identified by the United Nations [86] when arguing that support typically flows in both directions and the nature and amount of support often varies or changes in response to individual needs. Very often, many older persons in multigenerational households are net providers of care and support for the younger generation instead of the other way around [86]. The United Nations [86] further adduces that even though they remain with the carrying and care responsibility, older persons are not recipients of material

and financial support from the child care and other households and community activities. In the developing countries, many older persons also remain active in the labour force and in the households, there are younger children and grandchildren who depend partially or entirely on the older persons for their livelihoods. Instead of being differentially waited upon by their children and children-in-law, older women are often involved in child care for grandchildren and in cooking for the ever busy dual wage earner couple [92].

There is also another developing trend of skipped-generation households, which is becoming a common phenomenon. The phenomenon of skipped-generation households consisting of grandparents and grandchildren is relatively common in many developing countries and older women are likely to live in this type of household [86]. The skipped-generation households become a reality when children may stay with grandparents when one or both of the parents have died and when parents have migrated for work or divorced [86]. The circumstance of the skipped-generation households varies in many ways depending on the situation that gave rise to the living arrangement. For example, parents who are working elsewhere often send money and return to visit and also grandparents who take care of orphaned children there may be one to help with support [86]. More often than not, skipped-generation households are likely to be found in rural areas, and these households tend to be poor [93]. The proportion of older persons living in skipped generation households has been going up in countries that were heavily affected by HIV and AIDS [86]. In those countries, many of the grandparents who support grandchildren are extremely poor [94].

Another aspect inherent to the lives of older persons who live with their children is household headship. In developing countries, on average, about 90% of older persons aged 60 years and over are identified as heads of households and over half of the men aged 80 or above are regarded as heads of households [93]. Women are much less likely than men to be identified as the head of the households, albeit there are distinct differences between countries in this respect [86]. On average about two third of older women in developing countries are either the heads of households or their spouses are heads of households [86]. While it is uncertain to what extent the household head leadership implies, it is about day-to-day control over resources and decision-making, and male older persons are usually regarded as playing a leading role in their households [86]. Older persons who live with their own children are far more likely to become heads of households than those residing with other relatives or non-relatives.

6. Implications for theory, policy and practice

The theory undergirding the conceptualisation of ageing, policy formulation and practice is premised and influenced by ageism. The negative stereotypes that often shape the theoretical framework with regard to ageism are the root cause of negative attributes associated with ageing. The physical and mental deterioration associated with old age leads to devaluing of older persons and thus becoming isolated from active participation in social, economic and political activities. There is a need for a paradigm shift in theory that informs the current perspective about ageing. There is a need to modify the current theoretical paradigm on ageing by embracing the increasing longevity at old age, their strength with regard to life experience, the great contribution made by an ageing population in society and the active role that they still yet to play due to increasing levels of mental and physical health they still display.

According to World Health Organisation (WHO) [95], the developing countries have much lower national income and infrastructure and capacity for health and social welfare than countries that developed earlier. This necessitates a reconsideration of the policy framework towards addressing the deficiencies in the provision of health and social welfare services. There is also a need to review policies relating to accessibility of labour markets and economic opportunities. The WHO [95] in the Decade of Healthy Ageing 2020–2030 suggests that appropriate laws, policies, national frameworks, financial resources and accountability mechanisms must be established in all sectors and all administrative levels to ensure that older persons experience health and wellbeing and enjoy the human rights. The WHO [95] further urges that national and international partners should also advocate for transforming social, economic and environmental policies for increasing longevity and optimising health ageing for development throughout the life course.

The WHO [96] argues that enhancing mental and physical wellbeing among older persons by delivering accessible, affordable, equitable and safe community-based care for older persons will require a competent workforce, appropriate legislation and regulation and funding. The precondition for having such competent staff is the elimination of ageism mentality among those entrusted with caring for older persons. Because of diminishing informal care in the developing countries, there is a need to think about other alternative models of care in contrast to institutional care. The financial capacity of the developing countries may not match the level of their developed counterparts that often utilised institutional care. The developing countries may consider designing family-based and community-based care models that will adhere to the acceptable norms and standards of providing care to older persons. The family and community-based care models may utilise formal caregivers that have undergone a transformation with regard to ageism mentality. Caring for older persons shall be conducted based on developmental perspective that will strengthen independent living and active participation of older persons in society.

7. Conclusion

The increase in the population ageing seems to be an irreversible phenomenon, especially in the developing countries. There is a consensus in the literature about the perpetual increase in the number of older adults in developing nations. Older persons in developing nations are faced with challenges such as access to health care, social welfare system and social security. The challenges associated with their ageing such as deteriorating physical and mental health require adequate financial and human resources. The older persons are also exposed to high levels of poverty due to inadequate and lack of formal social security support measures. Older women are likely to become poorer than men due to their engendered social roles, which deprive them of participating in labour market when they are still eligible for employment. Older persons are victims of individual, community, institutional, societal and social abuse. Older women are the worse victims of older abuse as they are at the receiving end of older abuse due to patriarchal nature of society. The abuse of older women is perpetuated through cultural practices imposed during the process of bereavement and also after they have turned widows. The accusation of witchcraft laid against older women leads to many older women getting physically attacked and killed especially those who are very old and widowed. Ageism is viewed to have a fundamental effect on non-provision of essential services to older persons as it may determine the way

professionals, planners and policy and lawmakers respond to issues of ageing. As the population ageing is increasing, it implies that there will be more people that are going to become vulnerable to all forms of abuse and poverty. Therefore, governments from the developing economies should strive towards development of policies for the protection of advancement of the well-being of older population and make resources available for the implementation of the policies.

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Section 2

Development of the Age-Friendly Environments

Chapter 3

Contemporary Geographical Gerontology: Reconciling Space and Place in Population Ageing

Hamish Robertson

Abstract

Geographical gerontology can look like a niche subfield of geography or a tenuous overlap between that discipline and gerontology, which is itself a broadly interdisciplinary affair. However, in the context of progressive global population ageing, this intersectional field of study offers more than its current popularity might suggest. Many of the problems with contemporary aged care provision resolve around, I suggest, issues associated with concerns of space and place. These two key geographical concepts are highly dynamic at both the theoretical and applied levels. In this chapter, I consider them as a dualism that offers the field of gerontology and associated applications, a growing utility. Space can be seen as abstracted and instrumental, with which place can be seen as relational, generative and pluralistic. On their own, neither is necessarily likely to address the full scope of societal issues that population ageing presents. However, drawing on developments across these two conceptual domains offers opportunities for a contemporary geographical gerontology. We face a variety of interconnected global problems that demand a spatially informed perspective. Here, I propose how a developmental synthesis of these two concepts that might add utility and value for those within and beyond the current aged care sector.

Keywords: geographical gerontology, population ageing, space, place, space-place relations

1. Introduction

Geographical gerontology may seem like a niche field in a discipline cluttered with many and varied interests but it's topicality and relevance are growing. Geography addresses the issues associated with population ageing from a variety of perspectives: demographic; medical/health; critical theory; economic; and at the interface of gerontology to name some of the more relevant. In addition, it is clearly and interdisciplinary undertaking given the conjunction of geography and gerontology which makes for an additional level of undertaking in terms of theory, methods, practices and synthesis [1]. While the geographic interest in ageing is a long-established one, global population ageing makes it an increasingly relevant and practical field of inquiry and analysis.

In this chapter I examine some of the key issues for a non-geographical audience in considering the relationship between population ageing and gerontological thinking using geography as the lens of inquiry. The implication being that social phenomena, social policy and societal responses all have geographic implications. As I have stated elsewhere [2], social policy is fundamentally geographic in nature because the, often, uneven nature of policy design and implementation will be exhibited in and through associated spatial effects. So, for example, access to healthcare services or aged care services will exhibit a spatial dimension because both the demand and supply sides of those 'equations' will vary across geographic space. This scenario exists even without the effects of gerrymandering and associated political impacts on policy and funding arrangements which, if anything, increase differential spatial effects.

My position here is intended for a broad audience and not an exclusively geographical one. It also is developed in the awareness that the United Nations Decade of Healthy Ageing Strategy (2021–2030) presents a number of the issues discussed here from a somewhat different but related perspective. This includes key concepts such as age-friendly environments discussed through the lens of space-place relations in this chapter; combatting ageism including sites of abuse and carcerality in ageing as a focus here; long-term care, both community and institutional in my analysis; integration, which I see as untenable without improved space-place management; and an overarching theme of enablement which I present as the process of negotiating the space-place relations and relationships of a 'reconciled' geographical gerontology. In addition, this chapter discusses the variability of ageing as an individual and collective experience through this space-place approach. My intention is that this contributes to the emerging discussion represented by the UN strategy.

In the Australian context, and elsewhere, we know that factors associated with ageing as an individual experience and population ageing as an aggregate phenomenon, vary significantly across urban areas, and between metro and non-metropolitan regions. The implications for service provision and access are considerable, with factors such as frailty a central focus of research [3]. This type of differential patterning is also leading to the phenomenon described as 'super ageing' in several countries including Japan and South Korea [4, 5]. While central governments make claims to providing universal systems of care that support health and ageing, in reality this is much more difficult to achieve than policy proclamations indicate. Indeed, we can observe that ageing well is often highly geographically patterned, as the research on centenarians and the so-called 'blue zones' all illustrate [6]. The 'blue zones', for example, are quite specific geographic places, often sub-national in character, that exhibit unique combinations of factors that appear to support socially engaged and healthy ageing including Okinawa, Sardinia, Ikaria and Costa Rica [7]. A question then arises in studying these if we can genuinely replicate them for urban environments or draw on them to reshape our spatial and place-based approaches to population ageing 'at large'?

Consequently, gerontology and the broader science of 'healthy ageing' can be seen to exhibit some key geographical characteristics including a differentiation between abstract ideas of space and those of a more embodied place production. From a geography of 'ultra-aged' communities, this is also likely to raise the ancient, even resurgent, concept of 'genius loci' in that we may seek to identify the unique characteristics of blue zones and other ageing 'hot spots' in order to research their replicability or, perhaps, replaceability, in the context of contemporary urban industrial societies [8]. Even the conventional concept of 'neighbourhoods' offers a place-based approach within major urban settings because it illustrates the idea that, as with scale

in spatial analysis, smaller units of analysis are both viable and useful for understanding individual and collective experiences, and the factors acting on them.

Making more 'places' that satisfy the needs, wants and capabilities of ageing communities means we can combine the utilitarian quantitative spatial techniques of technologies like geographic information systems (GIS) with the more qualitative and subjective or lived experiences of people within communities, to knit together these space-place aspects. Instead of divergence in both form and function, I suggest, designing our environments for an aging society may help us reconcile the abstracted spatial instrumentalities with the demands of place-based ageing where people can delay or avoid institutional aged care, and the loss of autonomy that experience often entails, while maintaining community support and care in ways that enhance the ageing-in-place experience.

2. Space and place for a broader audience

Geography, architecture, philosophy, sociology and even psychology all concern themselves to varying degrees with the space-place duality. Quantitative geography followed quickly on from the emergence of computers in the post-war period and was informed by computer-based mapping technologies (now increasingly digital) of the kind pioneered by Roger Tomlinson and others. By the 1970's there was a resurgence in qualitative and critical theory in geography, including phenomenology and the work of Tuan [9], Buttimer [10] and Relph [11]. By the 1980's geographies of various aspects of ageing were emerging and associated categories of interest developed through the 1990's and onwards. These included the impact of feminist geography, health geography (as contrasted with more traditional medical geography) and even geographies of institutional and personal services 'care' [12]. While these are specific to geography as a discipline, geographers often travel in a disciplinary and practice sense and so the concept of geographical gerontology became more explicit with the work of a number of geographers including, for example, Andrews, Cutchin and Wiles [13] and several influential others. In effect, I suggest, the humanistic turn in geography produced new generations of researchers in addition to the ongoing work of the pioneers in this area and their students.

Amongst the relevant considerations is the integration of an expanding science of ageing and associated methods and technologies that may expand and extend our understanding of ageing across space and place. The risks are, as with many of the technological responses to ageing (service robots, surveillance systems etc.) the abstract, quantified and technical realm substitutes for the human dimension, including understanding and support that older people actually need. In this framework we continue to produce spaces of ageing, with some environmental modifications, that provide institutional forms of care and treatment for unwell older people. What happens out in the community, so much less surveilled, remains something of a mystery in that formal systems of care are often episodic and disconnected. Hence the recognition of case management as a paradigm for connecting the various systems-based silos in aged care and elsewhere [14].

3. Geographical gerontology in context

The sub-field of geographical gerontology is close to 30 years old, depending on how the origin point is defined. While geographical gerontology gained visibility and,

perhaps, momentum with the work of it can also be seen more broadly as a consequence of the interest of geographers in ageing as a process and population ageing as a demographic dynamic. Even these two factors alone might be sufficient to have produced the field of geographical gerontology, but it nonetheless goes beyond this including concepts such as the 'geography of care', disability geography and so on in which the geographical patterning and implications of specific social phenomena lend themselves to both theorization and analysis by geographers [12]. The converse is social scientists and others seeking some common ground with geography through concepts such as 'place making' on the one hand or the use of GIS on the other [15].

My position here is that much of what we take to be the development of demographic theory, more specifically concepts such as the demographic and epidemiological transitions, were a result of and deeply influenced by geographic comparisons and analysis. Omran, for example, developed his theory of epidemiological transition based on population planning research in Egypt [16] which was taken further by researchers in other locations [17, 18]. The demographic transition theory emerged from a number of shared observations in France and the United States (e.g. Thompson, Landry, Notestein), although earlier concerns about population decline and ageing had driven some racist, classist and more broadly eugenic thinking for several decades previously [19, 20].

These factors illustrate how the science of ageing has been deeply enmeshed in the politics of population change for decades. This also suggests why responses to population ageing are so variable since, at a social and political level, they have inherited many of these formative positions and ideas. This in turn has influenced responses to building for the prospect of an ageing society. Instrumentalist spatial views see the functional response as sufficient—the top-down view—while place-based perspectives assume a connection between the individual, their community and their location. Rather than taking an either-or view, my position here is that there is utility in combining them for an emergent geographical gerontology that can assist in meeting the material and relational needs of individual and population ageing. Neither the spatial nor the place-based perspective are sufficient on their own and neither guarantee satisfactory outcomes for older people more generally. But an informed and ongoing synthesis may yet offer potential improvements as population ageing progresses.

4. Abstraction and the view from nowhere

Ageing as an individual experience and population-level ageing are two distinct phenomena. Individual ageing is heavily mediated through factors such as life experience, health status and even social and financial resources. Indeed, aged care policy in many countries is a fraught negotiation between established and emerging understandings of these complex factors. So, for example, the influence of the British Workhouse system on aged care policy is sometimes acknowledged but the values associated with that spatial formation (the aged care institution, in particular) have persisted well after the demise of the workhouse and thus influence political and associated attitudes towards older people, ageing and aged care. This can be seen, for example, in various inquiries into (ongoing) abuses of elderly patients and residents in such settings including the Midstaffordshire or Francis Inquiry [21].

