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From exclusion to inclusion: addressing ageism in residential care outdoor environments through the lens of age-friendly design

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Abstract

Background Ageism in residential care facilities (RCFs) extends beyond individual prejudice to structural and environmental conditions that shape older adults' access to outdoor environments, mobility, autonomy, and social participation. Outdoor environments, including balconies, patios, gardens, and surrounding areas, support place attachment, identity, and well-being, yet access is often restricted. This study re-analysed walking interview data from older adults in RCFs to explore how structural ageism may be expressed through outdoor access and how age-friendly design across Zones 1–4 may support autonomy and reduce environmental barriers.

Methods A qualitative secondary analysis was conducted using walking interviews with 12 older adults from three Swedish RCFs with variation in building structure, geographic location, and outdoor accessibility. Data were re-analysed using inductive qualitative content analysis, guided by a structural ageism perspective and followed by deductive mapping onto the zone model.

Results Three interrelated categories were identified: (1) structural barriers, including thresholds, uneven surfaces, and limited access to outdoor environments, constraining mobility and autonomy; (2) dependence on care workers for safe access and navigation; and (3) supportive environmental conditions, including accessible balconies, patios, gardens, and surrounding environments, enabling independence, social interaction, and well-being. Outdoor access was also shaped by the interaction between the built environment and organisational practices related to safety, assistance, and care worker availability. Across Zones 1–4, age-friendly design aspects, including visual access to outdoors, accessible transitions, elevators, adaptable entrance areas, inclusive balconies, sensory-rich gardens, and even surfaces supported outdoor engagement and participation.

Conclusions Access to outdoor environments in RCFs may reflect structural ageism when environmental and organisational arrangements translate age-related differences in functional capacity into unequal opportunities for participation. Age-friendly environments therefore require attention to both physical design and the organisational

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practices through which outdoor access is enabled or restricted. The findings provide implications for policymakers, architects, landscape architects, and care providers seeking to promote inclusive RCF environments.

Keywords Ageism, Age-friendly environment, Older adult, Outdoor environment, Residential care facility

Background

Ageism, first defined by Robert N. Butler, refers to stereotypes, prejudices, and discrimination directed toward individuals or groups based on age [1] and is increasingly recognized as a societal issue requiring active mitigation [2]. While traditionally examined at the individual level, recent research has expanded the concept to include structural and material dimensions, where discrimination is embedded in social institutions and social structures, including the built environment. Structural ageism refers to age-related inequalities that are embedded in laws, policies, social norms, institutional practices, and other societal structures, and that may systematically disadvantage persons based on age [3–5]. Urban development and rapid urbanization can both reinforce and create new inequalities for older adults, highlighting the need for "anti-ageist urbanism" that promotes inclusive and age-friendly cities [6].

In RCFs for older adults, the built environment may become a context in which structural ageism is expressed, shaping who can access, use, and feel included in these spaces [7]. Planning and architectural norms typically assume young, healthy, and fully mobile persons as standard, resulting in environments—such as uneven pavements, inadequate seating, poor lighting, or traffic-dominated outdoor spaces—that unintentionally exclude older adults and limit their mobility, social participation, and autonomy [7, 8]. Environmental inaccessibility is not inherently ageist. Rather, it may constitute structural ageism when age-related assumptions about functional capacity become embedded in environmental or organisational arrangements and systematically restrict older adults' autonomy and opportunities for outdoor access and participation [9]. Such exclusion does not necessarily result from intentional discrimination or a lack of awareness among architects, planners, or care providers, but may arise from structural and economic conditions that constrain inclusive design. These conditions may intersect with ableism, when environments privilege normative assumptions of mobility and physical capacity [10], and with institutional care practices, when outdoor access depends on staffing, routines, or safety considerations [11]. However, these concepts are not synonymous. In the present study, structural ageism therefore refers specifically to how environmental and organisational conditions may translate age-related functional variation into systematic inequalities in autonomy and outdoor participation.

