

NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

COMMUNITY-BASED MODEL FOR IMPROVING WELL-BEING AND CARE OF OLDER PERSONS IN NAMIBIA

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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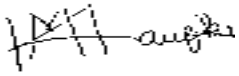
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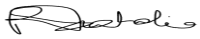
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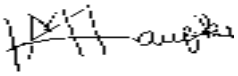
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Above all, I give thanks to Jehovah God for the grace to the successful completion of this work; to Him all the adoration and glory.

DEDICATION

This research work is dedicated to God Almighty, the Giver of health, wisdom, knowledge, and understanding. It is also lovingly dedicated to my late mother, Kristophina Natangwe Haiduwa, whose unwavering commitment to my education continues to inspire me. May her gentle soul rest in perfect peace. The last dedication will be to my grandmother, Ottilie Sheuyavamwe Haiduwa, who is currently 95 years old, for a lifetime of care for us and prayers. May God continue to bless her with strength and good health.

ABSTRACT

Introduction/background: Population ageing is accelerating globally and in Namibia, where formal family support structures are increasingly under strain. Strengthened community-based care services (CBCS) are, therefore, essential for sustaining the health and social well-being of older persons. However, in this regard, empirical evidence from low- and middle-income countries (LMICs) remains fragmented and limited, hindering policy and service development. This study addressed these gaps through a programme of work culminating in the Namibia Community-Based Model for Improving the Well-Being and Care of Older Persons, which incorporates individual, social, health-system and structural determinants. This study was achieved through five objectives: it mapped existing CBCS approaches, examined older persons' awareness and attitudes towards old-age homes; assessed the readiness of old age homes; profiled the prevailing health status and social living conditions of Namibian older persons aged 60 years and above; and developed the model for improving the well-being and care of Namibian older persons.

Methodology: A multi-method approach was utilised. For Objective 1, a scoping review was conducted in accordance with the 2022 Joanna Briggs Institute Manual for Evidence Synthesis. The review employed Rayyan for screening, de-duplication, and reporting, adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines. For Objective 2, a mixed-methods, cross-sectional survey was conducted among community and old age home residents (≥60 years) across three regions. Quantitative analyses were performed using the Statistical Package for the Social Sciences, Version 30 (SPSS v30), ($\alpha = 0.05$), whereas qualitative interviews with key informants were manually analysed thematically. Objective 3 entailed a structured checklist assessment of six old-age homes in the Khomas and Hardap regions (four private and two public); none were found in the Ohangwena region. The facilities were evaluated to compare the bed capacity, staffing, infrastructure, emergency readiness, and accessibility. For Objective 4, the results were informed by the cross-sectional survey administered to 304 older persons in communities and old-age homes. Correlation analyses and binary logistic regression were employed to examine the relationships between health outcomes and sociodemographic, regional, and service utilisation variables ($\alpha = 0.05$). Insights from all four objectives informed the fifth objective, which was to develop a community-based model for Namibia to improve the well-being and care of older persons.

Results: Objective 1 (scoping review). Twenty-two articles met the inclusion criteria. LMICs face systemic constraints in establishing comprehensive and sustainable frameworks for older-age support, including inadequate pensions, a scarcity of trained geriatric providers, and reliance on informal caregiving, all amidst the context of under-resourced primary care and residential services. Households with older members require additional income to sustain living standards comparable to those of households without older persons. The review emphasises the importance of CBCS, aligning with aspirations for ageing in place.

Objective 2 (awareness and attitudes). Preferences indicated a marginal overall difference between remaining in the community and moving to old-age homes, with statistically significant associations between living arrangements, educational attainment, and the number of dependents to preferences for living places ($P < 0.001$). Qualitative data highlighted pension misuse, transportation barriers to

healthcare, and caregiver burdens. The study notably integrates quantitative and qualitative perspectives in Namibia, highlighting the viewpoints of caregivers and community leaders and demonstrating the need for targeted awareness, caregiver training, and the expansion of affordable, well-equipped old age homes for older persons.

Objective 3 (old age homes capacity and preparedness). The correlation between the bed capacity and occupancy displayed a near-perfect linear relationship ($R^2 \approx 0.98$; $\hat{y} = -4.29 + 1.06x$), indicating operation at or near full capacity, with some residences experiencing over-capacity. Private facilities consistently outperformed public ones in terms of staff, age-friendly amenities, service infrastructure, and emergency preparedness, although they were more expensive. The improvement requirements ranged significantly: public old age homes required extreme renovations/service gap remediation, whilst private homes needed either routine maintenance or medium-priority upgrades.

Objective 4 (health status and social living conditions). Among 304 older persons, the predominant diagnoses were musculoskeletal disorders (179; 58.9%) and hypertension (176; 57.9%); about 60% of older persons relied heavily on daily medication. Numerous older persons reported positive residential satisfaction, comfort and safety; nevertheless, loneliness/isolation, financial hardship, and transport difficulties were common. Logistic regression revealed lower odds of current illness and perceived loss of independence among residents of old-age homes compared to their community counterparts ($p < 0.05$), after accounting for covariates.

Objective 5 (Model synthesis). The Namibia Community-Based Model was developed. According to the panel validation results, the model achieved ≥80% agreement across all five Chin and Kramer criteria for model validation (clarity, simplicity, generality, accessibility, and importance), thereby demonstrating high agreement and acceptable validity. It positions older persons within interlocking concepts: individual/biological and health factors, social and community environments, health and care services and institutional/structural enablers. It prioritises caregiver support and professionalisation, as well as decentralised, regulated, and equitably paid long-term care, integrated chronic disease management and screening, and multi-sector collaboration across various sectors. Implementation can be done in phases/stages rather than strictly sequentially, with continuous monitoring and refinement.

Conclusion: This study demonstrates that Namibia's rapidly ageing population faces simultaneous challenges, including multimorbidity and medication dependence, limited household resources, inconsistent service capacity, and significant disparities in quality and accessibility between public and private old-age homes, as well as social barriers such as loneliness and restricted access to transportation. Although older persons often prefer to remain in their preferred home or community setting, this preference varies depending on several factors, including education, family obligations, and the availability of support. Strengthening community-based approaches and services through public awareness, caregiver training and support, enhancing geriatric competencies, providing accessible and age-friendly services, integrating chronic care, and ensuring equitable financing and regulation of residential alternatives are both urgent and feasible. The proposed model offers a practical, evidence-based framework to inform policy and practice, thereby enhancing the dignity, autonomy, and quality of life for older Namibians.

Keywords: Older persons, elderly, community-based, elder care, low- and middle-income countries, awareness, attitudes, old age homes, self-rated health, health status, social living condition.

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PUBLICATIONS INCLUDED AS APPENDIX IN THE THESIS

Journal Articles already published (Appendices 15, 16 & 21)

Haufiku-Weyulu, M., Mahalie, R., & Aku Akai, L. (2025). Community-based elderly care approaches implemented in low and middle-income countries: A scoping review. *Research Journal of Health Sciences,* 13(2), 127. https://doi.org/10.4314/rejhs.v13i2.5

Haufiku-Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025). Awareness and Attitude Toward Old-Age Homes among Older Persons in Namibia. *International Journal of Sub-Saharan African Research (IJSSAR),* 3, 3043–4459. https://doi.org/10.5281/zenodo.17245643

Haufiku-Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025). Capacity of Old-Age Homes to Meet the Needs of Older Persons in Namibia: Analysis of Quality and Care Gaps. International Journal of Sub-Saharan African Research (IJSSAR), 3, 3043–4459. https://doi.org/10.5281/zenodo.18085555

Conference abstract already published (Appendix 17)

Haufiku - Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025, September 9). Residential care for the older persons: A critical analysis of old age homes and community settings. International Federation on Ageing (IFA) 17th Global Conference on Ageing. https://www.ifa-abstracts.com/age-friendly-environments/residential-care-for-the-older-persons-a-critical-analysis-of-old-age-homes-and-community-settings/

Manuscripts Under Review (Appendix 18)

Self-rated Health Status and Social Living Conditions Among the Namibian Older Persons submitted on Monday, 15 September 2025 - 14:07 to the Journal of Health and Social Sciences.

CLARIFICATION OF TERMS

Multimorbidity - defined as the co-existence of two or more chronic conditions (Boah et al., 2025).

Older person - The majority of industrialised countries define an "elderly" or older person as someone above the age of 65; however, like many Westernised concepts, this does not translate well to the situation in Africa (Kowai, 2018). Although relatively arbitrary, this definition is frequently used to refer to the age at which one can start receiving pension payments. The United Nations (UN) accepted the cut-off age of 60+ as a reference to the older population in many countries, including Namibia, though there is currently no UN official numerical criterion (Byrnes, 2022; Dasgupta et al., 2018). Since the actual birth dates of older persons are frequently unknown because so many people in Africa lack an official record of their birth date, it is even more challenging to come up with a definition (Kowal & Dowd, 2001). Furthermore, the definition of old age varies across different societies, and social constructs play a significant role in determining how age is perceived. In addition to chronological age, other factors, such as the roles and responsibilities assigned to older individuals, are crucial in shaping the concept of old age. Notably, the loss of roles that accompanies physical decline is considered a significant aspect of defining old age in certain circumstances. Many developing nations view old age as the stage when a person can no longer actively contribute to society, unlike the industrialised world, where life stages are frequently defined by age milestones (Kloppers et al., 2015). In this study, the term “older persons” refers to individuals aged 60 years and above, consistent with the terminology commonly used in Namibia and recommended by the UN, as it is neutral, respectful, and inclusive. Although “elderly” is more commonly used globally, “older persons” was deemed more contextually appropriate (United Nations High Commissioner for Refugees, 2025; World Health Organization, 2022b).

The well-being of older persons: pertains to the extent to which an older person can maintain functional ability, such as engaging in valued activities, through the interaction of their intrinsic capacities (physical and mental abilities) and their environment (including home, community, services, and policies). This aligns with the World Health Organization’s (WHO) healthy ageing framework, which characterises healthy ageing as the process of developing and sustaining the functional ability that enables well-being in older age (World Health Organization, 2015).

Care: refers to long-term, integrated health and social support provided by informal carers (family/friends) and formal providers (health, social and community services) to assist older people with activities of daily living (ADLs) and instrumental ADLs, mitigate or delay declines in intrinsic capacity, and uphold dignity, rights and functional ability, ideally within the community and at home. This aligns with the WHO’s long-term care framework as ongoing assistance for ADLs/IADLs (World Health Organization, 2015, 2022c).

Continuum of care: The World Health Organisation (2024a) defines this as the full range of individual and population-based health and social care required across all stages of intrinsic capacity and functional ability, concerning disease, injury or other health occurrences throughout the life course, encompassing health promotion, prevention, treatment, rehabilitation, palliative care and long-term care.

Old age homes, nursing homes, and residential care facilities for older persons - According to Bhat (2021) and Douglass (2016), a nursing home is a multi-unit housing facility for older people, sometimes referred to as an old people's home or an old age home. In these homes, each person or couple has their own apartment-style room or suite of rooms. Other facilities are also located within the home, including areas for meal preparation, gathering, recreation, and medical care. The cost of space at a retirement home can be paid for on a rental basis, much like an apartment, or acquired outright, much like a condominium. Some retirement homes do not charge a fee (Bhat, 2021; Douglass, 2016). When family care is no longer an option, these institutions are a crucial resource for ensuring that older individuals receive care outside the family system. However, they are typically expensive and not always widely accessible in many African nations (Kelly et al., 2019). In Namibia, old age homes are either private or public, offering lodging, food, and personal care to people, particularly those with medical or mental health issues that make daily living activities difficult. These facilities are allocated caregivers to offer support services. In this study, old age homes encompass nursing homes and residential care facilities for older persons.

Healthy ageing - In current studies, ongoing controversies persist regarding the definition of healthy ageing and its selected components. Almost no two studies define and operationalise healthy ageing consistently (Wagg et al., 2021). Subjective well-being, physical health, self-rated health, biological ageing, and cognitive function were identified as elements of healthy ageing (Wagg et al., 2021). The two fundamental components of healthy ageing are physical activity and life satisfaction (Wöbbeking Sánchez et al., 2021). Lara et al. (2013) selected the elements of healthy ageing across five domains, including (i) physiological and metabolic health, (ii) physical capability, (iii) cognitive function, (iv) psychological wellbeing, and (v) social wellbeing (Lara et al., 2013). Integrating the WHO's definition of healthy ageing with prior research, it is crucial to regard healthy ageing as a process that encompasses not only the attainment of excellent health but also supporting well-being and the enhancement of the life satisfaction of older persons aged 60 years and over (Lara et al., 2013; World Health Organization, 2015).

Active ageing - This is an emerging concept (World Health Organization, 2024c). It encompasses the optimisation of available resources and the capacity of the older person to contribute to their families, communities, and society (Nakane et al., 2012).

Quality of Life (QoL) - An individual's perception of their status in life, in the context of the culture and value systems in which they live, as well as their aspirations, expectations, standards, and worries. QoL is typically measured in terms of an individual's satisfaction and their ability to mobilise resources when needed (Risal et al., 2020).

Geriatrics: refers to the branch of medicine that provides person-centred health services tailored to the needs of older persons (World Health Organization, 2024a).

Intrinsic capacity: In this study, intrinsic capacity refers to the combined physical and mental abilities that an individual may depend on in everyday life (World Health Organization, 2024a).

Functional ability: Is defined as the "health-related attributes that enable individuals to be and to accomplish what they have reason to value". It stems from the interplay of a person's intrinsic capacity, the features of their surrounding environment, and the dynamic interaction between these elements. The environment includes all external conditions that influence a person's life context, including the home and its surroundings, the community and wider society, comprising physical infrastructure, social

relationships, attitudes, values, and health and social policies, systems and services (World Health Organization, 2015, 2024a).

Long-term care (LTC): Refers to the support and activities offered by others to help people experiencing significant, persistent loss of intrinsic capacity maintain a level of functional ability that honours their basic rights, fundamental freedoms and human dignity (World Health Organization, 2024a). Its primary aim is to preserve the person's independence and sense of security (Min & Huilan, 2019). In the broader literature, long-term care may be required by people of any age, depending on their level of need rather than their chronological age. However, in this study, the focus is specifically on long-term care for older persons provided in institutional settings; hence, the term long-term care is used interchangeably with old age homes and residential care facilities for older persons.

Person-centred care: An approach to care that intentionally incorporates the viewpoints of individuals, their families and communities, recognising them as active partners and recipients within health and long-term care systems. These systems are designed to address individuals' needs and preferences in a compassionate, respectful and holistic manner. In person-centred care, services are structured primarily on the individual's needs, values, preferences and expectations, rather than focusing on specific diseases (World Health Organization, 2024a).

Age-friendly environment: An Environment, such as a home or community, that promotes healthy ageing by building and sustaining intrinsic capacity during the lifespan and by enhancing functional capacity relative to a specific level of capacity (World Health Organization, 2024a).

Universal health coverage (UHC): It means that all individuals can get the necessary quality health services they need, at the time and place they need them, without suffering financial hardship. It encompasses the complete spectrum of vital health services across the life course, including health promotion, disease prevention, treatment, rehabilitation and palliative care (World Health Organization, 2024a).

The Integrated Care for Older People (ICOPE) approach: It seeks to transform health and social care services into more person-centred, coordinated care that enhances and preserves older people's intrinsic capacity and functional ability. It represents WHO's framework for delivering integrated care for older persons within a primary health care (PHC) oriented health system (World Health Organization, 2024a).

Self-rated health: refers to an individual's subjective assessment of their overall health status. This study operationalised self-rated using the WHOQOL, which asks respondents: 'How satisfied are you with your health?' rated on a five-point Likert scale (Nakane et al., 2012).

LIST OF ABBREVIATIONS

AAQ – Attitude to Ageing Questionnaire

ADL - Activities of Daily Living

ARHL – Age-Related Hearing Loss

COVID-19 - Coronavirus disease 2019

GBD – Global Burden of Disease

HALE – Health – Adjusted Life Expectancy at birth (years)

HBM – Health Belief Model

HPM – Health Promotion Model

HIV/AIDS – Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome

ICOPE- Integrated Care for Older People

KII – Key Informant Interviews

LMIC- Low- and Middle-Income Countries

LTC – Long-Term Care

MESH – Medical Subject Headings

MoHSS – Ministry of Health and Social Services

NBC- Namibian Broadcasting Corporation

NSA – Namibia Statistics Agency

OAH – Old Age Homes

OAP – Old Age Pension

PHC – Primary Health Care

PICOS - Participants, Intervention, Comparator, Outcomes, Study design

SDGs – Sustainable Development Goals

SPSS – Statistical Package for the Social Sciences (Version 30)

UN – United Nations

UNICEF – United Nations Children's Fund

WHO – World Health Organization

WHOQOL – World Health Organization Quality of Life Tool

CHAPTER 1: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND

Population ageing is a defining global demographic trend. Most people can now expect to reach their 60s, and the number and proportions of older persons are rising in every country (World Health Organization, 2024c). In 2020, people aged 60 years and older surpassed children under five. By 2030, one in six people worldwide will be aged 60 years or over, increasing to one in five by 2050. The number of people aged 80 years and older is expected to triple between 2020 and 2050 (World Health Organization, 2024c).

Although population ageing first accelerated in high-income countries, such as Japan, where one-third of the population is already over 60 years old, currently, a significant increase is expected in low- and middle-income Countries (LMIC), particularly in Asia and Africa (Bell-Gam & Amadi, 2015; Maharaj, 2020; World Health Organization, 2024e). The UN projects that approximately 81% of the world's older population will reside in developing countries by 2050 (United Nations, 2011). In Africa, the world's youngest region, the older population is also rising rapidly, with those aged 60+ projected to more than triple between 2020 and 2050 (He et al., 2020). Globally, these numbers prompt the UN Decade of Healthy Ageing (2021–2030) and WHO's Integrated Care for Older People (ICOPE) framework, to encourage countries to transition toward person-centred, community-anchored services that preserve intrinsic capacity and delay or prevent institutionalisation (World Health Organization, 2017b, 2020a). These efforts provide a contemporary perspective on evaluating Namibia's combination of family care, old-age homes, and emerging community support services.

Namibia mirrors these shifts, with increased longevity and a growing proportion of the older population. These shifts are apparent in the official projections and recent census statistics. Life expectancy at birth is projected to rise from 53.3 to 64.1 years for men and from 60.5 to 72.1 years for women between 2011 and 2041 (Namibia Statistics Agency, 2014). The 2023 Population and Housing Census recorded 206,675 older persons aged 60 years and above in 2023, up from 149,303 in 2011, an increase of 38.4 per cent over 12 years, and this group now constitutes 6.8% of Namibia's total population (Namibia Statistics Agency, 2012, 2024b). These trends indicate rapid population ageing and make the evidence on older persons' needs urgent (Chatterji et al., 2016). Multiple demographic and health shifts help to explain the ageing trajectories. Rapid population ageing results from declining fertility and childhood mortality, alongside longer life expectancies. These shifts are linked to improved healthcare, greater medical knowledge, and lifestyle changes that support longevity and quality of life (Beard et al., 2016; Bell-Gam & Amadi, 2015; Dasgupta et al., 2018). Ageing is an inevitable, natural phenomenon that raises health concerns and requires careful consideration, particularly as healthy ageing is fundamental to economic and social development. The global life expectancy is 73.1 years, but the average health-adjusted life expectancy (HALE) is only 63.5 years (Institute for Health Metrics and Evaluation, 2018; World Health Organization, 2025a). This means that people spend almost a decade of their lives in poor health. Between 2000 and 2019, the average life expectancy in the world increased by 6.4 years, while HALE improved by only 5.4 years. This was mainly due to declining mortality rather than reductions in disability. However, the Coronavirus disease 2019 (COVID-19) pandemic reversed about ten years of progress, between 2019 and 2021, the global life expectancy fell to 71.4 years, and the HALE to 61.9 years, roughly the levels observed in 2012 (World Health Organization, 2025a). This shows how weak the global health systems are, and how fragile progress in healthy ageing is. Substantial inequities persist by country income level, for instance, in 2019, life expectancy in LICs was 65.1 years, while HALE was 56.7 years, in contrast to 80.9 years and 69.8 years, respectively, in High Income Countries (World Health Organization,

2022a). In Namibia, life expectancy was 63.5 years in 2019 but declined to 60.4 years by 2021 due to the COVID-19 pandemic, while HALE in 2021 was 52.8 years, underscoring a substantial shortfall in years lived in good health and the need for context-specific evidence (World Health Organization, 2024b, 2025b).

Based on the above, older people are living longer, but often with more years of chronic disease, frailty, injury, and reduced independence, creating challenges for nursing practice, research, and education (Albers et al., 2013). Reports from the Ministry of Health and Social Services (MoHSS) indicate a rising burden of hypertension and diabetes. These conditions increase the risk of multimorbidity and functional decline in later life (Ministry of Health and Social Services, 2017). Older persons also encounter diminished social roles, reduced independence, and a loss of authority and support. At the same time, several socio-demographic, psychological, emotional, and physical factors might influence their quality of life (González-Celis & Gómez-Benito, 2013). Families, the public sector, and health services need to provide greater support as needs grow.

As the reality of living longer is increasingly recognised globally, it becomes necessary to create a healthy ageing environment to mitigate the risks and prevent complications associated with chronic diseases. Opportunities arise when people live longer, benefiting not only older persons and their families but also entire societies (Bhat, 2021). Nevertheless, the extent of these opportunities and contributions depends heavily on one factor: health. The influence of individuals' physical and social surroundings on their opportunities and health behaviours significantly contributes to the challenges associated with ageing. Personal characteristics, such as family background, gender, and race, affect how these environments interact, leading to health disparities (Keziah, 2020). Within Namibia, these disparities are also shaped by socioeconomic inequality and geographic access, which influence older persons' ability to secure care and support. Nevertheless, significant wealth inequality persists in Namibia, with rural residents experiencing greater inequality, which can have significant implications for the country's older population. In the context of older individuals in Namibia, this wealth disparity may impact their access to old-age homes, healthcare, and support systems (Ananias & Moore, 2024; Indongo & Sakaria, 2016). Limited financial resources can also limit the ability to afford medical care, medications, or specialised treatment. This is particularly concerning given the high burden of multimorbidity, which is difficult to manage in resource-constrained settings where fragmented healthcare systems, resource constraints, and polypharmacy pose significant challenges to patient care (Akinwumi et al., 2023). Older individuals in rural areas may also face challenges maintaining adequate living standards, including access to suitable housing options or necessary home modifications for ageing in place. Finally, older individuals in areas with higher wealth inequality may have limited access to educational programmes that could enhance their well-being or provide information on healthcare practices and financial planning (Ministry of Health and Social Services, 2014).

Historically, older care in Namibia, like much of sub-Saharan Africa, has been rooted in extended family systems. Urbanisation, declining birth rates, and migration have altered household structures, frequently weakened the availability of kin caregivers, and increased the share of older people living as household heads or in smaller family units (Indongo & Sakaria, 2016). The decline of the joint family system and the rise of nuclear families have left older individuals isolated (Bhat, 2021; Maharaj, 2020). Based on this view, the need for old-age homes became clear, and it continues to become increasingly apparent as time passes (Bhat, 2021). Furthermore, it is crucial to create physically and socially supportive environments that enable people to accomplish their goals despite the capacity reductions associated with ageing. Examples of supportive environments include the availability of safe public spaces, transportation options, and walkable areas. When developing public health strategies for ageing,

it is crucial to consider approaches that support recovery, adaptation, and psychological well-being, in addition to those aimed at addressing age-related health issues (World Health Organization, 2024d).

Notwithstanding this increase and its impact on health systems, policy responses in low- and middle-income countries (LMIC) remain inconsistent. The Namibian government acknowledges the growth in the older population and provides pension grants and medical coverage to support this demographic. However, discussing ageing is still a distant phenomenon and a family issue. There is limited information on comprehensive policies, social programmes, and plans to address the needs of older persons (Indongo & Sakaria, 2016). Focused research on ageing is therefore necessary to raise awareness of its significance and the likely consequences if left unaddressed, thereby informing the formulation of evidence-based policies and increasing awareness of ageing as a public health and societal issue. Against this backdrop, this study developed a community-based model to improve well-being and care of older persons aged 60 and above.

1.2 CONTEXT OF THE STUDY

Namibia is an arid country situated on the west coast of Southern Africa. Namibia, the driest country in sub-Saharan Africa, is characterised by extensive semi-desert landscapes covering 825,229 square kilometres, along with savanna and dry woodlands (World Bank, 2025). The capital is Windhoek, located in the Khomas region. The country is multi-racial and multi-ethnic, comprising at least 11 distinct ethnic groups. It gained independence from South Africa on March 21, 1990, and ranks as one of the world's most unequal countries (World Bank, 2025). In 2015, its Gini coefficient of 59.1 ranked second only to South Africa. Geographical gaps in economic opportunities and access to services are significant and widening. Significant inequality results in markedly disparate poverty rates across different groups, including those based on age and gender (World Bank, 2023). The country has a population of 3,022,401 people, of whom 206,675 are older persons (aged 60 years and above). Specifically, 70,660 (34%) older persons reside in urban areas, while the majority, 136,015 (66%), live in rural areas (Namibia Statistics Agency, 2024). The country is divided into 14 regions, namely Zambezi, Kavango West, Kavango East, Kunene, Ohangwena, Omusati, Oshana, and Oshikoto in the north; Omaheke, Otjozondjupa, Erongo, and Khomas in central Namibia; and Hardap and //Karas in the south (Ministry of Health and Social Services, 2014). The study was conducted in three selected regions (See Figure 1.1 below): Ohangwena from the northern stratum, Khomas from the central stratum, and Hardap from the southern stratum. The country has 34 health districts, which are overseen by the 14 regional health directorates. There are 34 public district hospitals, 4 intermediate hospitals that serve as regional referral facilities, 1 national referral hospital, 56 health centres, 322 clinics, and over 1,150 nationwide outreach locations that offer public health services (Ministry of Health and Social Services, 2024).

Geographic location of the study area

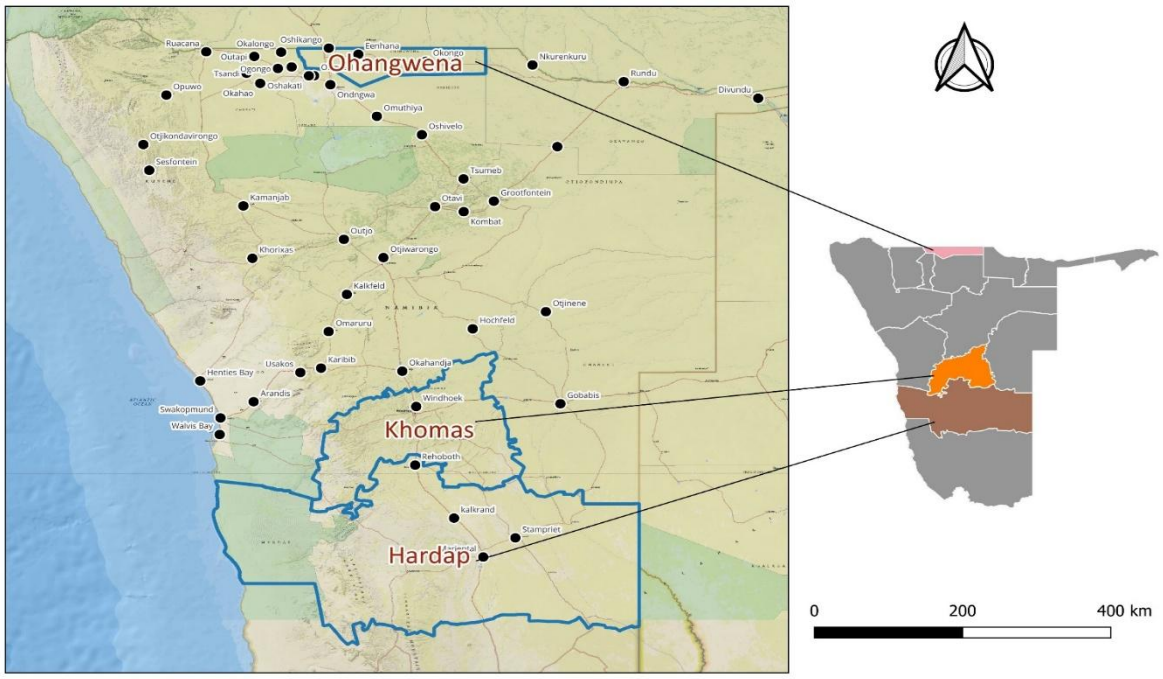


Figure 1.1: Map of Namibia, showing the three study regions

Source: (Google Maps)

1.3 STATEMENT OF THE PROBLEM

The ageing population has far-reaching effects on older persons, society, and health systems, and Namibia is no exception. Not only are people living longer, but they are living longer in poor health, increasing demand for medical support, and at times, even long-term care (Institute for Health Metrics and Evaluation, 2018). Yet data on the health, care needs, and well-being of older persons in low- and middle-income countries, including Namibia, remain scarce (Chatterji et al., 2016). Namibia is particularly underrepresented, as it is not among the African countries that publish research on ageing-related issues most frequently (Adamek et al., 2022). Reflecting the wider data gaps on older persons, Namibia is also not included among the 96 countries ranked in the Global Age Watch Index 2015, reflecting persistent weaknesses in age-disaggregated information systems (Help Age International, 2015).

Despite rapid population ageing and increasing care needs, Namibia lacks integrated, evidence-informed, and contextually appropriate models of care that respond to the health, social, and functional needs of older persons, particularly at the community level. This gap is compounded by limited and fragmented evidence on how existing social-protection provisions translate into effective community-level care for older persons (World Health Organization, 2022a). It is described that acting without adequate data on older persons “is like pouring water into a sieve” (Goharinezhad et al., 2016). In practice, inadequate data and fragmented evidence weaken targeting, reduce intervention efficacy, and hinder the planning of equitable and responsive services. Therefore, this study aimed to address these knowledge gaps by exploring the health and care of older men and women in Namibia.

In addition to evidence gaps, the existing body of ageing research also faces methodological limitations. Empirical research on older persons has predominantly examined them through qualitative studies focusing on caregivers' and nurses' attitudes or on facility-level challenges, while the voices and preferences of older persons themselves remain comparatively underrepresented. Few studies compare community-dwelling and institutionalised older persons within the same study or triangulate the perspectives of older persons with those of caregivers and community leaders (Ahmad & Komai, 2015; Bassah et al., 2018; Dawud et al., 2022; Goharinezhad et al., 2016; Mehta & Leng, 2017). In Namibia specifically, most studies on older persons have been qualitative (Ananias & Keating, 2023; Kloppers, 2011; Kloppers et al., 2015; Nord, 2022; Van Rooy et al., 2015; Zamuee, 2022), with a few employing mixed methods, though very old (Dima, 2003). This constrains the strength of inferences needed to design feasible models of care that work across settings and stakeholders. For this reason, this study employed a mixed-methods approach that integrates the perspectives of older persons, caregivers, and key informants, including constituency councillors, nurses, social workers and heads of old age homes, while also assessing facilities and synthesising the literature through a scoping review. This enabled convergent validation of findings across levels (person, facility, and local governance), reducing single-informant bias and strengthening meta-inferences (Fetters et al., 2013).

Concerns about system preparedness and fairness further intensify the problem. Namibia's social protection policies and legal frameworks lack comprehensiveness, and reforms have been described as piecemeal and reactive rather than proactively aligned to population ageing (Zamuee, 2022). At the government level, government intervention and policies are needed to support the ageing population and train healthcare professionals. The Namibian national policy on the rights, protection, and care of older persons is still in draft form; hence, this study is anticipated to inform policymakers and help shape and finalise the policy. At the service level, long-term care is still scarce and unevenly distributed. Namibia has 17 registered long-term care facilities, all private, alongside seven public facilities that are not registered (World Health Organization, 2022a). Most of these facilities are in urban areas such as Windhoek and Swakopmund and are scarce in northern regions where many older persons live (World Health Organization, 2022a). The result is a pattern of constrained access and unreliable service provision, especially for older persons living in remote areas with few resources. Socioeconomic pressures exacerbate care vulnerability, including wealth inequality that affects access to care and support (Ananias & Moore, 2024; Indongo & Sakaria, 2016), and the high burden of multimorbidity, which is challenging to navigate in resource-constrained and fragmented systems (Akinwumi et al., 2023).

The study addressed the growing mismatch between the needs of Namibia's ageing population and the limited ageing data, fragmented evidence regarding community-level care, inadequate policy support, inconsistent service readiness, socioeconomic barriers, and the absence of a context-specific community-based care model. These gaps have significant consequences, including unmet care needs, inequitable access to services, poor health outcomes, loss of independence, loneliness, financial and transport difficulties among older persons, overburdened families and caregivers, and limited local evidence to guide policy and programme decision-making. Collectively, these challenges reduce the effectiveness of existing responses and underscore the need for a decentralised and sustainable approach that strengthens promotive, preventive, and supportive care at the community level, consistent with the principles of Primary Health Care (World Health Organization, 2022a). Therefore, the study was significant not only for identifying and assessing the diversity of care available to older persons in Namibia, but also for generating context-specific evidence and translating it into a practical, community-based model to guide improved well-being and care for older persons in Namibia.

1.4 OBJECTIVES, QUESTIONS, AND HYPOTHESES OF THE STUDY

1.4.1 Study aim

The aim of the study was to assess the existing diversity of care available to older persons in Namibia and develop a community-based model for improving their well-being and care.

1.4.2 Study objectives

The objectives of the study were:

1. To map the available evidence on community-based older care approaches implemented in low and middle-income countries (LMICs) using a scoping review methodology. (Phase 1)
2. To assess the awareness and attitude toward old age homes among older persons. (Phase 2)
3. To evaluate the capacity of old age homes to accommodate the complex needs of Namibia's older population aged 60 years and above, considering both current conditions and potential future expansions. (Phase 2)
4. To investigate the prevalent health status and social living conditions of the older persons. (Phase 2)
5. To develop a community-based care model for improving well-being and care for older persons aged 60 years and above, and the guidelines to operationalise the model. (Phase 3)

1.4.3 Study questions

Following the objectives, the study raises the following questions:

1. What evidence is available on the community-based care approaches for older people in LMICs?
2. What awareness and attitudes do older persons have towards old age homes?
3. How effectively do old age homes in Namibia currently address the complex needs of the older person population, and what recommendations should be considered for potential future expansions to enhance their capacity?
4. What are the prevalent health statuses and social living conditions of the older persons?
5. What community-based care model can be developed to improve the well-being and care for the older person?

1.4.4 Statement of research hypotheses

Consistent with the study objectives, the following hypotheses were formulated a priori and tested using the study data. Their interpretation is presented, together with the corresponding objectives, in the discussion of the findings in Chapter Five:

1. H0. Low- and middle-income countries do not face challenges in developing a comprehensive and sustainable community-based care framework to support their older population.
   H1. Low- and middle-income countries do face challenges in developing a comprehensive and sustainable community-based care service framework to support their older populations.