Meanwhile, population ageing is an identified phenomena with specific features that make its study scientific. One of those features is a form of quantified abstraction

that aggregates the experiences of many people, indeed a growing proportion of the population, and then reduces those experiences to some 'key' phenomena and concepts. This is highly problematic because the complex nature of individual ageing makes for a lack of generalizability in my opinion. Instead, rising population ageing is generative of a growing diversity of individual and categorical forms of ageing. Olshansky and Ault [22], for example, proposed a fourth stage to Omran's three-stage epidemiological transition, one of delayed degenerative diseases. Others have proposed yet a fifth stage or even a second phase, and so on [18]. The intersectionality of physical and cognitive ageing, for example, make for many highly unique scenarios which current health systems struggle to diagnose and treat effectively including the dementias for which there are currently no cures and limited treatments.

When we add the environments, both physical and social, within these people age this diversity grows yet again. We can add the highly female aspect of advanced ageing to this mix to suggest that policy made by male-dominated societies or with a lack of a relational place-based approach to ageing, bode poorly for the care and treatment of older women [23]. The exaggerated abstraction of the very human experience of ageing likewise makes for a limited response to the full scope of the ageing experience and the needs of older people. Seeing these factors through a 'spatial' lens has some benefits but the addition of a place-based one could, I propose, inform the more instrumental spatial formations we commonly see. Again, in the Australian context, the 'big box' approach to residential aged care is driven not by the needs of older people but by funding and regulatory requirements that make a minimum institutional size necessary, rather than desirable.

Taking comments from the previous section a little further here, we can see that at a systemic level, this spatialized view and its intersection with the 'view from nowhere' presents a number of concerns and problems for successful and supported ageing, in both community and institutional care contexts. The exaggerated top-down view tends to assume a uniformity of service provision and accessibility that rarely exist and, even if it does in principle, it is rarely accessible to all social groups in the same way. So, for example, different social groups based on factor such as ethnicity, indigeneity, migration status, or disability category may find the same 'system' a very different entity in their particular encounters with it.

Indeed, the diversity of the ageing population here in Australia, and elsewhere, suggests yet another reason why spatial representations are insufficient and even the place-making concept needs to be seen as multiple and not, simply, a relational form of replacement for the spatial perspective. Instead, we may need to be seeing place-making as polymorphic and polysemic in that I suggest place-making runs counter to an abstracted universal and instead represents localized responses to both shared, in a general sense, and unique conditions. So, for example, responses to population ageing and its associated challenges may be quite different in Japan, Australia and China even though all three countries are experiencing the phenomenon of population ageing [24].

5. Place-making in an ageing world

Given that a variety of spatial formations and practices already exist which regulate much of the ageing process and experience, ranging from acute care geriatric wards in hospitals to residential aged care facilities and even dementia-specific locked wards, the issue in this discussion is how we improve place-making for ageing. The clinical

view is effectively a view from nowhere unless mediated by genuine interaction with and understanding of the ageing individual. And many acute environments do not lend themselves to this kind of qualitative experience because they are designed and delivered on a 'factory' style model which emphasizes numbers and throughout, including a variety of metrics that tend to reinforce such models (e.g. length of stay). Thus, the ageing society requires a shift to a more qualitative approach that acknowledges these various complexities and their implications for the unwell older person, their careers and allied social supports. In effect, I am suggesting places within spaces as a form of not just redesign but reinvention.

This requires a shift to aged care as a process of place-making, one which seeks to humanize the experience of older people and the care provided to them. Many spatial formations either distort or minimize the inherent relationality in 'care', and as such create or exacerbate problems inherent in many institutional forms designed through a lens of spatial logic (schools, prisons, hospitals, asylums etc.). Yet, as many feminist theorists and others have identified, 'care' needs to be in relational terms [25, 26]. My position here is that so too does place-making in that it represents a form of relational creation, including that cognitive and affective attachments that individuals and groups bring to 'places'. And, as some observers have noted, this does not always ensure a positive outcome—place-making can also be negative and research domains associated with the Glasgow Effect (morbidity and mortality effects) or environmental racism illustrate all too readily [27, 28].

Closely linked to geographies of ageing, of mental health and feminist geographies is that of geographies of care [29]. Discussions in these fields have emphasised the interactional, relation al and even co-productive nature of spaces and places. This would seem to support the ideas discussed here and reinforce the concept of geographical gerontology as a relational, pluralistic engagement of space, place and time. Indeed, my own position is that demographic change sits at the intersection of space, place and temporality [2]. Given that these can be seen as framing both individual and collective experiences, I suggest this enhances the role and value of a contemporary and emergent geographical gerontology.

6. Future space-place relations

Not only is population ageing a dynamic process but so too is the wider environment(s) within which people age. Structured and funded health, aged and disability care services not only intersect with the ageing process but also they are themselves dynamic, as they respond to new knowledge but also shifts in policy, funding, politics and so on. Ageing in place, for example, became a popular policy framework based on the idea of keeping people in their own homes (where they had them) for as long as possible [30]. This usually focused on some structural adjustments to the home often with a focus on the home as a modifiable space and some social supports, rather than an approach informed by 'place' thinking.

It also intersects with James Fries' [31, 32] ideas around the compression of morbidity, because the home and the local environment are and tend to remain very familiar to older people even as physical impairments and dementing illnesses progress. Certainly, much more familiar than their potential relocation to aged care facilities that may be physically far from their own 'place', including familiar friends, neighbours and families. In the broader context of rising chronic disease levels at a population level, these ideas of adjustment and compression could be seen as going

well beyond the 'aged' in terms of their utility. Whether they are really about place-making is another issue and hence unpacking such policy perspectives through a space-place lens is helpful here too.

Institutional aged care has become increasingly about caring for medically unwell older people and the definitions of such institutions are shifting in response to population ageing [33]. The common framing of aged care facilities as more 'welfare' oriented that health and illness oriented is at once both suspect and problematic. In the Australian context, for example, residential aged care is primarily about caring for these medically unwell older people, frailty and dementia being contributing factors, who in many cases cannot remain safely in the community [34]. And this has been the situation for many years now. The scope of that 'unwellness' includes physical disease impairments, cognitive disorders including the dementias, and a variety of, often multiple, sensory impairments including especially hearing and sight.

Additional complexity arises as the health problems associated with these various sub-domains intersect and overlap, making for an increasing variety of often quite specific symptoms and disease states in individual older people. How these individuals respond to space and place factors needs to be seen through this complex array of mediating factors which make generalisations both difficult and perhaps even inappropriate. We may still seek universals in knowledge production but ageing has a way of reinforcing the individual and the local. Consequently, I suggest, geographical gerontology will of necessity be pluralistic in the way it addresses both ageing in place and place-making (and place maintenance) for ageing.

The growth of clinical and research knowledge in this field also adds to the nature of these complexities. We know that, as with the neurosciences, our knowledge base is growing rapidly but there is a great deal yet to learn. Consequently, the assumption of certainties in this area is problematic. If our rate of knowledge doubles or quadruples in the coming decade, for example, then much of what we assume to be solid now is unlikely to be so in another decade. New knowledge will shift our thinking and the diversity of the ageing experience, and its growing documentation will greatly expand what is, currently, known. We will know more about more diverse spaces and places of ageing as time passes and, consequently, develop a greatly enlarged geographical gerontology.

Critical theory approaches add another layer to this scenario in that we can geographically examine the *sites* of aged care through a variety of theoretical and applied perspectives. To what extent does relational theory [35] in geography address ageing in the community compared to ageing in some form of institutional care? Does the production of aged care places vary between, say, low care environments where people generally need (or perhaps receive is the better emphasis) fewer supports, versus high-care ones where illness, dementia and sensory impairments are usually major factors? How do space and place function for unwell older people compared to those who age 'well'? To what extent do we see institutional forms of aged care as exhibiting carceral aspects, as in secure dementia units, for example [36, 37] and what can we do about this through an expanding geographical gerontology?

The potential scope of questions in this area is therefore an evolving one. Peak population ageing is occurring at different times in different countries, and can also vary within countries, for example in younger urban settings compared to aged rural contexts, or across provinces and regions. Growing data illustrates how even at the national level, the progressive geographies of population ageing vary considerably even across the richer countries [38]. Thus, we face a multiplicity of geographies of ageing and associated formations of geographical gerontology at the level of official

geographies (nation, province, region etc.) due to these spatial and temporal variabilities. We are engaged in an unequivocally pluralistic undertaking in both trying to reconcile space and place, as well as in place-making for ageing societies. If we then turn our attention to the 'place' concept, this variability must be seen as having an existing and developmental scope because local environments, cultures and responses will vary, as will individual responses mediated by these, and the health-related factors identified above.

The implications of this interpretation include the need and desirability of a pluralistic approach to the domains of theory, policy and practice in this 'emergent' geographical gerontology. Perhaps obviously, progressive population ageing in different countries and cultures (and within multicultural societies) requires a capacity for theory that does not homogenize the ageing experience and associated knowledge. In the policy domain, this demands a commitment to and capacity for negotiated space-place relations that are adaptive since, for example, the needs of younger old communities will differ from those marked by advanced population ageing. While we still tend to 'consolidate' those aged 65 and over, their trajectories and experiences differ significantly at the individual and cohort level, as discussed earlier. And, lastly, at the practice level we need to build the skills across disciplines and within communities to negotiate space-place relations and relationships for successful population ageing.

Place-making implies a set of negotiated outcomes and yet it remains that much of what we see in ageing theory, policy and practice maintains the top-down perspective. So planning for sites of ageing services and aged care could be improved by better engagement with older people, their advocates and the knowledge base we currently possess. The lived realities of ageing in the community and/or in institutional care demand an improved synthesis and not the disciplinary silos that persist in many contexts. We know, for example, that nutritional support is extremely important for people to 'age in place' successfully and yet supportive meal services in countries like Australia were and remain largely based on charity models from a bygone era (e.g. meals on wheels). A consequence of this is that many community-dwelling older people present to acute care services with malnutrition already present [39, 40]. Despite considerable evidence-based research on this issue, and its consequences for individuals and healthcare services, little has changed in the past few decades. And, at the policy level, a marketized approach to social care services has done nothing, I suggest, to improve this situation. Here too, an improved space-place synthesis offers a pathway to improved management of health and social care concerns that have wider systemic impacts.

7. Limitations

The chapter draws of a variety of literatures and, as such, is a conceptual piece. As noted earlier, the intended audience is not a strictly geographical one but rather a broadly gerontological audience for whom some geographical ideas may be of interest. In addition, attempts at the synthesis of ideas from different fields carry some innate risk in a piece of this length. The proposed benefit in doing this is that the result informs thinking and practice across those academic and professional disciplines. As mentioned earlier, my hope is that this can inform local through to international discussions about the issues identified in the UN strategy and their implications for population ageing as an increasingly global phenomenon.

8. Conclusions

It is the contention of this chapter that geographical gerontology offers an opportunity to explore and, perhaps, even reconcile the key concepts of space and place in ways that avoid the problems associated with 'the view from nowhere' and the excessive abstraction often associated with quantification as a tool for understanding complex social phenomena. A key point explored here is that variation is normal at the individual level of ageing and, therefore, it is magnified when inquiring on population-level ageing and its associated complexities over space and time. By this I mean that the uniqueness of individual and aggregate level ageing is growing and will continue to do so as the ageing experience develops, as aged care models develop, and as new knowledge adds to what is already known or assumed to be known about ageing.

The conventional understandings of space and place, especially outside of disciplines that directly inquire on them, must change too. Geography's intersection with gerontology has a key role to play in this process because adapting to population-level ageing requires an ongoing synthesis of new knowledge from the various research and clinical practice fields which engage with ageing. That makes ageing, to borrow from the philosopher of biology John Dupré [41], a process phenomenon rather than a categorical one given its pluralism and fluidity. In addition, the personal and community experience(s) of ageing will only grow in their diversity in coming years as the phenomenon progresses globally. It is in this sense that geographical gerontology may also become a way of linking the abstract and the personal as well as the spatial and the place-based experiences of ageing.

Conflict of interest

"The author declares no conflict of interest."

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Chapter 4

Walking Accessibility to Primary Healthcare Services: An Inequity Factor for Olders in the Lisbon Metropolitan Area (Portugal)

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Abstract

This chapter discusses the walking accessibility to primary healthcare by the olders in Lisbon Metropolitan Area (LMA), Portugal, and its contribution for age-friendly environments as a factor of inequity. Constrains emerged from the collation of the supply approach, represented by service catchment areas based on walking distance time, and the demand approach, through a survey. The location and density of primary health network are a major factor, as it is related to distinct land use patterns within the LMA. The settlement structure influences the potential walkability to primary healthcare. The discrepancy between the potential walking accessibility and the real options is notorious, as olders' choices are diversified in terms of transportation modes and destinations, but mostly keeping relatively short time distances. This phenomenon is also influenced by factors such as personal preference, difficulty to walk, negative perceptions about the surroundings, and insufficient care support. This debate is already an effective concern of local authorities with spatial planning, social and health competences, insofar as solutions in terms of service flexibility and new travel solutions adapted to the specific needs of the olders are a growing reality in the LMA, promoting more age-friendly, health, and inclusive environments, and hence an equitable metropolis.

Keywords: older people, walking accessibility, primary health services, service catchment area, inequity, healthy cities, age-friendly environment, Lisbon Metropolitan Area

1. Introduction

Population aging is one of the most evident demographic phenomena around the world. The United Nations (UN) estimates that the number of people aged 60 and over will double by 2050 and triple by 2100 (corresponding to 3.1 billion people) [1]. This age group is considered one of the most vulnerable in society, particularly affected by poverty, illness, and social isolation [2], and it is often studied as a

homogeneous group when there are several factors that distinguish older individuals (age, education level, family context, income, physical and mental health conditions, mobility level, technological capacity, etc.) [3].

In this sense, spatial planning and service networks must be adapted in advance according to the long-term demographic projection and based on a deep knowledge of the current reality, being extremely important to confront the needs of the population and the response capacities of the territories and services [4].

This study focuses on the debate about the walking accessibility to primary health services by the older in the Lisbon Metropolitan Area (LMA), in Portugal, for healthy and age-friendly environments since the level of proximity to services and the ability to reach them are fundamental to promote a healthier aging and greater equity in and among communities. The study presents three research questions (RQs):

RQ1) Is the location within the LMA a differentiating element of walking accessibility to primary health services (PHS) and hence an inequity factor?
RQ2) Do the olders demand for PHS consistent with what is expected to have in age-friendly environments?
RQ3) What kind of solutions are implemented in LMA to promote a more equitable access to PHS by the olders?

The study combines several approaches. We seek to identify possible constraints to equity based on the accessibility to health services: (i) the potential of walking accessibility generated by network analysis recurring to geographic information systems and using adapted criteria to the older community; (ii) the actual demand patterns of the olders gathered from an applied survey in LMA; and (iii) the identification of solutions at local, municipal, and metropolitan levels in the LMA and energized by local authorities, health services, nongovernmental organizations, or social institutions to minimize inequity situations.