While architects and planners may possess a strong understanding of needs and wishes of older adults and care workers, financial frameworks do not always provide the necessary scope to realise these ambitions in practice. Recent studies indicate that the broader neighbourhood-built environment, such as the presence of parks, can also influence societal ageism, with greener and more resource-rich areas being associated with lower levels of ageism [12]. The Age-Friendly Cities and Communities framework provides a normative model for inclusive environmental planning, emphasizing accessibility, safety, opportunities for independence, and social participation [13].

Furthermore, the link between outdoor environments and older adults' identity is well-documented. Place attachment—the emotional bond between persons and their surroundings—contributes to a sense of home, continuity, and self-identity [14–16]. Outdoor environments at RCFs—such as balconies, patios, gardens, and the surroundings—can strengthen feelings of belonging and support "ageing in place" by enabling meaningful social interaction and personal routines [17–19].

Quality and access to outdoor or green environments is an important environmental aspect to consider for inclusive, age-friendly RCFs [20]. Lack of outdoor stays has been shown to negatively affect older adults, leading to feelings of disappointment and reduced well-being [21], and limited access to outdoor environments may further erode self-identity and social participation, highlighting the health risks associated with age-related environmental exclusion [22, 23].

Empirical studies using the principal model of four zones in contact with the outdoors—ranging from indoor views (Zone 1), entrances, balconies and patios (Zone 2), to gardens (Zone 3) and the surroundings (Zone 4) (Fig. 1) [24] highlight both the importance of these environments for older adults' daily life [25] and as arenas for person-centred care and rehabilitation [26]. However, national studies show considerable inconsistencies in access to Zones 2–4 at Swedish RCFs [27], despite documented positive health effects for both older adults and their care workers when spending time in these environments [28].

The present study builds on data generated in a previously published qualitative study by [25]. In that study, walking interviews were conducted with twelve older adults living in three different RCFs to explore their needs and wishes regarding outdoor environments and outdoor stays. The study employed qualitative content analysis,

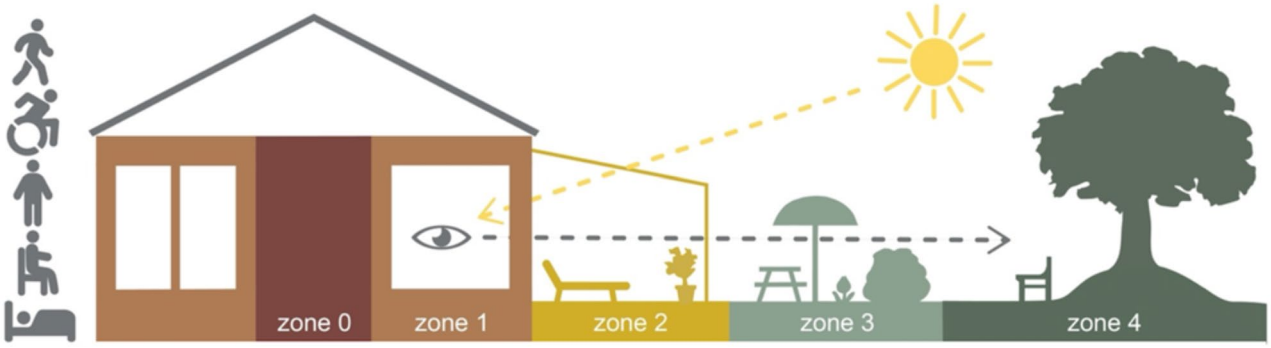


Fig. 1 The zone model including older adults with variation in body positions/functional capacities. Illustration: A. Bengtsson

and the findings highlighted that older adults perceived outdoor environments as an integral part of everyday life, functioning as a link between their former lives in their own homes and their current life in RCFs. They expressed a strong need to use outdoor environments daily, throughout the year and regardless of weather, for both social interaction and privacy, as well as for exercise, activities, and rest. Older adults who required personal support from care workers described that such assistance was not available to the extent they needed, which contributed to feelings of being confined within the RCFs.

Although the original study focused on older adults' needs and wishes related to outdoor environments and outdoor stays, several findings suggested broader questions concerning dependence, autonomy, and access. These observations prompted a re-analysis of the data through a structural ageism perspective. The walking interviews provide a particularly suitable dataset for this purpose, as they capture older adults' lived experiences in direct interaction with the physical environment. This enables an examination of how environmental barriers and facilitators may reflect structural ageism and how age-friendly design can address age-related inequalities embedded in the built environment in RCFs.

