Naturally Occurring Retirement Communities

In order to better facilitate ageing in place, naturally occurring retirement communities (NORCs), a concept that originated in the United States of America in the 1980s, have emerged as a model of collaborative care that can support older people, allowing them to remain in their homes as long as possible and avoid a shift to more restrictive environments.

1. Introduction

The world's population is ageing. According to the United Nations [1], at the global level, approximately 9% of people were aged 65 or over in 2019, and the proportion is expected to reach nearly 12% in 2030, 16% in 2050, and 23% by 2100. Especially in developed counties, the ageing populations are an established trend. For example, in 2019, 18% of the population in Europe and North America was 65 and older, followed by 16% in Australia and New Zealand. According to current projections, one out of four Europeans and North Americans could be 65 or older by 2050. As one of the most significant social changes of the twenty-first century, the ageing of the population will affect nearly every sector of society, including the labour and financial markets, housing, transportation, social security, as well as family structures and intergenerational relationships [2].

Along with the established trend of population ageing, most older people prefer to age in place, which means staying at home in the community. In particular, with the baby boomer cohort having reached 60 years of age in 2006, many of those who were born from the mid-940s to the mid-1960s are now fuelling a growing demand for ageing in place [3] and the corresponding support and care required. Unfortunately, ageing in place is often challenging for older adults because of a variety of common barriers, including diminished physical abilities, the rising costs of long term care, the increasing risk of social isolation, and a lack of preparedness in the community environment [4]. In particular, the effects of social isolation and loneliness on the health and wellbeing of older people have been demonstrated [5].

In order to better facilitate ageing in place, naturally occurring retirement communities (NORCs), a concept that originated in the United States of America in the 1980s, have emerged as a model of collaborative care that can support older people, allowing them to remain in their homes as long as possible and avoid a shift to more restrictive environments [6]. A NORC is a neighbourhood or building complex that was not originally designed for older adults but eventually came to accommodate a large percentage of older residents. While not initially created to help older adults age in a community, NORCs have evolved naturally and provide a way for older adults to live independently [7]. Furthermore, NORC supportive service programs (NORC-SSPs) have been implemented and developed for more than 30 years; they have improved the physical and psychological health of the older participants, increased the efficiency of resource allocation from service providers, enhanced funding support from government and related organisations, and promoted the establishment of more beneficial ageing policies by policy makers [8][9].

Despite the great potential of NORCs to facilitate ageing in place, they have not attracted much research attention. On the one hand, although NORCs are already a factual phenomenon globally, there is limited research on NORCs, with most of the existing studies conducted in the U.S., where NORCs originated. On the other hand, the majority of prior studies concentrated on one specific area of interest, such as the social network of older adults, the relationship between service providers and older residents, and older individuals' participation in program activities. What is lacking is a comprehensive review of previous NORC studies in order to form a holistic picture of how NORCs support successful ageing in place.

2. Ageing in Place

Ageing in place is defined as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level" [10]. As independent living may be a better option for the older population and

for society compared to assisted living, such as nursing homes [11], the aim of many ageing-in-place programs is to enable older persons to remain independent in communities where social networks of family and friends have been established.

It has been demonstrated that ageing in place leads to many positive outcomes. The social sector offers opportunities for preventing premature institutionalisation, delaying the demand for costly health services, creating efficiencies of scale in service delivery, and increasing possibilities for community involvement, volunteerism, and leadership [12]. At the individual level, retirement in place can improve self-efficacy, provide social support within the community, and allow you to maintain a sense of familiarity and belonging [13]. Furthermore, cognitive functions, daily life activities, and depression have also been reported as improved [14].

However, as individuals' lives change, so do the environment and policies that may affect their residence over time [15]. Lau and Scandrett [16] identified three types of barriers to ageing in place: individual, community, and social. The barriers at the individual level call for preventing diseases that may cause disabilities (e.g., limitations on daily living activities) [17], maintaining social ties (e.g., family and neighbourhood) [18], and modifying the home/living environment in a timely manner [19]. At the community level, services that cater to the social and health needs of vulnerable older people are essential [20]. Finally, at the societal level, providing adequate resources to each community's older residents requires public assistance [21].

Similarly, Cutchin [22] identifies managing instability or irregular changes in the individual's circumstances and needs as a major obstacle to successful ageing in place. Individuals, local communities, and society must make concerted efforts to enable those with disabilities to perform necessary home renovations and live in their current home [16]. As a matter of fact, a 2011 study found that only 18% of households had lived in the same house for 20 years or more, despite their strong desire to do so [23]. Taking this into account, communities such as NORCs can leverage coordinated efforts among their members to facilitate ageing in place, and this deserves further study [24].

3. Definition of Naturally Occurring Retirement Community (NORC)

A naturally occurring retirement community (NORC) describes a community that was not designed for the needs of older people but has a significant proportion of senior residents due to natural migration patterns [25]. The attractions of NORCs include both neighbourhood services that support older people's needs and capabilities as well as safety and close proximity to age peers. Because older people are concentrated in geographically close areas, it is possible to serve them effectively and facilitate formal and informal cooperation among residents, communities, service providers, and the public sector. Therefore, in order to facilitate the physical and psychological wellbeing of older people, the NORC is viewed as a critical model for ageing [26].