The chapter is organized into six parts: Section 1 respects to the introduction and is followed by a theoretical rationale centered on walking accessibility to primary healthcare by the older people in Section 2, and the presentation of the methodology and case of study in Section 3. The discussion of the results based on the confrontation between the supply and demand approaches of primary health services by the olders in LMA is presented in Section 4, and some initiatives that minimize the identified constraints in LMA are addressed in Section 5. The chapter ends with the main conclusions (Section 6).

2. Accessibility to healthcare services for age-friendly environments

The rapid aging of the world population is considered one of the major global challenges. On the one hand, it is seen as a positive phenomenon insofar as it represents social, economic, and biomedical progress due to generalized better feeding, personal hygiene, healthcare, and housing conditions, among many other aspects. On the other hand, it reflects a demographic trend that combines increasing life expectancy and falling fertility rates [5]. In the long term, and related to a time of growing urban population, this phenomenon will bring an overload of the social and health systems, among other services and infrastructures, and the need to readjust them [4, 6]. In a larger level, this will affect the regional competitiveness and make the social and territorial cohesion difficult. This is based on the perspective that

the older population will, at some point, become more dependent on society and greater demanders in terms of physical and/or mental healthcare and supportive care [7]. On the other hand, their moving limitations could promote social isolation and a strong feeling of loneliness, considered by the Joint Research Center as a public health issue with negative impacts on community trust, social cohesion, and economic growth [8, 9].

However, it is a mistake if we consider that all people over the age of 65 have the same characteristics and needs, and that remains the same over time. Given the conditions of the modern world, in Europe, as in other World regions, we are witnessing the existence of a group of older people who are more active, qualified, informed, socially participatory, mobile, technological, and demanding in the cultural and recreational domain [10, 11]. To respond to these demands, their living spaces have expanded from the local to the regional/metropolitan level [12]. On the other hand, the increase in average life expectancy is reflected in the existence of individuals with diversified health conditions, namely about disease prevalence and different physical and mental conditions, influenced by the natural aging process, genetics, lifestyle, and the surrounding environment [13].

In the quest to keep the olders as an active part of society, with good health and well-being levels until as late as possible, adaptations in the urban environment of communities and cities must compensate the physical, mental, and social changes associated with aging. Operationally, this is observed in the guidelines promoted by institutions such as the United Nations and the World Health Organization (WHO) and reflected in the naming of this decade as "The United Nations Decade of Healthy Aging (2021-2030)" [14], with a view to improve the lives of older people, their families, and the communities in which they live.

In urban planning, the "Age-friendly Cities and Communities," that is, "(...) places that actively involve, value, and support older adults, both active and frail, with infrastructure and services that effectively accommodate their changing needs," is one of the most widespread urban models ([15], p. 1). Simultaneously, Age-friendly Cities and Communities is an initiative of the WHO, started in 2006, to support active and healthy aging at local level. "Housing," "Social participation," "Outdoor spaces and buildings," "Transportation," and "Community support and health services" are some of the focused topics [4].

In this model, as in others as "sustainable communities," "healthy cities," or the "15-minute city," the principle of proximity is fundamental [16, 17]. Proximity refers to the distance (physical or not) and/or distance time to the different destinations where individuals live: workplace, various services, goods and equipment, public spaces, green spaces, commercial areas, cultural spaces and leisure; but also to the network of contacts: family, friends, or other social networks. The proximity to people and living areas as a way of satisfying individual needs are enhancers of a greater quality of life and well-being, active participation in society, maintenance of the practice of physical and mental activity, and greater autonomy [18]. Despite the studies regarding the concept of proximity (e.g., 15-minute walking, radius distance of 500 meters, etc.), this is conditioned by the ability and perception of individuals, especially when we refer to the older community, where part of it has age natural mobility constraints.

The principle of proximity as a factor of an age-friendly, healthy, inclusive, and sustainable environment leads us to the promotion of a walkable environment, and this is an environment based on active transport modes, namely the walking in and around the community, to enhance, simultaneously, an equitable accessibility

to all destinations and a positive physical activity engagement [19]. This discussion requires a double understanding about (1) the relationship between urban mobility, particularly in the older people context, and the built environment; and (2) the characteristics and specificities of each community [20].

Hence, recent research promotes an holistic perspective that relates the social and physical environments, recurring to digital tools and services, to promote better health, independent living, active participation, and more equity. See, for example, the SHAFE project results [21, 22] that present the community level as the physical, social, and cultural ecosystem closest to the people and their daily lives.

The mobility of all, as the ability to meet the needs to move freely [23], is one of the challenges that cities have for pursuing social and civic life, participation in community activities, the development of a sense of belonging, and to promote health and well-being through the possibility of accessing health services, green spaces, commercial areas, leisure and cultural spaces, etc. [24]. Hence, it is utmost important to consider that the cognitive and motor skills of olders deteriorate over time, affecting their mobility [25]. This is reflected in constraints on walking speed, the ability to freely drive or use public transport, the increase in falls and the feeling of insecurity when walking on the street, and constraints that, at the limit, avoid carrying out their daily lives autonomously [26].

Mobility is also a reflection of a mutual interaction between the built environment and olders' behavior, insofar the organization of the physical and functional components of urban system generates the opportunities for movement in the context of urban life. Thus, the configuration of the urban system must be adapted to the needs of the elderly [27]. This interaction raises the importance of thinking about improving urban accessibility, that is, the ability of an individual to reach a certain place, through a certain transport mode and in a certain time. This requires a relational reading between the conditions of transport infrastructure networks (and the ease of travel in terms of distance and time), the location of activities and services of general interest proximity between services and users), and the characteristics and needs of users [27–29].

As health is a universal right, the planning of public health services must consider three fundamental principles [30], which sometimes collide. The first concerns the "Equity in service provision," represented by the equal access to healthcare for people in equal need. This premise is related to the notions of spatial fairness and spatial justice that considers the geographical context as an influencing factor. The second is the "Effectivity of health services," balancing the real health benefits and the resources management. The last is the "Efficiency of health services" maximizing the health benefits and minimizing the costs of provision.

Focusing on the health services at the local level, Primary Health Care (PHC) is the first contact between the individual and the health system, as it "provide complete care to people, according to their health needs throughout their lives and not only for a set of specific diseases. (...) ensure that people receive comprehensive care, from promotion and prevention to treatment, rehabilitation and palliative care, as close as possible to their daily environment" [31, n.p.]. It is stated that a PHC-based health system allows for greater efficiency of more specialized care (e.g., hospital care), lower hospitalization rates, and reduced individual and government health expenditures [31].

A primary health service with positive impact on health, quality of life, and well-being should present good levels of access [4], considering several demand factors: availability and diversity of health services, frequency of use, individual and family

factors, physical and social environment, among others [32, 33]. Over time, several studies addressed this topic [28, 29, 33–36], combining the approaches of health service providers and users, reflected in the following principles:

i. Availability, as the existence, quantity, and maximum capacity of the services;

ii. Accessibility, associated with the physical proximity between services and users and the ease of travel to them in terms of distance, time, and transportation modes;

iii. Affordability, related to the costs for users;

iv. Adequacy, in terms of service organization and convenience for the user (waiting time, ease of dealing);

v. Acceptability, represented by the trust and satisfaction with the services by the users;

vi. Knowledge, articulating the communication and dissemination of knowledge by users, health professionals, and others.

Accessibility to health services arises the need of a multisectoral and multilevel approach, in this case related, for example, to the healthcare network, mobility and accessibility, and demographic characteristics in each territory as they are influencing factors of healthcare inequalities [36]. Among other methodologies, the levels of physical accessibility of each service could be evaluated recurring to geographic information system (GIS) [17, 23, 32, 33, 36]. Here, it is possible to model the respective service catchment area in a certain distance and/or distance time, based on the various transport modes or their combination. Service catchment areas allow to quantify the total area and served population within the proposed thresholds (e.g., within 15-minute walking in a determined speed); to identify worse served communities, and hence more vulnerable; and to relate it to context indicators in the social, economic, and territorial domains [29, 36, 37]. This analysis is also a potential support element for the restructuring of the service networks through the identification of new service positioning for better population and territorial coverage rates [38], to adapt the transport system in order to promote better accessibility level, or even to support the design of innovative, flexible, and informal solutions promoted by various stakeholders [22].

3. Methodological steps and case study framework

The methodology of this study followed three steps (**Figure 1**), in order to answer the research questions.

Step 1 involved a literature review, not only for thematic framing of the mobility conditions of the older people and their specific constraints (e.g., pedestrian speed), but also for the identification of the main methodologies and accessibility indicators, specifically adapted to the olders.

Step 2 refers to the application of the assessment of walking accessibility to primary healthcare from the perspective of the older people in the case of the Lisbon

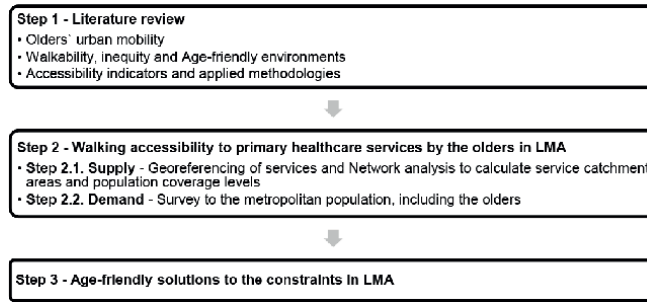

Figure 1.
Methodological steps of the research.

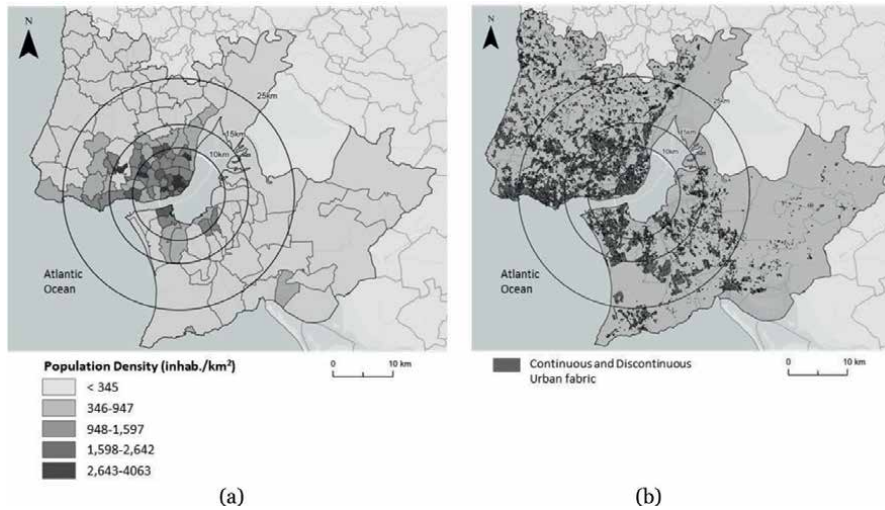

Figure 2.
(a) Population density of older people (65+ years old); (b) land use in LMA—urban fabric. Source: [40, 41].

Metropolitan Area, Portugal. LMA is spread over by 18 municipalities, totaling 3015km^2, and has a total population of 2,870,770 inhabitants, in 2021, and a population density of 952 inhab./km^2. About 22% of LMA's people are aged 65 or over (proportionally to the national figure of 23%) [39], unevenly distributed among the LMA, emerging a radioconcentric pattern, with higher older population densities in the parishes of the central areas (Lisbon & Ring 1 and Ring 2) and decreasing toward the peripheral areas (Ring 3 and Ring 4).

The population distribution is consistent with the urban occupation that presents the same radioconcentric pattern. The central metropolitan areas present a higher proportion of occupation, reflecting their urban/suburban and dense profile, while the peripheral areas present more dispersed urban occupations, reflecting the peri-urban occupation, except some urban continuum axes that grew along major road and rail axes (**Figure 2**).

In Step 2.1., network analyses based on geographic information systems (GIS) allowed to visualize the service catchment areas of primary healthcare facilities and to quantify the served resident population, considering the geographic location of

the equipment, the constraints of the transport network, and the characteristics of pedestrian mobility. The service areas were modeled, and the served population was calculated based on time-distance cutoffs of (i) until 15 minutes; (ii) 16–30 minutes; (iii) 31–60 minutes; and (iv) more than 60 minutes [32, 33, 36]. This approach considers two walking criteria: (a) average speed of the older people of 3.5 km/; and (b) average speed of disabled older people of 1.6 km/h [25, 36]. This step will answer to RQ1.

Step 2.2., related to demand, presents the results of a survey applied to the LMA population in 2017, including the older people. Based on the total sample of 403 families, with respect to 1004 individuals surveyed (for a Significance Level of 95% and a Margin of Error of 5%), we extracted the responses of 131 older adults from 111 families for this study. The total sample took into account the demographic distribution of the metropolitan population (age, sex, and family typology) and its geographic distribution considering the central area of Lisbon and its sequential four rings based on the distance to the Lisbon city (**Figure 3**). Such rings represent territories with urban land use profiles and, consequently, very different population densities, housing and services location, health services, and transport networks. This step will provide the answer to RQ2.

This survey collected information as: (i) the characterization of the respondents (age, income, family background, area of residence); (ii) the demand for primary healthcare services (location, frequency, travel mode, and time spent in the travel); and (iii) individual perceptions about personal health, safety, traffic, noise, and air pollution caused by transport in the residential area (as environmental factors). Hence, it was possible to discuss the results obtained in Steps 2.1. and 2.2., confronting the potential accessibility to primary healthcare services and the actual behavior of the surveyed older people.

Finally, Step 3 addresses some strategies to minimize older's constraints to health accessibility in LMA, giving already implemented examples in three lines of action: (i) strategic plans oriented toward an healthy and inclusive aging; (ii) health services at home or in the proximity; and (iii) promotion of flexible transport to reach health services. This step answers to the RQ3.

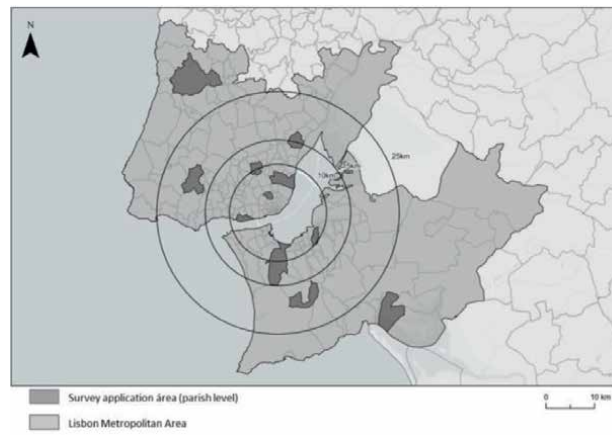

Figure 3.
LMA rings and the 11 parishes where the surveys were applied.