2. H0. There is no significant relationship between awareness of, and attitude toward, old age homes among older persons residing in facilities and those living in the community.

H1. There is a significant relationship between the awareness of, and attitude toward, old age homes among older persons residing in the facility and those living in the community.

3. H0. There is no significant difference between privately owned and publicly owned Namibian old-age homes.
   H1. There is a significant difference between privately owned and publicly owned Namibian old-age homes.

4. H0: There is no significant association between living arrangement and self-rated current health status among older persons.
   H1: There is a significant association between living arrangement and self-rated current health status among older persons.

5. There is no formal hypothesis formulated for the model, as there is currently no existing Namibian model for improving the well-being and care of older persons.

1.5 JUSTIFICATION/SIGNIFICANCE OF THE STUDY

Namibia is entering a decisive phase of population ageing. The 2023 Population and Housing Census recorded 206,675 people aged 60 years and above, constituting 6.8% of the total population. This census further indicates that 18.1% of households are headed by an older person, indicating a demographic shift with significant implications for care, social protection, and service development. These trends necessitate evidence-based strategies that move beyond disease control toward maintaining functional ability and dignity in many contexts (Namibia Statistics Agency, 2024; World Health Organization, 2022a).

At the same time, older persons remain exposed to intersecting economic and household vulnerabilities. Economic abuse toward older persons is prevalent, and multidimensional poverty affects a significant portion of the older population in Namibia (Maharaj, 2020). The mismanagement of pensions by certain family members and the self-destructive spending habits of some older persons can leave older individuals with insufficient funds to meet their needs. In Namibia, 44.5% of the older persons experience multidimensional poverty (Namibia Statistics Agency, 2021). In addition, older people in many African countries shoulder the burden of caregiving for orphaned grandchildren and sick family members; in Namibia and Zimbabwe, grandmothers care for more than 60% of the orphaned children (United Nations Children's Fund, 2006). In this regard, this study assessed the relationships between the number of dependents and the social living arrangements of the older persons.

Global policy initiatives, particularly the UN Decade of Healthy Ageing (2021–2030) and WHO's Integrated Care for Older People (ICOPE), advocate for age-friendly environments, integrated community care, and accessibility to long-term care (World Health Organization, 2017b, 2020a). Namibia has engaged with these agendas, including national discussions in November 2022 over a draft National Policy on the Rights, Protection, and Care of Older Persons (World Health Organization, 2022a). However, practical implementation approaches tailored to Namibia that link community realities to system-level levers remain scarce.

During a certain past national consultation meeting, Dr Charles Sagoe-Moses, WHO Representative to Namibia, remarked on advancements in the care of older persons in Namibia, including the provision of pensions for all older persons, and the availability of 17 long-term care facilities registered in the country, though all these are private; the other seven are publicly owned and not registered (World Health Organization, 2022a). These facilities are concentrated in urban areas, such as Windhoek and Swakopmund, and are scarce in the northern regions, where the majority of older people reside. He further cautioned that the increase in the number and proportion of older persons renders these facilities inadequate, and hence there is a need for a more sustainable approach to the care of older persons, and advised the country to move from the 'centralised approach to a more decentralised approach, with more promotive and preventive interventions at the community level, in accordance with the Primary Health Care principles (World Health Organization, 2022a).

Evidence generation aligned to objectives 1-4

This study responds to these gaps through four linked strands of evidence. First, it synthesises community-based older-care approaches implemented in LMICs to distil strategies that are feasible under resource-constrained systems and relevant to Namibia's realities. Second, it provides empirical evidence on knowledge, perceptions, and preferences concerning old age homes among older Namibians; this information is crucial for person-centred planning, communication strategies, and anticipating uptake and equity implications. Third, it assesses the capacity of old-age homes to accommodate the complex needs and surfaces structural constraints, including geographical concentration, affordability and quality disparities, workforce and equipment gaps, and weak regulatory conditions. Fourth, it profiles the health status and social living conditions of older persons, with implications for prevention, continuity of care, and community support across their lived settings.

Model development and policy translation aligned to objective 5

Fifth, the study integrates these strands into the Namibia Community-Based Model for Improving Well-Being and Care of Older Persons aged 60 years and above. The proposed model links four interrelated concepts (individual/biological and health; social and community; health and care services; national/structural) to the core outcome of well-being and care. The model operationalises the WHO ICOPE and age-friendly principles within Namibia's policy and service landscape by providing explicit routes from evidence to implementation, including training pathways, service redesign and decentralisation, age-friendly transportation and strengthened regulation and financing.

Contribution and benefits

This study contributes to the global academic community in several ways including i) it generates knowledge on older persons' care and community interventions; ii) it developed a model that can inform comparative work and adaptation in similar contexts; iii) it improves understanding of the health, socio-cultural, economic, and environmental factors shaping ageing and care in Namibia; and iv) it provides policy-relevant evidence to support ongoing national efforts. It also creates opportunities for collaboration through dissemination and publication. In practical terms, the model has potential benefits for older persons, the community and society at large. For older persons, it strengthened pathways to age-friendly environments, accessible care, social support, and meaningful participation. For communities, it encourages shared responsibilities, intergenerational engagement, and the more effective use of community resources and support networks. For society, improved well-being and care for older persons can reduce avoidable costs associated with preventable conditions. It can also help older persons

contribute to society through jobs, volunteering, and community involvement, alongside improved learning for future policy and practice.

1.6 STRUCTURE OF THESIS

This thesis is organised into the following eight chapters:

Chapter One: Introduction

Chapter one serves as an introductory chapter. It introduces the background of the study, the study context, the statement of the research problem, the research objectives, the research questions, the research hypotheses, the significance of the study, and the structure of the thesis.

Chapter Two: Literature review and theoretical framework

Chapter two provides an overview of the literature, synthesising existing evidence retrieved from online database searches focusing on the well-being and care of older persons in Namibia. Hence, it reviews comparative scholarly debates on the subject matter, which identify the knowledge gaps in this area of study. It further provides insights into community-based care models, the importance of awareness, and perceptions towards one's ageing, health status, and social living conditions among older persons. The research theories and philosophies that informed the model development in this study are also discussed in this chapter.

Chapter Three: The methodology

Chapter three details the methodology, discusses the study phases, design, and setting, sampling techniques, study population, study tools, data collection and analysis approaches, and measures to ensure the trustworthiness, validity, and reliability of the data. Data management, the steps for model development, and the ethical considerations of the study are also detailed in this chapter.

Chapter Four: Results

Chapter four reports the full set of quantitative and qualitative findings as obtained from the data collection tools. This was deemed relevant, given the typical journal's limited results and the breadth of evidence produced by this study. All results are presented to ensure that no valuable indicators are omitted, as indicators that did not form part of the recent publications will also be considered for potential future publications.

Chapter Five: Discussion of results

Chapter five discusses the study's results, based on its objectives, integrating both quantitative and qualitative data. It also integrates the research holistically, serving as a summary of the overall findings. The hypotheses are also interpreted in this chapter.

Chapter Six: Development and description of the model

Chapter six summarises the study's results in the form of a conceptual model to improve the well-being and care of older persons in Namibia. It presents a summary of the study's findings, from which the concepts were derived, a table of concepts and sub-concepts that constitute the elements of the model, along with their descriptions, and an explanation of the relationships between them. The chapter further outlines the model design approach,

provides a graphical presentation of the model, and states the name, purpose, underlying assumptions, and anticipated benefits of the model. It also discusses how the theoretical frameworks that underpinned the study were considered in the development of the model and describes its validation by experts in the field.

Chapter Seven: Guidelines to operationalise the model

Chapter seven outlines the guidelines for operationalising the model in relation to its concepts, highlighting the concept objectives, strategies, and activities, as well as possible indicators, stakeholder-specific roles, and the components for monitoring and evaluation.

Chapter Eight: Conclusion, Recommendations, and Unique Contributions

Chapter eight presents the study's conclusions, limitations, and recommendations, based on the findings, which aim to guide future research, policy development, programme development, and practice. These are discussed in this chapter, along with the study's unique contributions.

1.7 SUMMARY OF THE CHAPTER

This Chapter presented the introduction and background of the study, including the trend of population increases in Namibia and other countries, as well as the implications involved. This is followed by a context of the study, statement of the problem, the study objectives, research questions, and hypotheses, along with an explanation of the study's significance. The structure of this thesis is presented at the end of this chapter. In the next chapter, relevant literature is reviewed and discussed.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The previous chapter focused on the study's introduction and background. This chapter presents a review of relevant literature. It begins by outlining the purpose of the literature review and scoping review, and by describing the search strategy, including the use of the Participants, Intervention, Comparator, Outcomes, and Study design (PICOS) and Medical Subject Headings (MeSH) terms. Next, it examines the current situation of old-age homes, focusing on their distribution in relation to where older persons aged 60 years and above live. The review also covers the prevailing health status of older persons and the organisation of the health-care system. Finally, it synthesises evidence on older persons' perceptions of ageing, their economic situations, and policy stands, and situates Namibia within the global response to ageing. The chapter concludes by presenting the research philosophies, models, and tools that informed this study.

A literature review entails the identifying, appraising and synthesising available research to draw structured conclusions from existing evidence (HI & Rensburg, 2022). It is also an excellent way to synthesise research findings, illustrating evidence on a meta-level and uncovering areas requiring more investigation, which is an essential component for developing theoretical frameworks and building conceptual models (Snyder, 2019). In this study, the literature review was conducted to align existing evidence with the study's aim and objectives, and to ascertain how the problem has been researched to date, and what needs to be done regarding ageing in Namibia.

Despite the growing global attention to ageing, research output on older care systems in LMICs remains sparse. Namibia, in particular, has limited research on ageing, and the evidence to guide policy implementation remains fragmented (Adamek et al., 2022; Help Age International, 2015; Indongo & Sakaria, 2016; World Health Organization, 2022b) . It is against this that this study first employed a scoping review, which mapped 22 studies (see Appendix One). A scoping review was deemed appropriate because it systematically maps the breadth of heterogeneous evidence, identifies key concepts, and surfaces gaps to inform subsequent, focused inquiries (Levac et al., 2010; Tricco et al., 2018). The mapped studies helped inform the subsequent objectives; their reference lists also yielded pertinent reports and WHO/UN webpages that underpin this literature review.

2.2 SEARCH STRATEGY

A computer search using the MeSH was conducted across various search engines and databases, including NUST library search, ScienceDirect, ProQuest Science and Technology, Medline, Google Scholar, and grey literature. Most included studies were published from 2014 onward to keep the review current. Pre-2014 sources were included only when foundational (e.g., key frameworks, population surveys, or measurement tools). Studies conducted outside this time range are scarce and typically narrow in scope regarding topics related to ageing. The results were limited to the aged population (60 years and older). However, the researcher also manually searched the reference lists of relevant publications. Studies that were not in English and based on individuals under 60 years of age were excluded. Books were also used. Records were exported to Mendeley and de-duplicated. Unavailable reports were requested via NUST library services. The search strategy consisted of four parts, as

outlined in the PICOS below. After every PICOS component, the Boolean operator OR was used; the Boolean operator AND was used at the end to combine the PICOS components.

2.2.1 PARTICIPANTS, INTERVENTION, COMPARATOR, OUTCOMES, STUDY DESIGN (PICOS)

- Participants – people aged 60 years and above
- Intervention – community-based model
- Comparator – people in old age homes
- Outcomes – the quality of life/Care/General well-being
- Study design – cohort studies, population studies, WHO/UN, and other related reports, published theses, and models

2.2.2 The MESH terms

The MeSH terms used were: Aged; Aged 60 years and older; older persons, elderly, Homes for the Aged; Housing for the elderly; Nursing homes; old age homes**,** residential care institutions, Health services for the Aged; Elder care; Attitudes towards older people; awareness; Health issues, health status, social living conditions, conceptual models; Cohort studies; Cross-sectional studies; Trend studies; and Prospective studies.

2.3 LITERATURE

This literature review examined accessible publications on older persons. It delineates the issues and difficulties they experience, analyses the economic and financial problems that arise when people retire, examines the effect of an increase in the older person population on the country's health systems, and evaluates the roles, advantages, and limitations of old age facilities, and considers government arrangements, with particular attention to the case for decentralising services. It also examines older persons' perceptions of ageing, profiles the health issues affecting them, and explores the global response to ageing.

2.3.1 Old age homes

Getting older is inevitable. An old proverb states, "The only thing worse than growing old is dying young." As a result, everyone in all communities looks forward to getting older. Old age was not a significant problem in traditional cultures. The family ensured the safety of its older members (Saxena, 2006, p.125). Tradition also mandated that the family care for older persons, such as fathers and mothers, who were expected to raise their children until they could support themselves financially. Countries such as Singapore have enacted the Maintenance of Parents Act, which requires adult children to financially support their parents' basic needs and imposes penalties for noncompliance. It also has an agency that provides housing and assistance to older persons who report neglect, reinforcing a policy approach that expects family members to share responsibility for older persons' care rather than relying solely on government support (Md Nor & Ghazali, 2021).

In relationships within old-age homes, the majority of older persons endure each other for the sake of peace, fostering a harmonious living environment. Nonetheless, some share strong relationships, eat together, go on small outings, play games, and watch TV, among other activities. The majority describe their relationship with staff as fair, and their caregivers as helpful, friendly, and very responsive to their needs (Baranwal & Mishra,

2021). In numerous low- and middle-income countries, state responses to the ageing challenges are either insufficient or delayed, prompting governments to instinctively encourage families to continue shouldering old-age care responsibilities as has been traditionally practised. It is not uncommon for family members to be legally obligated to provide support and care for older relatives, essentially transferring the burden from the government almost entirely onto families. The primary concern lies not in the willingness, but in the limited capacity of families to provide care for older relatives in need, as families universally remain the primary caregivers of older persons requiring long-term care, regardless of cultural context and the accessibility of social resources and support systems (Feng, 2019).

There are benefits of ageing in place for older persons, their families, communities, and governmental entities, such as health and well-being, fostering attachment, and familiarity with the environment, reducing loneliness, depression, challenges in adjustment, and functional deterioration, and other economic advantages, as home care is less expensive than residential care (Cadmus et al., 2023). Unfortunately, due to causes like capitalism and modernisation, most extended families' assumptions are now being tested throughout Africa (Keziah, 2020).

Education and labour migration, changing household structures, and financial constraints can reduce families' capacity to provide care, increasing the likelihood of institutional placement (Amini et al., 2021; Maharaj, 2020). Based on the above, society wrestles with who will care for them. The risk of older persons being 'stuck in place' may be high if no other alternatives are acceptable or available. According to Cho et al.(2017), old age homes should be considered a second home for older adults, as they are likely to reside in these facilities until they die; thus, understanding older persons' perceptions of their daily lives in such facilities is a crucial component of assessment and measuring care quality in old age homes (Cho et al., 2017). This necessitates the decentralisation of old-age homes. Namibia has only 24 old-age homes, of which 17 are privately owned and registered, and the other 7 are publicly owned and not registered. All these facilities are located in only 7 regions (Khomas, Karas, Otjozondjupa, Omaheke, Hardap, Erongo, and Kunene), see Table 2.1, and mostly in the urban areas, with none in the other 7 regions, especially the northern regions with the highest per cent distribution of the older persons aged 60 years and above (Table 2.2 with older person distribution). Another study highlighted the absence of a housing policy specifically targeting older persons in Namibia (Nord & Ananias, 2022). On another note, the workforce in these homes is found to be limited, with caregivers lacking training in ageing (Kloppers et al., 2015). Furthermore, Douglas (2016) states that only the rich and middle class can afford old-age homes for their family members, as most of these facilities are private and expensive. Despite all the mentioned issues and constraints, old-age homes provide the benefits of being secure and safe places where older people can receive food, lodging, and medical care. There is also someone who can arrange for hospitalisation in the event of a medical emergency, and they are accompanied by others (Bhat, 2021; Maharaj, 2020).

Table 2.1: Distribution of old age homes in Namibia

Region	Number of old age homes
Khomas	4x Private, 2x Public
Erongo	4x Private, 2x Public
Otjozondjupa	4x Private
Karas	3x Private, 1x Public
Omaheke	1x Private, 1 x Public
Hardap	1x Private
Kunene	1x Public

Source: (Researcher's own construction, 2025)

Table 2.1 illustrates that the distribution of old age homes in Namibia is uneven across regions, with a predominance of privately owned facilities. Khomas and Erongo are the most resourced, together accounting for half of all 24 old-age homes, while Otjozondjupa and Karas also have several facilities, mostly private. In contrast, Omaheke, Hardap, and Kunene have only one or two homes each, and the remaining seven regions (Kavango East, Kavango West, Ohangwena, Omusati, Oshana, Oshikoto, and Zambezi) have no old-age homes at all, highlighting significantly limited institutional care options across large parts of the country.

Table 2.2: Older person distribution in Namibia (n = 206,675)

Regions	Older person distribution n (%)
Northern regions	
Ohangwena	27 116 (13%)
Omusati	32 794 (16%)
Oshana	16 884 (8%)
Oshikoto	21 232 (10%)
Kunene	8 483 (4%)
Zambezi	7 723 (4%)
Kavango West	8 822 (4%)
Kavango East	13 478 (7%)
Central regions	
Erongo	13 991 (7%)
Khomas	20 782 (10%)
Omaheke	7 246 (4%)
Otjozondjupa	12 601 (6%)
Southern regions	
Hardap	8 946 (4%)
//Kharas	6 577 (3%)

Source: (Researcher's own construction, 2025)

Table 2.2 outlines that the demographic distribution of older persons is significantly concentrated in the northern regions, which collectively comprise around two-thirds (66%) of the older population. In contrast, the central regions collectively contribute about 27% of older persons, while the southern regions account for only 7%, recording the smallest proportions nationally.

Old age home situations in other countries

In Ethiopia: A comparison between life in the retirement centre and a home environment revealed that most older people preferred family life. Nevertheless, some residents in old-age homes indicated that, due to the institution's provision of food, shelter, and clothing, they felt assured that their fundamental needs were being adequately addressed. They stated that residing in their own home would be burdensome, as they would require continuous effort from families to fulfil their basic needs (Teka & Adamek, 2014).

In India: Older persons who lack physical space were compelled to reside in unfriendly city life with their children and grandchildren in the constrained available space, thereby becoming a financial burden (Baranwal & Mishra, 2021). They expressed a desire for a life of dignity and self-respect and hence opted for old-age homes. Two-fourths of the older persons who resided in old age homes indicated that it was their own decision to reside there for their lifetime to avoid daily fights with their families and to experience a tranquil existence. Others stated that they were forced to reside in old-age homes due to a lack of alternative options. Moreover, approximately 60 per cent of Indian older persons residing with their families endure neglect, abuse, and harassment, 66 per cent are classified either 'very poor' or below the poverty line, and 39 per cent have either been abandoned or live alone. Older persons in old age homes were asked if they wanted to go back to their house; some expressed a willingness to go back, while others who had experienced abuse were scared to go back. Additionally, individuals suffering from mental health issues and memory loss, or those with very poor health, lacked the capacity to form an opinion on going back since they do not even recognise their families when they come to visit. On an extreme end, the staff at some old age homes had reported incidents where people came to take the older person if they got to know that they were alive, to kill them, or to pressure them to transfer the property to their names (Baranwal & Mishra, 2021).

Alarmingly, another study conducted in India revealed that a significant proportion of crimes against older persons are committed by their family members, relatives, neighbours, or caregivers (Govil & Gupta, 2016). Living arrangements were found to be the key predictor of life satisfaction (LS) among older Indians, highlighting its significance in relation to Sustainable Development Goal 3, which aims to "ensure healthy lives and promote well-being for all at all ages." The variability of LS varies across cultural contexts, and there is a lack of research on this topic. Sociocultural norms and personal value systems play a crucial role in shaping perceptions of well-being, making it essential to investigate these factors within the Indian setting (Kandapan et al., 2023).

In South Korea: The study conducted by Cho et al (2017) on older adult residents' perceptions of daily lives in old age homes has revealed 5 themes: (a) Enhanced comfort, arising from staff positively managing daily responsibilities, such as preparing meals, housekeeping, and managing the residents ' medications and health needs; (b) Aspiring to maintain physical and cognitive functions, some older persons reported satisfaction with improvements in their health in old age homes, while others voiced anxiety about decline and death; (c) A desire for meaningful interpersonal relationships, some individuals enjoyed their new relationships with others in old age homes, while others expressed feelings of loneliness. Furthermore, numerous older persons reported difficulties living with other older persons with cognitive impairment; (d) feelings of confinement and limited

autonomy, despite their desire for autonomy, they encountered constraints because of group-oriented rules and regulations; e) acceptance of and adaptation to life in a facility, even though some older persons desire to return home, they fear informing their families to avoid being a burden (Cho et al., 2017).

2.3.2 Prevalent Health Status and Health Care Systems

Age-related physiological changes shift disease patterns toward chronic non-communicable conditions, whereas infectious risks persist in resource-constrained environments. As individuals age, multiple body systems, including the cardiovascular and musculoskeletal systems, become less capable of meeting physiological demands (Beshyah et al., 2022; Chatterji et al., 2016). Older persons' prevalent conditions include cardiovascular diseases, chronic respiratory diseases, hypertension, diabetes, hearing loss, cataracts, back and neck pain, and osteoarthritis, ailments that are less prevalent in younger populations (Maharaj, 2020; World Health Organization, 2015). Hearing loss has been found to be linked to functional and cognitive decline and frailty, with age-related hearing loss (ARHL) being regarded as the primary cause of years lived with disability among individuals aged 70 years and above (Hearing Loss Collaborators, 2021; Panza et al., 2019; Tian et al., 2021). Mobility is also another crucial condition of an older person's physical capacity. Loss of muscle mass and strength, decreased flexibility, and balance problems can all hinder mobility. Mobility impairment affects 39% of people over 65 years of age, which is more than three times higher than in the working population (World Health Organization, 2017b). On another hand, due to infections and substandard living conditions, older persons in less developed countries remain vulnerable to acute illnesses such as malaria, diarrhoeal diseases, and lower respiratory infections (Bill & Foundation, 2018; World Health Organization, 2015).

Complex, interrelated conditions compound the burden in later life and intensify care needs. The implementation of lifelong antiretroviral medication has resulted in an ageing demographic of older individuals living with HIV, who encounter elevated risks of certain morbidities compared with HIV-negative peers. In addition, many older adults experience geriatric syndromes, including multifactorial conditions such as frailty, urinary incontinence, falls, dementia, and pressure ulcers, that often reflect underlying vulnerabilities (World Health Organization, 2015, 2024d). Multimorbidity is becoming more prevalent and associated with adverse outcomes, such as declines in functional capacity, social roles, and quality of life (Galenkamp et al., 2011), as well as increased utilisation of health-care resources and related costs (Agborsangaya et al., 2013). In Namibia, among the population aged 60-64 years, 64.2% men and 56.0% women had high blood pressure or were taking antihypertensive medication, while diabetes, characterised by elevated fasting plasma glucose or medication use, was reported by 13% of men aged 60-64 years (Ministry of Health and Social Services, 2017). Consistent with these patterns, a study in Rwanda found that quality of life among older persons declined with advancing age and was lower among females and those who were single, divorced, separated, or widowed compared with men and those in partnerships (Boah et al., 2025). Social disengagement was identified as a factor that elevates the risk of mental health problems, particularly depression and cognitive impairment. The risk of physical health problems is highly associated with the level of social involvement among older persons. Being married and cohabiting can reduce the probability of social disengagement and subsequent physical and mental reliance. Consequently, divorce and widowhood among older persons, along with psychological stressors, may trigger social disengagement and increase the likelihood of physical and mental dependency. Remarriage can reduce this risk; however, women are less likely to remarry after a marriage or divorce (Amini et al., 2021).

Healthcare systems, particularly primary care, are often not well-equipped to meet the intricate demands of older persons, who require multidisciplinary, biopsychosocial interventions due to chronic and multi-system health issues (Kelly et al., 2019). In countries such as Namibia and South Africa, although the older persons receive free public healthcare and state pension beneficiaries have access to secondary and tertiary care, barriers persist. These include distance to facilities, long queues, staff shortages, misallocation of resources, and language constraints, which can lead to underuse of services (Kelly et al., 2019; Maharaj, 2020). Moreover, social and economic inequalities lead to poorer health outcomes and lower quality of life for older individuals from underprivileged backgrounds. Despite the population increasing, the current health infrastructure continues to prioritise caring for young people (Goharinezhad et al., 2016). Therefore, early markers of decline in the intrinsic capacity of older persons, such as decreased gait speed or decreased muscular strength, frequently go unrecognised, untreated or unmonitored, which is essential to do if they are to be reversed or delayed. Unfortunately, most healthcare professionals lack the guidance or training necessary to identify and manage impairments in older adults (World Health Organization, 2017b). In countries such as India and Pakistan, it is well-documented that geriatrics has not yet become a fully established speciality training pathway, with general physicians or primary care doctors typically delivering treatment for older persons (Matthews et al., 2023; Tu-Allah Khan et al., 2018).

The dearth of national-level offices dedicated to addressing the concerns of older persons in Sub-Saharan Africa suggests a lack of priority in considering the effects of population ageing. Many aspects of the older persons' well-being, such as abuse, long-term care, social protection, health concerns, and alternatives to traditional family care systems, require further research. It is slowly being recognised that families can no longer be the sole providers of care to older persons in rapidly changing African nations (Adamek et al., 2022). Studies on institutional care in African nations have revealed concerning results because of resource-poor environments and a shortage of geriatric professionals (Teka & Adamek, 2014). Notwithstanding the significant role of informal carers, there is also a lack of systematic and structured training and education for informal carers. Consequently, carers rely on cultural values and their personal expertise, which may affect the quality of care (Amini et al., 2021).

According to Namibia's Health Care Workforce Status Report, the healthcare facilities, staffing levels, and population pressure are as follows (Ministry of Health and Social Services, 2022):

Facilities:
Namibia has a reasonable distribution of hospitals, health centres, and clinics in relation to its population size, with larger regions (Khomas, Ohangwena, Zambezi) having more facilities. Nevertheless, regions like Hardap and Kavango East have fewer facilities and/or lower staffing.

Staffing levels:

Overall staffing is at a "fair" level, with approximately 62% of approved posts filled. Clinics are generally better staffed than hospitals or health centres. There are considerable shortages in some regions (Hardap, Kavango East) and within certain professional categories (specialists, pharmacists, allied health professionals).

Population pressure:

Regions with higher populations, such as Khomas, which has approximately 494,000 people, generally have better staffing and facilities; however, the vacancy rates (around 20–40% of unfilled posts) reveal an insufficient capacity to fully meet the population's health needs.

2.3.3 Perceptions of older persons towards ageing

Research on ageing perception demonstrates that perceptions can play an important role in successful/active ageing, especially in relation to physical and mental health and longevity (Cheng et al., 2021; Siebert et al., 2018). In the Active Ageing framework (see figure 2.1), wellbeing in later life emerges from the interlocking pillars of health, participation, and security, shaped by six determinant clusters: health & social services, behavioural, personal, social, economic, and physical (environmental) and cross-cut by gender and culture (World Health Organization, 2002, 2015, 2020a). Within the same framework (Figure 2.1), self-perceptions of ageing are positioned under the personal determinants (psychological factors) and interact with behavioural and social determinants to influence the pillars of health, participation, and security. Self-perception of ageing is defined as the beliefs and expectations an older person holds regarding their own ageing process (Levy et al., 2002). Older persons perceive their ageing experience through self-perception of ageing, especially during significant age-related transformations, such as declining health and physical capabilities (Velaithan et al., 2024). The perception of ageing affects social behaviours, expectations for older persons, overall well-being, and adaptation to the ageing process. The changes that occur during the ageing process significantly impact people's quality of life and mental well-being. If older persons perceive these changes negatively, their flexibility and adaptability decline (Kiarsipour et al., 2017). The same study found that life satisfaction, as a vital determinant of an individual's well-being, is closely associated with both physical and mental health. Life satisfaction is influenced by social resources, including interpersonal relationships, social environment, financial autonomy, and access to adequate healthcare. Social capital, as a social factor, is evaluated as an element that enhances life satisfaction in older persons based on its structural and cognitive characteristics (Wang et al., 2022). Life satisfaction is a subjective assessment of well-being that represents an individual's cognitive evaluation of their life as a whole (Hong et al., 2019; Miller et al., 2019). It is frequently utilised as an indicator to evaluate the well-being of older persons, and is influenced by multiple factors, including demographic structure, financial resources, health, physical condition, mental well-being, social support, social cohesion, and the prevalence of diseases (Banjare et al., 2015).

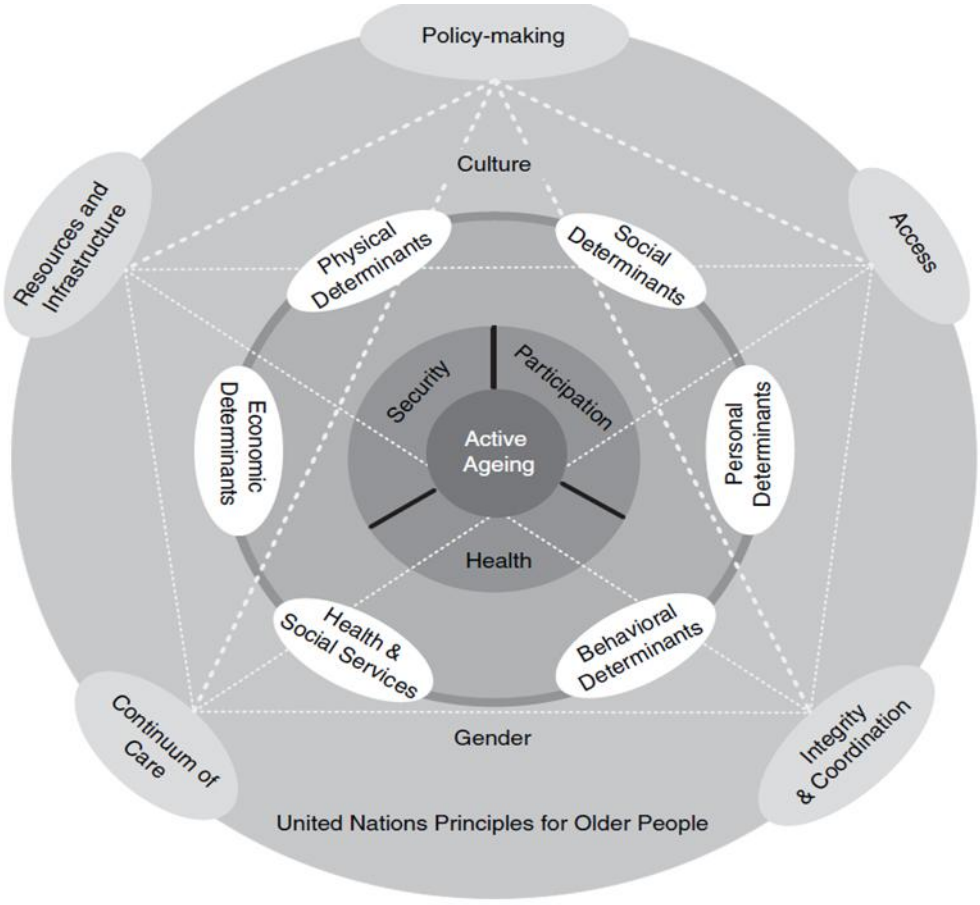


Figure 2.1: Conceptual framework to achieve active ageing goals in developing countries

Source: Reprinted from: (Goharinezhad et al., 2016).

2.3.4 Economic situation among the older persons

As people age, their ability to work and generate income declines, increasing their risk of falling into poverty. The inability to work has led many older persons to rely on their pension for their survival (United Nations Population Division, 2016). Most older individuals in sub-Saharan Africa must rely on their labour earnings or savings, help from family members, or charitable donations, because only 17% of those of pensionable age receive any pension (United Nations Population Division, 2016). Namibia provides a universal old-age pension to all older persons aged 60 and above, a rare best practice globally (Ministry of Gender Equality & Social, 2021). Each older person receives N$1,600.00 per month. They also get the funeral benefits of N$3,000.00. Although this is said, most older persons' pensions are used to support their grandchildren and great-grandchildren with food, clothing, and school expenses, leaving the older persons without enough to buy balanced diet foods and cover their medical expenses (Kloppers et al., 2015). Research has also found that older rural individuals often have low literacy, limited income, and lack land ownership, which can lead to social and economic hardship (American Psychological Association, 2017).

2.3.5 Pension (Employment and social grants)

Studies found that pension exposure is positively correlated with enhanced health, although the patterns differ based on the specific health outcome. Specifically, they found that being eligible for the old age grant is associated with improved overall health, especially concerning self-reported impairments, aligning with evidence suggesting that pensions can increase access to food, which may delay the onset of physical disabilities (Lloyd-Sherlock & Agrawal, 2014; Robinson, 2018).

Older individuals enhance household welfare by helping with childcare, educating, and passing on valuable Indigenous wisdom and traditional values to the younger generation (Kpessa-Whyte, 2018). The older generation also invests in the younger generation by financing their education, hoping that the younger generation will return the same support in the future. Nevertheless, because older persons mainly rely on old-age pensions to fund all this, they often fail to utilise the grant to their advantage. The pension scheme offers retirees a lump sum payment and monthly benefits upon retirement. The primary concern with the schemes is that the majority of the older persons were employed in the informal sectors (farming, fishing, trading, hawking, and artisans), where they did not pay taxes, and thus, the scheme is unable to provide any income support in their old age (Kpessa-Whyte & Tsekpo, 2020).

In Namibia's rural areas, pensions for older persons are often the most stable source of income for households. In 2023, 13.8% of households reported the old-age pension as their main income (Namibia Statistics Agency, 2024). Because these pensions support numerous family members, older persons frequently face pressure to share this income despite high personal costs such as transport and medicines. This makes the pension a critical household resource in areas where poverty is common. This dynamic also affects access to healthcare: older people report that, although they are not required to pay consultation fees at clinics, they often cover costs for family members and bear transport expenses to reach services (Van Rooy et al., 2015).

2.3.6 Policies

In numerous Sub-Saharan African nations, effective national policies, especially addressing the needs and concerns of older persons, remain absent. This situation underscores the need for research that investigates the barriers to implementing national ageing policies, including those that were formulated long ago but have not been backed with adequate funding, as seen in countries such as Ghana and Ethiopia (Adamek et al., 2022). Furthermore, in settings where some progress has been made in developing ageing-related policies, the wider public often remains unaware of the rights of older persons and the policies designed to protect and assist them (Adamek et al., 2022; Amini et al., 2021). In Namibia, the Ministry of Health and Social Services' national policy on the Rights, Protection and Care of older persons has not yet been finalised and remains in draft form.