However, very few studies have tried to clearly define the concept of a NORC. Usually, studies that define NORCs agree on the composition, but the details differ. It is generally believed that a NORC is a geographical area in which a large proportion of older residents live in a specific area or in housing that was not designed or planned for the older people at the beginning. However, what constitutes a "large proportion" of the population and at what age a person should be included in that proportion are not agreed upon.

Hunt and Gunter-Hunt [25] first defined the term "Naturally Occurring Retirement Community" as "a housing development that is not planned or designed for older people, but which over time comes to house largely older people". In addition, they mentioned that NORCs may vary considerably in scale. For example, NORCs can range from a local neighbourhood with a disproportionate number of older residents to an apartment building or complex. According to Hunt and Ross [27], a NORC is a type of housing development that does not plan or design for older people but has a significant proportion (over 50%) of residents at least 60 years old. Since apartments were the most common form of alternative housing for older people in the U.S. at the time, the authors focused on apartment NORCs, despite NORCs having many different forms.

Having at least 40% of household heads who are 65 or older in a census block group (for a total of at least 200 households) was defined as a NORC by Lanspery and Callahan [28]. Sixty-five was chosen as the demarcation line instead of 60, based on Hunter's recommendation, because it provides an estimate of NORCs that is more conservative, as 65 is the Medicare eligibility age. Lanspery and Callahan [28] set a minimum number, i.e., 200, rather than household proportions. They were concerned with the opportunities that NORCs provide for supportive services. The 200-household threshold represents the mid-range of the scale generally considered sufficient to support a full-time services coordinator in senior housing.

In New York, a NORC is defined as a region where at least 50% of households have a senior citizen or a housing complex with more than 2500 elderly residents [29]. The Atlanta consortium of local providers targeted NORCs as areas where 25% or more of the population is over 65 years of age in order to provide comprehensive service delivery to the population [13]. The consortium further determined that a census area with a higher proportion of people aged 75 and older living alone was a high-risk area. Lyons and Magai [30] defined a qualified NORC as having 65% or more residents aged 50 plus but did not explain their choice of housing community.

The U.S. Department of Health and Human Services issued a report that tried to identify the cut-off boundary on the age and number of older people in a NORC. They interviewed experts on ageing issues, and some people supported the use of 60 years old as the minimum for those who are considered seniors in order to be consistent with the Older Americans Act that defines the term "older individual" as an individual who is 60 years of age or older. However, others believed that the boundary should be determined by degree of disability rather than a specific age. The definition of "older" refers to people aged from 50 to 65 years old, while "significant proportion" is defined as 40% to 65% [31]. One survey by the American Association of Retired Persons in 2005 found that 36% of respondents (55 and older) lived in NORCs [32].

In 2006, the U.S. federal government specifically presented the definition of a NORC under Title IV of the Older Americans Act 1965 as "a community with a concentrated population of older individuals, which may include a residential building, a housing complex, an area (including a rural area) of single-family residences, or a neighbourhood composed of age-integrated housing where (i) 40% of the heads of households are older individuals; or (ii) a critical mass of older individuals exists, based on local factors that, taken in total, allow an organisation to achieve efficiencies in the provision of health and social services to older individuals living in the community, and that is not an institutional care or assisted living setting." [33].

With the development of geographic information system (GIS) and big data technology, Rivera-Hernandez and Yamashita [21] identified NORCs in the U.S. by GIS and employed the definition of 40% or more homeowners and renters aged 65 years and older. Due to the fact that older residents may need assistance or care regardless of whether they own a home or not, the numerator was homeowners or renters. Based on the availability of ABS census data and population scale in Australia, E and Xia [34] introduced an Australian version of the NORC that is defined as a community with 40% or more household members aged 65 years and older. The study used the concept of household members who usually reside in private dwellings as the basic unit to define NORCs, which excludes holiday visitors and persons who have moved to nursing homes.

Table 1 shows a variety of definitions of a NORC by different authors or organisations. It is important to distinguish between the two benchmarks, i.e., the proportion and number of older people for defining a NORC, because the proportion of older people helps to describe a community's character, while the number of older people has a greater impact on the implementation of supportive service programs. In densely populated urban areas, the proportion of the population meeting the selected age criteria may fall below the selected threshold and, therefore, not meet the NORC definition. In practice, however, the number of older adults may exceed the threshold where economies of scale could be realised. The concept of NORC supportive service programs (NORC-SSP, which will be discussed in detail in the following section) is frequently mentioned by some authors and experts when defining NORCs and sometimes used interchangeably. Separating the two concepts, however, has its benefits. NORCs are communities of people, some of whom may require services; NORC supportive service programs may be a valuable addition to such communities. There may be a large percentage of older adults in NORC communities who do not require supportive services. There may also be residents in other non-NORC communities who need supportive services.