4. Supply and demand of primary healthcare services of LMA's older people

4.1 Supply approach to primary healthcare system in LMA

The last restructuring of the Portuguese health system dates from 2008, when the Constitutional Government recognized primary healthcare as a central pillar of the health system, published in the Decree-Law nº 28/2008, of February 22 [42]. One of the novelties was the creation of "groups of health centers" (ACES, in Portuguese Agrupamento de Centros de Saúde), with the function of providing primary healthcare to the population of a certain geographic area. Such geographic delimitation is related to geodemographic criteria (e.g., population structure, aging index, accessibility to the referral hospital), and with a population range between 50,000 and 200,000 residents.

The ACES have several functional units [42], namely:

a. Family Health Unit (USF—Unidade de Saúde Familiar), a unit providing healthcare to the group of users enrolled therein, with functional and technical autonomy;

b. Personalized Health Care Unit (UCSP—Unidade de Cuidados de Saúde Personalizados), a unit that provides personalized care in a given geographic area;

c. Community Care Unit (UCC—Unidade de Cuidados na Comunidade), providing healthcare, psychological and social support at home, especially to vulnerable individuals/families, in situations of risk or dependence, and in the area of health education and implementation of mobile intervention units;

d. Public Health Unit (USP—Unidade de Saúde Pública), a health observatory in the geographic area of ACES, for the elaboration of plans in the domain of public health, surveillance, management of intervention programs, and health promotion.

In January 2022, the network of Family Health Units (USF) and Personalized Health Care Units (UCSP), the most relevant functional units in the provision of healthcare, was widespread and complementarily distributed in the LMA, totalizing 225 units (153 USF and 72 UCSP) (**Figure 4**). Only 1.5% of the LMA surface and 0.5% of the population are not allocated to any of the USF/UCSP facilities.

Given their valences and functions, the studied health services have a limited schedule, but consistent with the law. The vast majority of services start at 8:00 am (94%), and the rest at 9:00 am, while the closing time is more diverse, between 4:00 pm and 8:00 pm, with a higher incidence at 8:00 pm (63%) and at 6:00 pm (22%).

Considering the proximity logic of primary healthcare services, it is desirable that the entire population has access to the equipment in which they are enrolled in a relatively short distance time, not forgetting that this indicator depends not only on the locations of the residence and equipment, but also by the selected transport mode. In the case of older people, it is important to approach car use based on the legal allowed speeds, but also the license possession and driving skills (factors influenced by the

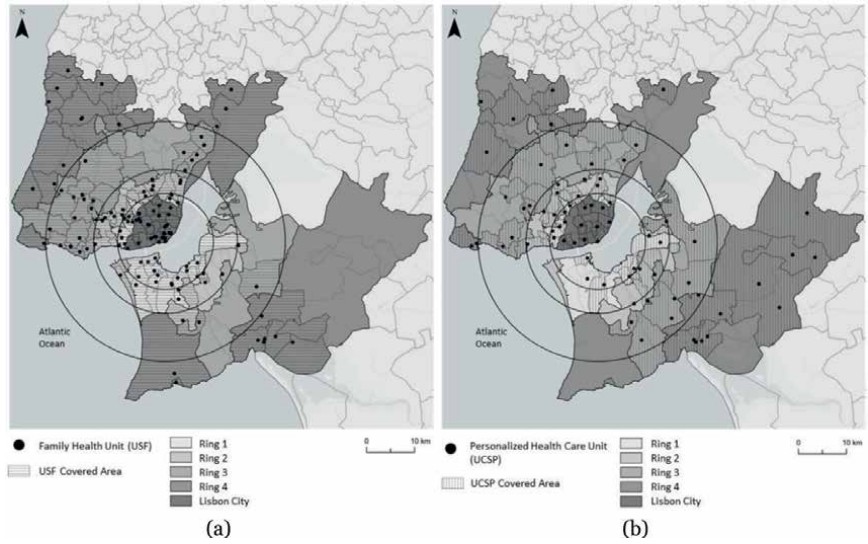

Figure 4.
Location of USF and UCSP equipment by LMA ring, 2022: (a) family health units; (b) personalized health care units. Source: Based on [43].

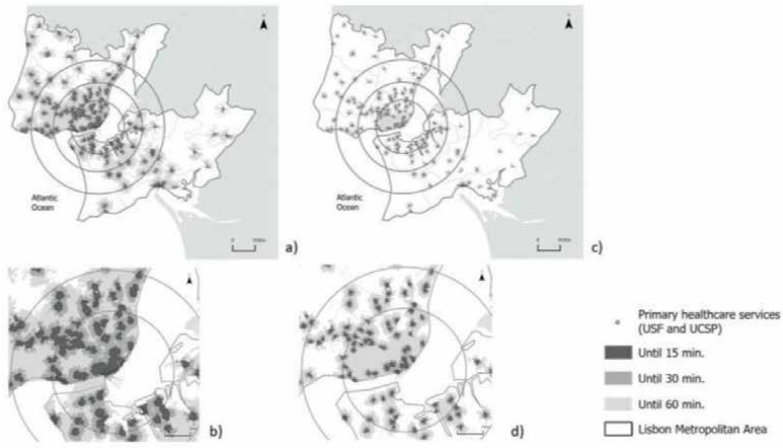

Figure 5.
Service catchment area of primary healthcare services (USF and UCSP) according to different time-distance cutoffs in all LMA (a) and (b) and zoomed in to the LMA Center (b) and (d); and different walking speeds: 3.5 km/h (a) and (b), and 1.6 km/h (c) and (d).

individual conditions of the users) [24]. Regarding walking mode is fundamental to consider the diversity of realities within the age group over 65 years old in terms of individual mobility ability, as this influences the walking speed (e.g., 3.5 km/h of regular pedestrian speed of an older person, 1.6 km/h on conditioned pedestrian speed cases) [32, 36].

Figure 5 demonstrates the accessibility level to healthcare services in the LMA, based on the representation of the service catchment areas of all equipment (USF and UCSP) by pedestrian mode conditioned to the aforementioned speeds, while

	Walking speed of 3.5 km/h—Inhabitants with 65 or more years old					
	Until 15 min.		Until 30 min.		Until 60 min.	
	Inhab. (%)	Surface (%)	Inhab. (%)	Surface (%)	Inhab. (%)	Surface (%)
Lisbon & Ring 1	68.5	31.2	98.4	77.4	100.0	88.8
Ring 2	53.8	11.7	81.8	32.3	97.6	72.5
Ring 3	43.1	4.9	76.8	16.2	93.0	43.4
Ring 4	43.9	2.2	69.2	6.8	86.6	22.4
Total	56.8	5.8	86.2	16.3	96.3	37.6
	Walking speed of 1.6 km/h—Inhabitants with 65 or more years old					
	Until 15 min.		Until 30 min.		Until 60 min.	
	Inhab. (%)	Surface (%)	Inhab. (%)	Surface (%)	Inhab. (%)	Surface (%)
Lisbon & Ring 1	33.0	9.7	63.8	27.6	96.9	72.8
Ring 2	22.7	3.3	49.2	10.3	79.0	28.6
Ring 3	17.8	1.3	38.6	4.2	73.1	14.0
Ring 4	23.0	0.6	41.7	1.9	65.5	5.8
Total	26.2	1.7	52.5	5.0	83.7	14.5

Table 1.
*Inhabitants with 65 or more years old (%) and surface (%) covered by service catchment areas of primary healthcare services (USF and UCSP) according to different time–distance cutoffs (until 15 min., 30 min., and 60 min.) by LMA ring (absolute values available on **Appendix 1**). Source: own calculations based on BGRI [40] and service catchment areas calculated on network analysis function of ArcGis.*

the proportion of the surface and population covered by these service areas by ring is quantified in **Table 1**; and **Appendix 1**. In a scenario where the entire population of LMA travels in a walking speed of 4.5 km/h, then 65% of the population would reside within 15 minutes nearby health service. This proportion reduces to 57% if we consider only the olderly population, assuming a walking speed of 3.5 km/h, drastically reducing to 26% if we assume a walking speed of 1.6 km/h. A detailed analysis highlights three evidences (**Table 1**).

Firstly, the distribution of primary healthcare services (USF and UCSP) is in line with the urban system of the LMA, insofar as they are essentially located in the most densely populated areas [41]. This evidence comes from the higher percentage of population served at any time–distance limit in any ring compared with the percentage of covered area. For example, the served population at a distance time of 15 minutes at a walking speed of 3.5 km/h attends 69% in Lisbon & Ring 1 for only 31% of the covered territory. Keeping the criteria, in Ring 3 this situation is even more evident: 43% of the population served for only 5% of the ring surface. In LMA case, in the more peripheral Ring 3 and Ring 4 there are large unpopulated areas or with a very low population density, with land allocated to agricultural or forestry uses, for example.

This high complementarity between the urban system and the primary healthcare service system in the LMA could not happen in other metropolitan areas, highlighting the priority to study the served population by levels of distance time. Thus, the approach for urban planning should seek to increase the proportion of

served population and respective conditions, rather than only focus to increase the served territory [33, 36].

Secondly, in the context of the LMA, is clear a ring differentiation in terms of walking accessibility to primary healthcare services. The central rings, closer to Lisbon, have better accessibility levels, which means that a greater proportion of older people lives close to the services. For example, 69% of the olders in Lisbon & Ring 1 and 54% in Ring 2 live within a 15-minute walking distance from the equipment (speed of 3.5 km/h), compared with 43% in Ring 3 and 44% in Ring 4. The same pattern is found in the constrained walking speed simulation (1.6 km/h): 33% in Lisbon and Ring 1, compared with 18% in Ring 3 and 23% in Ring 4.

This pattern is related to the socio-urban characteristics of each ring. In Lisbon and in the two following rings, there is a combination between a more concentrated urban occupation and a greater population density, thus generating a more numerous and spatially closer health facilities network, serving a larger number of residents in a short dispersed area. Thus, the proportion of residents and area served within 15-minute walking are higher than in the more peripheral areas (rings 3 and 4). These last rings present a more dispersed and mostly peri-urban occupation profile, although there is existence of some relevant urban areas especially nearby the major road and rail axes. In these areas, population is distributed between small urban concentrations where the main services are located and very low dense areas further away from small urban centers [28, 40, 41]. This increase the official service area allocated to each equipment to maintain criteria of resources' efficiency and the number of users according to the law [42].

Lastly, the differences in walking speeds are highly penalizing the relationship of proximity between health facilities and users, in particular for users who have mobility constraints such as the older people [19, 24]. We can observe this situation by comparing the served LMA's older people up to 15-minute walking from a primary healthcare service: 57% when the walking speed is 3.5 km/h and 26% when the walking speed is 1.6 km/h.

Answering to RQ1, the results obtained raise a clear situation of inequity in the walking accessibility to the primary health services, penalizing the communities located in the most peripheral rings of the LMA, and particularly the age group of the olders, considering their pedestrian speed limitation (according to with the bibliography). This situation of inequity is further reinforced when the response of the public transport system in peripheral (and hence, more vulnerable) communities is also more limited in terms of network and service (fewer routes and less frequent service), when compared with the central areas of the LMA [12, 28].

This reading also highlights two aspects. Firstly, the importance of an analysis of accessibility indicators to health services considering the urban context [44], the settlement distribution, and the transport network, since a global analysis at the regional or metropolitan scale creates generalized ideas, insufficiently adequate to support the health service network planning in complementarity to the urban and transport systems, especially at the local level. This approach allows the discussion about inequity in a determined territory. Secondly, the need to compare the quantification of accessibility levels previously calculated using geographical modeling and the actual behavior of individuals, in this case those over 65 years of age, to validate whether better or worse walking accessibility to health services reflect real pedestrian displacements by these communities. Large discrepancies between potential and real walking accessibility must be studied in order to identify influencing factors (Section 4.2), as well as to support the design of flexible and/or informal solutions to minimize accessibility and access difficulties to health services (Section 5).

4.2 The demand for primary healthcare services in the perspective of older people in LMA

In addition to the analysis of primary healthcare service supply and its potential walking accessibility, we analyzed the real demand in the LMA through a survey applied to the metropolitan residents in 2017. The results give the real mobility patterns of residents to various activities, namely health services (in a pre-pandemic period). The search questioned the following: (i) the place where people seek such service (in the parish of residence, in the municipality of residence or in another municipality); (ii) the travel time to the destination; and (iii) the preferred transport mode(s).

The sample attends 111 families with older people that corresponds to 131 individuals over 65 years old. Single-person families (43%) are the most representative type of family, followed by couples of aged (26%), and other family types (18%), namely the coexistence of three generations or grandparents living with grandchildren. Around 63% of these aged families have an average monthly income of up to 1000 euro, 21% between 1000 and 1500 euro, and 17% of more than 1500 euro per month. About half of the older respondents affirmed to spend less than 30 euros a month on transport (48%), followed by families with costs between 30 and 60 euros (30%) and 60–150 euros (17%). It is also worth noting that half of the families with older people do not own any vehicle, 34% have one vehicle, and 15% have two vehicles (although the possession of vehicles in the family does not necessarily mean that the older individuals are their users as drivers, but could promote their use as passengers) [24].

Considering only individuals aged 65 or over (**Table 2**), it was observed that the demand for primary healthcare service is mainly based on short-term trips up to 15 minutes (60%), with a still relevant proportion of individuals who take 16–30 minutes (25%). The short duration of each trip also reflects the proximity to the desired destination, mostly in the residence parish (50%) or in another parish in the residence municipality (20%). A fifth of individuals travel to other municipalities, a phenomenon related to the proximity of health services to other moments of daily life (e.g., proximity to the workplace, family housing) or personal motivations and taste (e.g., preference for private services or for a specific doctor). Lastly, the use of individual motorized transport stands out (43%), followed by active modes (walking or cycling) (21%) and public transport (17%). In the LMA, carrying out short-term trips supported by the use of the car is observed not only to reach health services, but also to other goods and services and to school/employment, not only by the olders but also by all communities [23, 28].

Various realities relate the used transport mode to distance-time traveled emerged (**Table 3**). More than 4/5 of who use soft modes make short-term trips (up to 15 minutes) (87%). On the other hand, individual transport is the choice for short-term (74%) and medium-term trips duration (20%), that is, between 16 and 30 minutes. It should be underlined that the higher speed of this mode allows traveling a greater physical distance in the same period. In turn, those who use public transport are essentially to carry out medium-term trips (68%), while those who use various modes of transport are not strongly correlated with one specific time range, except the emphasis on trips of longer duration (more than 31 min.) (15%), compared with the other modes. These results are consistent with the general evolution of urban mobility from the community to metropolis level, increasing the diversity of living areas of individuals in their daily lives and the distance between the area of residence and such destinations, and hence arising new challenges related to the services and transportation planning [12]. An in-depth study differentiating the age of older people could be necessary to differentiate their needs.