2.4 GLOBAL RESPONSE TO AGEING

The global initiatives recognise the importance of addressing the challenges faced by older persons and aim to promote their well-being and inclusion in society by implementing the following:

- The Global Strategy and Action Plan on Ageing and Health, adopted in 2016, provides a framework for action to ensure long and healthy lives for everyone. It emphasises commitments to healthy ageing, age-friendly environments, synchronised health systems, equitable long-term care, and advancements in healthy ageing research (World Health Organization, 2017a)
- Sustainable Development Goals (SDGs): Goal 3 of the SDGs aims to ensure healthy lives and well-being for all at all ages. It emphasises the holistic approach to ageing throughout the lifespan and calls for integrating ageing issues into policies and programmes to achieve the SDGs' objective of leaving no one behind (United Nations, 2018).
- The Decade of Healthy Ageing (2021-2030): The United Nations General Assembly declared this decade to focus on promoting healthy ageing. WHO leads the implementation, fostering collaboration among governments, civil society, international organisations, experts, and other stakeholders (World Health Organization, 2020a). There are also two global civil society organisations, namely HelpAge International and the International Federation of Ageing, which support the WHO in championing the voices of older people (World Health Organization, 2020).

  Healthy ageing refers to "the process of developing and maintaining the functional ability that promotes well-being in older age". The goal of the Decade of Healthy Ageing is to enhance the functional ability of older people. Functional ability includes: 1) the capacity to meet one's basic needs; 2) the ability to acquire knowledge, grow, and make decisions; 3) mobility; 4) the ability to form and maintain relationships; and 5) the ability to contribute to society. Functional ability encompasses the intrinsic capacity of the individual, the environment in which a person lives, and the manner in which people interact with their environment (World Health Organization, 2020a). The report outlines a six-point pathway to improve functional ability, with four action areas, namely: i) change how people think, feel and act towards age and ageing; ii) ensure that communities foster older people's abilities, iii) establish person-centred integrated care and services designated for older people's; and iv) guarantee access to long-term care for older people who need it (World Health Organization, 2020a).

- WHO also implemented the Integrated Care for Older People (ICOPE) approach, which aims to realign health and social services towards more person-centred and coordinated care that enhances the intrinsic capacity and functional ability of older people within a Primary Health Care (PHC) oriented health system (World Health Organization, 2024a). The four-step pathway in primary care encompasses fundamental assessment and interventions within the community, in-depth assessment, formulation of a personalised care plan, and implementation and monitoring of the plan, as portrayed in Figure 2.2 below:

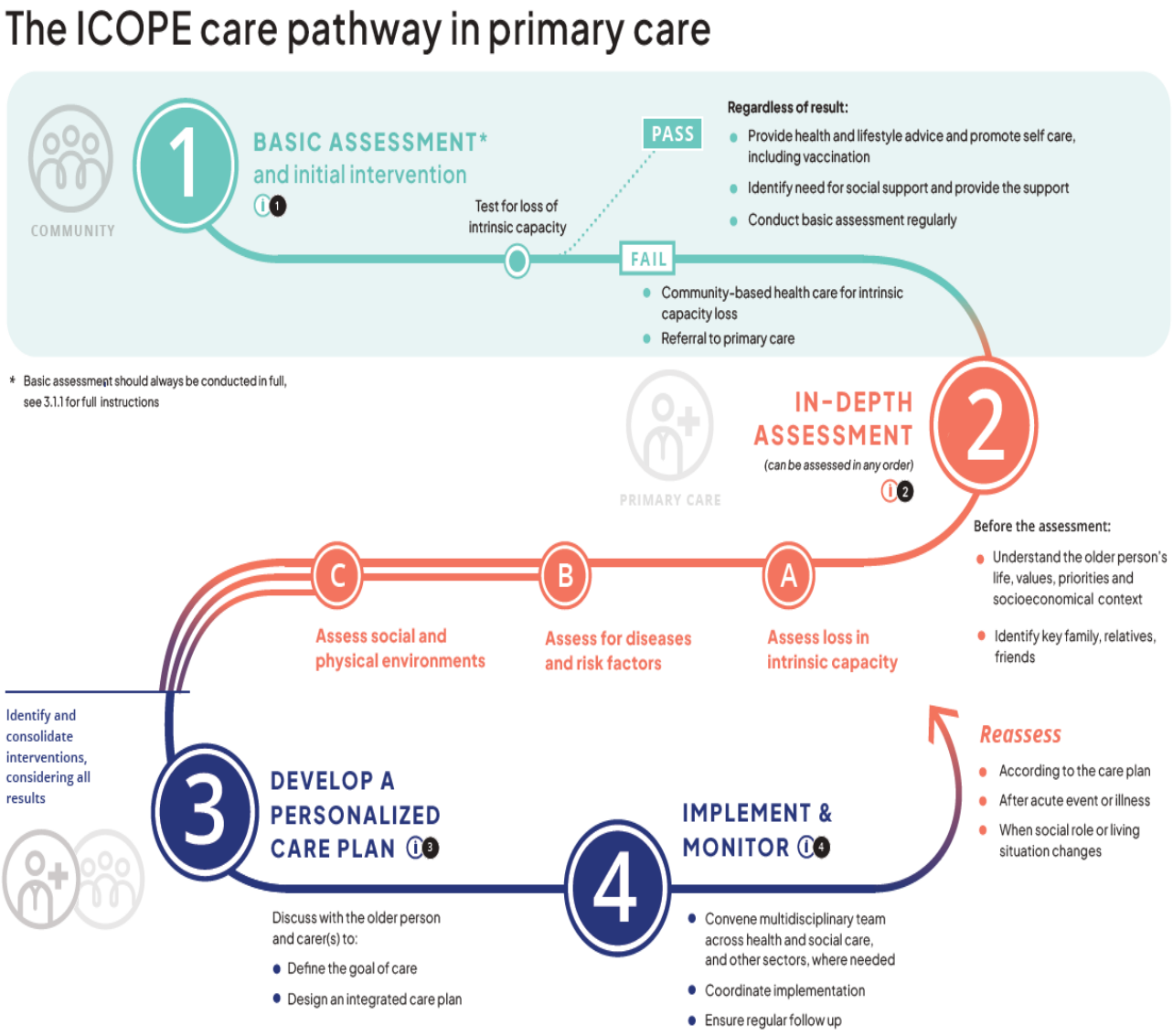


Figure 2.2: WHO Four-step ICOPE pathway in primary care

Source: Reprinted from: (World Health Organization, 2024a)

2.5 RESEARCH PHILOSOPHIES, MODELS, AND TOOLS

A model is viewed as a form of knowledge within the empirical patterns. It provides a thorough theoretical conception that explains how concepts relate to one another and is symbolised in written language and visuals (Chinn & Kramer, 2015). Research philosophy, on the other hand, is a framework of beliefs and values that guide how research is conducted and shape how researchers view reality and their methodological choices (Mwita, 2025). To produce a stronger impact from this study, it integrates the Health Belief Model (HBM) and Pender's

Health Promotion Model (HPM) to explain both the initiation and maintenance of older persons' care behaviours within Namibia's continuum of care (home-based/community services, and old-age homes). The HBM accounts for how older persons decide to start using a service/ predicts whether the older person will consider a service, e.g., moving to old age homes, whereas the HPM explains how people and systems facilitate sustained engagement and health-promoting practices that improve the wellbeing and care / it guides how to shape environments and support so that health promoting routines stick e.g. peer support or engagement in activities. It is best to use more than one theory because the model developed addresses multiple levels of health problems, including the individual, organisational, and community levels.

2.5.1 The Health Belief Model (HBM)

The HBM (decision gateway) is one of the earliest models of health behaviour and is now one of the most well-known in the area, as it provides specific guidance at the micro level for planning the "how to "part of interventions (Glanz et al., 2008; Sharma, 2021). It was created in the 1950s by a team of social psychologists from the U.S. Public Health Service who wanted to understand why so few people were taking part in campaigns to prevent and detect disease (Glanz et al., 2008; National Cancer Institute, 2005). The HBM comprises six constructs, as follows:

Perceived susceptibility. The individual assesses their risk of disease susceptibility. The risk of illness significantly influences individuals to alter their behaviour patterns to benefit healthy living. The more susceptible the individual feels, the higher the probability of preventive steps being undertaken (Sharma, 2021).

Perceived severity. This construct is similar to perceived susceptibility. The individual has a perception about the severity of an illness or an actual behaviour pattern that can harm them (Sharma, 2021).

Perceived benefit. This construct suggests that the programme should emphasise the benefits of the course of action (or preventive behaviour patterns) that individuals will perceive and consequently engage in (Glanz et al., 2008).

Perceived barriers. This construct pertains to the obstacles an individual anticipates if behaviour change occurs. The barriers include financial considerations, and the person may also exhibit psychological barriers, such as a fear of pain or a fear of danger associated with adopting new behavioural habits (Glanz et al., 2008).

Cues to action. These cues refer to the actual events, people or things that motivate people towards behaviour change (Hayden, 2009). This behaviour change model is optimal for health promotion campaigns, as the media may be utilised to educate the public on various aspects of health and ageing.

Self-efficacy. This relates to the belief in one's own ability to take action and do something (Hayden, 2009). An example of this construct is when related to the need for exercise, eating healthy and avoiding drug use (self-efficacy), but perceived barriers (such as laziness, lack of time to exercise, insufficient money and addiction to drugs) that prevent older persons aged 60 years and above from participating in such healthy living.

For example, the older people are more likely to act on their beliefs if they perceive themselves as susceptible to aging-related conditions and diseases such as non-communicable diseases **(perceived susceptibility)**, believe that these conditions and diseases could have serious consequences as some are incurable and can result in death if it is not managed **(perceived severity)**, consider that a course of action is beneficial in reducing either their

susceptibility to or severity of the condition such as medication management and drug use **(perceived benefit)**, and believe the anticipated benefits of taking action outweigh the barriers (e.g cost, transport, staffing, sufficient old age homes) to action **(perceived barriers)**, and educate the older persons on issues that comes with ageing as well as the benefits and disdavantages of remaining in the community and those of moving to an old age homes **(cues to action**), then they will be likely to take action that they believe will reduce their risks **(self-efficacy).** In this study, the HBM guides objectives 2) awareness and attitudes toward old age homes, and links objective 3(facility capacity) to objective 4) to appraise the prevalent health status and social living conditions of the older persons.

Health Belief Model Concepts

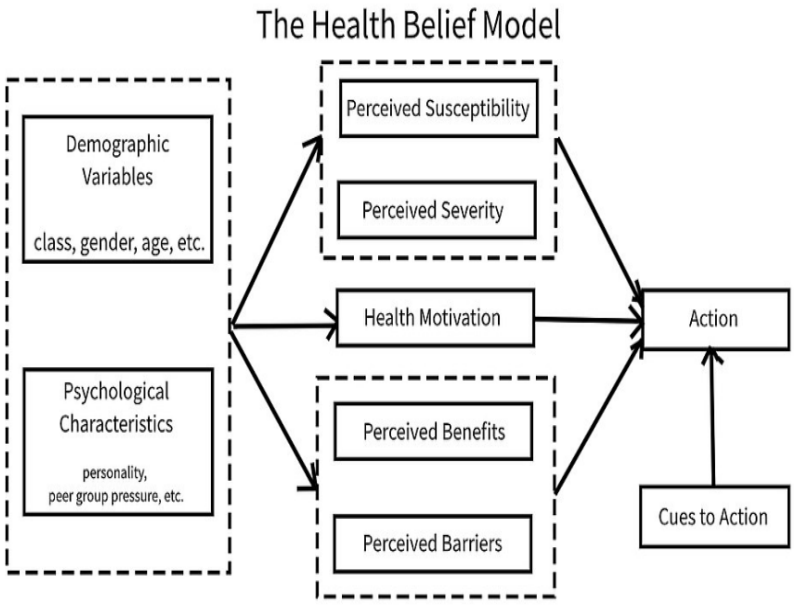


Figure 2.3: The Health Belief Model Concepts
Source: Reprinted from (Glanz et al., 2008)

2.5.2 Health Promotion Model (HPM)

The second model is the HPM (maintenance and design lens), which was developed by Pender in 1982 and updated in 1987, 1996, and 2002. The HPM offers a framework for deriving predictions and explanations of certain health behaviours (Aqtam & Darawwad, 2018a). It demonstrates how each individual is a biopsychosocial being, largely shaped by their surroundings, yet also aims to create environments that facilitate the full expression of innate and acquired human potential (Aqtam & Darawwad, 2018a). Although the HPM was initially designed to target individuals, the framework can also be used to target families, groups, or communities. The HPM further encompasses not just risk avoidance but also the maintenance of health-promoting behaviours, including physical activity, social engagement, and adherence. Behaviour-specific cognitions are influenced by interpersonal factors such as (family/caregivers/peers) and situational influences (transport, affordability, accessibility, safety), in addition to enjoyment/value and competing demands. Its components, as shown by Figure 2.4 below, can be explained as follows: **Input:** Health promotion for older persons relies on community health resources, funding, communication media, and sustained program intensity, all of which are strengthened by supportive public

policies that lay the groundwork for better health and independence. **Process:** These inputs are organised into structured health education, planned schedules, trained staff and conducive environments that intentionally guide individuals and communities to adopt healthier knowledge, attitudes and behaviours. **Output:** As a direct result, older persons develop better health literacy, more positive views about healthy living, and improved self-care practices, which help them value health, act together, and use health services appropriately. **Outcome:** Over time, these behavioural changes increase the independence of older persons, as seen in their ability to manage everyday activities and make their own decisions in life situations. **Impact:** Ultimately, the model aims to improve overall well-being in old age, enabling older persons to experience a fulfilling and healthy life, rather than one dominated by discomfort and decline (Murwani et al., 2019). The HPM therefore structures the design of the study's objectives 1 to 4, emphasising environments that make the healthy choice the easy choice, available resources, and attitude and awareness among older persons to improve behaviours and ultimately enhance well-being.

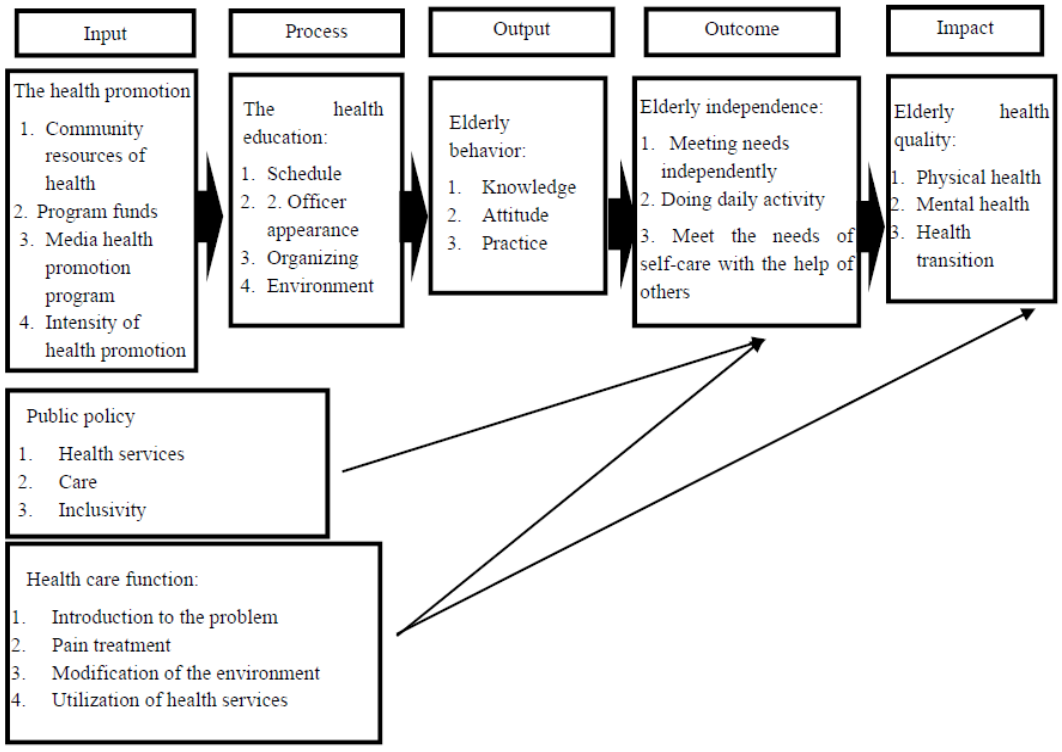


Figure 2.4: Health Promotion Model Illustrative Diagram
Source: Reprinted from: (Murwani et al., 2019)

2.5.3 The World Health Organisation Quality of Life tool

According to the WHO, an individual's quality of life is determined by their assessment of their place in life, taking into account the culture, value systems, goals, aspirations, standards, and worries that shape their perspective (Nakane et al., 2012). This tool is made using a 100-question questionnaire that has been developed and tested in various cultural settings. It aimed to provide a comprehensive understanding of an individual's quality of life by considering various dimensions that contribute to their overall well-being, focusing on six domains of quality of life, namely the physical, psychological, level of independence, social relationships, environment, and spirituality/religion/personal beliefs domain (Nakane et al., 2012). This tool was used to guide the right questions that were incorporated in the older persons' study questionnaire and covered the domains: The physical domain, which asked about their pain and discomfort, the psychological domain, which inquired about their feelings and self-esteem, and the level of independence domain, which asked about their mobility and dependence on medication and treatment. The social relationship domain inquired about their personal relationships and social support; the environment domain inquired about their physical safety and security, financial resources, health, availability and quality of social care, and transportation; and the spiritual domain inquired about their religious beliefs and personal values. It also asked about the subjective rating of their overall health status and quality of life.

2.6 SUMMARY OF THE CHAPTER

The literature review indicates that despite growing global attention to ageing, research output on older care systems in LMICs remains sparse. Namibia is particularly underrepresented. At the same time, there appears to be a lack of information on the existence of policies, social programmes, and plans to address the issues faced by older persons aged 60 years and above. The next chapter, Chapter Three, describes the research method and rationale employed in this study.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

In the previous chapter, a review of relevant literature was presented. This chapter presents the methodology and approach used in this study, which led to the development of the model. The methodology is presented in accordance with the study phases: Phase One, which involves a scoping review; Phase Two, which involves a mixed-methods cross-sectional survey; and Phase Three, which involves model development. Lastly, ethical considerations are also discussed.

The aim of this study was to assess the available diversity of care services offered to older persons in Namibia and to develop a community-based model for improving their well-being and care. This chapter described the study design and other methodological aspects. The research design encompassed the theoretical framework necessary to understand the type of information and analytical techniques employed to analyse and interpret data to answer the research questions (Creswell & Creswell, 2018). Based on the research onion (Figure 3.1), this study employed a cross-sectional survey, drawing on a pragmatist philosophy that primarily used inductive reasoning with some abductive logic. The study is pragmatic because its purpose is explicitly problem-solving to develop a model that improves well-being and care. It combined multiple forms of evidence from a scoping review, questionnaires, assessments of old age homes using a checklist, and interviews with key informants. Pragmatist philosophy is associated with mixed methods (Creswell & Creswell, 2018). It used an inductive approach with a bit of abduction because the study had made some assumptions which were answered by the data gathered and further built a model from what the data had revealed (inductive), at the same time explained the relationship between literature and field data (moving back and forth between data and ideas to refine the best explanation) because the scoping review was used upfront. An inductive approach is frequently used in developing a theory or in fields with limited research on the topic, while the abductive approach typically starts with a surprising fact and moves between induction and deduction in order to ascertain the most plausible explanation (Melnikovas, 2018).

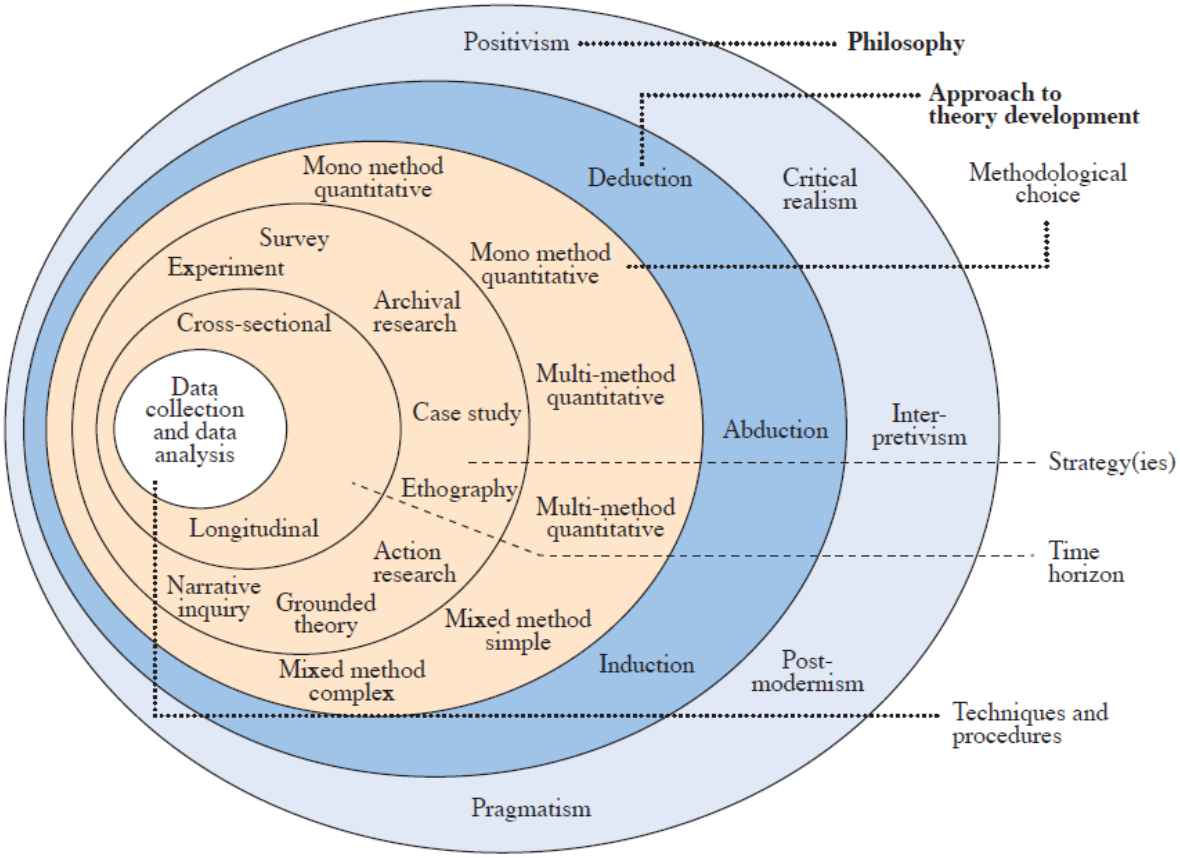


Figure 3.1: Research onion

Source: Reprinted from (Melnikovas, 2018)

3.2 PHASE ONE: SCOPING REVIEW

3.2.1 Introduction

In Phase 1, a scoping review was conducted to map the available evidence on community-based care approaches for older adults implemented in low - and middle-income countries (LMICs). This review was conducted and submitted for publication in 2024; however, the publication was not completed until April 2025.

There are several justifications for conducting a scoping review. A scoping review is suitable when the aim is to map the breadth and nature of evidence on a topic, clarify concepts and working definitions, and identify gaps to guide research, policy, or practice. Instead of addressing a narrowly defined effectiveness question, scoping reviews chart and synthesise diverse evidence sources (quantitative and/or qualitative) to show what is known, how it has been studied, and areas of uncertainty (Peters et al., 2015, 2017). This differs from systematic reviews, which consolidate evidence to answer a specific question, and from mixed-methods systematic reviews, which integrate quantitative, qualitative, and economic evidence to generate an explanatory synthesis intended for decision-making (Peters et al., 2015, 2017). In accordance with established guidelines, scoping reviews generally emphasise breadth rather than depth and use the PCC (Population, Concept, Context) framework to scope the

research question and may include (but are not limited to) critical appraisal, depending on purpose and feasibility (Arksey & O'Malley, 2005; Peters et al., 2015, 2017).

For this study, to map the existing literature on community-based older care approaches, the latest Joanna Briggs Institute (JBI) manual for Evidence Synthesis methodologies was adopted (Aromataris E, 2020). This edition follows the JBI methodologies of 2015 and 2017, respectively (Peters et al., 2015, 2017). This manual provided a clear, methodological, and transparent process for the review, which can facilitate its replication. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018) and the Guidance on Conducting Narrative Synthesis in Systematic Reviews were utilised in presenting the findings of the review (Popay et al., 2006; Tricco et al., 2018). The PRISMA-ScR was used throughout the review process (screening and reporting) (see Figure 3.2 further below). To limit the occurrences of reporting bias, the objectives, inclusion criteria, and methods for this scoping review were specified in advance and documented in a protocol, which was registered on the Open Science Framework (OSF) (Haufiku-Weyulu et al., 2024).

3.2.2 Eligibility criteria

The inclusion and exclusion criteria were determined based on the Population, Concept, and Context (PCC) mnemonic. The main aim of the study was to map the available evidence on community-based elderly care approaches implemented in LMICs. Hence, the review included articles and reports on community-based elderly care approaches, level of care, home-based services, formal and informal care provided to older persons 60 years and above, both male and female, conducted in low- and middle-income countries, aimed at providing support and improving their wellbeing, care and quality of life after 60 years. Namibia is classified as a middle-income country. The study focused on LMICs because, according to the World Health Organization (2015), ageing around the world poses a global challenge in eldercare. However, the challenge is most felt in the LMICs, where population ageing outpaces the development of aged care policies and services (World Health Organization, 2015). Due to the novelty of the subject area, sources of information were broad to help retrieved all full-text primary research studies (quantitative, qualitative, and mixed methods studies), books, guidelines, systematic reviews and scoping reviews and dissertations, newspapers, conference proceedings/abstract and other grey literature meeting the eligibility criteria, published in English (as the researcher was proficient in English only). Papers were also included if they were published between 01 January 2014 and December 2023 (because of the new area of study, as studies done outside of this time range were scarce and limited in the scope of topics relevant to ageing (Adamek et al., 2022). Furthermore, recent publications are likely to reflect current challenges, societal changes, policies, and innovations in older person care that are more relevant to this study, ensuring that the results aligned with the current legislative environment; studies were also to be published in LMICs to be eligible for inclusion. Articles and reports on older people under 60 years, written in languages other than English, and conducted in high-income countries before 2014 and after 2023 were excluded.

3.2.3 The search strategy

The search strategies (see Table 3.1 below) followed the three steps recommended by the JBI manual (Peters et al., 2017). 1: performing a preliminary search of published studies in the Science Direct and Google Scholar databases. 2: using the PCC mnemonic key terms of the inclusion and exclusion criteria; and search in Namibia University of Science and Technology (NUST) library database/ EBSCO discovery services, (including major databases such as MEDLINE, CINAHL, SCOPUS, Springer Nature Journals, Complementary Index, Academic Search Premier, Health Source: Nursing/Academic Edition, SAGE Knowledge, Newspaper Source, Open Dissertations,

eBook Collection (EBSCOhost), Health Source, African Journals, Science, ERIC, etc.); EBSCO host (contains Medline, CINAHL, Health Source: Nursing academic edition and Academic search premiers, Open dissertations, Newspaper Source and eBook collection); Science Direct; ProQuest Science and Technology, Google Scholar and websites of organizations (WHO and United Nations were also searched for unpublished 'grey' literature, and 3: All reports and articles meeting the review's eligibility criteria were searched to identify additional studies.

Table 3.1: The search strategies used in the process of looking for eligible studies.

1.	(("elderly" OR "old" OR "ageing "OR "aged" OR "Aged 60 years and older"OR "elder*"OR "Seniors" OR "Geriatric" AND ("Community-based elderly care " OR "level of care" OR " Eldercare "OR " long-term care " OR " formal care " OR " informal care" OR " home-based services "OR " Community Health Service*" AND ("Low- and middle-income countries "OR "Poor countries " OR "developing countries"))
2.	(("elderly" OR "old" OR "ageing "OR "aged" OR "Aged 60 years and older"OR "Seniors" OR "Geriatric" AND ("Community-based elderly care " OR "level of care" OR " Eldercare "OR " long-term care " OR " formal care " OR " informal care" OR " home-based services "OR " Community Health Services" AND ("Low- and middle-income countries "OR "Poor countries " OR "developing countries"))
3.	((elderly OR old OR ageing OR aged OR "Aged 60 years and older"OR elder*OR Seniors OR Geriatric AND ("Community-based elderly care " OR "level of care" OR " Eldercare "OR " long-term care " OR " formal care " OR " informal care" OR " home-based services "OR " Community Health Service*" AND ("Low- and middle-income countries "OR "Poor countries " OR "developing countries"))

3.2.4 Data management

The Rayyan online software (Ouzzani et al., 2016) was used to organise, manage, and remove duplicates. Reviewers were also invited to participate in this APP to review the process. To reduce reporting bias, the scoping review required at least two reviewers; as a result, two reviewers were recruited to join the researcher, resulting in three independent reviewers conducting a two-step process to select eligible articles. All titles and abstracts generated by the search were independently reviewed by three reviewers (MH, RM, and LA), who were blinded to each other, based on the established inclusion and exclusion criteria. Full papers were retrieved for the literature considered potentially relevant. The first reviewer (MH) reviewed the chosen full-text articles in detail. The second reviewer (RM) agreed with the choices of the full-text articles; any disagreement was resolved through discussions or with the third reviewer (LA). Following the full-text review, twenty-two (22) studies were identified as meeting the eligibility criteria and are therefore included in the synthesis (see Figure 3.2 below). The 22 studies were summarised in terms of the author and year, country, study design, sample size, objectives, and key findings (See Appendix 1). The secondary data obtained from the scoping review enriched the data collected in the subsequent phases by conducting a comprehensive review of articles. Moreover, it has also enabled the transfer of relevant insights from other low- and middle-income countries to the Namibian context.

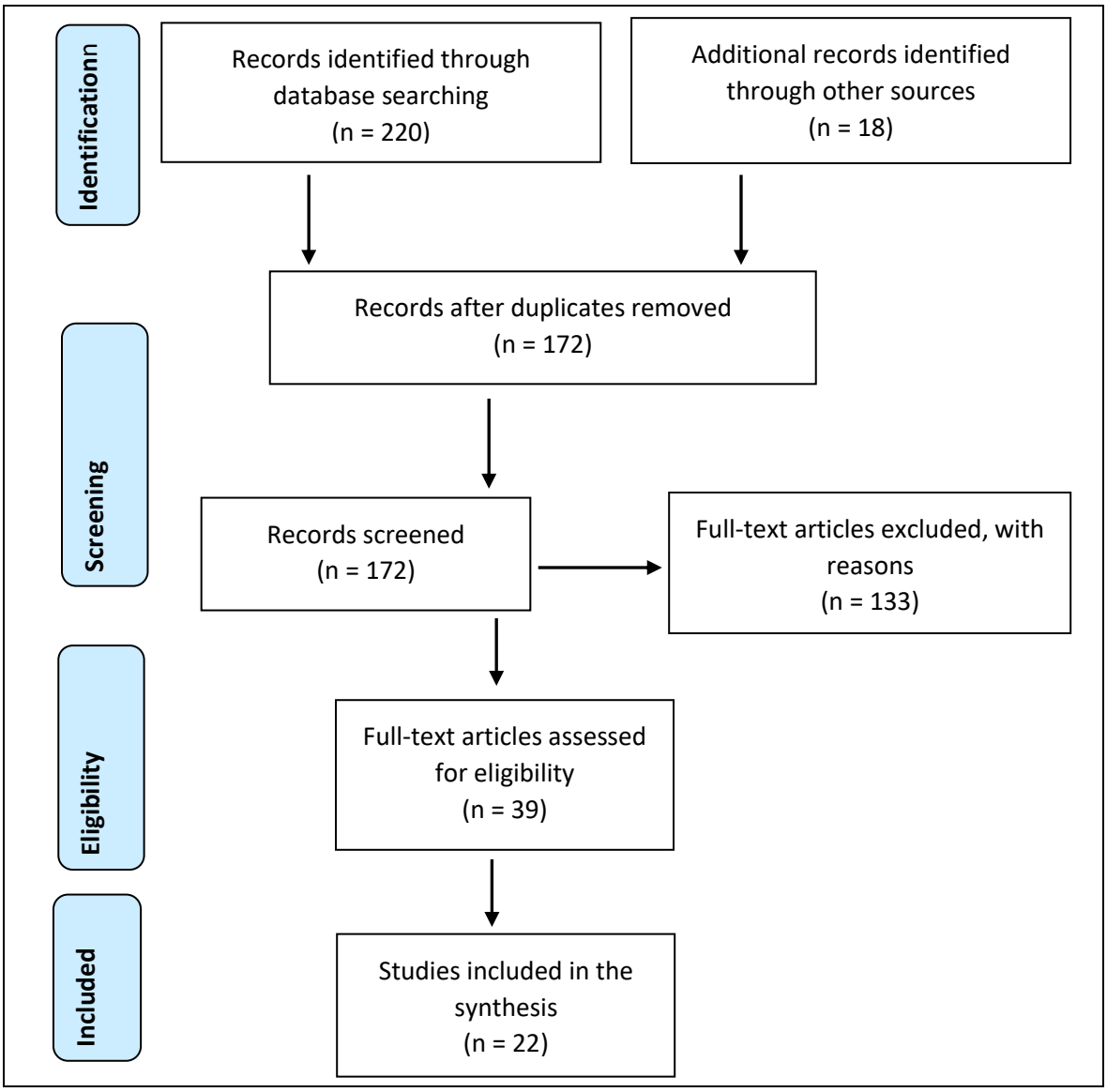


Figure 3.2: PRISMA flow chart for selected studies

Source: (Researcher's own construction, 2025)

In this thesis, the scoping review served as the structured desk-based evidence synthesis intended to map the research literature on community-based care approaches for older persons; a distinct desktop review of policy documents was not conducted. Instead, policy and service-related information (e.g., availability, implementation, and gaps) was explored through key informant interviews in Phase Two below as part of the mixed-methods.

3.3 PHASE TWO: MIXED-METHOD CROSS-SECTIONAL SURVEY

3.3.1 Introduction

In Phase Two, objectives 2-4, data collection was conducted simultaneously due to the large geographic spread of the three study regions (Ohangwena, Khomas, and Hardap) and the constrained financial, logistical, and time resources available. The study adopted a concurrent, mixed-methods (convergent-parallel) fieldwork strategy. In each region, the research team collected data for all three objectives during the same field visits as follows : (i) interviewer-administered questionnaires with older persons, which was done mainly by the research assistants, the principal researcher only joined in instances when done with the interviews; (ii) semi-structured interviews with key informants (including the caregivers, nurses, social workers, community leaders and the head of old-age homes) this is entirely done by the principal researcher; and (iii) structured assessments of old-age homes using an observational checklist, also entirely done by the principal researcher. The research assistants were trained together and supervised by the principal researcher, who provided careful guidance and monitoring. They also employed standardised operating procedures and adhered to the schedule established. Daily debriefings, spot checks, and inter-rater reliability checks were employed to ensure consistency and data quality across locations and methodologies. Triangulating quantitative and qualitative data collection techniques was employed, as it has been shown to enable a richer and deeper understanding of the research findings (Zhang & Creswell, 2013). Finally, using the results from Phases One and Two, a model was developed in Phase Three.