Despite growing evidence of the benefits of outdoor stays, little is known about how limited provision in RCFs may reflect structural ageism and shape older adults' everyday experiences. Therefore, the aim of this study is to re-analyse walking interview data from older adults in RCFs to explore how structural ageism may be expressed through outdoor access and how age-friendly design within Zones 1–4 may support autonomy and reduce environmental barriers.

Methods

Design

This study employed a qualitative secondary analysis of previously collected interview data. The data originate from a larger research project focusing on outdoor environments and outdoor stays in Swedish RCFs and have previously been reported focussing other aspects not addressed in this paper [25–28]. Secondary qualitative analysis enables researchers to revisit existing datasets and address aspects that were not the primary focus of the original investigation [29].

Data material

The original dataset consisted of walking interviews with older adults residing in three Swedish RCFs. Purposive sampling was used to achieve variation in functional capacity and health status among the participants. The older adults received written information about the study, and those interested in participating were proposed by RCF managers based on the inclusion criteria. Final inclusion was determined by the research team based on the health status and willingness to participate of the interviewee. A diagnosis of severe cognitive decline was an exclusion criterion.

Four older adults were recruited from each RCF, resulting in a total sample of 12 residents. Two participants were aged 71–80 years, four were aged 81–90 years, and six were aged 91 years or older. The participants varied in functional capacity, mobility, use of mobility aids, and dependence on care worker support, which may have influenced their opportunities for outdoor participation. Their individual preferences, previous experiences, habits, and ways of engaging with outdoor spaces may also have shaped these experiences. Some used walkers or manual or electric wheelchairs, while others moved independently. Five participants brought a relative or care worker to the interview for support.

The interviews were conducted to explore older adults' needs and wishes regarding outdoor environments and outdoor stays. The three RCFs differed in building type, number of floors, municipality size, and access to outdoor environments: one was a one-floor building near a forest, one a three-floor building in a town, and one a nine-floor building in a large city. These differences provided variation in the spatial contexts in which participants experienced outdoor access. Walking interviews were chosen because they facilitate exploration of person–environment interactions in situ and enable participants

to reflect on environmental experiences while moving through relevant settings [30, 31]. The interviews lasted 28–80 min and included visits to Zones 1–3; Zone 4 was discussed rather than visited due to participants' health and the varying distances involved. More detailed descriptions concerning participant recruitment, settings, data collection procedures, and the original analysis are available in [25].

Data analysis

The re-analysis comprised two complementary analytical stages addressing different aspects of the interview material. The first focused on the older adults' experiences of ageing and everyday life, while the second examined age-friendly design features related to outdoor access using the zone model [24]. As ageism was not an explicit focus of the original study, structural ageism was used as an analytical lens rather than as a phenomenon directly addressed by participants [4, 5].

For the first stage, qualitative content analysis was conducted on the data from the walking interviews [32, 33]. The interview transcripts were read repeatedly to gain an overall understanding of the material. The transcripts were initially coded by one researcher (the first author), and meaningful units relevant to the study aim were identified and coded. To strengthen the trustworthiness of the analysis and reduce the risk that the findings were shaped solely by one researcher's pre-understanding, emerging codes and interpretations were discussed within the research team. The last author was involved in the analysis of the original study, while the first and second authors conducted all interviews. Their different involvement with the material provided complementary perspectives and supported critical reflection on the emerging interpretations.

The initial codes were then revisited through the lens of structural ageism. This interpretive stage focused on how descriptions of environmental barriers, dependence, autonomy, and participation could reflect the interaction between age-related variation in functional capacity and environmental or organisational and structural conditions. Particular attention was given to contrasts within and across RCFs, including situations in which similar functional capacities were associated with different opportunities for outdoor access. The analysis considered how specific environmental features and organisational arrangements could either increase dependence on assistance or enable self-directed participation. This process was used to examine how environmental and organisational conditions could be understood as expressions of structural ageism or, conversely, as examples of age-friendly inclusion. The results are presented with illustrative quotations. Prior to translation into English, quotations were abridged and linguistically refined to improve clarity and readability.