	Time-distance – Surveyed inhabitants with 65 or more years old				
	Until 15 min. (%)	**16 to 30 min. (%)**	**More than 31 min. (%)**	**Total (%)**	
Lisbon & Ring 1	68.9	28.9	0.0	100	
Ring 2	54.5	27.3	9.1	100	
Ring 3	43.8	21.9	15.6	100	
Ring 4	75.0	16.7	0.0	100	
Total	59.5	25.2	6.3	100	
	Location—Surveyed inhabitants with 65 or more years old				
	Residence parish (%)	**Residence municipality (%)**	**Other municipalities (%)**	**Total (%)**	
Lisbon & Ring 1	60.0	31.1	8.9	100	
Ring 2	40.9	0.0	31.8	100	
Ring 3	28.1	21.9	37.5	100	
Ring 4	83.3	8.3	8.3	100	
Total	49.5	19.8	21.6	100	
	Transport mode—Surveyed inhabitants with 65 or more years old				
	Soft modes (%)	**Individual transport (%)**	**Public transport (%)**	**Various modes (%)**	**Total (%)**
Lisbon & Ring 1	15.6	46.7	26.7	8.9	100
Ring 2	18.2	36.4	22.7	13.6	100
Ring 3	31.3	34.4	6.3	15.6	100
Ring 4	16.7	66.7	0.0	16.7	100
Total	20.7	43.2	17.1	12.6	100

Table 2.
Accessibility patterns to primary healthcare services (USF and UCSP) by older people by LMA ring.

Different dynamics are observed in the demand for primary healthcare service by LMA's ring, with a greater similarity between Lisbon & Ring 1 and Ring 4 compared with what is observed in Ring 2 and Ring 3 (**Figure 6**). In Lisbon & Ring 1 and Ring 4, there is a predominance of short-term trips/up to 15 minutes and a geographical proximity between the individuals and the destination (mainly in the parish of residence), and in the case of Lisbon & Ring 1 to the residence municipality. It is evident that geographical proximity is not particularly conducive to travel by soft/active modes, since it predominates the car use and public transport in the central area. This situation may result from several factors, namely the physical condition of the older person, the conditions of family support or related with perceptions about themselves and about the surrounding environment [4, 7, 15]. As a note, within this older people's sample, 32% feel healthy, while 38% do not feel healthy (at different levels, but not discussed in depth in this work). About 48% of the older individuals do not feel safe to walk or cycle in the residence area (against 25% who assume the opposite), 41% consider that there is a lot of traffic, and 53% consider that there are high levels of noise and air pollution in the residence area.

	Until 15 min. (%)	16 to 30 min. (%)	More than 31 min. (%)	Total (%)
Soft modes	87.0	13.0	0.0	100
Individual transport	73.9	19.6	6.5	100
Public transport	21.1	68.4	10.5	100
Various modes	61.5	23.1	15.4	100
Total	65.4	27.7	6.9	100

Table 3.
Time spent vs. transport mode to primary healthcare services by older people in LMA.

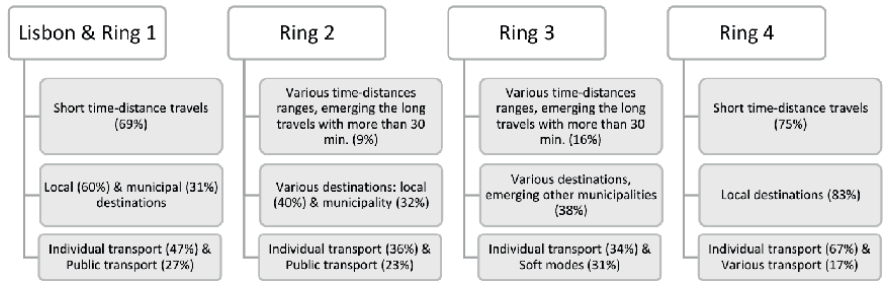

Figure 6.
Synthesis of accessibility patterns to primary healthcare services by older people by LMA ring.

In turn, a greater diversity in the travel tie can be found in Ring 2 and Ring 3, with considerable proportion of respondents who spend more than 30 minutes looking for primary healthcare services. This situation is associated with the destinations of the trip, given the diversity of relevant destinations (parish, municipality, and other municipalities). Private transport maintains its predominance, complemented by the use of public transport in Ring 2 and by soft modes in Ring 3.

In this way, focusing on the RQ2, the expectation for an age-friendly environment related to walking accessibility to primary health services [4, 15, 18–22, 26] is not fully observed in the behavior of the surveyed population, that is, not everyone seeks to access the services under study on foot and in a short time. This situation is due to the combination of several factors, namely the organization of the health system itself (as some equipment is shared between communities and/or municipalities); to personal motivations and perceptions (e.g., insecurity feelings in public space); the physical and mental conditions and level of autonomy of individuals; or the use of complementary services provided by private or other entities (e.g., social institutions or local authorities). The differences between rings arise the importance to relate the results with context indicators of the urban environment in order to identify the main influencing factors of the emerged results [29].

5. Promoting equity minimizing older's constraints to health accessibility in LMA

As it is not efficient to multiply the number of health services and associated physical and human resources in order to increase proximity to all users, it is essential

to create complementary responses, prioritizing the most vulnerable users, and attracting several community stakeholders to the action [21, 22, 23, 45]. This will minimize risk situations caused by the retraction in the demand for health services and promote a better health for all.

The constraints to health accessibility by the olders are not a recent concern in the policy orientations of WHO for Age-friendly Cities [4]. Considering the proposed checklist for cities in the report "Global Age-friendly Cities: A Guide," some premises in the domains of health services and transportation should be implemented. SHAFE project synthetized similar orientations, highlighting as well the main policy documents and possible stakeholders at several levels, to promote smart healthy age-friendly environments [21, 22].

Based on **Table 4**, it is highlighted the need of a health system with a varied offer of services, well distributed territorially and that answers to the community's needs in the domain of health services. Complementarily, the existence of community support services is proposed, namely home services, which alleviates the strain on the service network and promotes better levels of health and well-being for the beneficiaries. On the other hand, and to promote a high quality transportation and a better accessibility level to health services, it is proposed the existence of a good public transport system in terms of affordability, frequency, quality, and comfort of vehicles, territorially spread and that responds to the major origin-destination needs. Quality of transport stops and stations is referred as well as they could be the first barrier to use public transports. As well, community transports are highly pointed to be complementary to the regular public transport system.

In the Portuguese case, municipalities and local organizations that have more proximity to the needs of each community have limited intervention to define policies and get funding to the healthcare model. While the local government involvement in the health domain is residual, other entities as social institutions and nongovernmental organizations present a high degree of organization and power, complementing the public health service [22]. This proves that external stakeholders to the Ministry of Health with health, social and transportation competences (e.g., local authorities, nongovernmental organizations, private institutions of social solidarity, transport operators) are more and more aware of their complementary role in supporting the proximity health service network and especially the older people as a vulnerable group with specific needs [21–23, 45]. In this sense, the provision of community support services has proved to be an asset as a way of bringing services that promote health and well-being closer to them.

In the Portuguese case, some actions are already in operation, namely tele-consultation, transport adapted to citizens, home deliveries of pharmaceutical or food products, home support, or even the adaptation of housing infrastructure (first factor of accessibility limitation) [22]. Specifically to LMA, some examples of recent strategies and/or actions that already exist in the municipalities of the LMA considered as good practices that complement the primary healthcare service formal structure should be highlighted.

5.1 Strategic plans oriented toward an healthy and inclusive aging

Assuming that aging is everyone's business and that the community is the central place for aging policies, this issue begins to be evident in the design of strategic plans and measures that promote a more active, healthy, and sustainable aging process. Measures

Domain age-friendly community and health services
Service accessibility
• Planned distribution of health services and community services in the community/city in complementarity with the transport network;
Offer of services
• Existence of an adequate diversity of services to the community and health services to promote health and minimize the disease;
• Availability of home support services in the area of health and personal care suited to the needs of the community;
Domain age-friendly transportation
Affordability to all older people
• Public transportation affordable to all older people, independently of their income level;
Reliability and frequency
• Public transport reliable and frequent, including at night and at weekends periods;
Travel destinations
• Existence of public transport routes to access to main destinations (e.g., health facilities, green spaces, commercial areas, etc.) within and between communities/cities;
Age-friendly vehicles / Priority seating
• Infrastructural adaptation of vehicles suited to the physical capabilities of the older people (e.g., accesses, seats, priority spaces);
Transport stops and stations
• Location of stops and stations suitable for the settlement system, especially considering the older people, with good safety, cleanliness, and easy access conditions;
Community transport
• Existence of community transport services as a complement to public transport services, resorting to voluntary work and adapted vehicles.

Table 4.
Checklist for Age-friendly Cities in the domains of Community Services, Health Services, and Transportation. Source: own elaboration based on [4].

that promote better and easier accessibility of the older people to health services, applying not only the adaptation of infrastructures, but partnerships with local transport operators or the creation of innovative and informal responses are already a reality.

One of the examples is the Strategic Plan for Sustainable Aging 2016–2025 (PEES) of the municipal council of Amadora, which promotes a set of measures in favor of access and accessibility to health by the older [46]. As part of strategic objective 1 – Promoting safety and physical, psychological, social, and economic integrity of the older people, measures such as "Ensuring increased accessibility to health care for people aged 65+ classified with functional limitation/disability" or "Ensure increased accessibility to healthcare for people aged 65+ enrolled in ACES" stand out. In strategic objective 4 – Promoting mobility, transport and accessibility with better personal comfort and safety condition, we underlined measures such as: "Identify by 2023 public services without accessibility for people with reduced mobility"; "Put into operation in 6 parishes a door-to-door transport service for citizens with reduced mobility to travel to public services, health centers and hospitals"; and "Raise public transport operators' awareness of the need to create or improve internal circuits in the county by 2025".

5.2 Home-based healthcare or in the proximities

There are several solutions that have brought health services closer to their users. For example, several health services are carried out through the displacement of health teams or in which the need for physical displacement is replaced by telehealth services using several technologies (internet, telephone). Delegation of health services competences to other health service providers or partners in the health network (e.g., vaccination in pharmacies; medical care in municipal facilities or institutions of social support; home medication delivery) is already a reality in Portugal. Lastly, local autarchies or institutions of social support also provide health services.

In the period of the Covid-19 pandemic, since 2020, the Lisbon municipal council, in partnership with the Ministry of Health, has promoted an annual flu vaccination strategy benefiting around 165,000 olderly people [47]. This initiative is carried out recurring to mobile health units that travel to the neighborhoods (and, in case of need, to home), and counts on with the collaboration of other municipal entities, such as the parish councils and the fire brigades. The objective is to promote vaccination as a proximity service, preventing people from having to travel to health centers or other health facilities.

Articulated with ACES Oeiras and Lisboa Ocidental, since 2018, the municipal council of Oeiras makes available a home medical service—"Doctor at Home" for people over 65 years old who are beneficiaries of the Special Scheme for Participation in Medicines, identified according to the average income of households (currently meets the need of 2316 citizens) [48]. This service includes a specialized assistance service for triage, medical assistance available 24 hours a day by telephone, and medical consultations at home.

5.3 Promotion of flexible transport to reach health services

It is not only health services that are becoming increasingly flexible, but also transport responses have seen adapted to needs, especially to serve the most vulnerable populations and/or territories. In this way, the different levels of accessibility to health services are no longer such an evident exclusion criterion for the vulnerable fringes of the population. Improvements on the transport system responding to the older's needs in terms of origin-destination, service schedules, adaptation of transport conditions (e.g., lowered entrances, space for wheelchair) are more and more considered, as the existence of flexible transport solutions (door-to-door transport, transport on demand), provided by local authorities, social entities, and transport operators.

In several LMA municipalities, stands out the "Solidarity Transport for the Olderly" initiative as a way to overcome the difficulties that the older people face in transport, minimizing situations of isolation, loneliness, and insecurity [49]. One of the areas where the project is being carried out is in the parish of Carnide, municipality of Lisbon, where the Parish Council has allied with the Association of Retired, Pensioners and Olders of Carnide to create a service for residents over 55 years of age. The destinations are not exclusive to health facilities, but also include commercial areas, green spaces, or any other destination (free of charge within the parish, scheduled by telephone).

In the municipality of Almada exists the inclusive mobility service "Almada BUS Saúde". Operating since 2017, it has reached 500,000 users in early 2020, demonstrating its great utility [50]. With a circular route and without fixed stops, it aims to travel around the main health facilities in the city of Almada (hospital and health centers)

and other public services. Beyond that, the vehicles are specially adapted to transport olderly people and people with reduced mobility.

Lastly, we highlight an equity measure implemented since April 2022 by the TML – Transportes Metropolitanos de Lisboa (Lisbon Metropolitan Transports), as the metropolitan transport authority. The TML decided to create a monthly metropolitan public transport pass with equal cost for all individuals (40 euros), independently of their origin destinations or the transportation modes, with particular adding benefits for specific groups as olders and students, giving a discount of 50% of the monthly cost to these groups [51].

Responding to RQ3, with this small set of examples (among many others already systematized), it is possible to observe the existence of a great diversity of solutions that promote equity in access to PHS in the LMA. The vast majority of the solutions observed are dynamized at the local/community level by different stakeholders. The solutions identified are at the level of policy instruments that frame the studied challenge, but also in the areas of health services and transport. This verification is in line with the theory principles promoting an age-friendly, healthy, inclusive, and sustainable environment considering multisectoral and multilevel approaches and calling on the various community stakeholders to actively participate in the solutions for more equitable communities and metropolises.

6. Final conclusions

This chapter discussed the walking accessibility to primary healthcare by the olders in Lisbon Metropolitan Area (LMA), Portugal, and its contribution for age-friendly environments as a factor of inequity, based on three research questions to which an answer is now given.

Since the health and transport networks are directly related to the LMA's radio-concentric urbanization pattern, metropolitan rings also differentiate the levels of walking accessibility to primary health services. The management of services is essentially anchored in the criterion of the population served by equipment (as a way of maintaining its efficiency in terms of human and financial resources). Thus, denser areas register a network of health facilities with a greater number of equipment and proximity to each other (improving the walking accessibility level), while less dense areas and more dispersed occupation generate greater service catchment area, and hence greater distance between the user and the equipment by part of the population, affecting distance and distance–time measures. Hence, this relation between the health, settlement, and transport networks generates differentiated accessibility levels to healthcare, creating a situation of inequity within the metropolis.

As expected for age-friendly territories, generally, the demand for primary health services takes place through short-term travel. However, such distance time is partially solved through individual motorized modes, in contrast to the proposed modes (walking and public transport). This phenomenon may result from the combination of several factors that require in-depth study (inexistence of public transport? fear of walking? the service is too far? resorting to the family for travel?). Here, there were also different behaviors between the metropolitan rings, highlighting the influence of the characteristics of the health and transport networks in the individuals choices.

Finally, consistently with the guidelines of UN and WHO for age-friendly environments, it is possible to see in LMA the existence of some strategies, from local

to metropolitan level, which complement the limitations of primary health services access by older. Such guidelines are evident (i) in strategic plans (in a top-down orientation); (ii) in the provision of health services at home or in areas closer to users promoted by local authorities, social partners, or other health service providers; and (iii) in flexible, affordable, and adapted transport strategies (both in a bottom-up orientation). These types of initiatives are minimizing inequity situations within and among the LMA's communities.