3.3.2 Study design and setting

A study design denotes the comprehensive strategy, including the methodologies and techniques employed to acquire and analyse data for the variables specified in each research problem (Ranganathan & Aggarwal, 2018). There are numerous types of study designs, each with its own specific benefits and drawbacks. The choice of a specific design depends on the nature of the research question, the study's objectives, and practical constraints such as time and resources. The selected design could influence the credibility and validity of the findings; therefore, it was essential to be familiar with different study designs and to understand their respective strengths and limitations (Ranganathan & Aggarwal, 2018).

This study employed a community- and facility-based cross-sectional survey design, utilising both analytical and descriptive methods, and drew on secondary and primary data. The cross-sectional survey design was suitable for this study because it involved an observational design that measured both the outcome and the exposure simultaneously, with participants selected according to predefined inclusion and exclusion criteria (Setia, 2016). Descriptive methods were used for summarising categorical variables using frequencies and percentages. An analytical approach was used, including testing relationships between variables with chi-square tests and fitting regression models to identify factors independently associated with the outcomes, and reporting odds ratios with 95% confidence intervals. Secondary data, such as experiences from other countries, were obtained from various sources, including journals, academic papers, textbooks, and websites. Primary data were obtained from questionnaires, observational checklists, and key informant interviews.

3.3.3 Sampling techniques

In quantitative research, sampling is conducted primarily to generalise findings to the wider population from which the sample is drawn. In contrast, sampling in qualitative research is usually intended to obtain a rich, detailed understanding of a particular situation, event, or episode, or to investigate various dimensions of an individual's experience, with the assumption that this person reflects key characteristics of the broader group and can thus offer valuable insights (R. Kumar, 2011). The rationale governing sample size determinations varies

significantly across quantitative and qualitative approaches. In quantitative studies, researchers typically determine the sample size in advance, guided by methodological requirements and practical constraints such as time and budget. In qualitative studies, the number of participants is not predetermined; data collection continues until no substantially new themes or information emerge, a point often referred to as data saturation (R. Kumar, 2011). The concept of sampling is illustrated by Figure 3.3 below:

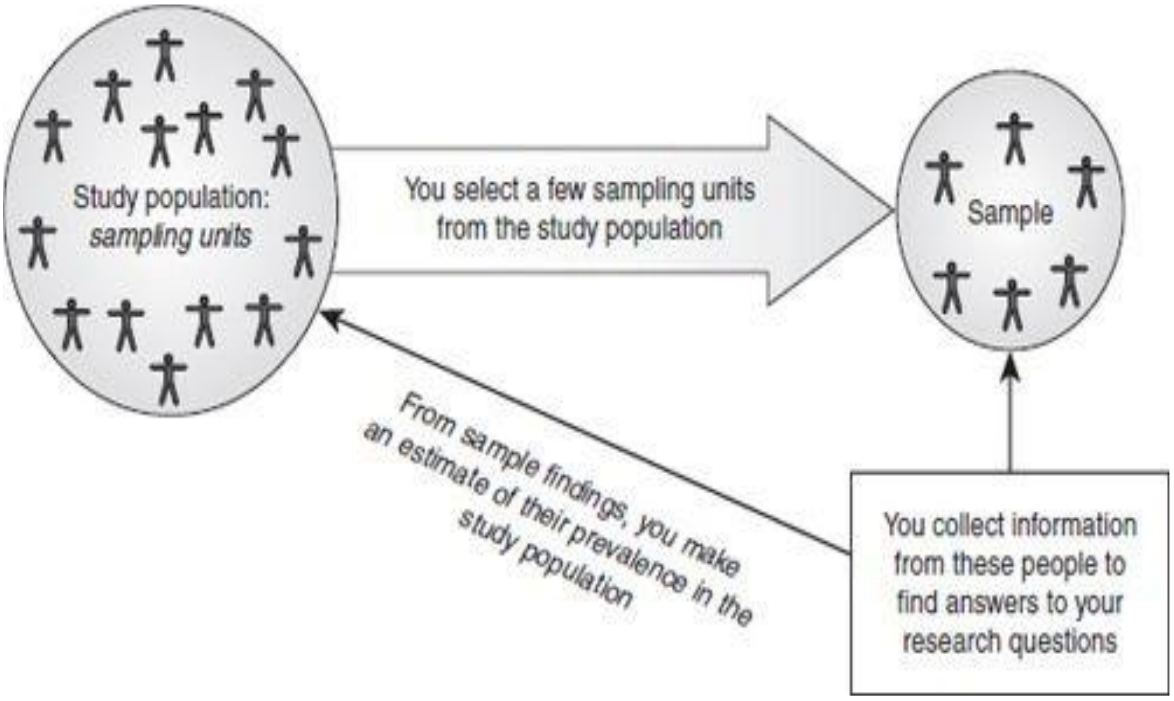


Figure 3.3: The concept of sampling

Source: Reprinted from: (R. Kumar, 2011)

3.3.3.1 Stratified Multistage Sampling

A stratified multi-stage sampling method was employed: First stage: Namibia's 14 administrative regions constituted the sampling frame and were grouped into three geographic strata (North, Central, South). This stratification was intended to improve geographical coverage and capture various ethnicities and socioeconomic disparities in Namibia. Second stage: Within each stratum, one region was selected using simple random selection without replacement. The regions falling under each geographical stratum were written, and the papers were folded and placed in three bowls (using the lottery method). Then one region was randomly drawn from each bowl. Ohangwena was drawn from the northern stratum (Zambezi, Kavango West, Kavango East, Kunene, Ohangwena, Omusati, Oshana, and Oshikoto regions), Khomas from the central stratum (Omaheke, Otjozondjupa, Erongo, and Khomas region), and Hardap from the southern stratum (Hardap and //Karas regions). These three regions constituted the study settings for Phase Two. Within each selected region, older persons were recruited through convenience sampling (nonprobability). Thus, probability sampling was used to select regions, while recruitment of participants within regions used non-probability sampling. In probability sampling, each sampling unit has a known, non-zero chance of being selected, unlike in non-probability sampling (Creswell & Creswell, 2018). Although non-probability sampling has limitations due to the subjective nature of selecting the

sample and its lack of representativeness, it is useful, particularly when randomisation is unfeasible, especially when the population is very large, and when the researcher encounters resource constraints, such as finances, time, and workforce (Etikan, 2016). This was the case in this study.

3.3.4 Data collection

Data collection is essential in research, as it aims to deepen understanding of a theoretical framework. It then became imperative that the manner of data acquisition and the source from which the data will be acquired be selected with sound judgment, as no analysis can compensate for poorly collected data (Tongco, 2007). Data collection for the study took place between September and November 2024, and the remaining interviews were completed in January 2025. To collect data, a mixed-methods approach was used, combining qualitative and quantitative methods. The mixed-methods approach was employed because it has been found to be a necessity for applying mixed-methods design protocols in health services research (Zhang & Creswell, 2013). Combining two procedures can yield diverse results: convergence, complementarity, development, initiation, and expansion. Health services researchers investigate several issues pertaining to the healthcare system. These concerns could encompass broad financial, organisational, and contextual aspects. When researchers develop new survey instruments, quantitative approaches fail to fully encompass the variety and dimensionality of these viewpoints. In the absence of comprehensive survey research and quantitative analysis, qualitative methodologies may not accurately reflect the representativeness of certain health outcomes. Neither qualitative nor quantitative research approaches alone can adequately fulfil their objective of ascertaining the truth regarding phenomena pertinent to health services researchers. Therefore, adopting mixed-methods research is essential for understanding complex phenomena in health services research (Zhang & Creswell, 2013). Accordingly, this study employed a mixed-method approach. Quantitative data were collected using an interviewer-administered, semi-structured questionnaire and a checklist. Qualitative data collection involved using Key Informant Interviews (KII) using interview guides and field notes.

3.3.5 Pilot testing

Pilot testing is crucial as it is the only practical method to detect questions that confuse respondents or interviewers before full rollout. It reduces measurement error and improves construct validity (Ruel et al., 2016).

Before fieldwork, a 5% pilot test of the data collection instruments was conducted in the Okahandja-Otjozondjupa region, which was excluded from the main study. This included 9 older persons, 1 old age home, 2 caregivers, 2 nurses, 2 social workers, and 1 constituency councillor. The pilot testing assessed that the instruments are correctly worded and clear, identifying any flaws and flagging ambiguities or redundancies. In parallel, the data collection tools were disseminated to two field experts for methodological and content review. Based on pilot feedback and input from experts and study supervisors, necessary adjustments were made, most notably the addition of socio-demographic items to the interview guides and rewording overlapping questions to avoid eliciting similar answers and thereby reducing participant fatigue. There were no suggestions for removing any questions except where duplication was identified. The pilot study also served as a field rehearsal, allowing the researcher to refine participant recruitment procedures for the main study (Ruel et al., 2016).

3.3.6 Quantitative approach

This approach was used to collect data from older persons through questionnaires and to systematically assess the capacity of old-age homes using a checklist.

3.3.6.1 Inclusion and exclusion criteria

Inclusion criteria

- Older people aged 60 years and above, residing in the three selected regions (Ohangwena, Khomas, and Hardap), who provided informed consent to participate in the study.
- Old-age homes in the three selected regions.
- To minimise systematic exclusion of older persons with communication limitations, older persons who cannot talk or hear and have authorised someone to represent them were also included. To ensure a holistic understanding of these individuals' preferences and well-being, communication was conducted with family members or caregivers who may have insights into their individual preferences, histories, and nonverbal communication cues.

Exclusion criteria

- Individuals aged below 60 years.
- Old-age homes not situated in the selected regions.
- Individuals not residing in the selected regions.

3.3.6.2 Sampling method: Convenience

The older persons were recruited using a convenience sampling method. Convenience sampling (also known as Haphazard Sampling or Accidental Sampling) is a type of nonprobability sampling where individuals from the target population are selected based on specific practical criteria, such as ease of access, geographical proximity, availability at a specific time, or willingness to engage in the study (Etikan, 2016). The convenience sampling technique is applicable to both qualitative and quantitative studies, although it is predominantly utilised in quantitative studies. The primary assumption of convenience sampling is that the members of the target population are homogeneous with respect to their characteristics. That is, there would be no difference in the research results obtained from a random sample, a proximate sample, a collaborative sample, or a sample collected in some unreachable part of the population. The disadvantage is its potential for bias (Etikan, 2016). Although convenience sampling was used to get the older persons, the regions were randomly selected. The participants were recruited from various locations, including homesteads, clinics, health centres, outpatient departments of hospitals, pension points, as well as from both rural and urban areas. They also included older persons from the community and those living in old-age homes. The participants came from 66 villages. The study did not establish a predetermined number of villages/towns for inclusion, and villages were not used as the primary sampling units. Instead, the participants were sampled at the individual level, and each participant was asked to state his or her village/town of residence. After data collection, the responses were analysed, and the unique village/town names were counted. This showed that the recruited participants came from 66 different villages/towns across the three regions. Therefore, the figure of 66 represents the number of distinct localities

reported by participants during fieldwork, rather than a predetermined selection of villages/towns. This has helped to increase the diversity and mitigate bias compared to convenient sampling from a single site. This was also essential for comprehensively understanding ageing conditions, health disparities, and their social well-being.

Older persons residing in the community may have more family support and greater independence. In contrast, those in old age homes may receive structured medical care but may face social isolation. Studying both groups helped identify unique risks, healthcare needs, and psychological challenges, which may lead to the development of an inclusive and successful model, policies and solutions. It also helped mitigate the study bias, providing a well-rounded perspective that can inform improvements in care and support systems for older people. Convenient sampling further ensured that those who could and were willing to participate were included, thereby increasing response rates and facilitating data collection. Furthermore, it helped the researchers maintain feasibility in terms of time and budget while still gathering valuable insights into the health, well-being, and social conditions of older persons. If any house had more than one older person, all were invited to participate. This study adopted the household definition from the 2023 Namibia Population and Housing Census, which defines a household as a group of people, related or unrelated, who live in the same dwelling unit and share or have common catering arrangements (Namibia Statistics Agency, 2024).

3.3.6.3 Sample size

The sample size for the older persons was calculated using the Cochran formula for descriptive studies:

$n = \frac{z^2 pq}{d^2}$ $\quad$ n= $\frac{1.96^2 x 0.068 x 0.932}{0.05^2}$ = **97 older persons**

Thus, **97** older people were targeted for sampling from each of the three regions **(97 x 3 regions = 291)**. However, due to interest, 100 older people were sampled from Ohangwena and Hardap, and 104 were sampled from the Khomas region **(achieving N=304)**, which may have enhanced data quality and study reliability while allowing for deeper and more meaningful analysis.

n = the desired minimum sample size

z= the standard normal deviate, usually set at **1.96** at a 95% confidence level

p= the proportion of the population with the particular characteristic being studied or the prevalence of the disease in the population.

P is adapted from Namibia's 2023 population and housing census report (Namibia Statistics Agency, 2024)

Total Namibia population in 2023= 3 022 401

Total Namibia population of the aged 60 years and above in 2023 = 206,675

P= 6.8% = 0.068

q= 1.0 – p =1.0 – 0.068 = 0.932

d=degree of accuracy desired, set at 0.05

Sampling of old-age homes followed a total-population approach, in which all old-age homes in the selected regions were eligible for inclusion. During the data collection period, there were no old-age homes in Ohangwena; there was one in Hardap, and six in Khomas (seven facilities in total). Of these, six were evaluated; one facility was excluded because ethical approval could not be secured. Among the six assessed institutions, four were privately owned, and two were public.

3.3.6.4 Data collection instruments

Regarding the quantitative method, an interviewer-administered questionnaire was administered to all older persons (n = 304), regardless of literacy level. Questionnaires are vital instruments in health research, serving as structured instruments for the systematic and consistent collection of information from patients, healthcare providers, and broader populations (Koo & Yang, 2025). The interviewer-administered approach was crucial for older person respondents, as it helped overcome literacy barriers, cognitive and memory impairments, and comprehension difficulties. They also increase engagement, guarantee greater response rates, and provide emotional support, particularly when discussing sensitive topics. One could also clarify complex questions and probe for more accurate responses, thereby enhancing the study's data reliability. Most of the questions in the questionnaire are adapted from the World Health Organisation Quality of Life Tool (WHOQOL) tool and the Attitudes to Ageing Questionnaire (AAQ) (Laidlaw et al., 2007; Nakane et al., 2012). The questionnaire consisted mainly of categorical data questions (both nominal and ordinal).

A total of six research assistants with bachelor's level qualifications received structured training in research ethics, rapport building with older persons, probing techniques, and fieldwork etiquette. The training was provided by the primary researcher. Supervision, including spot checks, daily debriefs, and verification of random questionnaires, was done by the principal researcher. They also signed the confidentiality agreement, as they had access to confidential information about participants and the data collected during the study. All research assistants adhered to strict confidentiality standards to ensure the research's integrity and protect the participants' privacy. They administered the questionnaires after obtaining informed consent from each participant.

The questionnaire (see Appendix 4) reflected the study objectives, and it consisted of three sections: socio-demographic characteristics, community awareness and attitudes toward old age homes, and prevalent health status and social living conditions. Socio-demographic variables obtained included (age, sex, marital status, living arrangement, educational background, physical mobility, and socio-economic status). Community awareness and attitudes towards old age homes, including awareness of old age homes (OAH) in Namibia, whether older persons in the community would want to go to an OAH, and reasons if not, as well as the benefits of OAH. There were also some different variables for older persons in the community and those in OAH; various variables had Likert scales, such as strongly disagree, disagree, undecided, agree and strongly agree. The prevalent health status and social living conditions variables obtained included how they perceive old age, their current health status and quality of life, diseases or conditions they suffer from, dependency on medication and medical aids, how they like their current residence, how they spend their old age pension, their daily types of meals as well as their smoking and alcohol consumption status. Some variables were measured on a Likert scale (such as not at all, a little, a moderate amount, very much, and an extreme amount, with 1 corresponding to not at all and 5 corresponding to an extreme amount). The health Likert scales, as per the WHOQOL tool, were categorised as very poor, poor, neither poor nor good, good, and very good.

A structured checklist in English was used to address Objective 3 of the study, which evaluated the old-age home's capacity and service readiness. A checklist is defined as a list of factors, properties, aspects, components, criteria, tasks or dimensions that a respondent evaluates and documents (as present/absent or scored for quantity) during its completion (Mathison, 2005). The instrument consisted of 23 closed-ended questions on various items, including bed capacity, staffing, fees and admissions, hygiene, indoor conditions, safety and security, accessibility, recreation and activities, health services, and overall ratings. Options to select the correct response regarding satisfaction with the researcher's observation were provided on the checklist, including Yes, No, N/A, and a comments option (see Appendix 2). The checklist assessments were entirely conducted by the principal researcher; the assistants helped only with the questionnaires.

3.3.6.5 Measures used to ensure the reliability and validity of the quantitative data

As presented in Table 3.2 below, this study employed some measures to ensure the reliability and validity of the quantitative data.

Table 3.2: Measures used to ensure the reliability and validity of the quantitative data

Component	Definitions	Provisions made by the researcher to achieve this:
Reliability	Refers to the extent to which a measurement is consistent and minimally affected by error, yielding the same results when applied repeatedly over time by the same individual or by different researchers (Mokkink et al., 2024).	✢ The researcher ensured that the checklist and the questionnaires were clearly written. ✢ Most of the questions in the questionnaire are adapted from the World Health Organisation Quality of Life Tool (WHOQOL) tool and the Attitudes to Ageing Questionnaire (AAQ) (Laidlaw et al., 2007; Nakane et al., 2012). These are validated tools that exhibit established reliability and validity across several countries. ✢ Cronbach's alpha was also calculated to evaluate the reliability of the measuring instrument used in this study, using International Business Machines (IBM) Statistical Package for the Social Sciences (SPSS), Version 30. Cronbach's alpha is a prevalent reliability coefficient that measures the internal consistency of a set of scale or test items by evaluating their average correlation among them (Tavakol & Dennick, 2011). The common guidelines for interpreting Cronbach's alpha indicate that coefficients of 0.7, 0.8, and 0.9 or higher are deemed acceptable, good, and excellent, respectively (Gliem & Gliem, 2003; Tavakol & Dennick, 2011). The alpha coefficients, as displayed in Table 4.7, further below, obtained from this study's dataset vary from 0.645 to 0.829. Based on

		these criteria, the measurement instrument demonstrated good internal consistency. - The questionnaires were interviewer-administered to minimise missing data; the research assistants who helped were given clear instructions and were supervised by the principal researcher, who was always available to explain whenever clarity was needed. - The principal researcher was the only person who used the checklist to assess the old age homes, in order to minimise collector bias.
Validity	The degree to which the instrument measures the construct(s) it is intended to measure (Mokkink et al., 2024) **Face and content validity** The judgment that an instrument's validity in measuring its intended variables mostly hinges on the logical alignment of its questions with the study objectives. Every item in the instrument should clearly correspond to at least one objective, and this alignment is referred to as **face validity.** Additionally, the set of questions or items should adequately cover the full scope of the concept, issue, or attitude being investigated. Evaluating the extent to which the instrument's items represent this entire domain is referred to as **content validity** (R. Kumar, 2011).	**Face and content validity** - The questionnaire (see Appendix 4) was very comprehensive and reflected the study objectives, consisted of three sections: socio-demographic characteristics, community awareness and attitudes toward nursing homes, and prevalent health status and social living conditions. - The checklist (see Appendix 2) had incorporated various elements from the capacity of old-age homes, staffing, fees and admission, hygiene, indoor conditions, safety and security, accessibility, recreation and activities, health services and overall ratings. - A 5 % pilot test of the data collection instruments was conducted in the Okahandja-Otjozondjupa region to ensure that the instruments are correctly worded and clear to identify flaws. It also enhances the study's construct and external validity. - Data collection tools also incorporated feedback from experts in the field. - The study supervisors reviewed the checklist and the questionnaire to ensure that they cover the content and measure what they are supposed to measure. - Stratified muti-stage sampling was used to select one region from each geographic stratum of Namibia, which helped to improve geographical coverage and captured the various ethnicities and socioeconomic disparities in Namibia. (This helped to improve external validity)

	Concurrent and predictive validity **Predictive validity** is assessed by the extent to which an instrument can anticipate an outcome. **Concurrent validity** is evaluated by how well an instrument compares with a second assessment concurrently done (R. Kumar, 2011).	**Concurrent and predictive validity** - Some questions were analysed by finding correlations between them; for example, significant associations were found between living arrangements (community vs. old age homes) and educational attainment, the number of dependents, current illness, and perceived loss of independence ($P < 0.05$). - Some Likert scales used in the questionnaire were adapted from the World Health Organisation Quality of Life Tool (WHOQOL) tool and the Attitudes to Ageing Questionnaire (AAQ). An example is the rating scale, which includes Very Poor, Poor, Neither Poor Nor Good, Good, and Very Good, used to measure the health status and quality of life of older persons.
	Construct validity **Construct validity** is a more advanced method for establishing the validity of an instrument. It is founded on statistical methodologies. The contribution of each construct to the total variance observed in a phenomenon is determined to ascertain it (R. Kumar, 2011).	**Construct validity** - This was determined by the reliability measurements, such as Cronbach's alpha.

3.3.6.6 Data analysis

Data analysis refers to the systematic organisation, synthesis, evaluation, and interpretation of research data, as well as the testing of research hypotheses using those data (Johns Hopkins Health System, 2025).

Data analyses were conducted using the IBM SPSS (Version 30), which served as the primary statistical tool. Microsoft Excel was used for supplementary figures. Most variables were categorical (nominal/ordinal). The Likert-type items were analysed as ordinal responses because response options represent ordered categories with potentially unequal intervals. The data are presented as frequencies and percentages for categorical variables. Graphs and charts were used to explore the data, check assumptions, and present the results. Bivariate associations were assessed with Pearson chi-squared tests for categorical variables. Custom tables were used to combine counts, percentages, and summary statistics across multiple variables and subgroups. For binary outcomes, logistic regression with adjusted odds ratios and 95% CI was used. For all analyses, a two-tailed alpha of ≤ 0.05 was used to determine statistical significance, as it is a standard for hypothesis testing.

3.3.7 Qualitative approach

This approach was used to interview key informants whose roles involve regular interaction with older persons in the community, old-age homes, and healthcare settings (nurses, social workers, caregivers, heads of old-age homes, and village heads/constituency councillors).

3.3.7.1 Inclusion and Exclusion criteria

Inclusion criteria

- Key informants residing in the selected regions and involved in older persons' welfare and care, including in-charges of old age homes, caregivers, health workers (nurses and social workers), and community leaders (such as village headmen and constituency councillors) who provided informed consent.

Exclusion criteria

- Key informants/government officials not involved in services or programmes relevant to older persons' welfare and care.
- Key informants not residing in the selected regions.

3.3.7.2 Sampling method: Purposive

The key informant interview participants in this study were purposively selected. In purposive sampling, the researcher determines what needs to be known and seeks individuals who can and are willing to provide the information by virtue of knowledge or experience (Etikan, 2016). Purposive sampling is generally used in qualitative research when depth of understanding is required rather than statistical representativeness, and is also employed when resources are limited, allowing for a focus on the most informative cases (Etikan, 2016).

3.3.7.3 Sample size

Recruitment was guided by data saturation; interviews were discontinued when no new themes emerged. In total, saturation was reached after interviewing 17 nurses, 14 social workers, 22 caregivers, 2 heads of old-age homes, and 10 village heads or constituency councillors. Data saturation is commonly taken to indicate that, based on the data collected or analysed thus far, further data collection and/or analysis are unnecessary (Saunders et al., 2018). This was achieved by analysing the interviews after completing each day.

3.3.7.4 Data collection instruments

The key informant interviews were conducted using semi-structured interviews. Semi-structured interviews are the predominant form of interviews used in qualitative research and the healthcare sector (DeJonckheere & Vaughn, 2019). They are defined by allowing the interviewer to choose the format and sequencing of the questions. They also allowed the interviewer to delve deeper into the interviewee's responses, thereby fostering a more in-depth discussion (Ayana, 2012;Edwards & Gaber, 2014). Semi-structured interviews were suitable for this study because they enabled the exploration and investigation of in-depth views from several experts in the field on the available support for older people. This was necessary to explore new concepts and generate themes that helped explain the results from the quantitative phase and tested the hypotheses. The interview guide's questions were not exhaustive, and the researcher used follow-up questions to probe further into participants' answers, such as "Can you explain more?"; "Can you give an example?" and other questions were asked to

contribute to a deeper exploration of the subject. The interviews included both closed-ended socio-demographic items to describe the study participants' profiles and several open-ended questions tailored to their expertise, such as whether they are nurses, social workers, caregivers, facility heads, headmen, or constituency councillors.

The interview guide questions were designed based on the research objectives, the literature review, and comments from the study supervisors, field experts, and participants in the pilot interviews. There were different interview guides for caregivers, social workers, nurses, constituency councillors/village heads, and heads of old-age homes. Each guide had questions unique to the group's jobs and duties (See the interview guides in Appendix 3). The appointments were made before the interview date, and the interviews were conducted at the participants' offices or preferred locations, ensuring a distraction-free, third-party-free environment. The purpose of the study was described prior to the commencement of the interview, along with the measures taken to ensure their privacy, confidentiality, and anonymity. Consent was also sought for the digital audio record. Audio recording produced a verbatim record of the data, supporting referential adequacy and enhancing the study's credibility (DeJonckheere & Vaughn, 2019; Rutakumwa et al., 2020). All the individual in-depth interviews were recorded using a laptop audio recorder. An audio recording was used to supplement the interview guides during individual interviews. Its advantage is that it allows the researcher to focus on the interview process and build rapport with participants rather than relying solely on extensive note-taking, thereby minimising distractions. In addition, where necessary, field notes were taken to enhance data collection by capturing information that an audio recorder could not, including non-verbal communication and contextual details provided by key informants. Field notes are defined as descriptions of events observed during fieldwork in a social context and documented at the time of observation, or immediately thereafter (Phillippi & Lauderdale, 2017). The steps used for conducting the semi-structured interviews are presented in Table 3.3 below.

Significant measures were implemented to ensure the trustworthiness of the data, including those of Lincoln and Guba's (1985) approach, which aimed to establish trust in qualitative research (Clift et al., 2021; Lincoln & Guba, 1985), (See Table 3.4 below). The interviews lasted 20 to 45 minutes. After each interview was conducted and recorded, the recordings were transcribed verbatim 24 hours later to provide a guide for continued data collection and analysis. The few non-English interviews were translated into English to ensure the same meaning before being transcribed verbatim.

Table 3.3: Steps to designing and conducting semi-structured interviews (DeJonckheere & Vaughn, 2019)

Step	Task
1	Determining the purpose and scope of the study
2	Identifying participants
3	Considering ethical issues
4	Planning logistical aspects
5	Developing the interview guide
6	Establishing trust and rapport
7	Conducting the interview
8	Memoing and reflection
9	Analysing the data
10	Demonstrating the trustworthiness of the research
11	Presenting findings in the form of thematic tables

3.3.7.5 Measures used to ensure the trustworthiness and success of the interviews

Table 3.4: Measures used to ensure the trustworthiness and success of the interviews

Component	Provision made by the researcher to achieve this:
Credibility	This is the confidence that can be placed in the truth of the research findings. Credibility determines if the research findings accurately reflect credible information derived from the participants' original data and correctly interpret their perspectives (Korstjens & Moser, 2018). The following provisions were made by the researcher to achieve this: - Measures have been implemented to verify the representativeness of the data (recruiting key informants from all three study regions). - Multiple methods were employed to enhance the depth and richness of data collection, including a scoping review, face-to-face interviews, field notes, direct observation, and audio recordings. - The researcher spent more time on participants' face-to-face individual interviews and gained an in-depth understanding of challenges faced by older persons and their caregivers.

	➢ The data collection tools were shared with experts in the field for review, and errors, ambiguities, and redundancies identified were addressed through necessary adjustments. ➢ There were ongoing consultations with experts such as research supervisors, colleagues from work and other organisations, such as MoHSS. ➢ Audio recordings also provided a reliable record of the qualitative data, supporting referential adequacy and thereby enhancing the credibility of the data. ➢ The principle of voluntary participation was explicitly communicated to every individual approached, ensuring that only those who genuinely desired to participate and were willing to provide honest information were included in the data collection sessions. ➢ The data collection was stopped only when it no longer yielded any new information, as transcription of the interviews was immediately done after each day of collection. ➢ This study resulted in three peer-reviewed articles, an abstract and a fourth manuscript was submitted for possible publication (See appendices 15-18). ➢ During the PhD study, the researcher attended various research seminars and methodological workshops that focused on several aspects, including the development of data collection tools, data collection methods, and data analysis, which have contributed to the credibility of this study (See Appendix 6 for the seminars attended).
Transferability	This refers to the extent to which qualitative research findings can be transferred/generalised to other contexts or settings involving different respondents. The researcher enables the transferability judgment by a prospective user through a comprehensive description (Korstjens & Moser, 2018). The following provisions were made by the researcher to achieve this: ➢ Demonstrated by providing a detailed description of the respondents and samples: Key informants with relevant experience in the field of ageing and dealing with older persons aged 60 years and above, they were from Ohangwena, Khomas or Hardap. ➢ Different data collection methods such as scoping review, face-to-face interviews, field notes, observation and audio recording were used to enrich the data collection process.
Dependability:	This refers to the stability of findings over time, similar to reliability as described in the quantitative approach. It means that if the study is to be repeated with the same or similar participants in the same or similar context, its findings would be

	similar. Dependability entails the assessment by participants of the study's findings, interpretations, and recommendations, ensuring that all are substantiated by the data obtained from the study's participants (Korstjens & Moser, 2018). The following provisions were made by the researcher to achieve this: • The researcher verified that the data, findings, interpretations, and recommendations were scrutinised by the supervisors and examiners to verify the study's acceptance. • The researcher also clarified and executed a robust methodological representation that thoroughly narrates the operational aspects of data collection and records all field activities.
Confirmability	Confirmability: The degree to which the results of the research study can be validated by other researchers, similar to reliability in quantitative research. Confirmability is concerned with demonstrating that the data and interpretations of the findings are not mere constructs of the inquirer's imagination but are distinctly grounded in the evidence (Korstjens & Moser, 2018). The following provisions were made by the researcher to achieve this: • This was ensured by having two research team members (the principal researcher and one assistant), transcribing and reviewing every piece of data. • The researcher identified and acknowledged deficiencies and limitations in the study's methods and their potential implications. • A range of data collection methods, including face-to-face interviews, field notes, observation, and audio recordings, were utilised to ensure that the findings authentically represented participants' perspectives rather than the researcher's own interpretations or prejudices.
Clarity	The following provisions were made by the researcher to achieve this: • The laptop used for audio recording had a high-sensitivity microphone that captured audio clearly, allowing both the interviewers' and interviewee's voices to be easily heard for transcription. • Moreover, the interview guides were piloted with two staff members from each category in the Okahandja – Otjozondjupa region, as well as two external field experts, who were not involved in the main study, to further evaluate the relevance and clarity of the questions.
Backup	The following provisions were made by the researcher to achieve this:

	➢ The researcher had a backup laptop in case the primary laptop battery ran low, which ensured the continuity of data collection. The laptop was also easy to use.
Familiarity	The following provisions were made by the researcher to achieve this: ➢ Prior to data collection, the researcher familiarised herself with the audio-recording equipment and recording procedures.
Note-taking	The following provisions were made by the researcher to achieve this: ➢ The researcher took notes during the interviews, in addition to the audio recording, to ensure that all interview questions had been answered and to guide follow-up questions, allowing the interview to flow from the interviewee's lead.

3.3.7.6 Data analysis

The socio-demographic data of the qualitative participants were analysed descriptively in SPSS and presented in frequencies and percentages. The interview transcripts were analysed manually using a deductive thematic approach guided by the interview questions, which reflected the study objectives, following Braun and Clarke's six-phase methodology (Braun & Clarke, 2006). Thematic analysis is a technique for identifying, analysing, and reporting patterns (themes) within data, and it thoroughly organises and describes the data set (Braun & Clarke, 2006). Audio recordings were listened to repeatedly and transcribed verbatim; interviews conducted in languages other than English were translated prior to analysis. In line with the framework, the researcher familiarised herself with the data and generated initial codes, using manual techniques, including jotting notes with keywords and highlighting. From Step 2, the researcher may use software or conduct manual coding (Ahmed et al., 2025; Braun & Clarke, 2006). Codes were then collated and examined to identify potential themes aligned with the research questions, after which themes were reviewed against the coded data and the full data set to ensure coherence and distinctiveness. Themes were refined, defined, and named to ensure each theme conveyed a clear analytic story and contributed meaningfully to answering the research question. Finally, themes and subthemes were reported, along with sample quotes to support and clarify the interpretation.

3.3.8 Data management

After data collection, the coded questionnaires were verified, sorted, and entered into the statistical program (IBM SPSS v30). Audio interviews were transcribed verbatim into Microsoft Word. The data contained only pseudonymous study codes. The data was protected against unintentional, unlawful, or unauthorised access, disclosure, or theft during and after the study. Digital files (anonymised audio, transcripts, and datasets) were stored on the researcher's password-protected computer, and the coded physical materials (questionnaires, consent forms, interview guides, checklists) were stored in a locked cabinet in a restricted-access office. The data will be destroyed appropriately after 5 years post-study to ensure compliance with data protection and privacy regulations. The hard-copy data collection materials will be shredded after the study is completed, as soon as they are no longer needed for further analysis or verification. Digital data will be destroyed by deleting or

overwriting information. These measures align with the Declaration of Helsinki's requirements for privacy/confidentiality, as well as good-practice data protection guidance (World Medical Association, 2025).

3.4 PHASE THREE: MODEL DEVELOPMENT

The developed conceptual model was guided by the theory and model definitions presented in Table 3.5, further below, as well as the inductive theory-generating method described by Chinn and Kramer (2015), as illustrated in Figure 3.4 below. The study was theory-generative because the results obtained were used to develop a model aimed at improving the well-being and care of older persons aged 60 years and above in Namibia. The model generation phases include concept identification and analysis, construction of relationship statements and descriptions, evaluation of the model, and development of guidelines for operationalising the model.