For the second stage, the interview material was analysed deductively using the zone model to identify age-friendly design features within Zones 1–4 that may support outdoor stays. The two analytical stages addressed different aspects of the interview material and were conducted independently rather than sequentially. Together, they enabled a theoretically informed re-analysis of the existing dataset, generating new insights beyond those reported in the original publication.

Ethical considerations

Participation was voluntary. The study was conducted in accordance with the principles of the Declaration of Helsinki [34]. Ethical approval was granted by the Swedish Ethical Review Authority (diary number: 2020–06643). All participants provided informed consent.

Use of large language models

ChatGPT was used for language refinement. All analytical processes, interpretations, and final content remain the responsibility of the authors.

Results

The findings are presented in two parts. The first part presents older adults' experiences of outdoor environments, as identified directly from the interview data. The second part builds on these empirical findings by interpreting and synthesizing them within the zone model into a practical, design-oriented synthesis for age-friendly outdoor environments in RCFs.

Outdoor environmental experiences

The first part of the findings show that experiences of outdoor environments varied with mobility, functional capacity, use of mobility aids, and dependence on care worker support. Environmental barriers such as thresholds, slopes, doors, and uneven surfaces were particularly consequential for older adults using walkers or wheelchairs, while those who moved independently described greater opportunities for self-directed outdoor access. At the same time, access was shaped not only by functional capacity but also by environmental and organisational conditions. The findings are presented in three categories: Structural Barriers in the Physical Environment, Need for Care Worker Support and Dependence, and Positive Support and Enabled Independence. Together, these categories illustrate how environmental and organisational arrangements could either constrain or enable autonomy and outdoor participation, and how age-related differences in functional capacity could translate into unequal opportunities for outdoor access.

Structural barriers in the physical environment

This category encompasses three key types of barriers: limited access to outdoor environments, sloped terrain and uneven surfaces, and thresholds and doors. Together, these aspects illustrate how the physical environment can restrict older adults' mobility, independence, and engagement with outdoor environments. The barriers became particularly consequential when they made independent access dependent on assistance or additional physical effort.

Limited access to outdoor environments due to the physical environment Many older adults experienced that the physical environment restricted their ability to spend time outdoors. For example, access to main entrances, balconies, and patios was often limited by locked doors, requiring care workers' assistance to open them. They also expressed the absence of a private balcony or patio. Aesthetic aspects were highlighted as well, such as the lack of attractive surroundings or access to water, which negatively affected their overall experience of the environment. For example, one older adult noted, "Right now the care workers have set up the door (which is usually locked) so we can get in without having to ring." (Older adult 1), highlighting how changes in the physical environment can improve access. The same older adult expressed a need for private outdoor environment: "It would be nice to have my own balcony."(Older adult 1). This example illustrates how access was shaped partly by how the environment was organised rather than by functional capacity alone. Differences in building layout also affected access: the single-storey RCF provided a more direct connection between indoor and outdoor environments, whereas access from upper floors in multi-storey RCFs involved additional transitions.

Sloped terrain and uneven surfaces Older adults who used walkers or wheelchairs described difficulties navigating uneven surfaces or sloped terrain, whereas flat surfaces facilitated movement. Lawns, gravel, uphill and narrow paths, and curbs could require additional effort or care worker support. These differences illustrate that the same outdoor environment did not provide equivalent opportunities for participation across participants. From a structural ageism perspective, the issue was therefore not simply that some participants had reduced mobility, but that environmental conditions could translate differences in functional capacity into unequal opportunities for independent outdoor access. When surfaces required additional physical effort or assistance, participation became more dependent on the availability of care workers. Conversely, even and accessible surfaces reduced the extent to which functional limitations determined whether outdoor participation was possible.

Thresholds and doors High thresholds and doors that were difficult to open restricted older adults using walkers or wheelchairs and created a reliance on care workers. Many older adults expressed frustration at not being able to get over thresholds on their own, affecting their sense of independence. For some older adults, this meant they always had to call for assistance or wait for help. As one older adult explained, "I can't get over the thresholds, they are too high. Even with my best effort, I just can't make it." (Older adult 4). Here, a specific design feature appeared to contribute to dependence on care worker support, illustrating how environmental barriers may constrain opportunities for independent access. Thus, relatively small differences in transitions between indoor and outdoor environments could have substantial consequences for independence, particularly for older adults using mobility aids.