The usefulness of this work is centered on three aspects: (1) effectiveness of the relationship between the theory relating to the construction of age-friendly environments and a methodology for evaluating situations of inequity in the metropolitan context centered on the principle of accessibility to primary health services; (2) possibility of methodological replication over time for this case study and/or for other territories and services; and (3) production of knowledge to support policy decision in the area of urban planning, and in particular in the fields of health and transportation, with utility at local, municipal, and metropolitan/regional levels, promoting a multisectoral and multilevel approaches. However, some limitations should be acknowledge, as the results are very dependent on the quality and timeliness of the data. For example, in this case, demographic data on the statistical subsection (the Portuguese smallest territorial unit possible) date from 2011, due to the unavailability of data from the 2021 Census until now. This generates possible discrepancies between what was elaborated and the reality, especially in areas of intense new urbanization or areas that are facing population losses. The same applies to the high variability of the organization of health services, with constant restructuring in terms of the equipment physical location and provided services, which can also generate outdated readings. Finally, in order to bring the analysis even closer to reality, the service areas in terms of served parishes of each equipment defined by law should be taken into account, implying an equipment-to-equipment methodological replication.

Hence, the multisectoral reading relating health services and transportation; the combination between the potential accessibility levels to primary health services based on modeling (representing the network supply) and the real behaviors of the older people (as the demand); and the identification of complementary solutions allow us to discuss the accessibility level to primary health services in a more complemented approach. This will better support the urban planning strategies and instruments toward more age-friendly, healthy, and inclusive environments; to a more competitive, social and territorial cohesive territories, and lastly, to more equitable communities and metropolitan areas.

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A. Appendix 1

	Walking speed of 3.5 km/h – Inhabitants with 65 or more years old							
	Until 15 min.		Until 30 min.		Until 60 min.		Total	
	Inhab. (N°)	Surface (Km^2)	Inhab. (N°)	Surface (Km^2)	Inhab. (N°)	Surface (Km^2)	Inhab. (N°)	Surface (Km^2)
Lisbon & Ring 1	147,936	54.69	212,279	135.6	215,703	155.54	215,810	175.11
Ring 2	74,885	44.78	113,889	123.08	135,835	276.44	139,209	381.13
Ring 3	37,734	34.74	67,197	114.23	81,395	306.42	87,496	705.61
Ring 4	31,277	38.59	49,328	117.79	61,781	389.13	71,327	1740.05
Total	291,832	172.8	442,693	490.7	494,714	1127.53	513,842	3001.9
	Walking speed of 1.6 km/h—Inhabitants with 65 or more years old							
	Until 15 min.		Until 30 min.		Until 60 min.		Total	
	Inhab. (N°)	Surface (Km2)	Inhab. (N°)	Surface (Km2)	Inhab. (N°)	Surface (Km2)	Inhab. (N°)	Surface (Km2)
Lisbon & Ring 1	71,175	17	137,594	48.34	209,152	127.51	215,810	175.11
Ring 2	31,646	12.55	68,550	39.09	109,970	108.91	139,209	381.13
Ring 3	15,583	9.37	33,761	29.5	63,996	98.47	87,496	705.61
Ring 4	16,386	11.1	29,760	33.34	46,717	101.54	71,327	1740.05
Total	134,790	50.02	269,665	150.27	429,835	436.43	513,842	3001.9

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Section 3

New Skills and Competencies

Chapter 5

Older Persons, Digital Products, and Standards: The Need for Consumer Protection and Support for Continuous Learning of Older Persons

Raymond Saner

Abstract

This chapter addresses the need to help older persons adjust to the digital age and describes major challenges that aging persons as well as persons of all ages have to face in light of today's virtual realities. The author proposes how to best facilitate and support older persons coping strategies and how they can obtain and maintain adequate digital literacy and ability to use existing digital resources. The chapter describes the hidden costs of the digital age for older persons and offers six solutions to how these digital challenges could best be overcome from individual, social, and public policy perspectives.

Keywords: digital literacy, older persons' digital challenges, individual coping strategies, community resources, public policy to protect older persons' privacy, and digital competencies

1. Introduction

Human societies have seen an unprecedented age bonus because of the extended life expectancy now reaching 80 years or higher in many developed economies. The number of people who are older than 60 years of age reached 901 million in 2015 representing 12.3% of the total world population. By 2050, it is forecasted that this number will reach 2.09 billion worldwide. For example, in the United States, adults over 65 will outnumber children by 2030, and in Japan, more than 40% of the country will be over 65 by 2060 [1]. This development has changed the demographic distribution of populations and the demand patterns for public services and resource allocation. An important factor greatly impacting these shifts is advances in technology, which has escalated during the COVID-19 pandemic.

With aging populations, there is a growing demand for technologies to better meet the needs of older persons [1, 2]. Information and communication technologies (ICTs) have the extraordinary potential to respond to the demands of this

demographic shift and meet the challenges of a shrinking workforce, as well as improving healthcare and caregiving for older persons. For instance, a sizeable minority of mid-life and older Americans are using ICT devices to manage medical care [3],[1] Artificial Intelligence [4], and Big Data [5]. Drones and robotics and other game-changing technologies are already being harnessed to improve the lives of older persons [4]. For instance, drones are being tested by Japanese farmers, many of whom are older persons, to ease the burden and enhance productivity of applying pesticides and fertilizers on crops. Hi-tech drones come to the aid of Japan's aging farmers [6].

At the same time, there are also key challenges that need to be addressed, privacy and security remain a challenge for older Americans: Just under 18 percent of 50+ adults are confident about their data privacy, but many do not take proactive steps, including passcodes and two-factor authentication, to secure their data [3] including accessibility of these technologies and digital skills for older persons. For example, older Americans are more likely to have access to technology such as desktops and feature phones. Only a small percentage of the 50+ market has access to and adopts recent technologies, including wearables and home assistants [7]. Older Americans are generally less connected than younger persons, including the so-called "digital natives" who have grown up with these technologies [8]. In addition, stereotypes need to be overcome about older persons' disinterest and lack of capacity for digital skills and tech entrepreneurship and there are also instances of exploitation of older people as consumers online [9].

The Decade of Healthy Aging (2020–2030) launched by the WHO[2] and the United Nations and the 2030 Agenda with its 17 Sustainable Development Goals (SDGs)[3] provide strong support for all stakeholders—governments, private sector, and civil society—to commit to policies, regulations, and activities, which can reduce if not push back the still prevalent impact of ageism. The most recent report of the UN Secretary-General of 7th July 2022 takes an additional step and focuses directly on the impact of digital technologies on global aging.[4]

1.1 Methodology

The author's research question pertains to the query as to how much digitalization impacts the lives of older persons. The research method used was literature reviews of key documents published by relevant international and normative organizations such as the World Health Organization, the United Nations General Assembly, and the UN Secretary General's Office.

2. Challenges of the digital area for all ages

Thanks to the multitude of ICT products (internet, mobile phone, and smartphone) and social media, people, in general, are able to nonstop watch and participate in various forms of webinars, as well as make e-phone calls, send text messages, surf

[1] https://de.wikipedia.org/wiki/American_Association_of_Retired_Persons

[2] (https://cdn.who.int/media/docs/default-source/decade-of-healthy-ageing/final-decade-proposal/decade-proposal-final-apr2020-en.pdf?sfvrsn=b4b75ebc_25&download=true

[3] https://sdgs.un.org/goals + https://en.wikipedia.org/wiki/List_of_Sustainable_Development_Goal_targets_and_indicators).

[4] file:///C:/Users/Saner/Downloads/A_77_134-EN.pdf

the Internet, download apps, and use the built-in camera function to take pictures and share notices *via* Facebook, Twitter, Instagram, and other devices.

However, standards that are the basis for all these AI-ICT digital products also have a hidden cost. The e-devices are based on industry standards embedded and hidden in the ICT devices, which we are using. Using these devices means accepting the many requirements of these ICT products. Knowing how these standards influence our behavior, thinking, and emotions is not possible for most people, whether young or old.

For instance, while wanting to benefit from the opportunities, which modern ICT methods offer, a consumer will not know how the computer chips function and how they are applied, for instance, through blockchains that are used to control and block payment systems or production processes of supply and value chains.

The user of modern ICT tools knows that he/she cannot control the ICT product that he/she is using since understanding how they operate would require technical know-how, which most users today do not have. Hence, we benefit from the fascinating access to a technological product like one based on virtual reality provided we accept the rules given by the programmers and chip engineers.

In other words, we are surfing a digital wave that can take us far into the imaginary sea as long as we do not forget that digital surfing does not depend on our physical strengths but only on our ability to click on the keyboard and navigate the given binary options of the digital game.

Being bound by a given digital program gives us an imaginary sense of freedom when in fact we are only free to click and choose the given options provided by the digital program. These invisible limitations can be compared to the legend of the Procrustean bed of Greek mythology.

Procrustes "the stretcher [who hammers out the metal]" was a rogue smith and bandit from Attica, ancient Greece, who attacked people by stretching them or cutting off their legs, so as to force them to fit the size of an iron bed.[5] The word "Procrustean" is thus used to describe situations where an arbitrary standard is used to measure success, while completely disregarding obvious harm that results from the effort. Like the victims of Procrustes, we get similarly stretched by digital products and standards, albeit mentally (not physically), when we agree to participate in virtual conferences based on virtual tools such as Zoom, Cisco WebEx, Team Viewer, GoToMeeting, and others which structure our human interactions according to rules, which the users cannot change.

3. Being captured by virtual reality restricts people's freedom to interact with other human beings

One aspect of a virtual conference is that, as users/customers, we get captured to be part of this virtual world but once captured, we get "chopped" to place in a Procrustean manner meaning, you have to fit in or better comply with the standard, which for instance can put a participant into virtual rooms or be removed from participation by the zoom host.

The sophisticated programs and standards of virtual devices can be useful; for instance, a participant of a zoom conference can be assigned to a zoom room where

[5] https://en.wikipedia.org/wiki/Procrustes

he/she can talk to other participants as if in physical proximity even though they might be physically far apart from each other.

Having been several times in the role of a host of a webinar (called a "zoom master") who runs the flow of a webinar's meeting, I also discovered the power of control over the interactions between zoom participants. For instance, as zoom master, I can mute or unmute people who are participating in my virtual webinar. I can also tell them that attendees can use the chat option and submit questions for the speakers, and further, I can decide whether or not to forward those questions to the speakers or block the questions from reaching them.

Another impact of virtual conferencing is that days blend into each other. Workdays start to be like weekend days and vice versus, and distances are reduced to fake proximity. A person from Zambia and another one living in Brazil are equally present during a webinar as if they were living in the city where I am living and working as well.

The sudden closeness when a zoom participant is assigned to a virtual zoom room is fascinating from a technology point of view and at the same time worrisome, reminding us of another Greek mythology namely that of Scylla and Charybdis [10] who were according to the legendary Greek author Homer are mythical sea monsters located at opposite sides of the Strait of Messina between Sicily and Calabria, on the Italian mainland.[6] Scylla was described as a rock shoal (described as a six-headed sea monster) located on the Calabrian side of the strait, and Charybdis was a whirlpool off the coast of Sicily. Scylla would grab passing ships with her many arms and devour them, while Charybdis, by creating a whirlpool, would suck passing ships into the centripetal stream of its whirlpool waters [11].

The two monsters were regarded as maritime hazards located close enough to each other that they posed an inescapable threat to passing ships and sailors; avoiding Charybdis might lead a passing ship to end up too close to Scylla and vice versa [11].

We could be drawn into a whirlpool of a multitude of digital programs and hence of hidden standards without noticing that our freedom of movement is being structured by these often invisible electronic structures of the programmer, which capture our attention but then keep us seduced and turned into addicted consumers.

The Scylla experience could come about through the use of multiple apps, which all seem interesting and important at the beginning but which might lose usefulness, and if not "cut off" (meaning deleted) could block a lot of memory on our mobile phone and at worst leading to a paralysis of our computer or mobile device.

Installing many apps can also give us a false sense of autonomy and independence when in reality the logic of these apps makes us forget that we are "stretched on the bed of Procrustes" and are not free anymore to just walk away. The apps' standards that help us access data and people through virtual realities also limit our ability to freely interact with others through physical closeness and hence make us interact with each other through a filter of quasi reality, sometimes blending physical presence with fake reality depending on what additional apps are being blended into a virtual interaction.

Becoming dependent on the use of apps and Internet conferencing tools such as zoom, Webex, and GoToMeeting, a zoom master can make us lose a sense of time and give us the impression that we lost the freedom to stop the seemingly forever stream of virtual realities. Such a sense of losing reality can come about when people spend too many hours watching and interacting in virtual realities, making our awareness

[6] https://en.wikipedia.org/wiki/Between_Scylla_and_Charybdis

become nonlinear and malleable like Salvador Dali's surrealistic artwork, evident in his/her famous painting of a melting watch.

4. Digital realities increase the risk of isolation and loneliness in older persons

The following findings emerged from the literature review. Digitalization forces older persons to cope with multiple challenges. The first challenge can be a sense of loneliness. With growing age, older persons inevitably lose relatives and friends who die away, and they also lose the sense of family when their children leave and move to their own residences. Resulting loneliness can further deepen, should their neighborhood also change due to urban renewal projects and relocation of neighbors, causing loss of social networks, in addition to family ties.

Such losses due to the natural life cycle shrink older persons' psychological living space and exacerbate a sense of isolation, loneliness, and abandonment. This deepens if older persons themselves are forced to move, but cannot find adequate housing, because of financial hardships [12].

A second challenge for older persons, which accelerated due to the impact of the COVID-19 pandemic, is the rapid migration of traditional services (which are public and private) to online service provisions. As a result of COVID-19, consumers were increasingly required to move to using online platforms to fulfill needs, ranging from buying groceries to doctor appointments. Businesses also turned to digital tools in new ways and fast food restaurants created "ghost kitchens" devoted solely to fulfilling online delivery orders [13].

At the same time, public services are also increasingly moving online, for instance, citizens' inquiries and requests for information concerning social security, water and sanitation, electricity, security, and other public services necessary for maintaining daily life. As a consequence, smartphones are needed to call and navigate public administration's webpages and automated general information services.

Older persons with only partial or minimal digital literacy are hence rendered dependent on others to do these necessary online interactions. If alone, or without family, older persons depend on social services, charities, aides, or neighbors to help them meet their simplest needs, and navigate through the rapidly changing digital world.

For those older persons who have only basic digital skills, their need and wish to be in touch with other people through digital means could increasingly put them at risk of being misled by criminals who use fake news to lead older persons astray in order to get access to their bank account or information about access to their living quarters [14].

5. Solutions to fend off the threat of digitally induced powerlessness and hopelessness of older persons

1. Assisting older persons through training and coaching in digital literacy can help older people retain a sense of autonomy, which allows them to do necessary daily life activities, for example, order food, inquire with public authorities, and remain in contact with others, including loved ones [15]. Research has shown that such training has a positive impact on older persons (81–85 years of age) as it increases social networking abilities and reduces loneliness [15].