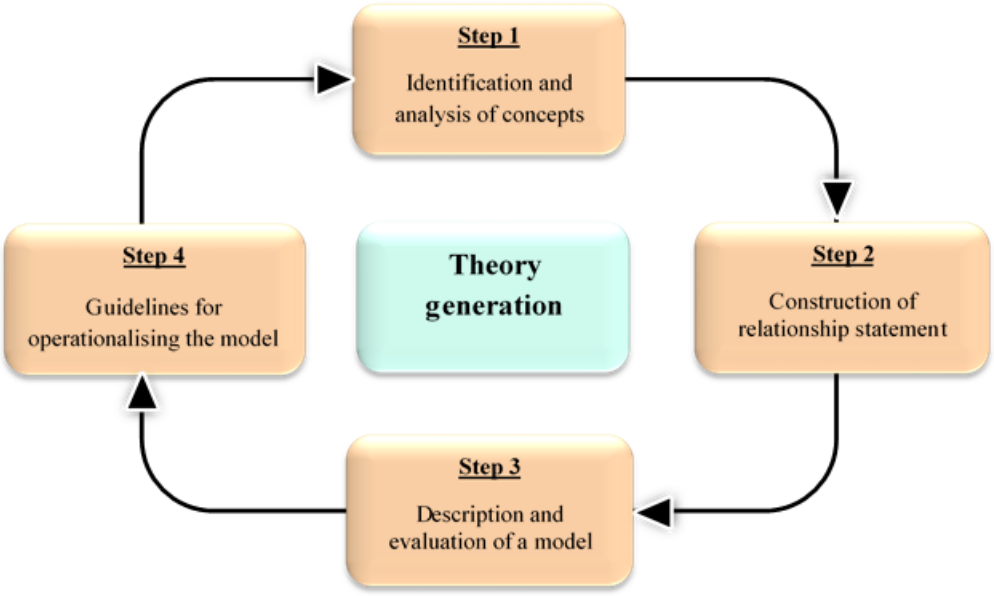


Figure 3.4: Theory generation steps by (Chinn & Kramer, 2015)

Step 1: Identification and analysis of concepts: The model's development required concepts. The concepts were derived from the findings of the four study objectives. Three objectives have already been published as journal articles, and one abstract was presented at a conference; the 4th objective is submitted as a potential article for publication.

Step 2: Construction of relationship statement: Concepts derived from the findings in Step 1 are clearly defined and described in terms of the social and community environment, individual/biological and health factors, health and care services, and institutional/structural factors.

Step 3: Description and Evaluation of a Model: The conceptual model's structure was developed by integrating relationships between concepts and sub-concepts through rounded rectangles, with the core outcome at the centre, and connecting arrows (see Figure 6.2 further below). The arrows between the rounded rectangles indicate mutual influence, effectively conveying the dynamic reality of ageing care systems.

Step 4: Guidelines for Operationalising the Model: The model was evaluated by ten experts in the field in accordance with the evaluation criteria for theory generation by Chin and Kramer (2015), specifically assessing its clarity, simplicity, generality, accessibility, and importance. Evaluation was crucial to determine whether the model had achieved the desired outcome necessary to meet the study's objectives. The guidelines to operationalise the model are discussed in Chapter 7.

Table 3.5: The differences between a theory and a model: (Sharma, 2021)

Theory	Model
Explains or predicts phenomena	Simplified, miniaturized applications of concepts for addressing problems
Micro-level guidance	Macro-level guidance
Empirically tested	Not enough empirical evidence
Based on previous literature	Creative
Usually parsimonious	Usually tries to cover a lot
Does not contain any model	May embody one or more theories

3.5 ETHICAL CONSIDERATIONS

Ethics guide research conduct to ensure the safety and protection of study participants. Moreover, it is closely linked to the mechanisms for researcher accountability and responsibility. Ethical standards must be established in research to safeguard participants' rights. Ethical measures are essential throughout the entire research process and must be adhered to from initiation to completion of the project (The Council for International Organizations of Medical Sciences, 2016). Considering the sensitivity of this study's topic, the researcher maintained the respondent's dignity, rights, safety, privacy, and well-being during interactions. The following ethical guidelines were addressed during this study.

3.5.1 Permission to conduct the study

Ethical approval to conduct the study was obtained from the Faculty Research Ethics Committee (F-REC) of the Namibia University of Science and Technology, Ref. FHNRAS:61/2023, approved on 6 November 2023. Approval was also sought from the Ministry of Health and Social Services, Ref. 22/3/1/2, approved on 9 January 2024. Another approval was sought from the Ministry of Gender Equality, Poverty Eradication, and Social Welfare, as well as from the old-age homes/residential care facilities in the eligible regions, and permission was granted in July 2024 (See ethical approval certificates in Appendices 7-14). The ethics review processes ensured the minimisation of potential risks to participants, affirmed the study's social significance, and ensured that older persons were selected and treated fairly.

The study further adhered to the four fundamental ethical principles of autonomy, beneficence, non-maleficence and justice across all phases of the research process, including participant recruitment, data collection, analysis and reporting (McQuoid-Mason & Dhai, 2020).

3.5.2 Principle of autonomy

Autonomy means that each person has the right to make their own informed decisions about whether to participate in the study or not (McQuoid-Mason & Dhai, 2020). The study ensured this through the following: The study's purpose, procedures, and researchers' introduction were identified in the introduction. The participants signed a consent form before participating to protect their confidentiality and privacy (See Appendix 5), as they are old and some may not be able to read or write. Those who lacked signatory capacity had a proxy/legal authorised representative consent sought, with participant assent. Participation in the research was voluntary, and participants could skip any item they chose not to answer or withdraw at any time without any consequence. No participant was coerced into participating in the study. The researcher ensured that participants understood the information before obtaining their consent.

3.5.3 Principle of beneficence

Beneficence means aiming to do good and promote the well-being of the people and communities involved (McQuoid-Mason & Dhai, 2020). The measures of confidentiality, anonymity, pseudonyms, non-threatening settings, and consent not only prevent harm but also create a safe, respectful environment, which promotes dignity and psychological comfort. Furthermore, the overall aim of the study was to develop a model to improve the well-being and care of older persons. All participants, either directly or indirectly, benefit from this study, as it addresses a significant issue that affects everyone and requires collective effort to ensure that older persons age in good health.

3.5.4 Principle of non-maleficence

Non-maleficence refers to the ethical duty not to cause harm or act against the best interests of the participants, and to avoid or minimise foreseeable risks to their well-being (McQuoid-Mason & Dhai, 2020). This was promoted by protecting participants' privacy and minimising potential psychological or social harms associated with disclosure. All personal information was kept confidential, and data were de-identified by coding interviews, checklists, and questionnaires. Pseudonyms were used in transcripts, and participants were referenced only by number (e.g. participants 1, 2, 3, etc.) to prevent identification (Clift et al., 2021; Lincoln & Guba, 1985). Where photographs were used, permission was obtained, and the old-age home was anonymised to avoid identification. Interviews were conducted in a non-threatening setting, with care taken to avoid coercion or intimidation and to minimise discomfort. The research assistants signed confidentiality agreements. No identifying information is included in the thesis or any publications arising from the study.

3.5.5 Principle of Justice

The principle of justice requires that people be treated fairly and that the benefits and burdens of health care and research be shared equitably, especially when resources are limited (McQuoid-Mason & Dhai, 2020). This was ensured through the study's inclusion and exclusion criteria, which were based on the research objectives rather than convenience or bias. All participants were treated with dignity, regardless of age, gender, region or socio-economic status. The study findings were reported honestly, and limitations were acknowledged.

3.6 RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE TOOLS (AI) AND INTEGRITY

The researcher made use of AI tools, specifically Quill Bot and Grammarly. These tools did not create, manipulate, or interpret any original data, analysis, or results; they were used strictly as assistive mechanisms to improve language, grammar, and structure. All analytical reasoning, interpretation, and conclusions were carried out by the researcher. Additionally, a professional language editor was engaged upon completion of the thesis to refine clarity, coherence, and academic writing style. The editor did not alter the substantive content, argument, or findings (see the editorial certificate in Appendix 20). The application of AI and language editing complied with institutional standards on academic integrity, maintaining full transparency and providing appropriate acknowledgement of all sources. The final document was also submitted to Turnitin for similarity checking, and the originality report is provided in Appendix 22.

3.7 SUMMARY OF THE CHAPTER

In this chapter, the methodology used to develop a model for improving the well-being and care of older Namibian persons aged 60 years and above was discussed. A step-by-step approach was used to map the available evidence on community-based care approaches for older adults implemented in low and middle-income countries (LMICs) (Phase 1). The population, sample, and sampling, as well as data collection and analysis for each objective, were also discussed, including measures to ensure validity, reliability, and trustworthiness (Phase 2). The steps followed to develop the model (Phase 3) were summarised. Finally, ethical considerations were also explained. The next chapter presents the quantitative and qualitative findings of the study.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

The previous chapter described the research methodology and reasoning strategies used by the researcher to address the research objectives. This chapter presents the results of the data analysis and interpretation derived from responses gathered during fieldwork. The acquired quantitative data were analysed using the IBM SPSS (Statistical Package for the Social Sciences) version 30. The IBM SPSS was initially utilised for preliminary data screening to verify data entry accuracy, identify missing data, detect outliers, and assess normality. It was also helpful in analysing the descriptive and inferential statistics. The demographic data collected in this study were analysed using descriptive statistics. Inferential statistics, such as correlations and ordinal logistic regression, were employed for hypothesis testing. To achieve data triangulation, the qualitative data were manually analysed with Braun and Clarke's [2006] thematic analysis phases (Braun & Clarke, 2006). The quantitative data sample size (questionnaires) was determined using the Cochran method for descriptive studies, resulting in a target of 97 older persons per region, totalling 291. However, owing to higher interest and availability, a total of 304 older people were ultimately enrolled. According to Tabachnick and Fidel (2012), a minimum of 300 observations is recommended for analysis involving multiple variables (Tabachnick & Fidell, 2012). The results are presented in sections aligned with the questionnaire structure and the corresponding study objectives, followed by thematic tables from each key informant. The scoping review relies on narrative synthesis rather than discrete effect estimates; hence, the findings, together with their discussion, are presented in Chapter Five to avoid repetition and contextualise the results within the existing literature.

4.2 SOCIO-DEMOGRAPHICS

Table 4.1: Socio-demographic characteristics of the older persons (n= 304)

VARIABLES	Frequency	(%)
Age groups (years)		
60-69	120	39.5
70-79	115	37.8
80-89	57	18.8
90+	12	3.9
Sex		
Male	109	35.9
Female	195	64.1
Marital Status		
Single	65	21.4
Married	119	39.1
Divorced	17	5.6
Widowed	103	33.9
Region		
Ohangwena	100	32.9
Hardap	100	32.9

Khomas	104	34.2
Highest Education level completed		
No formal education	64	21.1
Primary	124	40.8
Secondary	95	31.3
Tertiary	21	6.9
Religious affiliation		
Lutheran	106	34.9
Catholic	59	19.4
Anglican	29	9.5
Traditional faith	2	0.7
No affiliation	8	2.6
Other Christians	100	32.9
Main language spoken at home		
Oshiwambo	107	35.2
Khoekhoegowab	57	18.8
Afrikaans	132	43.4
Otjiherero	3	1.0
Setswana	1	0.3
English	4	1.3
Occupation at retirement		
Unemployed	44	14.5
Caregiver/domestic worker	49	16.1
Labourer	36	11.8
Farming	36	11.8
Administrator	21	6.9
Police officer	12	3.9
Business	11	3.6
Builder	11	3.6
Teacher	10	3.3
Shop employee	10	3.3
Construction work	9	3.0
Driver	7	2.3
Nurse	6	1.9
Cleaner	5	1.6
Chef	4	1.3
Electrician, mining, weaving, library employee	3 x each	1.0 x each
Social workers, project coordinators, security officers, journalists, bakers, and church employees	2 x each	0.7 x each
Others	9	3

Residence		
Rural	144	47.4
Urban	160	52.6
The people the respondent lives with regularly		
Alone	90	29.6
Spouse only	31	10.2
Children only	21	6.9
Other family members	153	50.3
Friends	2	0.7
Roommates	7	2.3
Physical mobility		
Unable to walk on own	21	6.9
Able to walk a limited distance	78	25.7
Able to walk with no difficulty	136	44.7
In a wheelchair	17	5.6
Able to walk with a walking stick	52	17.1
# of surviving children		
0	27	8.9
1-5	192	63.2
6-10	76	25.0
11-15	7	2.3
16-20	2	0.7
# of grandchildren		
0	38	12.5
1-5	99	32.6
6-10	97	31.9
11-15	33	10.9
16-20	9	3.0
>20	28	9.2
# of great- grandchildren		
0	159	52.3
1-5	97	31.9
6-10	26	8.6
11-15	11	3.6
16-20	0	0
>20	11	3.6
# of children/grandchildren/ great- grandchildren depend on the older persons		
0	148	48.7
1-5	95	31.3

6-10	43	14.1
11-15	10	3.3
16-20	3	1.0
>20	5	1.6

Table 4.1 above presents the demographic characteristics of the participants (304 older persons), who were primarily aged 60-79 years (77.3%) and were predominantly female (64.1%). Nearly 40% are married, although a substantial portion are widowed (33.9%). The sample was uniformly distributed across three regions. Educationally, the majority possessed primary (40.8%) or secondary (31.3%) education, with a minimal percentage having attained tertiary education (6.9%). The largest religious affiliation groups were Lutheran (34.9%) and other Christians (32.9%). Afrikaans was the most spoken language at home (43.4%), followed by Oshiwambo (35.2%). Prior to retirement, a significant portion had been employed as caregivers/domestic workers (16.1%) or had been unemployed (14.5%). Slightly more than half (52.6%) resided in urban areas. Mobility varied: 44.7% walked without difficulty, whilst 6.9% were unable to walk independently. Most have between 1 and 10 surviving children (88.2%) and a similar number of grandchildren; however, more than half have no great-grandchildren. Approximately 48.7% did not support any dependents, while a notable 31.3% supported up to 5 dependents.

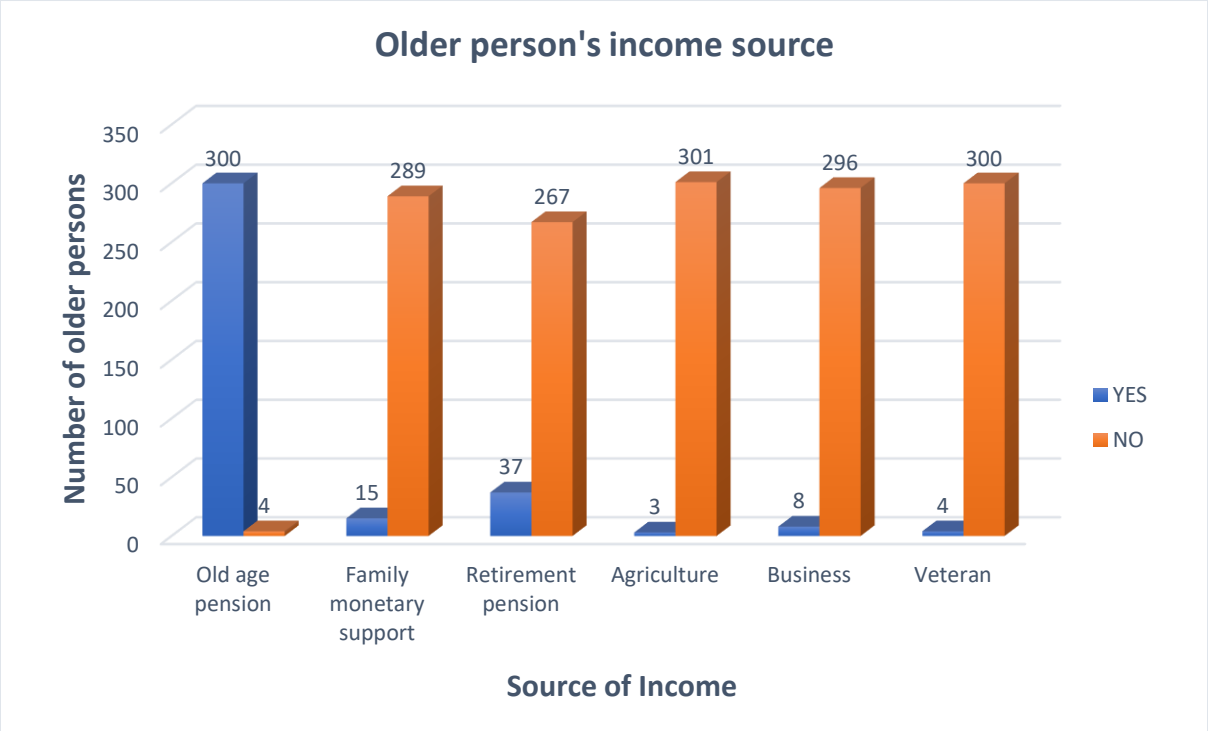


Figure 4.1: Primary source of income/livelihood for the older persons

Figure 4.1 above depicts the sources of income for older persons. The older persons were also asked about their primary source of income (allowing multiple responses). The old-age pension was the dominant income source for nearly all older persons, with 300 (98.7%) relying on it predominantly, with minimal support from family, employment, veteran pensions, or economic activities such as agriculture or business. This suggests that formal state support is essential for the well-being of this population.

4.3 COMMUNITY AWARENESS AND ATTITUDES TOWARD OLD AGE HOMES

Table 4.2: Community awareness toward old age homes

Variable	Responses	n (%)
Are you aware that there are old-age homes in Namibia? (n=304)	Yes	242 (79.6)
	No	62 (20.4)
If you are aware of old age homes, do you know of any in your area? (n=242)	Yes	148 (61.1)
	No	94(38.8)
How did you first learn about old-age homes? (n=242)	Family/Friends	171 (56.3)
	Media	50 (16.4)
	Healthcare Provider	10(3.3)
	Employer	7(2.3)
	Church	2(0.7)
	Other	2(0.7)
Where are you currently living? (n=304, Community = 190, Old age homes = 114)	Own home	119 (39.1)
	With family	69 (22.7)
	With friends	2 (0.7)
	Old age home	114 (37.5)
If you are living in an old-age home, how long have you been residing there? (n=114)	Very short stay (less than 6 months)	4(3.5)
	Short stay (6 months to less than 1 year)	4(3.5)
	Moderate stay (1 to less than 3 years)	12(10.5)
	Long stay (3 to less than 5 years)	32 (28.1)
	Very long stay (5+ years)	62 (54.4)
If you are living in the community, would you like to reside (live in) an old-age home (in the future)? (n=190)	Yes	88(46.3)
	No	102(53.7)
If you do not want to reside in an old-age home, what are your main concerns about moving to an old-age home? (n=102) This question allowed multiple responses	Do not want to be far from my family	65 (63.7)
	Concern about the quality of care	35(34.3)
	Loss of independence	30(29.4)
	Prefer to be in my own home	26(25.5)

	Old age homes are expensive	23(22.5)
Do you know the benefits of being in an old-age home? (n=304)	Yes	205(67.4)
	No	99(32.6)
If yes, what are the benefits of residing at an old-age home? (n=205) This question allowed multiple responses	Personal care assistance	162(79.0)
	Medical care	85(41.5)
	Safety	66(32.2)
	Regular meals	93(45.4)
	Religious services	27(13.2)
	Physical therapy	24(11.7)
	Recreational activities	5(2.4)

Table 4.2 above illustrates the awareness and attitudes of older persons toward old-age homes. A majority of respondents (79.6%) were aware of old-age homes in Namibia, with 61.1% of those who were aware knowing of one in their vicinity. The predominant source of information for the majority regarding old age homes was family or friends (56.3%). Among all respondents, 37.5% were residing in old-age homes at the time of the survey, with more than half (54.4%) having lived there for over five years. Among community dwellers, less than half (46.3%) expressed a desire to reside in an old-age home in the future, while those opposed cited concerns such as distance from family (63.7%) and quality of care (34.3%). Most respondents (67.4%) were aware of the advantages of old-age homes, particularly to receive personal care assistance (79%) and medical care (41.5%). Additional recognised benefits included safety, regular meals, and religious services.

Table 4.3: Attitude toward old age homes among older persons in old age homes (n = 114)

No.	Variables	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
1	Being at an old-age home is the best option for older persons.	2 (1.8)	7 (6.1)	3 (2.6)	80(70.2)	22(19.3)
2	An old-age home provides professional, well-suited care for older persons.	2 (1.8)	6 (5.3)	18 (15.8)	70(61.4)	18(15.8)
3	Most of my needs are met in the old-age home.	2 (1.8)	9(7.9)	6(5.3)	82(71.9)	15(13.2)
4	The older persons are housed together in a facility, which provides an opportunity to build supportive relationships that help them maintain a socially productive life.	-	7(6.1)	12(10.5)	86(75.4)	9(7.9)
5	Being in an old-age home takes the burden of caring for the elderly from the family and society.	-	5(4.4)	14(12.3)	76(66.7)	19(16.7)
6	My family has access to me at the old-age home.	1(0.9)	5(4.4)	8(7.0)	69(60.5)	31(27.2)
7	I would recommend that any older person stay in an old-age home.	3(2.6)	3(2.6)	7(6.1)	75(65.8)	26(22.8)
8	I would not mind staying in an old-age home for the rest of my life.	2(1.8)	5(4.4)	10(8.8)	54(47.4)	43 (37.7)

*n (%)

To assess attitudes towards old-age homes among older persons residing in these facilities, eight questions were asked on a Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). These variables showed good internal consistency, with a Cronbach's alpha of 0.829. Table 4.3 above reveals the attitude towards old-age homes among older persons residing in old-age homes (n = 114), which was overall highly positive. A large majority (89.5%) agreed or strongly agreed that being in an old-age home is the best choice for older persons, and 77.2% believed that these facilities offer professional, well-suited care. Most residents (85.1%) felt that their needs are satisfied, and 83.3% agreed that living together promotes supportive relationships that foster a socially productive life. Furthermore, 83.4% recognised that old-age homes relieve families and society of caregiving responsibilities. Access by family was well-regarded, with 87.7% of respondents agreeing that they had family access. Notably, 88.6% reported that they would recommend old-age homes to others, and a strong 85.1% reported that they would be comfortable residing in an old-age home for the rest of their lives.

Table 4.4: Old-age home residents' relationship with caregiving staff

What is the nature of your relationship with staff?	Frequency	Percent
Very negative	1	0.9
Negative	5	4.4
Neutral	26	22.8
Positive	61	53.5
Very Positive	21	18.4
Total	114	100.0

Table 4.4 above reports the relationship older persons had with the caregivers in the old age homes. They were asked to evaluate their relationship with caregiving staff on a scale ranging from very negative (1) to very positive (5); the majority of residents (72.0%) have a positive or very positive relationship with the staff, whereas a minor percentage (5.3%) have a negative or very negative relationship. A notable number expressed neutrality or somewhat positive feelings about their interactions.

Table 4.5: Attitude toward old age homes among older persons in the community (n = 190)

No	Variable	Responses	n (%)
1	If you are living in the community, would you like to reside (live in) an old-age home (in the future)? (n=190)	Yes No	88(46.3) 102(53.7)
2	What is your overall opinion of old-age homes? (n=190)	Very negative Negative Neutral Positive Very Positive	5(2.6) 24(12.6) 63(33.2) 73(38.4) 25(13.2)
3	Do you think old age homes can provide better care than living at home? (n=190)	Strongly disagree Disagree Neutral Agree Strongly agree	4(2.1) 30(15.8) 67(35.3) 76(40.0) 13(6.8)
4	Do you have family or friends who visit you regularly? (n=190)	Yes No	169(88.9) 21(11.1)
5	If no, what are some of the reasons they have not visited you	They only care about their children Distance	1(0.5) 11(5.8)

		I am not the homeowner, and visitors are not allowed	4(2.1)
		Prefer alone	4(2.1)
		Neglected	1(0.5)
6	Are you satisfied with the living conditions in your place? (n=190)	Yes	160(84.2)
		No	30(15.8)
7	If no, what are some of the reasons for your dissatisfaction? (n=190)	Live in a shack	5(2.6)
		The house needs renovations	4(2.1)
		No water, electricity, or toilet	15(7.9)
		Not homeowner	5(2.6)
		Dusty area	1(0.5)

Table 4.5 above outlines the attitudes towards old age homes among older persons in the community. The Cronbach's alpha for the Likert question scale (questions 2 and 3) is 0.846, indicating that these variables exhibited a good level of internal consistency. Of the 190 older persons surveyed in the community, slightly more than half (53.7%) said they would not like to live in an old-age home in the future. However, perceptions of such facilities were generally balanced, with 51.6% expressing positive or very positive sentiments and only 15.2% holding negative or very negative views. A significant 46.8% agreed or strongly agreed that old-age homes could offer better care compared to being at home, whereas 35.3% remained neutral. Most participants (88.9%) reported frequent visits from family or friends, and the majority (84.2%) expressed satisfaction with their current living conditions. Among the minority dissatisfied (15.8%), the primary reasons included lack of basic amenities (7.9%), residing in a shack (2.6%), or not being the homeowner (2.6%). Overall, while there was openness to the potential benefits of old-age homes, a preference for remaining in the community is still slightly more prevalent.

CROSS TABULATION ANALYSIS

Table 4.6: Awareness of the old age home in Namibia by the Region

		Region name			Total
		Ohangwena	Hardap	Khomas	
Are you aware of the old age home in Namibia	No	37 (59.7%)	25 (40.3%)	-	62
	Yes	63 (26.0%)	75 (31.0%)	104 (43.0%)	242
Total		100	100	104	304

* A dash (-) represents 0

Table 4.6 above represents the cross-tabulation of awareness of old-age homes in Namibia by region. Among the 62 older persons who were unaware of old-age homes in Namibia, 59.7% (n = 37) were from Ohangwena, and 40.3% (n = 25) were from Hardap; none were from Khomas. In contrast, of the 242 respondents familiar with the old age homes, 26.0% (n = 63) were from Ohangwena, 31.0% (n = 75) from Hardap, and 43.0% (n = 104) were from Khomas. These findings suggested that unawareness is predominantly found in Ohangwena and Hardap,

while the Khomas region accounts for the highest proportion of older persons who were aware of old age homes, with none being unaware of them. The Pearson Chi-Square value was 44.935 with 2 degrees of freedom and a p-value of < 0.001, which is lower than 0.05 and thus indicated a statistically significant relationship between awareness of old age homes and the regions from which the older persons came.

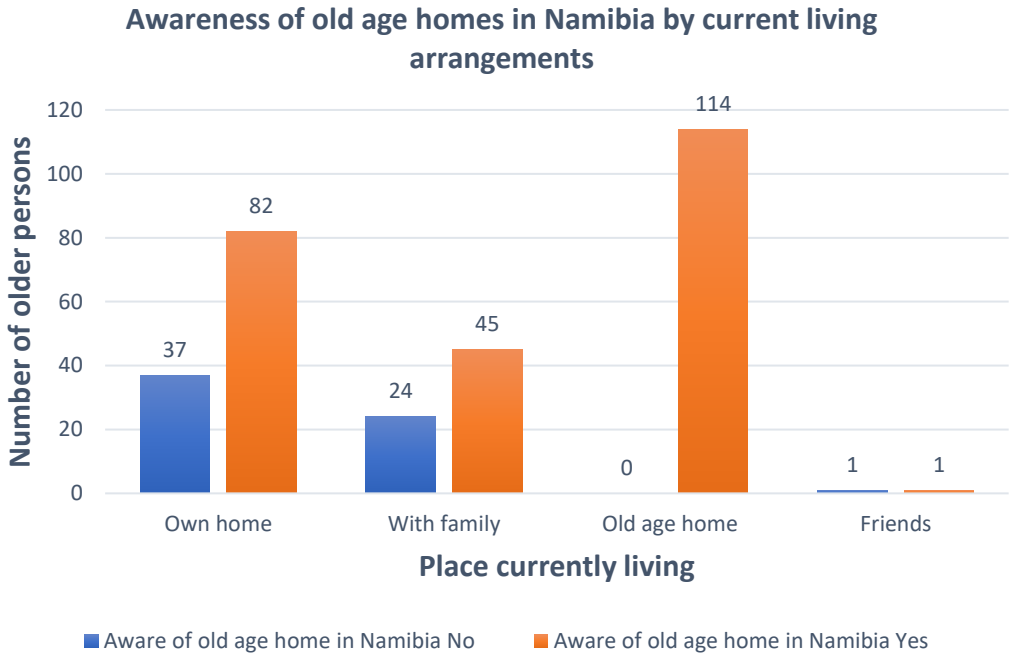


Figure 4.2: Awareness of old age homes in Namibia by Place of current living among older persons

Figure 4.2 above portrays the relationship between awareness of old age homes and current place of residence, 62 respondents who were not unaware of old age homes in Namibia live in the following places 37 were residing in their own homes, 24 were living with family, none (0) lived at an old age home, and 1 was living with friends. A significant number of respondents who were familiar with old-age homes (114 out of 242) were living in them, while 82 respondents were living in their own homes, 45 were living with family, and 1 respondent was living with friends. A statistically significant relationship existed between awareness of old-age homes and place of residence (p-value < 0.001). These results showed a clear relationship between awareness of old-age homes and place of residence. Older persons who were aware of old-age homes were significantly more likely to live in them, whereas those lacking this awareness were predominantly living in their own homes or with family. The Pearson Chi-Square value was 47.472 with 3 degrees of freedom and a p-value of < 0.001, which is lower than 0.05 and thus indicates a statistically significant relationship between awareness of old age homes and the current place of residence.

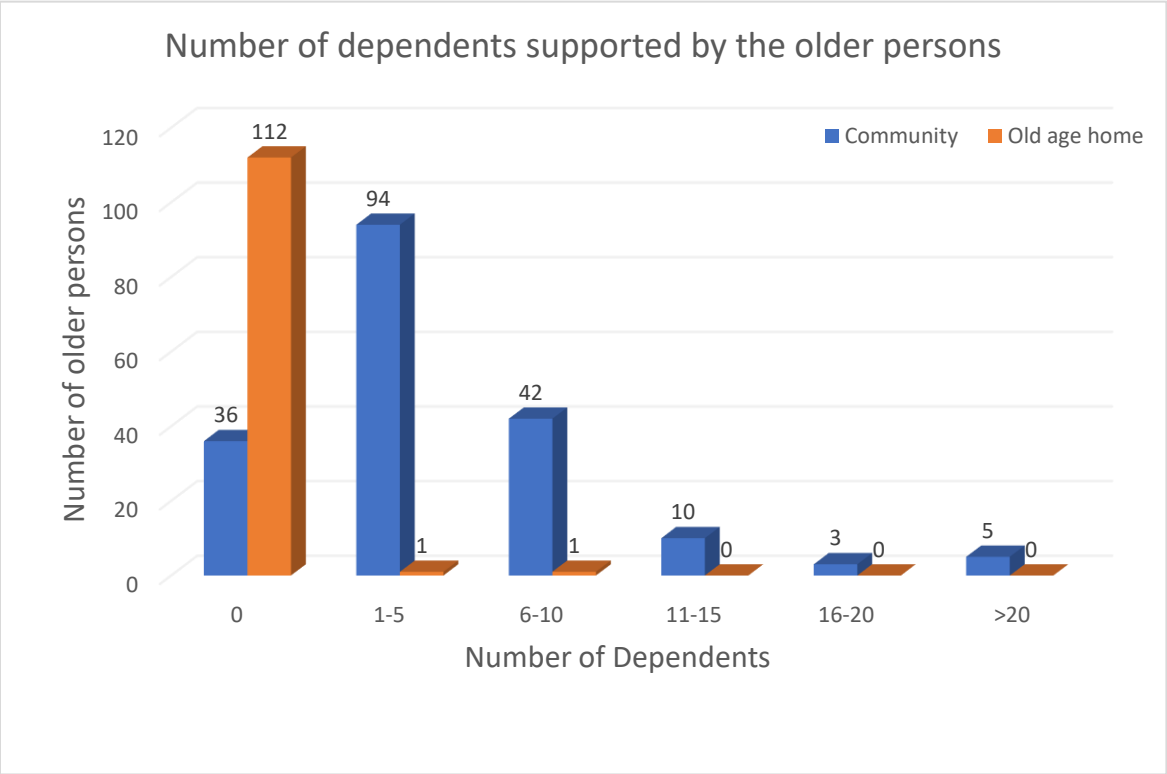


Figure 4.3: Number of dependents supported by older persons by Place of residence

Figure 4.3 above shows the relationship between the number of dependents supported by the older person and their living arrangements. Out of 190 older persons in the community, only 36 had no dependents. The majority, 94, have 1–5 dependents. A significant number have more dependents (42 have 6–10, 10 have 11–15), whereas a minority have 16–20 or more than 20 dependents (3 and 5, respectively). Among the 114 older persons residing in old-age homes, a significant majority, 112, have no dependents. Only a tiny fraction (1 each) has 1–5 or 6–10 dependents, and none have more than 10 dependents. Community-dwelling older persons were more likely to have dependents, indicating a reliance on family-based living and caregiving. Old-age home residents predominantly lacked dependents, which may indicate a lack of family support or a sense of isolation. Overall, the results demonstrated a clear relationship: An increase in the number of dependents was associated with a higher likelihood of residing in the community rather than in an old-age home. The Pearson Chi-Square value was 179.373 with 5 degrees of freedom and a p-value of < 0.001, which is lower than 0.05 and thus indicates a statistically significant relationship between the number of dependents supported by the older person and their living arrangements.

4.4 AN APPRAISAL OF THE PREVALENT HEALTH STATUS AND SOCIAL LIVING CONDITIONS AMONG THE NAMIBIAN OLDER PERSONS

Table 4.7: Cronbach's alpha of the variables

Variables	Number of items	Cronbach's alpha
Attitudes toward one's own ageing.	3	0.690
Health and meaning in life perceptions	2	0.747
Self-rated current health status and quality of life.	2	0.829
Perceptions of the living place.	5	0.736
Financial and access to health services.	4	0.645

Table 4.7 indicates that the internal consistency across the five multi-item measures varied from α = 0.645 to 0.829. The self-rated current health status/quality of life scale showed the highest reliability (2 items; α =0 .829), followed by health and meaning in life perceptions (2 items; α = 0.747) and perceptions of the living environment (5 items; α =0 .736), all meeting conventional "acceptable to good" thresholds (≈0.70 – 0.80+). Attitudes toward one's own ageing (3 items; α = 0.690) were marginally acceptable, whereas financial factors and access to health services (4 items; α = 0.645) showed the lowest consistency but were also at the borderline for acceptability. The alphas were calculated independently for conceptually coherent item sets because α is only meaningful for items designed to measure the same latent construct. As a result, socio-demographic and other nominal variables were excluded, as they do not align with the scale items.

Table 4.8: Perceptions towards one's own ageing among older persons (n= 304)

No	Variable	Not at all true	Slightly true	Moderately true	Very true	Extremely true
1	Reaching old age has been easier than I thought.	122(40.1)	59(19.4)	43(14.1)	42(13.8)	38(12.5)
2	I am losing my physical independence as I get older.	30(9.9)	70 (23.0)	74(24.3)	87(28.6)	43(14.1)
3	I see my old age mainly as a time of loss. (Satisfaction with oneself).	58(19.1)	56(18.4)	119(39.1)	46(15.1)	25(8.2)
4	I am concerned about my personal health.	22(7.2)	19(6.3)	76(25.0)	52(17.1)	135(44.4)
5	I think my life is meaningful.	7(2.3)	23(7.6)	84(27.6)	55(18.1)	135(44.4)

Table 4.8 above presents the participants' perceptions regarding their ageing process. Across items, older persons reported substantial problems alongside strong psychosocial resources. A majority indicated that reaching old age had not been easier than expected (59.5% "not at all"/ "slightly" true), and most recognised a decline in physical independence (67.0% moderate–extreme). Viewing later life primarily as a time of loss was also common (62.4% moderate to extreme). Health anxiety was significant: about 61.5% expressed very or extremely high concern regarding their personal health. Notwithstanding these burdens, perceptions of meaning were robust, with 62.5% affirming the phrase "my life is meaningful" (very/extremely), suggesting notable resilience and a maintained purpose despite perceived losses and health concerns.