Need for care worker support and dependence

This category highlights two key types of dependence: dependence on care workers for mobility and dependence for safety and security. When environmental accessibility was insufficient, care workers became a necessary link between older adults and the outdoor environment.

Dependence on care workers for mobility Several older adults were entirely dependent on personal support from care workers to move around outdoor environments or between indoor and outdoor environments. The extent of support varied, from occasional assistance to more extensive support for older adults using wheelchairs. Older adults also differed in whether they could go outdoors independently, had to inform care workers beforehand, or depended on staff being available to accompany them. As one participant stated, "I'm not allowed to go out alone; I have to tell someone where I'm going." (Older adult 9). The need for support also differed according to the spatial organisation of the RCFs. In multi-storey settings, reaching outdoor environments could involve moving through corridors, using elevators, and passing through several transitions, whereas the single-storey setting provided more direct access to outdoor environments.

Dependence for safety and security Older adults' need for care workers is also related to safety and security. Older adults described situations where assistance was required to avoid risks, such as when backing up with a wheelchair or passing over thresholds. This highlights that care workers not only facilitate physical movement but also provide a sense of security in daily life. One participant explained, "I'm completely stuck in my wheelchair (when passing between indoor and outdoor areas because of a loose threshold)."(Older adult 10). This illustrates how environmental barriers and safety considerations could

become mutually reinforcing: an inaccessible environment increased the need for assistance, while reliance on assistance further conditioned access to the outdoors.

Positive support and enabled independence

This category encompasses two key types of positive support: aspects of the physical environment that facilitate activity, and positive aspects of the surrounding environment. Together, they highlight how environmental design can improve independence and support participation in daily activities. These contrasting experiences indicate that dependence was not solely determined by ageing or reduced mobility but could be influenced by environmental conditions.

Physical environment that facilitates activity For some older adults, the environment supported independence and activity. Access to elevators, balconies, patios, gardens or nearby parks made it possible to move around independently and enjoy the outdoors. Even small features, such as handrails or sunny areas, were perceived as positive and contributed to opportunities for outdoor activity. As one older adult described, "I can go out on my own, and there's a lovely park. I also have a patio where I can spend time outside." (Older adult 5) Another noted, "And, it's fortunate that there is an elevator." (Older adult 6). These examples illustrate how accessible features could reduce practical barriers and support self-directed outdoor stays.

Positive aspects of the surrounding environment When the physical environment is well-adapted—for example, with flat surfaces, proximity to squares, or access to public transport—moving around the surroundings was easier. This promoted both physical freedom and an increased sense of participation.

Design-oriented synthesis of the interview findings

The second part of the structural ageism re-analysis identified environmental and organisational conditions that constrained or enabled outdoor participation. These findings were mapped onto the four zones to examine how barriers and enabling conditions related to specific spatial contexts and design features. The synthesis translated the empirical and interpretive findings into design considerations for age-friendly outdoor environments.

In Zone 1, visual connections to the outdoors emerged as an important aspect of the indoor–outdoor relationship. Views of ongoing outdoor activities provided a sense of connection with outdoor life, while views of nature were associated with reduced feelings of loneliness. Large windows provided daylight, while openable and well maintained windows and doors created opportunities for spontaneous outdoor stays. In multifloor buildings, elevators enabled access to ground-level outdoor environments. Automatic door openers facilitated the transition between indoor and outdoor environments, particularly for older adults using mobility aids.

In Zone 2, the findings highlighted environmental features related to choice, comfort, and social interaction. Entrance areas that provided access to different outdoor destinations, such as the surrounding area or internal gardens, enabled choice regarding where to spend time outdoors. Seating in entrance rooms provided opportunities to pause during transitions. Access to private, shared, or glazed balconies, including balconies with different orientations and arrangements accommodating both smokers and non-smokers, increased opportunities for use. Secure balcony railings, even floor surfaces, and sufficiently spacious areas enabled different activities, including group activities, meals, and social interaction.