Table 1. Definitions of Naturally Occurring Retirement Community.

Definition	Researchers	Year
A housing development that is not planned or designed for older people, but which over time comes to house largely older people	Hunt and Gunter-Hunt [25]	1986
Housing developments that are not planned or designed for older people but that attract a preponderance (over 50%) of residents at least 60 years of age	Hunt and Ross [27]	1990
In a census block group, at least 40% of the heads of households (for a total of at least 200 households) are aged 65 and over	Lanspery and Callahan [28]	1994
At least 50% of households have a senior citizen, or a housing complex with more than 2500 elderly residents	Yalowitz and Bassuk [29]	1998

Definition	Researchers	Year
The census block groups in which 25% of the population is over the age of 65. These communities can be considered Naturally Occurring Retirement Communities (NORCs) and considered for targeted comprehensive service delivery	Lawler [13]	2001
They qualified as NORCs because the building management provided limited to no formal social support and more than 65% of the residents were 50 years of age or older	Lyons and Magai [30]	2001
The age at which a person is considered "older" ranges from 50 to 65 years, and the definition of a "significant proportion" living in the community ranges from 40% to 65%	Ormond and Black [31]	2004
36% of respondents 55 years and older could be viewed as living in NORCs	Kochera and Straight [32]	2005
A residential building, a housing complex, an area (including a rural area) of single-family residences, or a neighbourhood composed of age-integrated housing where 40% of the heads of households are older individuals	Senate and House of Representatives of the United States of America [33]	2006
40% or more homeowners and renters aged 65 years and older	Rivera-Hernandez and Yamashita [21]	2015
A community with 40% or more members of households aged 65 years and older	E and Xia [34]	2021

4. NORC Supportive Service Programs (NORC—SSP)

In the U.S., NORC programs, also known as NORC supportive service programs (NORC-SSPs), are designed to provide customised services to residents living in NORCs based on their specific needs. Residents, housing/neighbourhood associations, other community stakeholders, and health and social service providers collaborate on community-based programs. NORC programs may provide a variety of services, but all are aimed at providing older residents with optimal wellbeing and health so that they can take care of their independent living comfortably at home as they age.

Funding for NORC-SSPs is generally a mix of public and private contributions, which can include donations from charities, relevant government departments, private companies, community stakeholders, and residents and partners. A number of services are available through NORC-SSPs, including case management, transportation assistance, recreation and educational programs, and volunteer opportunities for older adults. A key feature of the NORC-SSP model is its ability to flexibly identify and deliver the types of services needed by older people ageing in place. The main factors that influence the supportive services programs are planning and design, staffing, marketing, program governance, program delivery and services, financing operations, lead agency, volunteer and intern activities, partnerships with other agencies, NORC management, NORC dynamics, and links to other resources [35].

The first NORC-SSP was established in New York City in 1986 at Penn South Houses, a ten-building cooperative housing development supported by the United Hospital Fund based on funding from United Jewish Appeal (UJA). More than 25 states across the country have replicated the NORC program model since then at local, state, and national levels.

Over 400,000 apartments in New York City, with most of the residents experiencing low and moderate income, were identified as potential NORCs in a 1991 study of housing occupancy rates [36]. In 1995, the state of New York passed legislation promoting the establishment of NORC-SSPs in low- and moderate-income housing developments in which at least half of the heads of household were aged 60 plus, or at least 2500 residents were senior citizens. In 1999, New York City implemented the program but changed eligibility requirements to include developments with more than 250 older adults in which 45% of households have a head of household 60 years old or older or housing developments with more than 500 older adults. During the 2006 legislative session, the state legislature extended the program so that it would cover a NORC-SSP in low-rise neighbourhoods with fewer than 2000 older residents who do not share ownership [37]. By 2010, there were 54 NORC-SSPs running in New York State in housing developments and neighbourhoods with low and moderate income levels [38]. For years up to 2021, information is available for 33 NORC-SSPs in New York funded by the Department For The Aging (DFTA) [39].

Maclaren and Landsberg [35] discussed that NORC-SSPs in New York State have four objectives that make up their plan, as follows. First, provide effective and integrated community-based services that meet consumers' diverse needs. Second, improve preventive care and services that enable older people to live as independently as possible at home, thereby avoiding unnecessary long-term institutionalisation. Third, encourage consumers and their caretakers to take an

active role in the key decisions that affect their care. Finally, deliver service quality and facilitate care by leveraging the unique characteristics of NORCs, such as the number and density of older people.

Other than in New York, NORCs are not well documented in other U.S. states or other countries. However, the U.S. government funded NORC-SSPs in 26 states between 2002 and 2010. From 2002 to 2008, The Jewish Federations of North America (JFNA) helped Jewish federations and their beneficiary agencies to secure federal demonstration grants in 45 communities with NORC-SSPs. In some parts of Canada, the government developed NORC-SSPs based on the experience of the U.S., but they call the program Oasis.

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