2. ICT devices and services are quickly changing due to rapid technological innovation and also because of deliberate strategies of companies to increase their bottom line by making products obsolete and requiring updates and new purchases, including technology that is incompatible with previous systems. Older persons do not always have the cognitive bandwidth, emotional patience or confidence, or financial resources to keep up with changes in digital products, especially when they do not have the necessary support to master the new devices. Providers of digital products should be required to keep some main ICT products in service with which older persons are familiar and ICT companies should abstain from continuous strategies of obsolescence in order to boost their business.

3. The ICT industry is dominated by an oligopoly of large firms (Microsoft, Apple, Facebook, and Amazon). Dominant ICT companies can exert inordinate pressure on suppliers and local vendors creating situations of monopsony. Local competition authorities should do their best to avoid situations where the ICT market is dominated by monopolies exerting monopsony influence on local providers leading to price increases and supply impasses, which are difficult for older persons to manage and who might not have financial resources to catch up with price hikes of the digital equipment they own [16].

4. The development of continuously upgraded new standards and new ICT technologies should be kept at a level that enables older persons to stay abreast of the rapid ICT technology changes so that they can still master ICT devices. Older persons should be given time to learn and update their skills and knowledge of digital devices at a user-friendly level. This goes hand-in-hand with a general requirement to have minimal transparency of ICT standards for all customers independent of their age.

5. Opportunities should be created by enterprises and community organizations for lifelong learning, and gainful participation in the labor market and in enterprise development during different stages of the life course, including for older persons beyond their retirement age. Being able to contribute to society and the economy is a valuable source of keeping high cognitive resilience, gaining financial revenues to markup pension funds, and supporting a sense of dignity [17].

6. ICT policy options to enable participation of older persons in society at large. To strengthen the voice of older persons and to give them a sense of control over their communications with other people, the following governance mechanisms should be provided for older persons at global, regional, national, and subnational levels also for older people from the global south and their communities namely: Public forums that offer ICT assistance to help older people cope with ICT devices and communication mechanisms [18]. For instance, public authorities should monitor older persons' ability and comfort when digital means are being used as public communication tools. Opinion surveys should be organized to keep track of how older people cope with ICT technologies and how much their digital literacy has evolved in regard to participation in public forums, discussions, and information sharing in general.

5.1 Limitations of this study and future research

This study was based on reviews of documents of key international organizations such as the WHO and the United Nations. Both international organizations' documents are based on extensive empirical research done by experts in the field of aging in many countries across the globe and are hence a good proxy for relevant empirical findings. Still, it would be beneficial to conduct further studies to validate the impact of digitalization as well as the relevance of the solutions proposed in this text.

6. Conclusion

Digital services and their accessibility and coverage should ensure that all persons who are affected by ICT technologies can enjoy and benefit from the availability of digital services no matter who, where, and when. This call is especially urgent to include older persons.

Inclusion of older people in the area of rapid digital development will require major efforts of stakeholder partnerships by private businesses, philanthropic organizations, civil society organizations, and governments, especially in resource-constrained countries and areas: Public spaces need to provide access to the internet and digital literacy education and training for older persons, as well as for young and adult persons in developing and least developed countries who remain deprived of internet access and ICT communication tools.

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Chapter 6

Knowledge of Intergenerational Contact to Combat Ageism towards Older People

Alice Nga Lai Kwong

Abstract

Among the multi-dimensional social aspects of aging, intergenerational contacts and relationships between older and younger people will be the focus of this chapter. Underpinned by a study that sought to address and reduce ageism, this chapter discusses the respective roles of direct and indirect intergenerational contacts and their associations with the attitude and prosocial behavior of younger people towards older people. This chapter aims to provide initial evidence about the related processes, mechanisms and relationships involving the older individuals and young people in our society. Valuable insights and synergistic efforts will be provided in how the governments, schools, private and community groups, and the media will all have an integral part to play in applying the knowledge of intergenerational contact to combat ageism towards older people. Future research is needed to better integrate the processes, mechanisms and changing relationships between generations to serve the aging population of Hong Kong.

Keywords: ageism, attitude, intergenerational contact and communication, older people, prosocial behavior

1. Introduction

Accelerated aging of the population is leading to a situation in which older people will become the largest proportion of the total population in society. Ageism, which is defined as stereotyping, prejudice and discrimination based on chronological age [1], has become a pressing issue resulting in an increase in research attention across the globe. Existing literature has shown that a prejudicial attitude is a significantly strong predictor of perceived and actual discriminatory behavior directed towards older people [2, 3]. The World Health Organization Global Report on Ageism, World Health Organization (WHO), pointed out that one in two people perceive discrimination against older people in younger people have age discrimination than other age groups [4]. Intergenerational contact, which has expanded from familial to nonfamilial relationships between older and younger people, was seen as an effective way to combat ageism. Generally, intergenerational contact includes direct and indirect forms. Direct intergenerational contact is usually described as face-to-face intergenerational contact between older and younger people. Indirect intergenerational contact is

defined as younger people's contact exposure to older people that does not involve an actual interaction or a direct relationship [5, 6].

The trends of research into intergenerational contact and research on attitude and prosocial behavior towards older people were examined. Most of the studies investigated factors affecting attitude towards older people, and the findings consistently reported that face-to-face intergenerational contact was associated with positive outcomes for attitudes towards older people [2, 7–12]. These studies, however, neglected to examine factors contributing to positive, face-to-face intergenerational contact. In the research into indirect intergenerational contact, only a few studies were found to investigate the relationships between indirect contact, attitudes, and prosocial behavior in the intergenerational context [10, 13, 14]. Yet, the findings were generally inconsistent. There was also scant research examining the interactions of different types of intergenerational contact and their impacts on attitudes and prosocial behavior towards older people. As a result, the mechanisms by which direct and indirect intergenerational contact influenced attitude and prosocial behavior towards older people were not comprehensively described in the existing literature.

Our understanding of factors affecting the quality of intergenerational contact, the relative importance of different intergenerational contact, and how they interrelate was hampered by the lack of a coherent approach to research in this area. To address this, this chapter discusses the roles of direct and indirect intergenerational contacts in reducing ageism. First, the author discusses theoretical approaches underlining intergenerational contact. Second, the author reports a recently completed study that investigated factors contributing to the quality of intergenerational contact, and the roles of direct and indirect intergenerational contacts in promoting young people's attitudes and prosocial behavior towards older people. Lastly, the discussion includes recommendations for policies and intergenerational strategies to reduce ageism.

2. Theoretical approaches to intergenerational contact

As applied to this study, intergenerational contact is defined as the intergroup contact between older and younger people. There are two primary types of intergenerational contact: direct and indirect intergenerational contact.

2.1 Direct intergenerational contact

Direct intergenerational contact, also known as face-to-face intergenerational contact, occurs in various forms including contact within a family relationship, friendship or working relationship. It can also take place in intergenerational programmes supported by authorities [6, 15]. Allport's Intergroup Contact Theory [16] explains the psychological process of contact between people from different social groups causing an in-group person to reduce prejudice against an out-group. It has been used extensively to study intergroup contact. According to Allport's theory, four conditions are essential for positive, direct intergroup contact. When face-to-face intergroup contact demonstrates an equal status, shares a common goal, maintains a cooperative interaction and is supported by institutions or authorities, such contact results in reduced prejudice and discriminatory behavior against outgroup members.

Social Presence Theory [17] emphasizes the importance of an interpersonal dimension that plays in face-to-face intergroup contact. It predicates that

communication media influences people's impressions of and responses to others which is essential in developing or maintaining social interaction. According to the theory, the level of richness of communication media affects that of social presence. The medium that promotes communication, simultaneous feedback, and a rich exchange of ideas and information results in a higher level of social presence leading to a positive face-to-face contact [18]. In other words, intergenerational communication media, which includes face-to-face contact, telephone conversation and written and text-based media, is considered the antecedents of the face-to-face intergenerational contact quality.

In the existing literature, face-to-face intergenerational contact was often assessed, in terms of frequency or quality, by self-reports. For frequency of contact, young people were asked to indicate how often they had face-to-face contact with older people. Quality of contact was assessed by young people's self-reported quality of face-to-face contact with an older person(s). Previous studies that measured both frequency and quality of contact consistently found that the quality rather than the frequency of face-to-face intergenerational contact was associated with significantly better attitudes among younger people towards older people [8–10].

2.2 Indirect intergenerational contact

There are two major forms of indirect intergenerational contact. Extended intergenerational contact forms when a younger person knows a friend who has a positive relationship with an older person [19, 20]. It suggests that a younger person does not necessarily meet an older individual to gain a positive perception of older people. Knowledge about a friend's positive intergenerational contact with an older individual is enough for building a positive attitude or prosocial behavior towards older people. The rationale behind extended intergenerational contact can be explained by Balance Theory [19]. The theory assumes that people aim to maintain balanced human relationships and seek ways to resolve the imbalance when it happens. An imbalanced human relationship occurs when there is a positive relationship between the individual and the ingroup friend, and between the ingroup and the outgroup friend, but a negative relationship between the individual and the outgroup. As a result, to maintain harmonious human relationships, individuals try to improve their attitude towards the out-group. Applied to this paper, when a younger person receives extended intergenerational contact by learning about a positive relationship between his or her friend and an older individual, the younger person tends to gain a positive attitude towards older people. Previous studies assessed extended intergenerational contact by asking young people to indicate how many of their close friends had a positive relationship with older person(s). The more friends have a positive relationship with an older individual that a younger person recognized, the more extended intergenerational contact would be experienced by him or her.

Another form of indirect intergenerational contact is called vicarious intergenerational contact. It occurs when a younger person observes a younger person, a member of the same social group, having positive, intergroup contact with an older individual [6]. Theoretically, this contact involves a process of observational learning and abstract modeling. Through observational learning, a younger person observes others and receives information about social norms of an intergenerational contact between older and younger people. Further, a younger person is facilitated to behave similarly to those being observed. Abstract modeling takes place when an individual applies attitudes and behaviors learned from the observation of others to similar

contexts involving older and younger people [20]. Vicarious intergenerational contact can be depicted in various forms of media containing a story about an intergenerational interaction that is described by words or images and takes forms such as books, newspapers, television, radio programmes and social media.

General Learning Model, developed by Buckley and Anderson [21], is the primary psychological theory of learning used to explain the effect of media on prosocial behavior. It shares a similar theoretical mechanism with that of vicarious intergenerational contact. Like the mechanism of General Learning Model that emphasizes the influence of observation that fosters a learning counter, vicarious intergroup contact creates a vicarious learning encounter through the observation of a successful intergroup interaction and thus observers model their thoughts or behaviors based on these observations [22]. In addition, both General Learning Model and vicarious intergenerational contact influence the individual's behavior towards strangers, rather than towards family members or friends. In other words, older and younger people do not have a genuine relationship in vicarious intergenerational contact. When General Learning Model is applied to this paper, a younger person who observes a character, who positively interacts with an older individual in a media outlet such as television or printed material, the younger person will be more likely to develop similar thoughts and attitudes and to engage in similar behaviors towards older people in an authentic environment. To assess young people's exposure to vicarious intergenerational contact depicted in the media, participants in previous studies were asked to indicate, in terms of frequency, how often they had seen any positive interaction between older and younger people via different occasions. A higher frequency meant more vicarious intergenerational contact received by younger people.

3. Study

A recently completed study by the author provides new evidence about the effects of direct and indirect intergenerational contact on young people's attitudes, prosocial intentions and prosocial behaviors towards older people. A cross-sectional study of 467 young Chinese people aged between 15 and 24 years was conducted in Hong Kong in 2020. Participants responded to an online questionnaire regarding their experiences of intergenerational contact with older people, as well as their perceived attitude, prosocial intention and prosocial behavior towards older people. In particular, the study addressed two research questions:

- what were the factors contributing to the quality of intergenerational contact from the perspectives of younger people?
- what were the respective roles of face-to-face, extended and vicarious intergenerational contact in influencing young people's attitudes and prosocial behavior towards older people?

Several dependent variables were measured. Kogan's Attitude towards older people scale [23] was used to assess participants' perceived attitude towards older people. The potential total score ranged from 34 to 238, with a higher score indicating a more positive attitude towards older people. Perceived prosocial intention towards older people was assessed by the Hong Kong version of the Prosocial Tendencies Measure [24] and the total score was derived as the summation of all the item scores which

ranged from 24 to 120. A higher score implied more prosocial behavioral intentions. In addition, a context-specific, five-statement prosocial intention scale that was originally developed by Bousfield and Hutchison [8] was used. The total prosocial intention score ranged from 5 to 25 with a higher score representing more prosocial intention towards older people. Modified from existing research [8, 25], the measurement for prosocial behavior included five situations involving older people. Young people were asked to indicate how often they exhibited prosocial behaviors towards older people on a five-point scale ranging from 'never' to 'always' in the five situations. The overall prosocial behavior score was derived as the summation of all the item scores that ranged from 4 to 20. A higher score implied more prosocial behavior towards older people.

3.1 Factors contributing to quality of intergenerational contact

Based on Allport's Intergroup Contact Theory [16], the conditions for facilitating quality intergenerational contact should include equal status, intergroup cooperation, shared goals and institutional support. As existing literature that tested the associations between these conditions and the quality of intergenerational contact was limited, the study attempted to investigate these associations. Younger people in the study were asked to indicate their perceptions of equal intergenerational status, intergenerational cooperation and shared goals during their face-to-face contact with older people. The results showed that younger people who perceived higher levels of equal status in face-to-face intergenerational contact were more likely to report a higher quality of face-to-face contact with older people. The study also examined the types of intergenerational communication media that were associated with young people's perception of the quality of face-to-face intergenerational contact. Younger people in the study estimated how often they had used each of three media categories of phone contact, social-networking platforms (e.g. WhatsApp), and paper-based media (e.g. letters) to communicate with older people. The results showed that phone contact was the most significant factor associated with better quality of face-to-face intergenerational contact while social-networking platforms and paper-based media were not. Younger people who had more phone contact with older people, they were more likely to report a higher quality of face-to-face contact with older people. The full results of the study have been reported in [26].

3.2 Roles of direct and indirect intergenerational contact in influencing attitude and prosocial behavior towards older people

Before analyses were conducted to test whether face-to-face, extended and vicarious intergenerational contact significantly contributed independently to a positive attitude towards older people, the study tested the relationship between attitude, prosocial intention and prosocial behavior towards older people and the results confirmed that prosocial intention mediated the relationship between attitude and prosocial behavior towards older people. Therefore, when young people displayed a positive attitude towards older people, they were more likely to engage in prosocial intention and further, prosocial behavior towards older people.