In Zone 3, the findings indicated that accessibility and attractiveness were closely connected. Gardens with diverse vegetation, including flower beds, bushes, trees, berries, and water features, provided sensory experiences and opportunities for restorative experiences. Furniture that enabled activities such as sitting in the sun and socializing supported different ways of spending time outdoors. Hard, even surfaces, such as asphalt, facilitated mobility, particularly for older adults using walkers or wheelchairs. Partial enclosure by surrounding buildings created a sense of refuge and an oasis.

In Zone 4, the findings highlighted the importance of the relationship between the RCF and its surrounding environment. Interesting aspects to observe, access to community services, public squares, cafés, restaurants, parks, and opportunities to meet relatives expanded opportunities for meaningful participation outside the RCF. Proximity to natural environments, including forests, provided opportunities for restorative experiences.

Discussion

By re-analysing previously collected walking interview data through a structural ageism lens, the present study illustrates how qualitative datasets can yield additional insights when reinterpreted beyond their original analytical framing. The discussion is structured around the two analytical parts of the study. The first concerns older adults' experiences of outdoor environments and how environmental and organisational conditions shaped opportunities for outdoor participation. The second provides a zone-based synthesis that translates these experiences into design-oriented considerations.

Environmental constraints were associated with reduced opportunities for outdoor stays, affecting mobility, participation, and the conditions under which autonomy could be exercised. Locked doors, thresholds, uneven surfaces, and sloped terrain created situations

in which older adults required additional effort or care worker support to access outdoor environments. Conversely, elevators, accessible surfaces, patios, gardens, and proximity to outdoor destinations were associated with greater opportunities for self-directed outdoor stays. Access was also shaped by organisational arrangements: the need to inform care workers, wait for support, or depend on care worker availability meant that physical accessibility did not necessarily translate into actual access.

These findings suggest that environmental barriers cannot be understood independently of the care practices and institutional conditions in which they operate. Locked doors and thresholds may function not only as physical barriers but also as expressions of policies and routines governing safety, assistance, and mobility. This highlights a potential tension between outdoor person-centred care and rehabilitation as a principle [26] and the practical conditions that shape opportunities to move around and access outdoor environments. Even when support is intended to promote safety, routines that require older adults to ask for assistance or wait for care workers may limit their ability to choose when to go outdoors and how long to stay outside. Thus, improving physical accessibility alone may not improve autonomy if organisational practices continue to restrict access to outdoor environments. Spatial exclusion may therefore arise through the interaction between the built environment and organisational practices, rather than through physical design alone.

This interplay between physical environments, organisational arrangements, and older adults' everyday agency is consistent with a socio-gerontechnological perspective [35]. In this context, spatial ageism may emerge when built environments insufficiently accommodate age-related variation in functional capacity, thereby constraining participation and opportunities for self-determination [7, 8]. However, environmental barriers and practices are not inherently ageist. Structural ageism may also emerge when environmental and organisational arrangements systematically translate age-related differences in functional capacity into unequal opportunities for participation.

The findings also suggest that environmental affordances may help mitigate such constraints. Supportive design aspects enabled independent action, social interaction, and place attachment, thereby reinforcing identity and well-being [15, 16]. Importantly, autonomy should not be equated with physical independence. Participants could require assistance while still retaining choice and agency in relation to outdoor participation. This highlights the importance of relational autonomy, in which self-determination is exercised through relationships of support rather than in the absence of assistance. Design features may therefore support autonomy, but their effects depend on how access is organised through everyday practices. These findings are consistent with the principles of anti-ageist urbanism [6] and Age-Friendly Cities and Communities frameworks, which emphasise participation, safety, and accessibility as interdependent dimensions of spatial enablement [13].

Accessibility concerns not only whether outdoor environments are physically accessible, but who can use them, under what conditions, and with what degree of independence. Age-friendly environments therefore require attention to how design, organisational practices, and care worker support shape opportunities for choice and participation, particularly when environments and resources are limited.