Table 4.9: Self-reported health and general wellbeing among older persons (n=304)

Variable	Very Poor	Poor	Neither poor nor good	Good	Very good
Self-reported current health status	65(21.4)	150(49.3)	75(24.7)	13(4.3)	1(0.3)
Self-rated overall quality of life (General health, energy level, self-esteem, personal relationships, financial resources, and living conditions).	38 (12.5)	162(53.3)	90(29.6)	13(4.3)	1(0.3)

Table 4.9 above enumerates the participants' self-reported current health status and overall quality of life: The majority of the respondents rated both their current health and overall quality of life as only Poor (health: 49.3%; QoL: 53.3%), with a minimal percentage indicating good/very good (4.6% for each measure).

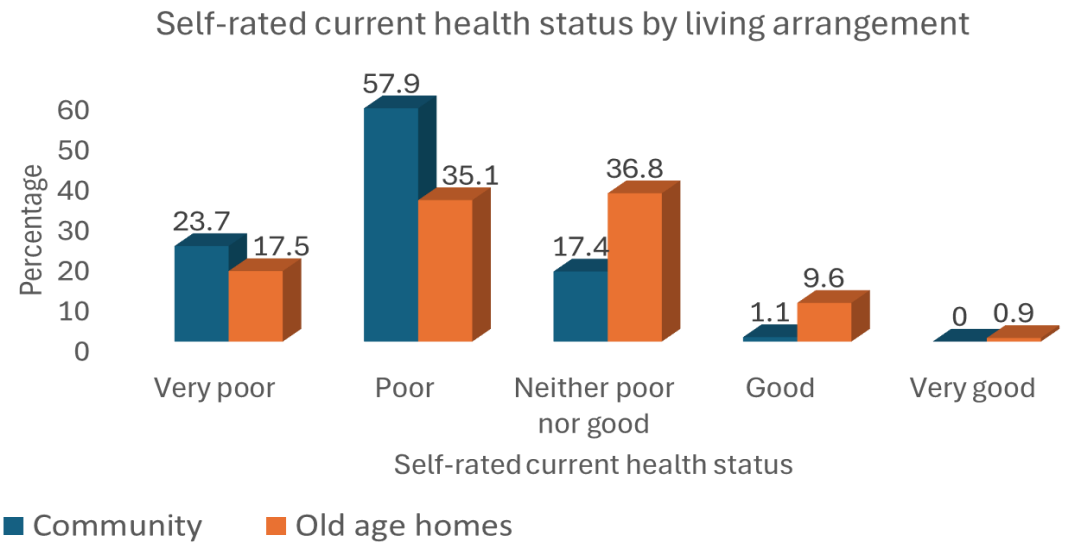


Figure 4.4: Self-rated current health status by living arrangement

Figure 4.4 above displays a comparison of self-rated current health status between community-dwelling older persons (n = 190) and those residing in institutional settings (n = 114), based on their living arrangements. Responses from community inhabitants predominantly reflected negative health assessments: the majority classified their health as “poor” (57.9%) or “very poor” (23.7%), with negligible positive evaluations (“good” = 1.1%); and (“very good” = 0%). In contrast, old-age home residents present a more favourable distribution: the largest counts were recorded in the “neither poor nor good” (36.8%), and “poor” (35.1%), with fewer “very poor” assessments (17.5%) and noticeably more positive ratings (“good” = 9.6%) “very good” = 0.9%). Notwithstanding varying group sizes, the pattern suggests that older adults in institutional settings perceived their health more positively than their counterparts in the community, although high ratings remained relatively uncommon in both

groups. The Pearson Chi-Square value was 33.699 with 4 degrees of freedom and a p-value of < 0.001, which is lower than 0.05 and thus indicates a statistically significant relationship between self-rated current health status by living arrangement.

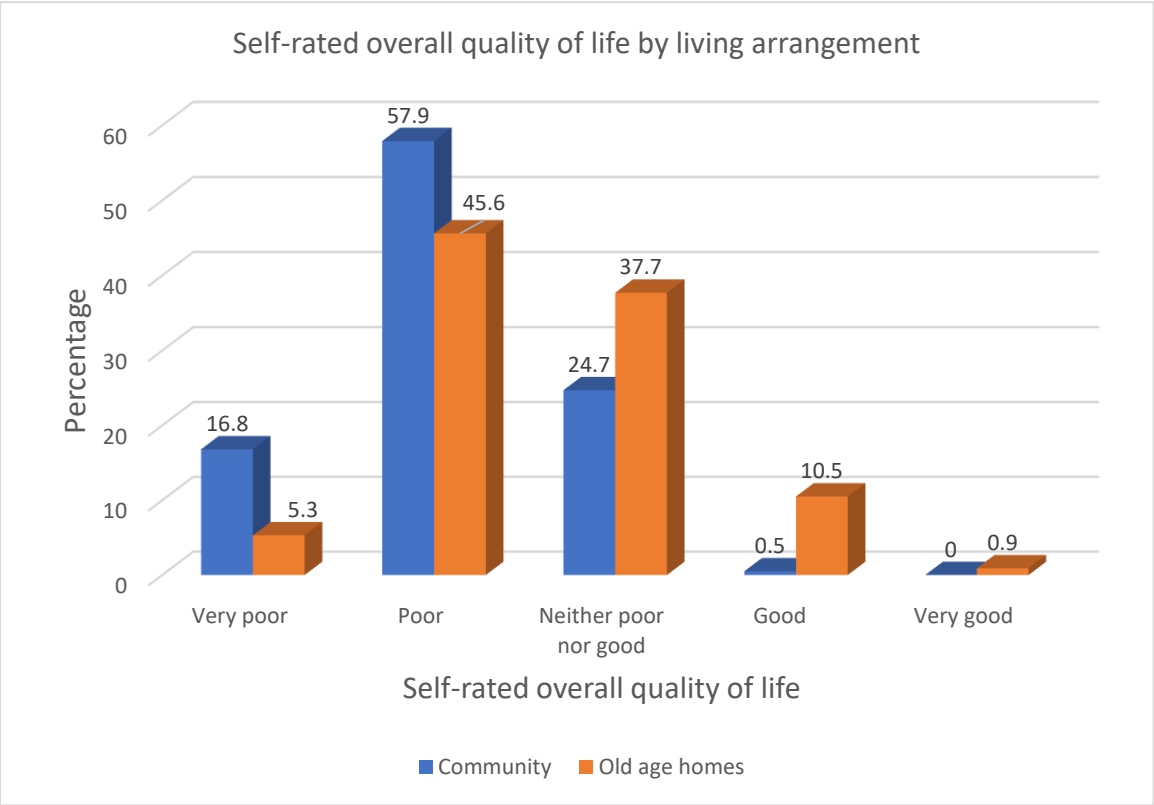


Figure 4.5: Self-rated overall quality of life by living arrangement

Figure 4.5 above illustrates a comparison of self-rated overall quality of life (QoL) between community-dwelling older persons (n = 190) and those residing in institutional settings (n = 114). In the community, the quality of life was rated primarily as poor (57.9%), with a significant portion evaluated as very poor (16.8%); only one older person reported it as good/very good (0.5%). Among the residents of the old-age home, ratings were more favourable, with poor (45.6%) and very poor (5.3%) being less frequent, while neither poor nor good (37.7%) and good/very good (11.4%) were significantly higher than their community counterparts. In the combined categories, negative appraisals (poor/very poor) were much more prevalent in the community (74.7%) compared to old-age homes (50.9%). The Pearson Chi-Square value was 32.043 with 4 degrees of freedom and a p-value of < 0.001, which is lower than 0.05 and thus indicates a statistically significant relationship between self-rated overall quality of life by living arrangement.

Older persons illnesses

The older people were asked if they were ill during the time of data collection, and a majority, 184 (60.5%), reported being ill, while 120 (39.5%) stated they were not. Their diagnosis is stipulated in Figure 4.6 below:

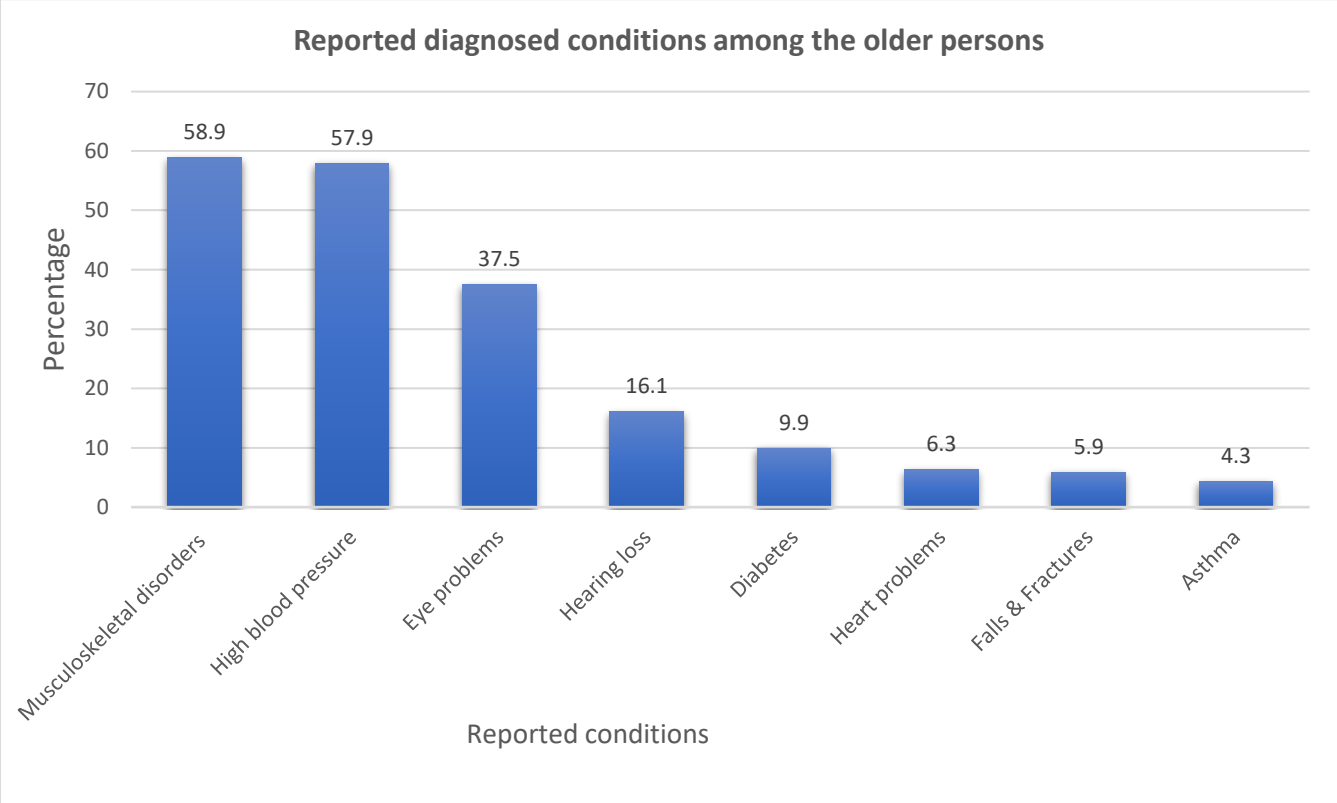


Figure 4.6: Self-reported diagnosed conditions among older persons

Figure 4.6 above reveals the illnesses the respondents were suffering from. Older persons were allowed to select multiple diagnoses if they experienced or had been diagnosed with more than one condition. The data revealed that the predominant illnesses were musculoskeletal disorders (58.9%) and high blood pressure (57.9%), which affected over half of the respondents. Sensory issues are significant: eye problems (37.5%) are common, and hearing loss (16.1%) affects approximately 1 in 6 older persons. Metabolic disease, specifically diabetes (9.9%), affects approximately 1 in 10 individuals. All other illnesses were uncommon in this population (≤6.3%), including heart problems (6.3%), falls/fractures (5.9%), and asthma (4.3%). Other conditions not represented in this graph but reported were each below 3%, including mental disorders, gastrointestinal problems, cancer, stroke/paralysis, urinary incontinence, bedridden, pneumonia, HIV/AIDS and low blood pressure. The overarching trend indicated that the burden is predominantly driven by chronic, non-communicable conditions (such as musculoskeletal pain and hypertension), accompanied by substantial sensory impairment, whereas severe or acute conditions were relatively rare.

Table 4.10: Frequency of healthcare visits among older persons

Frequency	Count	Percent
Rarely	48	15.8
Every few months	76	25.0
Monthly	165	54.3
Weekly	15	4.9
Total	304	100.0

Table 4.10 above displays the frequency of healthcare visits by older persons. Monthly healthcare visits were the most common, with respondents (54.3%) reporting that they visited a healthcare facility each month, indicating that over half of the respondents required regular, ongoing care. About 25.0% of respondents reported occasional visits to healthcare providers, indicating moderate health needs or stable chronic conditions. Overall, these findings suggest high, continuous engagement with healthcare services among older persons, underscoring the need for capacity to support routine follow-up and chronic disease management.

Table 4.11: Perceived dependency, pain tolerance, and access to medical care among older persons (n = 304)

Variable	Not at all	A little	A moderate amount	Very much	An extreme amount
Medication/treatment dependency	36(11.8)	39(12.8)	48(15.8)	92(30.3)	89(29.3)
Medical aid dependency (wheelchair, walking sticks, grabbers)	138(45.4)	37(12.2)	44(14.5)	63(20.7)	22(7.2)
Able to bear pain/discomfort	26(8.6)	42(13.8)	170(55.9)	53(17.4)	13(4.3)
Able to obtain required medical care at a health facility	3 (1.0)	17 (5.6)	68 (22.4)	150 (49.3)	66 (21.7)

Table 4.11 above shows the older persons' perceived dependency, pain tolerance, and access to medical care. Many of the respondents reported significant medication/treatment dependency, with about 60.0 % indicating “very much” or “an extreme amount.” Conversely, reliance on mobility/medical aids was lower: a majority (57.6%) reported little to no dependency, while 27.9% reported high dependency. Pain tolerance clustered at the centre, with 55.9% selecting “a moderate amount,” and comparable minorities indicating low (22.4%) or high (21.7%) ability to bear pain/discomfort. Perceived access to needed care at health facilities was strong: 71.0% reported access as “very much” or “an extreme amount,” while only 6.6% reported minimal or no access.

4.5 RESIDENCE, TRANSPORTATION, FINANCIAL AND HEALTH ACCESS, ACTIVITIES, NUTRITION, AND SUBSTANCE USE

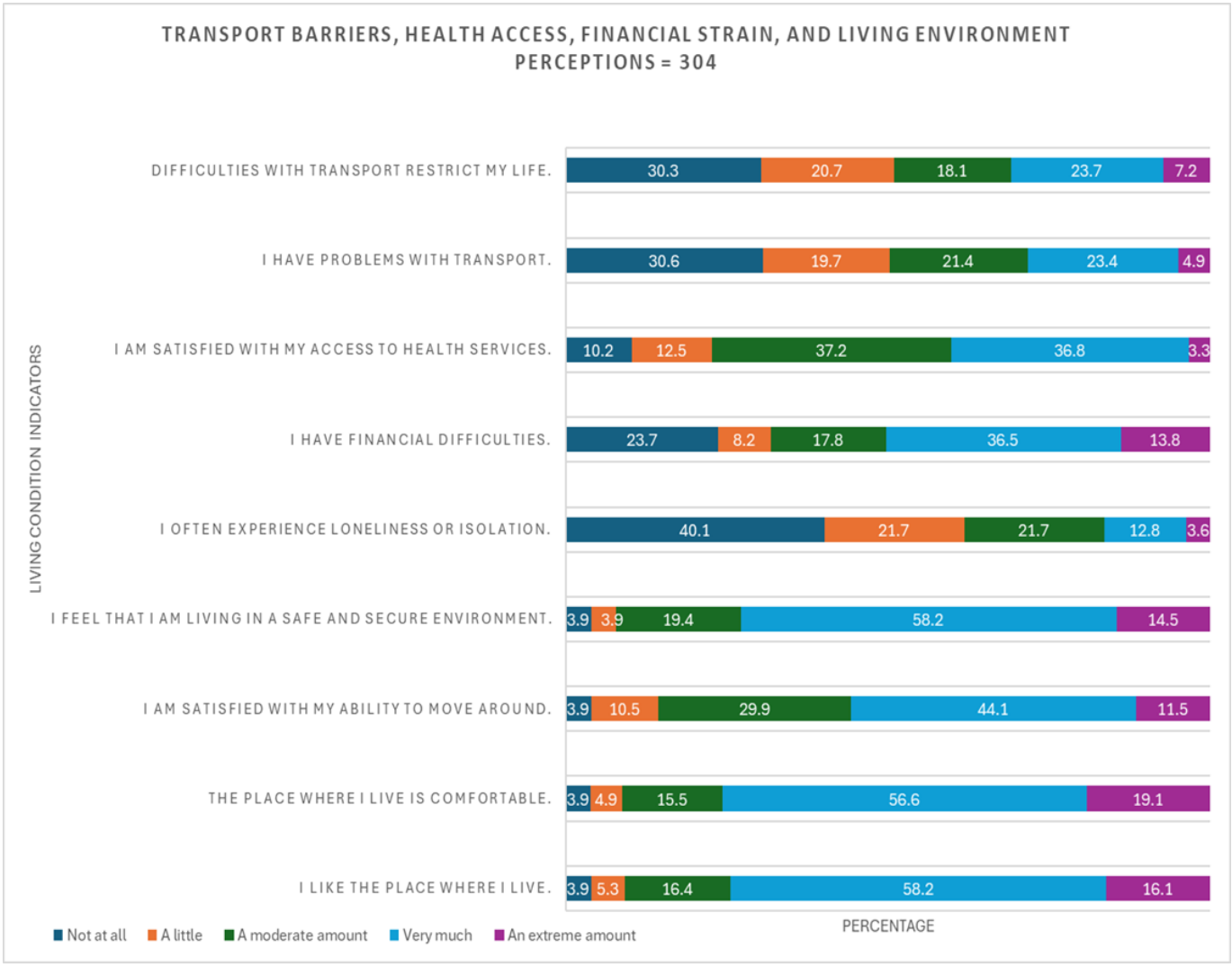


Figure 4.7: Transport barriers, health access, financial strain, and living environment perception among older persons (n=304)

Figure 4.7 above highlights transportation, health services, and financial challenges older persons face, as well as their perceptions of their living environments, and a substantial percentage of older individuals reported that transportation difficulties restrict their lives to at least some degree, with “a moderate amount” and “very much” together comprising a significant share, highlighting transportation as a critical limiting factor. However, 30.3% indicated that it did not restrict them at all. Similarly, when asked whether they had problems with transport, approximately half of the older persons reported problems at least to a moderate extent (21.4% moderate, 23.4% very much, 4.9% extreme; 49.7% ≥ moderate). In contrast, satisfaction with access to health services was predominantly high, with the majority indicating “a moderate amount” or “very much,” and only a small minority expressed dissatisfaction.

Financial challenges emerged as a notable concern, with a substantial number of older persons reporting experiencing financial difficulties to a significant degree, especially at the “very much” level. Loneliness and isolation were also noted as noteworthy; many respondents indicated that they did not experience them at all,

while some reported experiencing them very much and to an extreme amount. Feelings of safety and security, however, were strongly positive, with most of the older persons affirming that they reside in a safe and secure environment "very much." Similarly, the satisfaction regarding the ability to move around was predominantly favourable, with most expressing moderate to very high satisfaction. Ultimately, perceptions of living arrangements were predominantly favourable: Both comfort and liking of one's place of residence were endorsed at high levels, with "very much" and "an extreme amount" forming the largest shares.

Overall, the responses demonstrated a clear divide: while living conditions, safety, and access to services were perceived very positively, transportation issues and financial hardships had emerged as significant and persistent concerns.

Chi-square correlation analysis was also conducted between loneliness/isolation feeling versus living arrangement, and the finding revealed that the distribution of loneliness varied significantly between community-dwelling older persons and those residing in old-age homes (χ^2 (4) = 15.08, p = 0.005), indicating that living arrangement is associated with subjective experiences of social isolation. Approximately one-third of community residents (32.1%) reported not feeling lonely at all, compared with over half (53.5%) of those in old-age homes. Conversely, the majority of community-dwelling older persons (67.9%) reported at least some degree of loneliness ("a little" to "an extreme amount") versus less than half (46.5%) of institutional residents. Mild to moderate loneliness ("a little" or "a moderate amount") was reported by 50.6% of community residents compared with 31.6% of those in old-age homes. The proportions reporting very high loneliness ("very much" or "an extreme amount") were relatively small in both groups but remained somewhat higher among community residents in absolute terms (17.4% vs. 14.9%). Overall, the community-dwelling older persons were more vulnerable to experiencing loneliness than their counterparts in old-age homes.

Old age pension

Almost all older persons in the study received an OA pension, with 300 of 304 respondents (98.7%) receiving it, and only 4 people (1.3%) not receiving it. When they were asked how they spent it, they responded as follows:

Table 4.12: Spending Patterns of Older Persons' Pensions

Older persons spend their pension money	Yes	No
On non-family members	20 (6.6)	284 (93.4)
On other family members	76 (25.0)	228 (75.0)
On grand/ great-grandchildren	122 (40.1)	182 (59.9)
On children	97 (31.9)	207 (68.1)
On themselves	299 (98.4)	5 (1.6)

*Multiple answer question, participants could choose all that apply

Table 4.12 above summarises how older persons spent their pension money, based on responses to a Yes/No question for each category. Most common use was: "On themselves" (98.4%): Almost all older persons reported using their pension for personal use, which makes sense, it's their main source of income for personal necessities. Support for the family: 40.1% reported supporting grand or great-grandchildren, 31.9% support their children, 25.0% reported supporting other relatives (likely siblings, nieces, cousins, etc.). These results demonstrated a strong intergenerational support pattern, particularly toward grandchildren. Least common use: merely 6.6% spend their pension on non-family members. This indicates that older persons prioritised family over others when sharing financial resources.

Table 4.13: Support older persons' needs every day (n=304)

Support older persons' needs every day	**Yes**	**No**
Financial	221 (72.7)	83 (27.3)
Health	165 (54.3)	139 (45.7)
Counselling	60 (19.7)	244 (80.3)
Physical	35 (11.5)	269 (88.5)
Spiritual	31 (10.2)	273 (89.8)
Social	25 (8.2)	279 (91.8)

*Multiple answer question, participants could choose all that apply

Table 4.13 above shows that among the various forms of support required by older persons in their daily lives, financial and health support were the most frequently identified, with 72.7% and 54.3% of respondents, respectively, reporting the need for these types of support. Conversely, significantly fewer older persons reported a daily need for counselling (19.7%), physical assistance (11.5%), spiritual support (10.2%), and social support (8.2%). This suggests that although financial and health-related requirements were paramount for older persons' daily lives, emotional, physical, spiritual, and social needs are less frequently prioritised, thus highlighting gaps in holistic support for ageing populations.

Getting support from others as needed

To assess personal relationships, participants were asked if they had received help from their peers when needed.

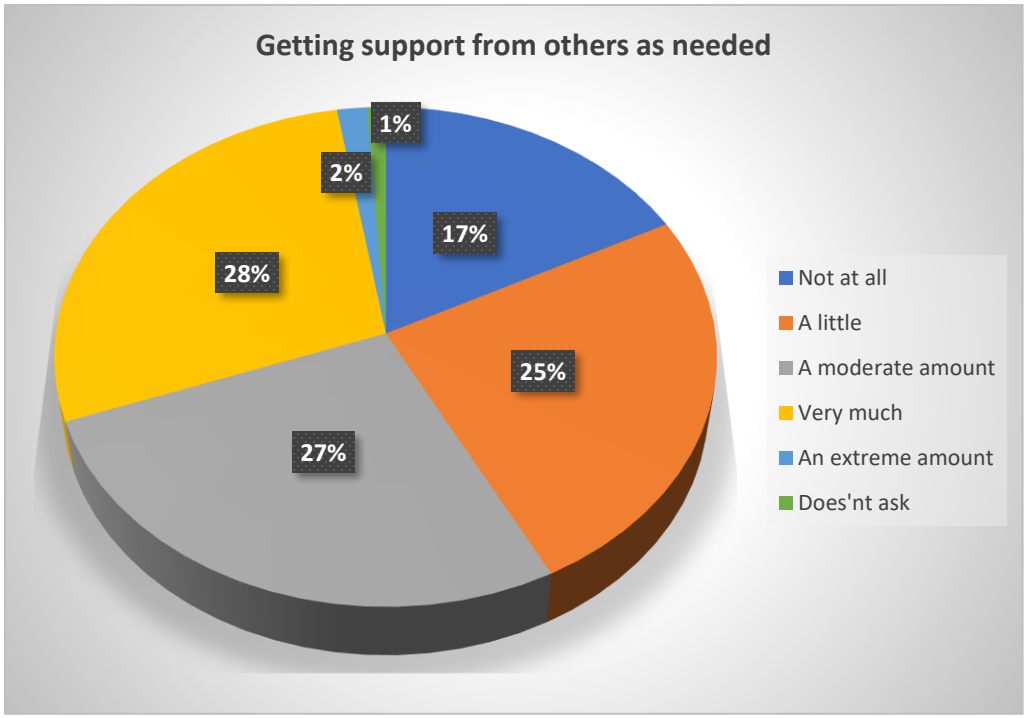


Figure 4.8: Help received from peers when needed among older persons

Figure 4.8 captures that among the 304 older respondents, perceived support from peers varied: a slight majority (57.0 %) reported at least adequate support, comprising 27.0% who reported “a moderate amount,” 28.0% who reported “very much” (the modal category), and 2.0% who reported “an extreme amount.” In contrast, a substantial minority (43.4%) expressed limited support, 25.0% indicated “a little,” and 17.4% stated “not at all”, while 1.0% reported that they “don’t ask for help from others.” The distribution indicates that, although more than half perceive themselves as having sufficient support when needed, a significant proportion may have been at risk of social insufficiency.

Table 4.14: Social, Physical, and Spiritual Activities Older persons enjoy (n=304)

Social, Physical, and Spiritual Activities Older persons enjoy	Yes	No
Radio / TV/Reading	107 (35.2)	197 (64.8)
Needlework	88 (28.9)	216 (71.1)
Church	63 (20.7)	241 (79.3)
Exercising	22 (7.2)	282 (92.8)
Gardening	20 (7.0)	284 (93.4)
Making marula oil/Claypots	18 (5.9)	286 (94.1)
Cleaning	14 (4.6)	290 (95.4)
Fieldwork	13 (4.3)	291 (95.7)
Soccer	12 (3.9)	292 (96.1)
Singing	10 (3.3)	294 (96.7)
Farming	9 (3.0)	295 (97.0)
Making bricks	1 (0.3)	303 (99.7)

*Multiple answer question, participants could choose all that apply

As presented in Table 4.14 above, the question allowed more than one response, indicating that older persons predominantly engaged in passive and less physically demanding activities. The highest participation was in radio/TV/reading (35.2%), followed by needlework (28.9%), and attending church (20.7%). In contrast, physically demanding or labour-intensive activities, including brickmaking (0.3%), farming (3.0%), and soccer (3.9%), were the least favoured. Overall, there is a clear preference for leisure, creative, and spiritual activities over physical exertion, indicating that programmes for older adults should prioritise entertainment, light crafts, and social or religious engagement to align with their interests and capabilities.

4.6 NUTRITION

In the sample of 304 older persons, the majority reported healthy dietary habits, with 61.5% reporting that they consume a balanced diet. A substantial minority (38.4%) indicated that they did not eat a balanced diet (22.0%) or did so only sometimes (16.4%), suggesting that more than one in three may have inconsistent or inadequate dietary patterns. They were also asked about the type of their daily meals, and their responses are listed in Table 4.15 below:

Table 4.15: Typical daily types of meals for older persons

Typical daily type of meals	Yes	No
Meat/ fish	177 (58.2)	127 (41.8)
Vegetables	164 (53.9)	140 (46.1)
Pap	157 (51.6)	147 (48.4)
Rice/macaroni/beans/potatoes	124 (40.8)	180 (59.2)
Fruits	123 (40.5)	181 (59.5)

*Multiple answer question, participants could choose all that apply

Table 4.15 above depicts that across the 304 older persons, daily meal habits predominantly include meat/fish (58.2%), vegetables (53.9%), and pap (51.6%), while less than half reported daily consumption of rice/macaroni/beans/potatoes (40.8%) or fruits (40.5%). Thus, a majority did not report consuming fruits (59.5%) or the mixed starchy staples/legumes category (59.2%) on a typical day. Taken together with the previous finding that 61.5% of respondents self-reported eating a balanced diet. These data suggest a possible gap between perceived and actual dietary diversity, characterised by relatively low daily consumption of fruit and legume/starchy staples, which may signal risks for micronutrient and fibre shortfalls among a sizable subgroup.

Table 4.16: Self-reported experience of older person abuse

Have you suffered from any form of abuse	Frequency	Percent
No	253	83.2
Yes	51	16.8
Total	304	100.0

Table 4.17: Types of abuse reported by older persons

Ways abused (Those abused only)	Frequency	Percent
Physical	16	31.4
Emotional	22	43.1
Financial	13	25.5
Total	51	100.0

Tables 4.16 and 4.17 above show that among the 304 participants surveyed, 16.8% (n=51) reported experiencing some type of abuse, while the majority, 83.2%, reported that they had not. Emotional abuse was the most common kind of abuse at (43.1%)**,** followed by physical abuse (31.4%) and financial abuse (25.5%). The findings suggest that although most respondents did not report abuse, around one in six had been victimised, with emotional abuse being the predominant form, highlighting a critical area for screening and support, in addition to addressing physical and financial harms.

Table 4.18: Substance use among the older persons (n=304)

No	Variable	Responses	n (%)
1	Do you currently smoke?	Yes	58(19.1)
		No	246(80.9)
2	If you smoke, how often do you smoke?	Daily	45(77.6)
		Weekly	11(19.0)
		Monthly	2(3.4)
		Less than monthly	-
3	Do you consume alcohol?	Yes	72(23.7)
		No	232(76.3)
4	If you consume alcohol, how often do you drink?	Daily	11(15.3)
		Weekly	23(32.0)
		Monthly	22(31.0)
		Less than monthly	16(22.2)

*A dash (-) represents 0

Table 4.18 above conveys that in this older person's cohort (N=304), substance use was relatively uncommon, with 19.1% reporting current smoking and 23.7% reporting consuming alcohol. Smoking, when present, was mostly intensive: 77.6% of smokers reported daily consumption, equating to 14.8% of the total sample, implying greater reliance among smokers. Alcohol consumption showed a more sporadic pattern: merely 15.3% of drinkers (3.6% of the sample) reported drinking daily, whereas the majority reported weekly or monthly usage (63% of drinkers combined). The majority of participants were non-users of both substances (80.9% non-smokers; 76.3% non-drinkers).

Table 4.19: Binary logistic model (outcome: residence in an old-age home vs. in the community; reference for the dependent variable = community)

Variable	COR (95% CI)		P-value	AOR (95%CI)		P-value
Age group			**<0.001**			**<0.001**
60 - 69(Ref)						
70 - 79	2.781	(1.573 - 4.916)	<0.001	9.278	(3.018 - 28.526)	<0.001
80 - 89	4.628	(2.345 - 9.134)	<0.001	45.943	(9.656 - 218.602)	<0.001
90+	3.615	1.076 - 12.149	0.038	7.091	(0.501 - 100.414)	0.147
Marital Status			**<0.001**			**0.011**
Single (Ref)						
Married	0.433	(0.226 - 0.830)	0.012	0.149	(0.044 - 0.501)	0.002
Divorced	4.574	(1.344 - 15.562)	0.015	0.888	(0.126 - 6.248)	0.905
Widowed	1.136	(0.606 - 2.128)	0.691	0.548	(0.161 - 1.867)	0.336
Sex			0.829			
Male (Ref)						

Female	1.055	(0.649 - 1.714)	0.829	0.758	(0.263 - 2.184)	0.608
Highest Education			**<0.001**			**<0.001**
No Formal Education (Ref)						
Primary	1.971	(0.753 - 5.161)	0.167	6.624	(1.582 - 27.740)	0.010
Secondary	24.346	(9.402 - 63.042)	<0.001	136.207	(25.009-741.833)	<0.001
Tertiary	91.833	(17.080 - 493.762)	<0.001	175.346	(16.002-1921.379)	<0.001
Currently ill			**<0.001**			**0.005**
No (Ref)						
Yes	0.224	(0.137 - 0.369)	<0.001	0.239	(0.087- 0.656)	
Self-rated current health status			**<0.001**			0.092
Very Poor (Ref)						
Poor	0.818	(0 .432 - 1.550)	0.538	0.229	(0.062 - 0.854)	0.028
Neither poor nor good	2.864	(1.427- 5.747)	0.003	0.578	(0.101 - 3.304)	0.537
Good	12.375	(2.508 - 61.052)	0.002	5.712	(0.222 - 146.739)	0.293
Very good	-		1.000	-		1.000
Self-rated overall quality of life			**<0.001**			0.107
Very Poor (Ref)						
Poor	2.521	(0.993 - 6.404)	0.052	6.878	(1.410- 33.553)	0.017
Neither poor nor good	4.879	(1.859 - 12.808)	0.001	4.798	(0.642- 35.824)	0.126
Good	64.000	(6.961 - 588.403)	<0.001	34.855	(1.115- 1089.848)	0.043
Very good	-		1.000	-		1.000
Medication/treatment dependency			**<0.001**			0.167
Not at all (Ref)						
A little	0.138	(0.044 -0.430)	<0.001	0.439	(0.071 -2.739)	0.378
A moderate amount	0.136	(0.045 - 0.411)	<0.001	1.261	(0.179 – 8.884)	0.816
Very much	0.071	(0.025 - 0.200)	<0.001	0.457	(0.071- 2.938)	0.410
An extreme amount	0.033	0(0.011 -0.098)	<0.001	0.225	(0.035- 1.452)	0.117
Losing physical independence as one gets older			**<0.001**			**0.001**
Not at all true (Ref)						
Slightly true	0.168	(0.058 - 0.491)	0.001	0.068	(0.013 - 0.349)	0.001
Moderately true	0.136	(0.047 - 0.396)	<0.001	0.055	(0.011 - 0.286)	<0.001
Very true	0.064	(0.022- 0.187)	<0.001	0.040	(0.007 - 0.216)	<0.001
Extremely true	0.032	(0 .009-0.118)	<0.001	0.017	(0.002 - 0.127)	<0.001
Visiting healthcare frequently			**<0.001**			0.723
Rarely (Ref)						
Every few months	0.276	(0.129 - 0.590)	<0.001	1.773	(0.351- 8.946)	0.488

Monthly	0.205	(0.103 - 0.408)	<0.001	2.455	(0.488 - 12.345)	0.276
Weekly	0.438	(0.135 -1.422)	0.169	1.409	(0.113 - 17.614)	0.790

*A dash (-) sign is for the values that had no CI due to limited counts in these categories (5-point Likert scale based on WHO quality of life tools questions): COR: Crude odds ratio; AOR: Adjusted odds ratio; 95% CI: 95% confidence interval.