Regarding the roles of different types of intergenerational contact, the present study showed that the quality of face-to-face intergenerational contact was the strongest contribution to attitude towards older people, followed by vicarious intergenerational contact in the complete sample. However, extended intergenerational contact

was not significantly associated with attitude towards older people in the complete sample. Further, the results demonstrated that the strengths of direct and indirect contact relationships differed in people having high and low levels of face-to-face contact frequency. For young people having more face-to-face contact with older people, quality of face-to-face intergenerational contact and vicarious intergenerational contact were significantly associated with a better attitude towards older people, with quality of face-to-face contact being the strongest correlate. For young people having less or absent face-to-face contact with older people, vicarious intergenerational contact became the strongest contribution to a positive attitude towards older people, followed by face-to-face intergenerational contact and extended intergenerational contact. Details of the study results were published elsewhere [27].

4. Theoretical implications

4.1 Intergenerational engagement in face-to-face contact

Young Chinese people in this study had a strong desire for equal intergenerational status in face-to-face contact with older people, while they had relatively less concern about intergroup cooperation and shared goals. The findings affirm that cultural principles play an important role in intergenerational relationships. In Chinese societies, the traditional values of filial piety have empowered older people to engage in a hierarchically intergenerational relationship with younger people characterized as engaging in non-accommodative behaviors and communicating in an inappropriate manner, such as talking down to young people, providing unsolicited advice and negatively stereotyping young people. Therefore, young Chinese people may perceive an unequal status in face-to-face intergenerational contact and describe older people as non-listening, complaining, disapproving, over-parenting and bossy [28]. There is evidence of young people who perceived older people as unaccommodating and displaying a negative attitude towards older people [29]. Therefore, the typical expression of age-based norm of filial piety in Chinese culture may explain the results of the study in that young Hong Kong Chinese who recognized equal status in their face-to-face contact with older people perceived this contact as higher in quality.

4.2 Intergenerational communication media

Nowadays, social-networking platforms have become the most frequent communication medium which is regarded as a replacement for traditional communications among younger people. From the perspectives of older people, however, telephone remains the preferred medium to stay in contact with others. On the one hand, compared to younger people, older people are slow to accept and adapt to technology as they have relatively lower Internet self-efficacy in terms of perceived ease of use, perceived quality and accessibility of technology. They generally lack confidence and are less inclined towards new communication technologies. Thus, they have lower behavioral intentions towards technology [30, 31]. On the other hand, existing literature demonstrates that older people value deeper and more thoughtful communication via phone [32, 33]. Compared to social-networking platforms, phone contact produces a higher level of social presence which is essential for developing or maintaining social interaction. It is obvious that the use of communication media by young people to maintain relationships with older people is likely to manifest in different ways. The findings of the

study suggested that young people who were willing to communicate via the medium preferred by older people (i.e. by phone) reported a better quality of face-to-face contact with older people compared to those who used other communication media.

4.3 Strengths of direct and indirect intergenerational contact

Of all hypothesized factors, quality of face-to-face contact had the strongest association with a positive attitude towards older people. As in the present study, most intergenerational contacts stemmed from family relations, we could hypothesize that frequent face-to-face contact with an older family member was not positively linked to attitude towards older people from the perspective of young Hong Kong Chinese. The present findings reflect that the cultural norm of intergenerational solidarity, which is associated with intergenerational closeness and contact, is weakening in Hong Kong Chinese societies. Traditionally, intergenerational closeness and contact are not exclusive, but have interacting effects, in Chinese families [34, 35]. However, the actualization of intergenerational solidarity has been challenged in Chinese societies. Young Chinese people have become more influenced by the Western culture of individualism focusing on independence, self-reliance and self-fulfillment, which contradicted the traditional norm of authoritarian filial piety in Chinese culture [36]. From the perspective of young people, older people belong to a different generation and have quite different living circumstances, interests and beliefs. Consequently, contact experiences are not always positive in Chinese multigenerational families [37, 38]. It is therefore not surprising that the present study found no relationship between frequency of intergenerational contact and attitude towards older people in the Chinese context. These findings are in line with a recent study showing that intergenerational co-residence is not significantly linked to a higher quality of life for Chinese older people [39]. The transformation of family intergenerational contact suggests the need to look beyond traditional models to understand family intergenerational relationships in the changing contexts of Chinese societies.

The study proved that indirect intergenerational contact was a significant correlate of positive attitude towards older people, but it had a weaker effect than direct contact. While 91% of younger people in the study had face-to-face contact with older people, one plausible explanation was that young people having positive face-to-face contact already had a positive attitude towards older people. Hence, their attitude towards older people was not influenced further by indirect contact. Additionally, scholars suggested that people depended on direct, rather than indirect, contact to determine their attitude towards outgroup people [19]. As a result, when there was face-to-face intergenerational contact, indirect intergenerational contact produced little added effects on attitude towards older people.

This was the first study to prove that vicarious intergenerational contact was the strongest contribution to a positive attitude towards older people when young people's face-to-face contact frequency with older people was low. In other words, vicarious intergenerational contact could positively promote young people's perceived attitude and prosocial behavior towards older people. Findings shed light on linking media, depicting vicarious contact to attitude and prosocial behavior in the intergenerational context that has reinforced the power of communication media in reducing ageism. Yet, the existing literature consistently shows that older people remain negatively represented in the media. Since media portrayal reflects a society's values and culture, negative media portrayal could be an indicator of the general negative perception of older people within a society. Younger people's negative perception of older people

and their relation of older people to physical limitations are partly due to the negative media portrayals of older people [40]. Particularly, Prieler et al. [41] assert that the public perception of older people is negative in east asian countries and communities, as evidenced in visual media. They analyzed television advertisements from Hong Kong, Japan, and South Korea to determine their representations of older people in terms of numerical representations, roles, social interactions, settings and product categories. The analyses showed that older people were underrepresented in television advertisements. Although the author's study has confirmed that media-based vicarious intergenerational contact can positively influence younger people's attitude and prosocial behavior towards older people, the overall results of those media-based vicarious intergenerational programmes are still unknown. It is important to explore the impact of those programmes on ageism reduction in future research.

The study confirmed that extended intergenerational contact was significant only in younger people reporting less or absent face-to-face contact. The plausible explanation of why extended contact did not produce a significant effect on attitude relates to the phenomenon of transitivity, which refers to participants' ability to recognize the complex relationships embedded in extended contact. The definition of extended intergroup contact emphasizes the components of two relationships that involve a direct relationship between an individual and their in-group friend, and an existing extended relationship between an ingroup friend and an in-group friend's out-group friend [42]. Hence, the report of extended contact involves a two-step thinking process. Younger people needed to identify the relationship with their in-group friends (known as the direct relationship), and then, determined whether these ingroup friends had positive contact with older people (known as the extended relationship) [19, 42]. Because of the complex thinking process, younger people might provide inaccurate information about their extended contact. They might have underestimated or overestimated their extended intergenerational contact. Future research should re-visit the operational definitions of extended intergenerational contact in a more systematic manner to ensure that the measurements of direct relationship quantity and extended relationship closeness are taken into consideration.

5. Implications for policy and practice

To combat ageism, scholars have consistently shared the same views on encouraging policies that foster intergenerational connections with different sectors working together to eliminate prejudice and discrimination against older people [43, 44]. While there is a lack of a research-based approach for policy design to address the complexity of intergenerational practices, serious effort needs to be put into understanding intergenerational needs and promoting quality intergenerational connections, that is intergenerational solidarity, between older and younger people at distinct levels in Hong Kong.

5.1 Intergenerational contact in the family context

The present study showed that young people's most frequent contact with older people was via a grandparent or parent. Therefore, the family remains the primary source of intergenerational contact in Hong Kong. In recent decades, the family has been remarkably changing in terms of its structure, functioning, living arrangements and intergenerational relationships. On the one hand, social phenomenon such as

delayed childbearing, grandparent-parent-grandchildren bonding sandwich families and older people living longer have widened the age gap between generations. On the other hand, complex family relationships such as divorce and remarriage have weakened family support for younger and older members of a family. Due to these evolving family trends, new directions for the development and implementation of family policies should have been formulated accordingly [45]. However, there is still marked asymmetry in the family-friendly policies implemented in Hong Kong with more support and practices provided to families having young children. For example, many companies and industries allow flexible working hours for taking care of children, offer subsidies for childcare and provide access to child-care facilities in the workplace. While elder-family policies related to intergenerational solidarity focus more on caregiving for aging parents, there is a lack of policy support for building positive familial intergenerational relationships and promoting the quality of familial intergenerational contact. To promote familial relationships in families with older people, future family policies should consider unique features that shape the new familial intergenerational ties and integrate views and perspectives from younger and older generations into the family. Also, future research is critical to illuminate these issues.

5.2 Integrational contact in the institutional context

Efforts to promote intergenerational contact have expanded from familial to nonfamilial relationships between older and younger people. While intergenerational programming is the instrument for policy enfolding intergenerational practice, effective intergenerational programmes, which are diverse and appear in various forms, can inform theoretical and evidence-based policies. The development of intergenerational programmes requires partnerships between government, non-government organizations, employers, and academia for promoting opportunities for quality intergenerational contact between older and younger generations [44].

To reduce ageism among younger generations, there are some things that key partners and relevant stakeholders might do to advance policy and practice in intergenerational programmes. First, face-to-face and vicarious intergenerational contact can be implemented together in intergenerational programmes to effectively reduce ageism. Vicarious intergenerational contact, which serves to be a facilitating component of an integrated intervention package, can be implemented before the actual face-to-face intergenerational contact occurs. Such intervention may reduce intergroup anxiety and produce lower stress responses when young people have face-to-face contact with older people. Further, an intergenerational programme should explicitly involve an equal intergenerational relationship that can be achieved by the exchange of knowledge, skills, values, and resources to promote reciprocal support and respectful collaboration between older and younger people [46]. Kessler and Staudinger [47] suggested that an intergenerational programme should activate generativity in older people and identity formation in young people in order to form an equal intergenerational status. For instance, an intergenerational programme includes two collaborative tasks involving work on a life problem that assigns the status of 'expert' to older people and work on a fictitious media problem that assigns the status of 'expert' to young people. As a result, such an approach facilitates the generativity in older people and identity formation in younger people in a way that older and younger people are given opportunities to equally receive and contribute to topics that they value leading to the development of equal intergenerational status in face-to-face contact.

5.3 Integrational contact in the societal context

Intergenerational programmes can transfer intergenerational solidarity from an institutional to a societal setting. On the one hand, the social ties formed between older and younger people in intergenerational programmes can be part of their informal social networks in the community [48]. On the other hand, equally exchanged knowledge, skills, values, traditions, resources, insights, reciprocal support and respectful collaboration gained from intergenerational programmes can facilitate a process of capital exchange in society [44, 46].

To ensure intergenerational solidarity is sustained in the wider community, intergenerational integration is the key, meaning that integration of the child/youth- and elder-oriented initiatives that involve community-wide and multi-sector efforts are required at the societal level. Through efficient and flexible uses of physical facilities, and through social mobilization of resources to simultaneously cater for the physical and social needs of older and younger generations, intergenerational integration helps to create social capital in an inclusive community [44, 49]. There is a wide range of innovative, practical examples of intergenerational integration. Schools, for example, can serve as community centres that offer programmes and meal services for older people during after-school hours. Similarly, senior centres can provide after-school activities for youths [46, 49]. Additionally, a multi-generational community centre that combines services for older and younger people can create natural opportunities for bringing older and younger generations together to promote spontaneous intergenerational interactions and bridge diverse intergenerational experiences.

The new evidence about the significant role of vicarious intergenerational contact in promoting a positive attitude towards older people among younger people provides insights into building mass media influence to combat ageism. Mass media, including news, television, radio and social media is one of the most powerful sources of influence on many public health issues, effectively sending information to a vast audience. A growing of initiatives has been observed on the impact of the media on increasing people's awareness and knowledge, and on the media's ability to change attitudes, social norms, and behaviors regarding public health issues. In the recent decade, social media has largely replaced the traditional mass media such as television or newspapers in the younger generation. Therefore, vicarious intergenerational contact should be recognized and publicized through social media to reduce ageism. The content of vicarious intergenerational contact should explicitly feature an equal status in the interaction between older and younger people.

6. Strengths and limitations of the study

There are a few strengths of the presently reported study. It examined potential variables contributing to the quality of face-to-face intergenerational contact that has been largely neglected in previous researches. These variables include aspects of intergenerational engagement and intergenerational communication media. Further, the present study has addressed the limitations of previous research regarding sampling. Previous studies on intergenerational contact adopted a homogenous sample, with participants being recruited from one study site only. Also, the study focused on the general, younger population, recruiting young people from different backgrounds. Thus, it offers a more heterogeneous and representative sample as compared to those of previous studies.

The present study has identified some limitations. First, the sample was predominantly female (66.6%), which may limit the generalizability of the findings. Second, the study relied on participant reports rather than observation of actual prosocial behavior. As self-reported data are susceptible to recall bias and social desirability bias, there may be discrepancies between self-reported and actual prosocial behavior. Finally, some variables were measured by single items. A single-item measure failed to examine how young people defined, 'quality of face-to-face intergenerational contact.' It might also have simplified the measurement of extended intergenerational contact since the self-reported extended contact involves a two-step thinking process.

7. Conclusion

This chapter has described theoretical approaches to study different types of intergenerational contact in the context of older and younger generations. The author's recently completed study provided new evidence about the related processes, mechanisms and relationships involving the older individuals and young people. The study has contributed to filling the research gaps regarding intergenerational contact between older and younger people in Hong Kong. First, the study demonstrated that younger people maintaining frequent phone contact with older people and perceiving an equal intergenerational status during face-to-face contact with older people had higher quality of face-to-face intergenerational contact. Second, the study investigated the relative importance of direct and indirect intergenerational contact. Indirect intergenerational contact was related to a more positive attitude towards older people when younger people's opportunity for face-to-face intergenerational contact with older people was low. Although the quality of face-to-face intergenerational contact was associated with a significantly better attitude towards older people, vicarious intergenerational contact was the strongest contribution to a better attitude when younger people's level of face-to-face contact with older people was low. The new evidence has challenged the traditional assumptions embedded in current policies and practices to combat ageism. Based on the study findings, this chapter has provided political and practical suggestions highlighting the importance of synergistic efforts in that governments, schools, private and community groups, and the media all have the responsibility to address the pressing challenges of ageism reduction. Intergenerational integration is the key area in which policymakers and organizations of different sectors should take an intergenerational lens to develop innovative policies and practices at family, institutional and societal levels [4].

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Conflicts of interest

The author declares that there is no conflict of interest as far as the study is concerned.

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Social Aspects of Ageing - Selected Challenges, Analyses, and Solutions, focuses on the key challenges underlined by the United Nations during the Decade of Healthy Ageing (2021–2030). The authors introduce studies in areas crucial for older people, their families, and communities, such as combatting ageism, age-friendly environments, and care provision. The volume also examines issues linked to the global, national, regional, and local implementation of age-specific and intergenerational solutions, initiatives, and programs towards achieving the United Nations Sustainable Development Goals (SDGs). The collection contains chapters representing research and practical recommendations from various disciplines, such as critical studies, geographical gerontology, legal studies, public health, and sociology. This volume is an asset to academic and professional communities interested in theories of ageing as well as public services and ageing policies. In addition, the book aims to help students, practitioners, and people working in government, business, and nonprofit organizations.

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