The second analytical part adds a design-oriented perspective by organising the environmental conditions identified in the interview material across the four zones of the zone model [24]. Rather than representing separate empirical findings, this synthesis translates participants' experiences into design considerations across different spatial levels. Beyond confirming the importance of age-friendly design, the study makes a methodological and conceptual contribution by illustrating how spatial ageism can be analytically unpacked through a multi-scalar environmental lens. The zone model does not merely categorise types of outdoor environments; it functions as an analytical device for examining how accessibility is produced across spatial levels. Across Zones 1–4, barriers at different spatial levels could interact, with relatively small environmental features becoming consequential when they increased dependence on assistance or restricted opportunities for participation.

Taken together, these findings indicate that outdoor participation emerged from the interaction between functional capacity, environmental accessibility, and the organisation of personal support. Age-friendly environments should therefore support not only mobility but also choice, agency, and self-determination when assistance is required. Attention to all four zones is essential for creating environments that support meaningful outdoor stays [25], particularly given evidence that outdoor access constitutes an important dimension of everyday well-being in later life [36].

The findings have implications for policymakers, architects, landscape architects, and care providers seeking to counteract spatial ageism and develop inclusive RCF environments. Such efforts need to address both the physical environment and the organisational practices through which access, personal support, safety, and mobility are regulated.

Methodological considerations

This study employed a qualitative secondary analysis of interview data originally collected within a larger research project on older adults' needs and wishes regarding outdoor environments and outdoor stays in Swedish RCFs [25–28]. The original dataset consisted of walking interviews, designed to capture lived experiences of outdoor environments in situ [30, 31]. The walking format also enabled researchers to observe environmental conditions in situ, providing contextual information beyond participants' verbal accounts. However, no separate systematic analysis of observational data was conducted in the present re-analysis. In the present study, these interviews were re-analysed through a structural ageism perspective to examine aspects that were not the focus of the original study. The analysis combined qualitative content analysis [32, 33] with a lens informed by ageism [4, 5] and the zone model [24], allowing both inductive coding and deductive organisation of findings across Zones 1–4. A limitation of secondary analysis is that the data were not originally collected with ageism as the primary focus. Participants were therefore not asked to interpret their experiences in terms of ageism or structural discrimination, and the re-analysis cannot establish whether they themselves understood these experiences as age-related. Rather, structural ageism was used as an analytical lens to examine how environmental and organisational arrangements could shape opportunities for outdoor participation in relation to age-related variation in functional capacity. The findings should therefore be understood as a theoretical interpretation of the existing material rather than as evidence of participants' own understandings of ageism.

The participants varied in age and functional capacity, which may have influenced their experiences of accessibility, dependence, and outdoor participation. This heterogeneity was considered in the analysis; however, given the small sample size, subgroup differences could not be explored. The findings are therefore contextually grounded and are not intended to be statistically generalizable or to demonstrate that the identified experiences represent structural ageism across RCFs more broadly. Nevertheless, the richness of the walking interview material provided sufficient contextual detail to support the re-analysis. The in-situ format thus strengthened the contextual richness of the dataset, although researchers' observations were not analysed as a separate data source. In summary, this methodological approach illustrates how secondary analysis of walking interview data can provide insights into how outdoor environments in RCFs may reinforce or mitigate conditions associated with structural ageism, while offering a basis for informing age-friendly environmental design.

Conclusions

Access to outdoor environments in RCFs is a matter of structural ageism. Inclusive and age-friendly considerations when designing and re-designing can transform these environments from sites of exclusion into environments of autonomy, engagement, and meaningful participation. Integrating the voices and lived experiences of older adults living in RCFs is a critical, yet often overlooked, component of age-friendly design. These findings provide useful insights for policymakers, architects, landscape architects, and care providers in considering how to address structurally grounded spatial ageism and promote age-friendly design of physical environments.

Abbreviations

RCF Residential Care Facility

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Author contributions

ML wrote the main manuscript text and AB, GL, and HW contributed to manuscript revision. All authors reviewed the manuscript.

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Data availability

No data are available for sharing.

Declarations

Ethics approval and consent to participate

This study was approved by the Swedish Ethical Review Authority, approval number 2020–06643. All participants provided informed consent to participate in the study in accordance with the principles of the Declaration of Helsinki [34].

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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