Table 4.19 highlights the following:

Adjusted odd findings:

Age: A strong age gradient is observed up to the 80–89 age bracket. Compared to individuals aged 60–69, the odds of being in an old-age home were higher for those aged 70–79 (AOR = 9.28, 95% CI 3.02 – 28.53, p < 0.001) and 80–89 (AOR = 45.94, 9.66 – 218.60, p < 0.001). The 90+ estimate was not statistically significant (AOR = 7.09, 0.50 – 100.41, p = 0.147).

Marital status: In comparison to single older persons, married older adults had substantially lower odds of residing in an old-age home (AOR = 0.15, 0.04 – 0.50, p = 0.02). Being divorced or widowed was not significant after adjustment.

Sex: No adjusted association (Female vs Male AOR = 0.76, 0.26 – 2.18, p = 0.608).

Education: There is a very strong positive gradient compared to no formal education: Primary AOR = 6.62 (1.58 – 27.74, p = 0.011); Secondary AOR = 136.21 (25.01 – 741.83, p < 0.001); Tertiary AOR = 175.35 (16.00 – 1921.38, p < 0.001). Older persons with secondary and tertiary education had significantly higher odds of residing in an old-age home compared to those with no formal education, living in the community.

Currently ill (yes vs no): Individuals who are currently ill exhibited a reduced likelihood of residing in an old-age home (AOR = 0.24, 0.09 – 0.66, p = 0.005); those who are currently ill are more likely to stay within the community.

Self-rated current health (ref = Very poor): Only “poor” was significant and in the protective direction (AOR = 0.23, 0.06 – 0.85, p = 0.028). “Neither poor nor good” and “good” were not significant after adjustment.

Overall quality of life (ref = Very poor): Higher QOL is associated with higher odds of residing in an old-age home: Poor AOR = 6.88 (1.41 – 33.55, p = 0.017) and Good AOR = 35.01 (1.12 – 1089.85, p = 0.043).

Medication/treatment dependency: No adjusted associations were observed across all levels, ranging from “a little” to “extreme”, all of which were non-significant.

Perceived loss of physical independence (ref = Not at all true): indicates a strong reduction in odds of losing physical independence among individuals residing in old age homes compared to their community counterparts, AOR = 0.07 (0.01 – 0.35, p = 0.001), Moderately 0.06 (0.01 – 0.29, p < 0.001), Very 0.04 (0.01 – 0.22, p < 0.001), Extremely 0.02 (0.002 – 0.13, p < 0.001).

Healthcare visit frequency: No significant adjusted association (e.g., Monthly AOR = 2.46, 0.49 – 12.35; Weekly AOR = 1.41, 0.11 – 17.61).

In summary, older age (especially 80–89) with (AOR = 45.94, 9.66–218.602, p < 0.001) and higher educational attainment with primary AOR = 6.62 (1.58 – 27.74, p = 0.010); secondary AOR = 136.207 (25.01 – 741.833, p <

0.001); tertiary AOR = 175.346 (16.00 – 1921.38, p < 0.001) are the strongest independent predictors of residing in an old-age home rather than in the community. Being married is associated with remaining in the community (AOR = 0.15, 0.05 – 0.50, p = 0.02). The measures of current illness (AOR = 0.24, 0.09 – 0.66, p = 0.005) and perceived loss of independence AOR = 0.07 (0.01 – 0.35, p = 0.001), Moderately 0.06 (0.01 – 0.29, p < 0.001), Very 0.04 (0.01 – 0.22, p < 0.001), Extremely 0.02 (0.002 – 0.13, p < 0.001) levels are likely to be low among old-age homes residents compared to those in the community (p<0.05).

4.7 THE CAPACITY OF NURSING HOMES TO ACCOMMODATE THE COMPLEX NEEDS OF NAMIBIA'S ELDERLY POPULATION.

This addressed Objective Three. The study employed a checklist to assess residential care facilities (old-age homes) for older persons in the Khomas, Ohangwena, and Hardap regions. During the data collection period, there were no older care facilities in Ohangwena; there was one in Hardap, and six in Khomas (seven facilities in total). Of these, six were evaluated; one facility was excluded because ethical approval could not be secured. Among the six assessed institutions, four were privately owned, and two were public. This objective was presented at the International Federation on Ageing (IFA)'s 17th Global Conference on Ageing, held in Cape Town, South Africa, from September 9 - 12, 2025, under the theme 'Age-friendly environments' and titled "Residential care for the older persons: A critical analysis of old age homes and community settings." It is published in the conference abstract book (Haufiku-Weyulu et al., 2025d). It is further published as an article, see Appendix 21.

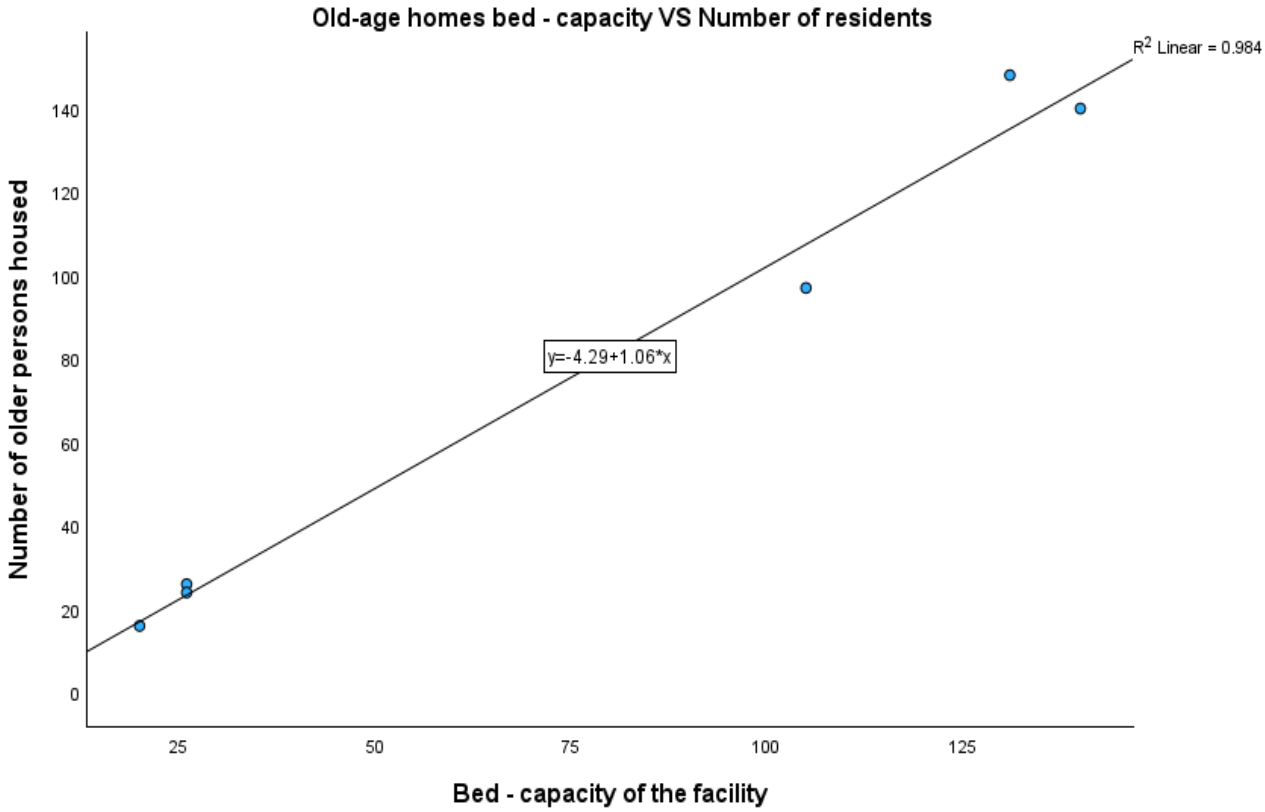


Figure 4.9: Old age homes bed capacity vs the number of older persons residents.

Figure 4.9 above shows a scatterplot that demonstrates a near-perfect linear relationship between facility capacity and the number of residents accommodated across the six homes ($R^2 \approx 0.98$). The fitted line ($\hat{y} = -4.29 + 1.06x$) has a slope slightly greater than one, indicating that occupancy increases approximately in direct proportion to reported capacity, and in several cases, marginally exceeds it. Overall, the pattern suggests limited space capacity as most facilities operate at or near full occupancy, with some evidence of overcapacity in the larger homes, underscoring potential pressure on available beds.

Table 4.20: Comparison of private and public old age homes

Variable	**Category**	**Private Old-age homes N (%)**	**Public Old-age homes N (%)**
Number of staff	1-3	-	2 (100.0)
	4-7	2 (50.0)	-
	8 and above	2 (50.0)	-
Payment per month (NAD)	0-299	-	2 (100.0)
	300-999	1 (25.0)	-
	1000-5000	1 (25.0)	-
	5001 and above	2 (50.0)	-
First aid and sick bays are available	Yes, both first aid, social welfare, and health care	4 (100.0)	-
	Yes, first aid and social welfare only	-	2 (100.0)
Emergency preparedness is in place	Yes	3 (75.0)	2 (100.0)
	No	1 (25.0)	-
The house is safe (lockable doors, neighbourhood watch, perimeter fencing)	Yes, rooms with locks only, no neighbourhood watch and an electrical fence	1 (25.0)	-
	Yes, with locks, gates locked, and an electrical fence	3 (75.0)	2 (100.0)
Anti-slippery floor	Yes	3 (75.0)	2 (100.0)
	No	1 (25.0)	-
Provisions made for people with disabilities.	Yes	3 (75.0)	-
	No	1 (25.0)	2 (100.0)
Provision of railings at the steps of the house	Yes	2 (50.0)	-
	No	2 (50.0)	2 (100.0)
Overall quality of care	Very good	2 (50.0)	-
	Good	2 (50.0)	-
	Neither poor nor good	-	2 (100.0)
Improvements needed	No action needed	2 (50.0)	-
	Significant upgrade	2 (50.0)	-
		-	2 (100.0)

	Extreme renovations/service gaps

*A dash (-) indicates no observation

Table 4.20 above illustrates the comparison between private (n = 4) and public (n = 2) facilities, revealing that private homes consistently had greater resources and higher ratings. All public homes reported having only 1–3 staff members, whereas all private homes employed 4 or more. Public homes fell exclusively in the lowest monthly fee band (N$0–299), while private homes charged N$300 or more, with half falling in the highest rate band. Private institutions had a more extensive service infrastructure, including (first aid + social-welfare + healthcare/sick-bay being available in all four), whereas public homes reported only first aid and social welfare. Emergency preparedness measures, including fire extinguishers, assembly points, fire alarms, and basic security, were present in most sites, though one private home lacked emergency preparedness, and another was equipped solely with room locks. Accessibility gaps were prevalent in the public sector: neither public home had disability provisions (such as raised toilet seats, walking and standing aids, ramps for wheelchairs, etc.) or stair railings at the front and rear of the facilities, while most private homes did. The perceived quality mirrored these disparities, private homes were rated "good/very good," while public homes were deemed "neither poor nor good"—and improvement needs diverged sharply, with both public homes classified as needing "extreme renovations/service gaps(having cracks, some non-functional bathrooms, fire extinguishers are there, but they were last serviced between 2018/2019, requiring high priority)," in contrast to private residences, which were split between "no action (routine maintenance only) and " and "significant upgrade (medium priority)."

Apart from what is shown in the table, all six old age homes have sex-segregated rooms, toilets, and bathrooms with grab bars, adequate provision of safe drinking water, sufficient lighting in all areas, and available recreational facilities, including TVs, books, and newspapers.

Table 4.21: General challenges and recommendations reported by the older persons during data collection (Gathered from the field notes)

The following are general challenges and recommendations reported by the older persons during the assessments:
Challenges
- Some older person indicated that their facility has a Cuca shop nearby, and it makes noise.
- Some indicated they are receiving a small portion of food or too much repetition, such as pasta.
- Some indicated that the staff are not professional.
- Some indicated they receive few daily check-ups, insufficient medical care, or nothing at all.
- Some complain that their facility is dirty.
- Some facilities are very old; some have broken zinc, paint coming off, broken utilities, such as taps that are not fixed on time. Some even reported that their kitchen tap is broken, and they have to fetch water from the bathroom; others have roofs that leak during the rainy season, and some indicated that they do not have geysers.
- Some complain that their neighbours are alcoholics and make threats against them.
- Some indicated not treated well by the management.
Recommendations

- Some want newspapers delivered to the facilities daily, as they cannot walk on their own.
- They also want doctor visits to be added to the nurse visits, which they recently received.
- They want their facility to be allocated a dedicated transport so that it will be easier to visit the healthcare.
- Changing the menu, which is considered a balanced diet.
- Management to improve their manners.
- Want their caregivers to be trained and request enough staff.
- The facilities to be renovated.
- Some want en-suite toilets to stop using common areas.
- Some want a full-time social worker at their facility.
- Some are requesting daily check-ups.

4.8 THEMATIC TABLES

Caregiver thematic table

Twenty-two (22) caregivers provided valuable insights. Their age varied from 20 to 69 years, with the predominant age group being 50-59 years, seven (31.8%). Most were female, 20 (90.9%), while only two (9.1%) were male. Many of them had completed secondary school, with 20 (90.9%) having done so, and one participant each (4.5%) having completed primary and vocational education. None of the caregivers held a bachelor's degree or higher qualifications. Regarding experience, most of them, nine (40.9%), had been caring for older persons for 10 years or more, while five (22.7%) had between one and three years of experience. Ten themes and fourteen sub-themes emerged from the caregivers' interviews.

Table 4.22: The caregivers' (CG) thematic table

Theme	Subtheme	Sample quote
Motivation for Providing Care	Family Obligation and Passion	"They are my parents, and since I no longer work. I am now at home with them." (CG 2) "I love helping the older persons; it's like caring for my mother, who is blind, and assisting them with bathing and taking their medications." (CG 18)
Caregiving Experience	Mixed Emotions	"Some older people are friendly and appreciate me, but others are careless, ungrateful, and sometimes angry, even shouting at me." (CG 4) "Sometimes they are good, sometimes they are rude and moody, and I should always please them." (CG 12) "We tell each other stories, but sometimes they shout at me, clap in my face, and even spit on me, especially the Alzheimer's people." (CG 20)

Training and Education	Lack of Formal Training	"No, I have only learned from the radio. " (CG 2) "I want to be trained on how to feed older persons via a tube and how to administer medication. "(CG 18)
Challenges Faced	Behavioural Issues in Older Persons	"They like seeking attention, behave like children, and become short-tempered." (CG 2) "One needs to understand them as some are very short-tempered. Some are very shy, especially those who wear diapers; sometimes, they do not want to be assisted or bathed." (CG 4)
	Violent or Aggressive Behaviour from Older Persons	"They sometimes do shout and scratch me." (CG 17)
	Substance Abuse by Older Persons	"Some abuse alcohol because at this old age home, they have the freedom to go out." (CG 8) "They abuse alcohol and, sometimes, end up quarrelling and fighting; one must stand in the middle to avoid fights." (CG 10)
Decisions on Old Age Homes	Fear of Neglect and High Costs	"Some do not want or cannot afford to pay." (CG 7) "They feel their family will neglect them, may lose their independence, and their privacy will be compromised." (CG 4)
Health Issues	Illnesses	"Most of them have high blood pressure, back pain, eye problems, and Alzheimer's." (CG 8) "A lot of older persons are sick; we have two on oxygen; some have diabetes, high blood pressure, cancer, and dementia. "(CG 10)
	Hospital follow-ups	"Sometimes, they have hospital follow-ups and do not go because there is no money for fuel. Sometimes, they also get prescribed foods from the hospital, but those schedules are not followed due to financial issues. Their pension money is mostly used to buy staple foods, such as maize meal, rather than fruits and vegetables." (CG 2)
Suggestions for Improvement	Infrastructure and Salary	"Older people should have their toilets in their rooms... I also want a salary increment." (CG 8)

		"Renovation of our old-age home is very much needed. Additionally, I would appreciate having a physiotherapy room where our older adults can receive care two to three times a week." (CG 4)
	Management and benefits	"The management should respect us and make us a priority." (CG 15)
		"We are seeking employment benefits, such as medical aid and salary increases, due to the excessive workload." (CG 16)
Social and Recreational Activities	Limited Participation	"There is a living room with a TV only about 3-4 people are interested." (CG 22)
		"We have a garden, but only one or two are interested; the rest are too lazy." (CG 9)
Meeting Holistic Needs	Faith and Interaction	"I am primarily patient with them. I sometimes take them for a walk, and some also go to church services. However, we also have pastors who come in on Tuesdays and Sundays to preach and conduct Bible studies with them. "(CG 8)
		"We tell each other stories, and I sometimes accompany them to the shops." (CG 6)
Resource Constraints	Lack of Equipment for Physical Support	"We want equipment to assist in carrying older people from their beds into a wheelchair, as we carry them about 6 times a day, and it is tough." (CG 13)

Constituency Councillors and Headman thematic table

Ten (10) key informants (Constituency Councillors/Headman) participated in the study. Their ages ranged from 30 to 60 years, with the majority (40.0%) falling between 50 and 59 years old. The majority were male, 9 (90.0%), with one female participant (10.0%). Regarding education, three participants (30%) each held a secondary school qualification, a certificate, or a diploma, while only one participant (10%) had attained a bachelor's degree. Six themes and 10 sub-themes emerged from the Constituency Councillors and Headman interviews.

Table 4.23: The constituency councillors (CC) & village headman (VH) thematic table

Theme	Subthemes	Sample quotes
Care and Support	Lack of Proper Care	"Some older persons staying alone are cared for by their neighbours and others by their nearby family members." (VH 1) "Some older persons were reported to have been left home alone unattended for half a day, and some were locked in rooms with little food and a bucket to relieve themselves. Some were not taken care of at all, from their bedding to their clothes and bodies." (CC 3)
	Family Dependency on Pension	"The older people's pension is mostly not used in their favour, as some are still sleeping on uncomfortable chain beds. Others only use clean blankets in emergencies, such as mourning ceremonies and weddings, while they use dirty and old blankets on a daily basis." (VH 2) "Family members will feel embarrassed if their older people go to old age homes, as they also benefit from the pension." (CC 3)
Health Challenges	Chronic Illnesses	"Older persons do not have cancer; most have high blood pressure, eye and ear problems." (VH 2) "The burning problems are high blood pressure and eye problems. The most contributing factor to the old person's high blood pressure is the youth; the ones who are unemployed are misusing the old people's pension by drinking alcohol and not taking care of them, putting them under pressure, as they cannot take care of their grandchildren." (CC 5)
	Limited Access to Health Services	"They have difficulty reaching the hospital, and sometimes the hospitals are full." (VH 2) "We currently have only three fully operational clinics, meaning many people must travel long distances to access healthcare. When referred to referral hospitals, patients

		receive transportation to the hospital, but not for their return journey. Some older persons have reported that they are unable to take their medications daily because their referral appointments are due, and they did not go because of a lack of money for travel. In some cases, they go to the hospital only to be told there is no medication available and that they should return another day. This not only adds extra costs, but for some, it becomes unaffordable." (CC 10)
Old Age Homes	Resistance to Old Age Homes	"Older people do not want to go to old age homes only because they are not aware." (VH 2) "Older persons want to go to old age homes, but it is often their family members who do not want them to, as they are benefiting from their pension money." (CC 3)
	Benefits of Old Age Homes	"Old age homes have caregivers who are responsible for cleaning and giving social counselling to older adults." (VH 1) "I have heard about old age homes. They have caretakers who take care of older people, ensuring their hygiene is maintained by bathing them and providing them with food. These homes can also limit alcohol consumption by older people. They are also likely to have a good bed and a mattress, unlike those in their houses, where no one really checks if their beds are in good condition." (CC 4)
Awareness & Education	Need for Education & Sensitisation in old age homes	"Take someone from their communities, train them so they come and educate them because older persons prefer listening to the people whom they are aware of their background" (VH 2) "It's because of their lack of knowledge that they may not want to go to old-age homes. Let's educate them on the benefits of old age homes, and they will be more accepting. Also, motivate them that old age homes are not bad initiatives. I know some people who are really well taken care of in old-age homes." (CC 6)
Living Conditions	Overcrowded Homes	"Some houses are overcrowded with more than 14-15 people." (CC 5) "The older persons' children or other family members always leave them with grandchildren. I know of an older person who is taking care of 15 grandchildren, which requires feeding and paying their school fees; this is too many compared to the

		monthly food supply. Some of these children are in orphanages and are vulnerable, and also receive a grant from the government, but people who are entrusted to receive their money are misusing it and using it for their own benefit, not those of the kids, putting heavy pressure on the older persons." (CC 8)
	Lack of Basic Needs (Water, Food, Sanitation)	"Hunger due to the limited food they cannot afford with the limited pension money." (CC 8) "Some older persons have access to services, but others still do not have access to toilets and have to use the bush to relieve themselves, which is very disappointing. We have water, but since 2022, we have started to experience low water pressure due to the growth in population and gardening activities". (CC 6)
Community and Government Support	Stakeholder Involvement & Policy Needs	"We have constituency development committee meetings with several stakeholders such as the business community, spiritual people, councillors, Health, Gender, etc. On this platform, we raise our problems and share ideas and possible solutions." (CC 8) "You see, as stakeholders, we should always collaborate with the Ministry of Gender. The issue is the procurement process, which really takes so long, and I do not like it as we mostly have beautiful ideas, but time will pass, and the ideas are not implemented." (CC 6)

Nurses thematic table

Among the seventeen (17) nurses surveyed, the majority were female (82.4%), and they were predominantly registered nurses (70.6%), with the remaining 29.4% being enrolled nurses. The age distribution is predominantly younger to mid-career, with 58.8% aged 20–39 (23.5% aged 20–29; 35.3% aged 30–39), 35.3% aged 40–59 (17.6% each for the 40–49 and 50–59 age ranges), and 5.9% aged 60–69. Educational attainment was led by diplomas (41.2%), followed by bachelor's degrees and certificates, each representing 29.4%. Marital status was diverse, with nearly half (47.1%) married and 41.2% single, while smaller shares were divorced (5.9%) or cohabiting (5.9%). A significant portion of the workforce has extensive experience: 47.1% reported ≥10 years in nursing, while the remaining 52.9% were distributed across shorter experience bands (<10 years), reflecting a workforce that blends veteran practitioners with early- and mid-career nurses. Five themes and eleven sub-themes emerged from the nurses' interviews.

Table 4.24: The nurses' (N) thematic table

Theme	Subtheme	Sample Quote
Prevalent health issues	Diseases/conditions/ malnutrition	"High blood pressure, back and leg pain, and diabetes." (N 1)
		"High blood pressure, musculoskeletal disorders such as leg and knee pain, diabetes, and eye disorders." (N 2)
		"High blood pressure, diabetes, arthritis, psychiatric conditions (dementia), malnutrition, and pneumonia." (N 3)
		"High blood pressure, diabetes, Asthma, arthritis, prostate cancer." (N 10)
		"High blood pressure, malnutrition, arthritis, diabetes, and eye problems." (N 9)
System challenges	Staff shortage/lack of equipment	"Staff shortage leads to long queues." (N 1)
		"Testing equipment sometimes fails to function properly, such as the HB test, BP machine, and HGT (glucose) device." (N 1)
		"Even those who cannot walk are carried on a plastic chair, as our wheelchair is broken." (N 3)
	Medication stock-outs	"Shortage of chronic medication, such as for high blood pressure, results in some older persons defaulting." (N 4)
	High patient volume / need dedicated nurse	"We have a high number of patients; therefore, we also want a nurse assigned specifically to care for older persons." (N 8)
Social and living conditions	Burden of caring for grandchildren	"They mostly face poverty, and they also face a lot of burden from their grandchildren, as they are their caretakers." (N 3)
	Alcohol use/substance misuse	"Most old people are really abusing alcohol, which also affects them." (N 4)
	Financial constraints/diet affordability	"Some individuals receive special diets, but they cannot adhere to them due to affordability, which deteriorates their situations." (N 6)
	Hygiene/neglect (dirty clothes, no shoes)	"Some are coming to the hospital without shoes or with unpleasant odours, implying they have not been properly cared for." (N 1)
	Water & sanitation limitations	"Those without toilets use the bush, and without access to water, their sanitation is inadequate." (N 9)
Policies/interventions	Policy & guidelines	"We only use the patient charter for everyone." (N 9)
		"No, we only use the standard treatment guideline". (N 13)

Workforce & training needs	No geriatric training and workforce	"No, I have only done it as an introduction, part of the nursing curriculum." (N 8)
		"No, I never heard about the term geriatrics before." (N 2)

Social workers' thematic table

All fourteen (14) interviewed social workers were female (100%) and concentrated in early to mid-career age bands, with 57.1% aged 20–39 (21.4% aged 20–29; 35.7% aged 30–39), while the remaining participants were evenly distributed between the ages of 40–49 (21.4%) and 50–59 (21.4%). Educational attainment was significant: 78.6% possessed a bachelor's degree, 14.3% a master's degree, and 7.1% a diploma. The participants were primarily based in Khomas (57.1%), with additional representation from Ohangwena (21.4%) and Hardap (21.4%). Marital status was evenly divided between single and married individuals, each comprising 50.0%. Professional experience demonstrated indicated a balanced skills mix, with 35.7% reporting ≥10 years in practice and a further 28.6% with 5–<10 years, while 14.3% had 3–<5 years, 14.3% had 1–<3 years, and 7.1% had <6 months' experience. Seven themes and seven subthemes emerged from the interviews with social workers.

Table 4.25: The social workers' (SW) thematic table

Theme	Subthemes	Sample quotes
Insufficient capacity and regional disparities	No homes in some regions; long waiting lists; insufficient dementia centres.	"We do not have old-age homes in the north, and that's why I wish the government would come in, as they did in the southern and central regions." (SW 2) "It is insufficient; we can only take 5-6 from the yearly waiting list as the houses are full. Spaces are only available when someone dies or gets sick and is unable to take care of themselves, and thus, their family members come to take them." (SW 10)
Financial constraints and affordability	Fees insufficient; reliance on donations; need government/NGO/private support.	"The 300 paid by the old people is not enough." (SW 8) "Private old age home charges so much because of utilities, salaries; state ones are not maintained on time." (SW 14)
Abuse, neglect and financial exploitation	Physical/emotional abuse; neglect; pension/social grant misuse.	"Their pension fund is being misused by their caretakers." (SW 3)

		"The older persons face rejection, neglect, and abuse, and some houses are in depleted situations." (SW 7)
Public awareness and cultural attitudes	Stigma of being "thrown away"; resistance in some cultures; need for family-inclusive education; radio/workshops/hospitals.	"They should be educated on the old age home benefits, because they think that they are thrown away if being sent there" (SW 4) "It's very difficult to accept old age homes, especially in our black culture." (SW 12)
Services and supports provided	Counselling, home visits, referrals health education.	"We do counselling and home visits." (SW 1) "We have a dance after lunch every Friday." (SW 7)
Policy/guideline gaps and uneven implementation	Outdated/insufficient policies.	"The older person policy we are using is outdated." (SW 6) "The Ministry of Health and Social Services is currently drafting a Policy on the Rights, Protection and Care of Older Persons in Namibia; there is no other policy in place." (SW 14)
Staffing, training and governance needs	Staff shortages; need trained caregivers; referral systems.	"Training of staff with special skills is needed." (SW 4) "We need to recruit more staff, such as nurses, physiotherapists, a cook, and some cleaners." (SW 8)

Head of old age homes thematic table

The study only included two (2) heads of households because one manager ran two old-age homes, and the other had social workers as in-charges and formed part of the social workers interviewed.

Among the two heads of old-age homes interviewed (N = 2), both were female and employed full-time; one was aged 40–49, and the other was 50–59. Educational achievement was split, with one individual possessing a secondary education and the other holding a master's degree. Occupational roles included those of Administrative Officer and General Manager, with the geographic locations evenly distributed between the Hardap and Khomas regions. Marital status was also equally distributed (one single, one married). Professional experience in elderly care revealed that one respondent had 3–<5 years and another had 5–<10 years. Ten themes and ten subthemes emerged from the interviews with the head of old-age homes.

Table 4.26: The head of old-age homes (HOAH) thematic table

Theme	Subthemes	Sample quotes
Funding and sustainability constraints	Lack of sponsors, reliance on resident fees, fundraising gaps, and low caregiver payment.	"We do not have sponsors; the old age home depends entirely on the payment of the old people accommodated here." And "We do not pay the caregivers enough." (HOAH 1)
Capacity limits and waiting lists	Limited beds; full occupancy; demand exceeds supply.	"We have a very limited bed capacity here." (HOAH 1) "We can accommodate up to 140 older people, but we are currently full with a long waiting list. It is sad because they need these services now and not when they are dead." (HOAH 2)
Workforce recruitment and training	Certificate/diploma required; some staff untrained.	"Some came trained, others did not receive any training." (HOAH 1) "It's a requirement that caregivers should possess a tertiary qualification, but we also give them on-the-job training." (HOAH 2)
Dementia care gaps	Caregivers often lack dementia-specific skills; they need access to a dedicated dementia centre.	"It's also difficult for the old people with dementia as caregivers do not have qualifications on how to deal with older persons with dementia." (HOAH 2)
Affordability and pricing model	Expensive facilities	"They pay depending on the type of room they are accommodated in and the amount of care they need. Prices range between N$4,280 and N$14,590 per month." (HOAH 2)
Health care access and partnerships	MoHSS monthly clinic; ambulance support; doctor biweekly; nurses and matron.	"The clinic comes once a month here, as we have a collaboration with MoHSS. We also call an ambulance, and caregivers help with administering their daily medication." (HOAH 1) "We have six nurses and a matron. We have a wonderful doctor who comes in every second Wednesday afternoon." (HOAH 2)
Night care and shift patterns	No night-shift caregivers; need night coverage.	"We are unable to provide night care as we have day caregivers only." (HOAH 1) "We have staff shifts different from day one, and that confuses the old people, because they expect to only be assisted by one person whom they get used to." (HOAH 2)

Infrastructure and facility upgrades	Physio room and physiotherapist required; infrastructure support is also needed.	“We also want a physiotherapist and a physio room” (HOAH 1)
Holistic wellbeing programming	Spiritual services; emotional support.	“There is a church service every Wednesday and Sunday.” (HOAH 1) “We have Bible study every Sunday and prayer groups on Wednesdays.” (HOAH 2)
Community perceptions and family engagement	Negative perceptions; low family visitation; stigma (“only for white people”).	“People are always negative; most families never come to visit their old people here.” (HOAH 1) “Some community members also believe old age homes are only for white people, which is not valid. We need to speak mostly to the rural community about the benefits of old age homes.” (HOAH 2)

4.9 DATA TRIANGULATION

The above results were triangulated as per Figure 4.11 below:

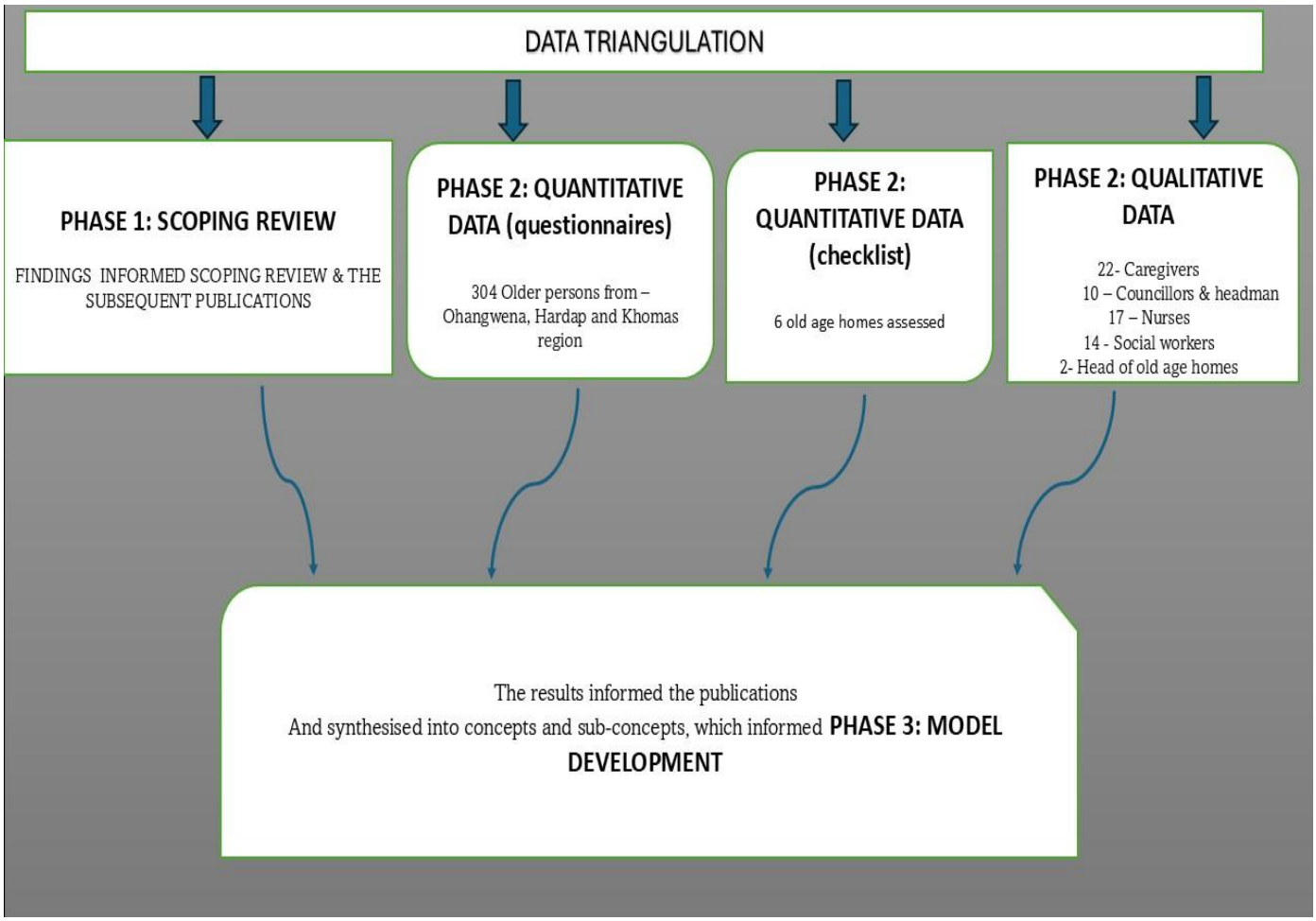


Figure 4.10: Triangulation of the results

Source: (Researcher's own construction, 2025)

4.10 SUMMARY OF THE CHAPTER

Chapter 4 presented the study findings in line with the objectives, starting with socio-demographics for the older persons, and then community awareness toward old age homes, attitude toward old age homes for both the community residents and those living in the facility, cross-tabulation analysis to ascertain the relationships between variables, and an appraisal of the prevalent health status and social living conditions among the older persons, and findings on residence ratings, transportation challenges, financial, health access, activities, nutrition and substance use. The logistical model is also presented, and the findings from the assessments of old age homes are revealed. Additionally, the qualitative data thematic tables for each key informant are provided in detail. The next chapter discusses the findings presented in this chapter.

CHAPTER FIVE: DISCUSSION OF RESULTS

5.1 INTRODUCTION

The preceding chapter presented the study's findings. This chapter interprets the study's four objectives, which informed the fifth objective discussed in Chapter 6. A discussion is essential not only to reiterate findings but also to assess their significance in relation to prior evidence, clarify why they matter, recognise limitations, and explore implications for services and systems (e.g., age-friendly design, caregiver training, financing, and equitable coverage) (Dunton, 2021). This chapter situates the Namibian evidence within the extensive literature on ageing in resource-constrained contexts and outlines how these findings inform a pragmatic, community-based model to improve well-being and care for older persons.

This study investigated how to improve the well-being and care of older persons in Namibia through four objectives: (1) mapping evidence on community-based older-care approaches in low- and middle-income countries (LMICs); (2) assessing community awareness and attitudes toward old-age homes among older persons; (3) evaluating the capacity of Namibian old-age homes to meet complex needs of the older persons; and (4) appraising their prevalent health status and social living conditions. The insights from these strands guided the development of a community-based model aimed at improving the well-being and care of older persons.

The scoping review studies highlighted inconsistencies in the delivery of the older persons' services, coupled with insufficient capacity and skills to deal with geriatric health and social issues, with most of the geriatric care burden being borne by families in already vulnerable situations, and an absolute or relative lack of institutionalised or non-institutionalised programmes being offered for older persons at the community level.

Among the 304 participants who completed the quantitative data survey, the majority were aged 60–79 years, female, possessed primary/secondary education, and were slightly more urban than rural. Nearly the majority of them relied on the universal old-age pension as their principal source of income. Awareness of old-age homes was high (approximately 80%) of the older persons were aware that there are old age homes in Namibia, and residents of these homes expressed very positive sentiments towards institutional living. In contrast, community residents were more ambivalent and slightly preferred to remain at home. A clear correlation existed between whether someone knows old homes and their place of residence. Older persons who are aware of old-age homes are significantly more likely to reside in them, whereas those lacking this awareness generally live in the community.

Self-rated health and overall quality of life (QoL) were generally poor, particularly among community residents; older persons residing in old-age homes reported comparatively better (although still modest) health and QoL. The morbidity profile was mostly characterised by non-communicable diseases (NCDs), especially musculoskeletal disorders and hypertension, alongside substantial sensory impairments. Healthcare contact occurred frequently, with over half of the older persons visiting hospitals monthly. Access to needed care was perceived as good; however, transportation problems, financial difficulties, and loneliness were common. Approximately one in six older persons reported elder abuse, primarily of an emotional kind. Substance use was uncommon.

The multivariable analysis revealed significantly higher odds of residing in an old-age home with advancing age (particularly 80–89 years) and higher education attainment. Being married was correlated with community residence. The status of being "Currently ill" and the perceived loss of independence were lower among residents

of old age homes. The old age home assessment indicated nearly full occupancy, evidence of overcapacity, considerable discrepancies between public and private old-age (in staffing, accessibility features, fees, and general condition), and urgent upgrade needs in public facilities.

The qualitative results also mirror those of quantitative, including caregivers facing issues such as a lack of training, being shouted at and beaten by the older persons, battling excessive workloads, all with limited to no benefits, such as low salaries, no medical aid and housing subsidies. Some older persons found to have missed hospital appointments due to transportation fees affordability, their pension money is not used in their favour, ending up in deteriorated conditions and poverty, possessing a lack of awareness of old age homes, which are also found to be limited with stringent admission requirements and lacking sponsorship.

5.2 SCOPING REVIEW OF COMMUNITY-BASED CARE APPROACHES IMPLEMENTED IN LOW AND MIDDLE-INCOME COUNTRIES (LMIC) (OBJECTIVE 1)

The synthesis of the scoping review indicated that pensions are essential, but inadequate to safeguard well-being in later life within LMICs. Namibia's universal Old Age Pension (OAP) of N$1,600/month provides a reliable baseline; however, nearly half of older Namibians remain multidimensionally poor, echoing the review's findings that households with older members require additional income to attain living standards comparable to those without older persons (Haufiku-Weyulu et al., 2025c). Evidence from Ghana quantifies these "age-related costs," estimating an additional 8%–24% in annual consumption for households with an older person, while studies in India report that approximately 72% of older persons are either fully or partially economically dependent, patterns that correspond with our findings and imply that pensions frequently do not keep pace with living expenses and caregiving demands in environments characterised by informal employment and restricted savings (S. Kumar & Kumar, 2019; Martey, 2022). In contrast, longitudinal data from South Africa link pension exposure with the delayed onset of functional impairment, demonstrating how consistent income can support access to health-maintaining goods and diets (Herl et al., 2022). Together, these similarities and differences likely indicate disparities in pension sufficiency, informal workers' coverage, and price levels among LMICs.

Another finding was the scarcity and uneven allocation of a skilled geriatric workforce (Haufiku-Weyulu et al., 2025c). Namibia lacks a formal geriatrics training pathway, reflecting gaps similar to those in countries such as India and Pakistan (Matthews et al., 2023). In contrast, Iran has trained geriatric professionals but remains unable to meet the population's needs, reporting that hospitals are inadequately equipped to address the needs of older persons (Goharinezhad et al., 2016). The review also highlights concerns regarding polypharmacy risks, which occur when multiple specialists treat the same older patient for multiple diseases, aligning with these capacity constraints and emphasising the importance of comprehensive geriatric assessment (Goharinezhad et al., 2016; Matthews et al., 2023). The implications are evident: countries need to recognise geriatrics as a separate speciality, integrate gerontology and geriatric competencies into pre-service and in-service curriculum, and restructure clinical pathways and physical environments to accommodate geriatric care (e.g. medication reviews and age-friendly spaces) (Haufiku-Weyulu et al., 2025c).

This scoping review also found that families shoulder the majority of caregiving responsibilities, and highlight chronic underinvestment in caregiver education, respite care, transportation, and social services. The prevalence of state care homes is insufficient, reflecting a default reliance on family caregiving; in several settings, caregivers often rely on cultural norms rather than evidence-based skills (Amini et al., 2021; Goharinezhad et al., 2016; Matthews et al., 2023). The review further identifies practical community services, such as meals, adult day care, clubs/cultural clubs, and "dial-a-ride" transportation, that may alleviate the burden and help sustain ageing in place (Haufiku-Weyulu et al., 2025c). In areas where social participation infrastructures, such as older health clubs, are present, they are found to be associated with better self-rated health and reduced limitations in activities of daily living, suggesting that community-level social capital may mitigate service deficiencies (Mahapatro et al., 2017).

Finally, the scoping review illustrates the status of long-term care policy in various LMICs, highlighting the scarcity of publicly funded home-based care and the concentration of old age homes in urban and affluent regions; among the countries compared, only South Africa has established legal Long-Term Care (LTC) entitlements (Kraus & Riedel, 2022). This helps explain the review's finding that most older people prefer ageing in place yet struggle due to the fragmented nature of primary care and weak community services (Haufiku-Weyulu et al., 2025c). In this context, these findings imply that building strong primary healthcare must go hand-in-hand with home-based care and community-level social services: incorporate geriatric assessment and case-management into Primary Health Care (PHC); invest in age-friendly facilities, and implement intergenerational programmes to combat ageism and isolation; and develop rights-based ageing policies with enforceable standards.

Based on the evidence from the scoping review, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is supported. The scoping review evidence indicates that low- and middle-income countries face challenges in providing sufficient pensions, experience substantial shortages in the geriatric workforce, and exhibit inconsistencies in service delivery.

H0. Low- and middle-income countries do not face challenges in developing a comprehensive, sustainable community-based care framework to support their older populations.

H1. Low- and middle-income countries face challenges in developing comprehensive, sustainable community-based care service frameworks to support their older populations.

5.3 AWARENESS AND ATTITUDE TOWARD OLD-AGE HOMES AMONG OLDER PERSONS IN NAMIBIA (OBJECTIVE 2)

This objective integrates quantitative and qualitative data, revealing near parity in willingness among community older persons to relocate to old-age homes. Residents of old-age homes had significantly greater awareness of old-age homes compared to those living in the community. The study further found a strong correlation between living arrangements (old-age homes vs. the community), educational attainment, and the family dependency load. These patterns both reflect and diverge from existing literature, Although fear or stigma around institutional care has often surpassed acceptance (De Bellis, 2010). This study's findings suggest a gradual transition toward

mixed care ecologies as family capacity is stretched by urbanisation, migration, and poverty, with education expanding the scope of acceptable care and a reduction in family dependents facilitating relocation to old-age homes (Cadmus et al., 2021; Siebert et al., 2018). The implication is that community preferences for relocating to old-age homes are dynamic and influenced by structural conditions; thus, policy should integrate awareness and decision support with supply-side improvements in quality and affordability (Haufiku-Weyulu et al., 2025a).

The awareness gap regarding old-age homes was 100% among residents of old-age homes compared to 67% of those living in the community, primarily due to exposure (admission pathways, interactions with staff) and informational barriers faced by less educated and resource-constrained households. This aligns with studies indicating that education influences health behaviours and service uptake, while illiteracy and limited awareness hinder access to elder care in similar settings (Goharinezhad et al., 2016; Rizal et al., 2022). Consequently, focused, culturally relevant information campaigns at clinics, pension pay points, churches, and via the radio should prioritise practical content and be also tailored to low-literacy older persons. This outreach may have spill-over benefits beyond care-setting choice. Positive attitudes toward ageing were found to predict healthier behaviours (Bužgová et al., 2024; Siebert et al., 2018).

The insufficiency of old age homes was apparent in this study: in the three regions of study areas, one region lacked any facilities, another had one, and the capital had multiple, although they are predominantly private and expensive, mirroring the old age homes' affordability and coverage gaps observed in India, and the overcrowded and resource-constrained facilities noted in Ethiopia (Dawud et al., 2022; Mah et al., 2021). The voices from some of the social workers also aligns with this findings: “We do not have old-age homes in the north, and that’s why I wish the government would come in, as they did in the southern and central regions (Social Worker number 2)” and “The old age homes are insufficient; we can only admit 5-6 older persons from the yearly waiting list as the houses are full, spaces are only available when someone dies or gets sick and is unable to take care of themselves, and thus, their family members come to take them (Social Worker number 10)” (see Table 4.25: The Social Workers’ Thematic Table). On the other hand, the heavy reliance on the state pension among older persons in Namibia, alongside reports of pension misuse and transportation barriers, echoes the challenges faced in Iran and Cameroon (Ethel et al., 2015; Goharinezhad et al., 2016). These similarities across countries are likely to arise from common structural drivers, including limited enforcement of social protection, uneven distribution of old-age homes, and non-age-friendly public transportation and infrastructure.

Furthermore, the complaints of some research participants about the high cost of their rents were not surprising, as research indicates that during old age, some older people are likely to experience functional impairment that may render them economically inactive (Nkansah et al., 2021). Consequently, they may have to rely on the financial support they receive from family members or their pensions, which in some cases may be insufficient to meet their housing needs. This study also found that some older persons cannot afford basic necessities, such as nutritious foods, due to limited financial resources. It is worth noting that an unbalanced diet may not bode well for the health of older people, as it could lead to a lower nutrient status (Robinson, 2018) and, in turn, increase their susceptibility to diseases (Abekah-Carter et al., 2022). One caregiver had this to say: “Sometimes they (parents 60 years and above) have hospital follow-ups and do not go because there is no money for fuel, sometimes, they also get prescribed foods from the hospital, but those schedules are not followed due to financial issues, their pension money is mostly used to buy staple foods, such as maize meal, rather than fruits and vegetables” (Caregiver 2) (see Table 4.22: The Caregivers’ Thematic Table). The proposed actions should include: (i) expanding publicly subsidised, geographically distributed old age homes with adequate staffing/equipment

standards; (ii) implementing healthcare workers' oversight and guardianship measures to safeguard pensions; (iii) funding community transport vouchers/mobile services to alleviate access barriers.

Finally, the caregiver profile consisted primarily of women with secondary education and lacking geriatric training, along with facing burdens, such as underpayment, workload, management of the older persons' behaviours, and lack of equipment in handling them. These findings closely align with findings from other Namibian studies and similar contexts in African and Asian countries (Bassah et al., 2018; Kloppers et al., 2015; Mehta & Leng, 2017), thereby highlighting the curricular gap in geriatric training (Essuman et al., 2019). This study enhances knowledge by triangulating the perspectives of older persons with those of caregivers and local leaders to delineate mechanisms, education, family dependency load, and information pathways, thereby linking sociodemographic factors to preferences, and by quantifying the transition from family-exclusive to mixed care. Immediate measures include professionalising caregiving through short-course certification, supervision, fair compensation and benefits, and psychological support. This is complemented by equipping old age homes with basic mobility aids and lift devices, as well as the incorporation of community awareness within a broader community-based model that integrates social protection, primary care, and respite options.

Based on the findings presented in Tables 4.2 – 4.5 and Figure 4.2 (all further above), the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is supported. Attitudes towards old-age homes differ significantly by place of residence: residents of old-age homes reported predominantly favourable attitudes, with 89.5% agreeing that an old-age home is the best choice, 88.6% indicating that they would recommend it to others, and 85.1% stating that they are comfortable staying there for life (Table 4.3). In contrast, the sentiments of community-dwelling older persons were more varied, with 46.3% indicating that they would like to move to an old-age home in the future. When community residents were asked about their overall opinions of old-age homes, 51.6% expressed positive or very positive views, while a substantial proportion remained neutral (33.2%), and 15.2% expressed negative or very negative views (Tables 4.2 and 4.5). Furthermore, Figure 4.2 shows a statistically significant correlation between awareness of old-age homes and place of residence (χ^2, $p < 0.001$): older persons who reported being aware of old-age homes are more likely to reside in such facilities, whereas those who are unaware generally live in their own homes or with relatives. Collectively, these findings indicate a significant relationship between awareness of, and attitudes toward, old-age homes when comparing older persons living in facilities with those living in the community, thereby providing support for H1.

H0. There is no significant relationship between awareness of, and attitude toward, old age homes among older persons residing in facilities and those living in the community.

H1. There is a significant relationship between the awareness of, and attitude toward, old age homes among older persons residing in the facility and those living in the community.

5.4 TO EVALUATE THE CAPACITY OF OLD AGE HOMES TO ACCOMMODATE THE COMPLEX NEEDS OF NAMIBIA'S OLDER POPULATION AGED 60 YEARS AND ABOVE (OBJECTIVE 3)

This objective revealed that old-age homes in Namibia are predominantly located in seven, mainly urban regions, with only one in the northern regions, which contain the highest population of older Namibians aged 60 years and above (See Table 2.1 and Table 2.2, further above). This mismatch is also captured by one social worker, who noted: "We do not have old-age homes in the north, and that is why I wish the government would come in, as they did in the southern and central regions" (Social Worker 2, see Table 4.25: Social workers Thematic Table). A similar urban bias in residential long-term care is extensively reported in other Low- and middle-income countries (LMICs), such as South Africa and Ghana, where services are concentrated in urban centres and administrative capitals rather than in rural areas (Dovie, 2019; Ferreira, 2013).

The finding that private facilities are typically better resourced and more highly rated than public homes echoes patterns reported in other countries; for instance, in Ethiopia, government-funded homes for older persons are typically characterised by limited resources and overcrowding, hindering their ability to provide adequate care (Dawud et al., 2022). Similarly, a study in Malaysia comparing public and non-governmental facilities found that government-owned homes tended to be financially driven and failed to provide high-quality services (Wagiman et al., 2016). It was further discovered that in developing countries, residential facilities for older persons are often not subject to systematic regulation or monitoring by state authorities (Dawud et al., 2022). Consistent with this pattern, this study found that only private old-age homes in Namibia are registered and therefore subject to mandatory inspection. As one social worker explained in relation to policy, "The Ministry of Health and Social Services is currently drafting a Policy on the Rights, Care and Protection of Older Persons in Namibia; there is no other policy in place" (Social Worker 14). At the regional level, WHO reports that in many sub-Saharan African countries, formal long-term care systems are largely absent (World Health Organization, 2017c).

The near-perfect linear correlation between the capacity of Namibian old age homes and the resident population ($R^2 \approx 0.98$; slope >1) (See Figure 4.10, further above), complemented by qualitative evidence from the head of old age homes, e.g. "we can accommodate up to 140 older persons, but we are currently full with a long waiting list, it is sad because the older persons need these services now and not when they are dead" - Head of Old Age Home 02; (see Table 4.26: The Head of Old-Age Homes Thematic Table), aligns with evidence from LMICs, indicating that in these institutions, beds are generally fully occupied or above capacity, and that this is often accompanied by ongoing staffing shortages and maintenance challenges, particularly in public facilities (Ana Habjanic, 2009; Dawud et al., 2022; Wagiman et al., 2016). The findings on fees (public homes located in the lowest fee categories and private homes charging higher fees) and amenities (first aid/social welfare in public versus broader clinical and ancillary services in private facilities) are consistent with trends observed in Ghana and other LMICs (Dovie, 2019; National Gender and Equality Commission, 2016; Wagiman et al., 2016). The documented emergency preparedness and accessibility deficiencies revealed from some old-age homes in this study, such as expired fire extinguishers, missing alarms and assembly points, and the absence of ramps, handrails or adaptive toilets in public homes, are inconsistent with WHO guidance on age-friendly infrastructure, which recommends elevators, ramps, wide doorways to accommodate wheelchair users, suitably graded stairs with handrails, non-slip flooring and resting areas with comfortable seating (World Health Organization, 2015).

For Namibia, these findings imply the need to decentralise old age homes by expanding or incentivising the establishment of old age homes in other regions, particularly in densely populated northern areas. In regions

lacking old-age homes, especially in the north, it is essential to establish home and community-based care Services (HCBCS), including day centres, respite care, meal services, home visits, and caregiver support groups, while simultaneously exploring the provision of old-age homes. There is also a need to establish and enforce minimum standards for these old-age homes. In addition, the workforce should be strengthened by financing geriatric-care training programmes and rural retention initiatives, and by considering the use of community health workers and enrolled nurses under structured supervision to enhance coverage efficiently.

Based on the comparative analysis presented in Table 4.20, further above, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is supported. Clear disparities were observed between private and public old age homes: private old age homes consistently had higher staffing levels, enhanced service infrastructure (including a sick bay/healthcare facilities), improved accessibility, and a higher perceived quality, although they fell into a higher fee band. In contrast, both public homes clustered in the lowest tiers of resource availability and quality, requiring substantial renovations. Taken together, these findings indicate that private and public Namibian old-age homes differ significantly on critical structural and quality indicators.

H0. There is no significant difference between privately owned and publicly owned Namibian old-age homes.

H1. There is a significant difference between privately owned and publicly owned Namibian old-age homes.

5.5 TO APPRAISE THE HEALTH STATUS AND SOCIAL LIVING CONDITIONS OF THE OLDER PERSONS (OBJECTIVE 4)

This objective involved assessing the self-rated health and social living conditions of older persons aged 60 years and above in Namibia, revealing that most respondents perceived their health as poor. The majority of community residents classify their health as “poor” (57.9%) or “very poor” (23.7%), with negligible positive evaluations (“good” = 1.1%) and “very good” (0%). In contrast, old-age home residents present a more favourable distribution: the largest counts are recorded in the “neither poor nor good” (36.8%), and “poor” (35.1%), with fewer “very poor” assessments (17.5%) and noticeably positive ratings (“good” = 9.6%) “very good” = 0.9%) (See Figure 4.4, further above). The Pearson Chi-Square value was 33.699 with 4 degrees of freedom and a p-value of < 0.001, which is lower than 0.05, indicating a statistically significant relationship between self-rated current health status by living arrangement. This echoes evidence that living arrangements influence healthcare (Aliyu et al., 2003; Kılıç & Uzunçakmak, 2022). Furthermore, high medication dependence was found among the participants, with about 60.0 % reporting that they need medication to function on a daily basis (See Table 4.11, further above), coupled with major transportation barriers, which indicate structural obstacles to access. A study by Kılıç & Uzunçakmak (2022) found that 80.3% of the older persons in their study used medications, and almost half of those, 40.4%, had used at least three drugs.

Moreover, this study found a largely sedentary activity profile (in terms of the activities they currently enjoy), where most older persons prefer listening to the radio or watching TV/reading (35.2%), followed by needlework (28.9%), and attending church (20.7%) (See Table 4.14, further above). A sedentary lifestyle is found to increase the risk of non-communicable diseases (NCDs) (Kohl et al., 2012). Furthermore, numerous older persons engaged in physically demanding or high-stress occupations before retirement (including domestic work, labourer and farming (See Table 4.1, further above), aligning with international evidence that strenuous work histories predict

later-life musculoskeletal and cardiometabolic problems (Lim et al., 2023; Vogelsang et al., 2019). The findings confirm the significance of self-rated health as an established predictor of morbidity, functional decline, and mortality (Garbarski, 2016; Santiago et al., 2017). In accordance with the "ageing well" approach, which integrates health, engagement, and social-economic security, patterns in respondents' life-course exposures and resources help explain the current outcomes (Rantanen et al., 2019).

The burden of chronic diseases was substantial: Nearly all participants reported at least one diagnosed condition, with musculoskeletal disorders and hypertension being the most prevalent, followed by vision and hearing impairments (See figure 4.6, further above). This profile mirrors findings from India and Bangladesh that highlight musculoskeletal pain, hypertension, and sensory loss as predominant morbidities in later life (Baranwal & Mishra, 2021; Jahan et al., 2023), and aligns with age-related hearing loss trends noted in other countries (Britt et al., 2025; Maharani et al., 2019). At the same time, the overall Namibian multimorbidity level surpassed estimates from countries such as Bangladesh and Turkey (Kılıç & Uzunçakmak, 2022; Omotara et al., 2015). The implications of these findings include the incorporation of routine blood pressure control, pain rehabilitation, and falls prevention, alongside affordable vision and hearing screening (with the timely provision of spectacles and hearing aids) into community and primary care, using health literacy strategies tailored to educational attainment (Baranwal & Mishra, 2021; Britt et al., 2025; Lane M et al., 2018; Maharani A et al., 2019; Pascolini & Mariotti, 2012). On the other hand, gendered patterns were notable: women reported higher rates of musculoskeletal issues and hypertension than men, consistent with findings from previous studies (Cumming et al., 2025; Fryar et al., 2017; Jahan et al., 2023).

Educational disadvantage was also prevalent, with almost one in five older persons lacking formal schooling, aligning with literature that associates lower education with poorer health literacy and preventive behaviours (Boah et al., 2025; Rizal et al., 2022). This likely contributed to the high prevalence of musculoskeletal pain, hypertension, diabetes, and sensory impairments observed. These findings further underscore the need for age-friendly policies and service design that explicitly address cumulative occupational strain and persistent health literacy gaps through targeted screening and tailored education at the primary care level (Boah et al., 2025; Garbarski, 2016; Rantanen et al., 2019; Rizal et al., 2022). In addition to increased healthcare access, structural, financial, and caregiving responsibilities are likely to compound the risk and hinder control, as well as decision-making authority. Regarding this, some nurses' voices were:

"We have a staff shortage, which leads to long queues. Also, the testing equipment sometimes does not work, such as the HB test, BP machine, and HGT (glucose)" (Nurse 01).

"The shortage of chronic medication, such as high blood pressure, results in some older persons defaulting" (Nurse 03) (See Table 4.24: The Nurses' Thematic Table).

Social environments also influenced outcomes. Contrary to common assumptions, older persons living in the community in this study were more vulnerable to experiencing loneliness than residents of old-age homes; this finding is consistent with studies indicating that the density and quality of social networks, rather than merely the kind of residence, mitigate feelings of isolation (Md Nor & Ghazali, 2021). The loss of a spouse, shrinking social circles, and community disengagement are likely to be among the contributing factors (Pamela Qualter et al., 2015). The observed education disparities, where community residents have lower schooling compared to those

in old-age homes, correspond with studies showing that education and financial resources protect against loneliness (Balki et al., 2023; Sánchez-Moreno et al., 2024). Policy initiatives should consequently emphasise: (i) community-based social-connection programmes (grief support, peer groups, intergenerational and faith-based involvement); (ii) gender-sensitive NCDs management and economic empowerment for older women; (iii) mobility and transportation solutions (transport subsidies, outreach/mobile clinics); and (iv) culturally responsive prevention and care, to advance healthy ageing and universal health coverage in Namibia.

Taken together, the above findings provide strong evidence against the null hypothesis (H0) and support the alternative hypothesis (H1) that self-rated health status and social living conditions differ between community-dwelling older persons and those in old-age homes. Self-rated health showed considerable variation by living arrangement ($\chi^2(4) = 33.70$, $p < 0.001$), with the majority of community residents reporting poor or very poor health, compared with those residing in old-age homes. Social outcomes also varied: community-dwelling older persons reported greater loneliness, despite living outside institutions, reflecting weaker social networks and lower educational and financial resources. These converging indicators of poorer subjective health and more adverse social conditions among community residents corroborate the conclusion that significant, rather than merely statistical, differences exist between the two groups in Namibia.

H0: There is no significant association between living arrangement and self-rated current health status among older persons.

H1: There is a significant association between living arrangement and self-rated current health status among older persons.

5.6 SUMMARY OF THE CHAPTER

This chapter presented the study findings in relation to the objectives, rejecting all null hypotheses and supporting the alternative hypotheses. There were statistically significant relationships between the analysed variables, or findings deemed necessary to support the alternative hypothesis based on the study results. Building on the study findings and discussions, the next chapter presents the development of a conceptual model for improving the well-being and care of older persons aged 60 years and above in Namibia.

CHAPTER SIX: DEVELOPMENT AND DESCRIPTION OF THE CONCEPTUAL MODEL FOR IMPROVING THE WELL-BEING AND CARE OF THE OLDER PERSONS, AGED 60 YEARS AND ABOVE IN NAMIBIA

6.1 INTRODUCTION

The previous chapter discussed the study findings. This chapter utilised the findings and discussion to develop a model for improving the well-being and care of older persons aged 60 years and above in Namibia.

Namibia, like many other low and middle-income countries (LMICs), is experiencing rapid population ageing (60 years and above) alongside enduring socioeconomic and spatial disparities (Namibia Statistics Agency, 2024; United Nations, 2024; World Bank, 2025). The policy stance has progressively prioritised healthy ageing, integrated community care, age-friendly environments, and the development of a long-term care system, evidenced by WHO-supported national consultations on a policy framework and ongoing efforts toward the draft Namibia National Policy on the Rights, Protection and Care of Older Persons, within the context of broader social protection reforms (World Health Organization, 2022a). There is a pressing need to effectively address the complex physical, health, and social needs of Namibia's older population, since they are living longer but often face multiple health problems and limited formal support (Ananias & Moore, 2024; World Health Organization, 2015, 2022a). The country needs to create and implement effective community-based service delivery models that are holistic, comprehensive, and culturally appropriate (Ananias & Moore, 2024; World Health Organization, 2015). In response to the global calls for long-term care systems that maintain older people's functional ability, dignity and rights, particularly in low and middle-income countries, there is a growing need to emphasise community-based approaches that build on but also support family and community caregiving arrangements in Namibia (Ananias & Moore, 2024; World Health Organization, 2015). To develop such models, research should begin with a perspective that focuses on older persons' everyday life, generating findings that reflect, as far as possible, the everyday experiences, meanings and priorities of older persons (Galvin et al., 2020). This study, therefore, aimed to develop a community-based model for improving the well-being and care of older persons in Namibia, grounded in their lived experiences and the social, economic and cultural environments that influence the ageing process within this context.

This study was underpinned by a pragmatic research paradigm, which emphasises the integration of multiple sources of knowledge to provide viable answers. Pragmatism is described as a methodology that employs scientific reasoning to clarify the meaning of concepts or ideas through investigating their possible connections to the real world (Nowell, 2015). A data collection triangulation approach was employed in three phases in this study, as presented in Figure 6.1 below. The research methodology is discussed in detail in Chapter 3. The first phase involved a scoping review, which was necessary due to the novelty of the study focus. The scoping review served as the first study objective, mapping community-based care approaches for older persons aged 60 years and above that are implemented in low- and middle-income countries. The second phase included using a mixed-method approach involving: i) interviewer-administered questionnaires with older persons (n=304); (ii) semi-structured interviews with key personnel (caregivers [n=22], nurses [n=17], social workers [n=14], community leaders [n=10], and head of old-age homes [n=2], and (iii) structured assessments of old-age homes [n=6] using an observational checklist. The mixed-methods data informed objectives 2-4 of the study, which were: Objective

2 was to assess awareness and attitudes toward old age homes among older persons; Objective 3 was to evaluate the capacity of old age homes to accommodate the complex needs of Namibia's older population aged 60 years and above, considering both current conditions and potential future expansions and Objective 4 was to appraise the prevalent health status and social living conditions of the older persons. This chapter, which is also Phase Three of the study, is informed by the empirical findings from the study's objectives 1– 4. Specifically, it is informed by empirical findings, where, in this context, empiric refers to knowledge based on perceptual experience and is developed through unique creative processes and stimulated by critical questions, such as what this is and how it works (Chinn & Kramer, 2015). This Phase is also informed by the literature review and existing theories and presents a community-based model for improving the well-being and care of older persons aged 60 years and above. Figure 6.1 below illustrates the progression of the study from inception to the guideline for model operationalisation.

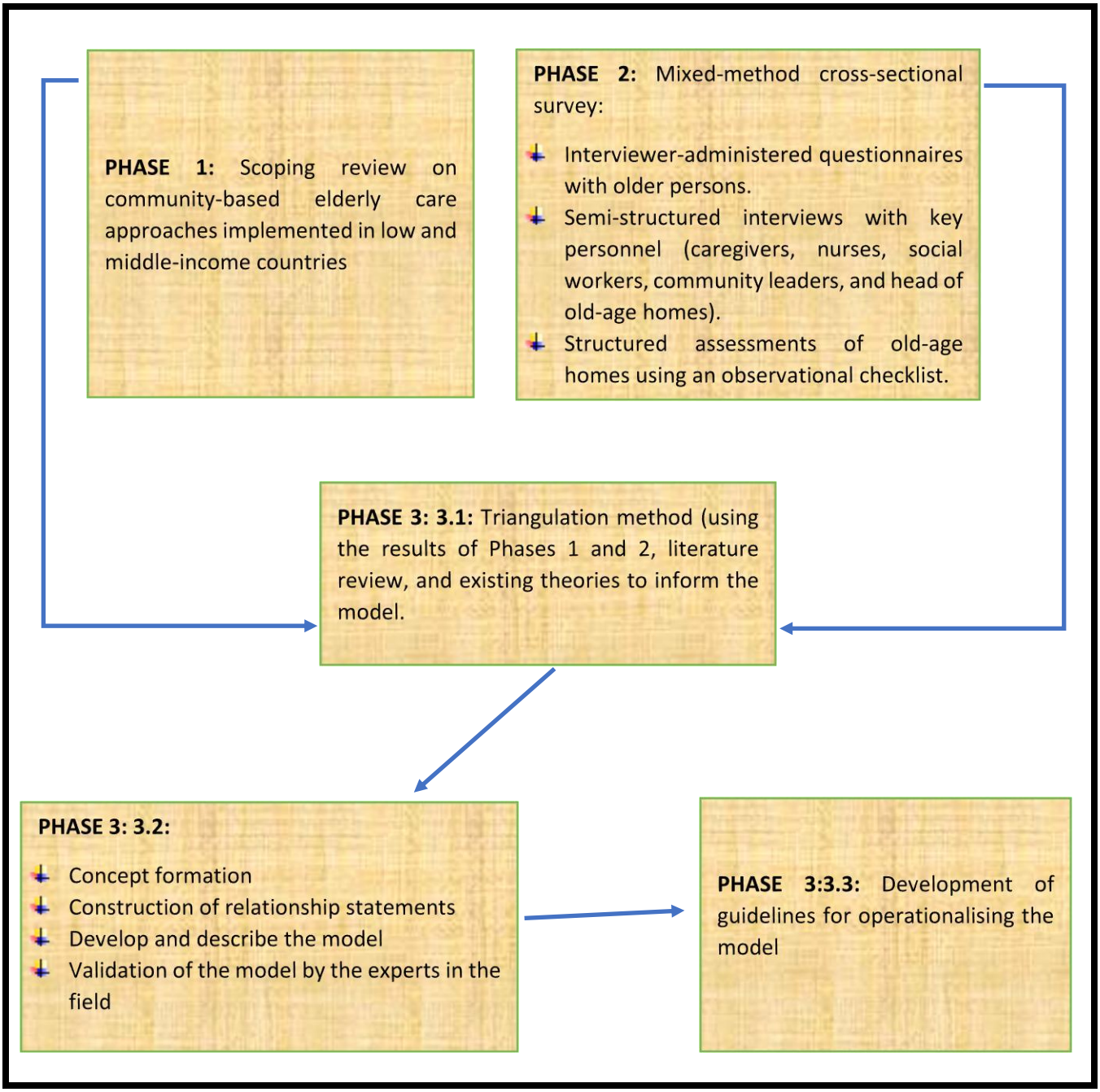


Figure 6.1: The study flowchart

Source: (Researcher's own construction, 2025)

6.2 MODEL DESIGN

The model was developed based on empirical evidence and the existing theories, using an inductive concept-generating method as described by Chinn and Kramer (2015). Inductive methodologies commence with observation and data collection, progressing to description and analysis to formulate a model, especially in fields with little research on the topic, such as this study (Melnikovas, 2018). This model adapted the definition of a model from Havenga et al. (2014) and Sharma (2021), defined as a form of knowledge within empirical patterns, offering a broad theoretical conceptualisation that delineates the relationship between concepts, articulated symbolically in words and graphical representations. Concepts are defined as the basic building blocks of conceptual frameworks, such as typologies, models, and theories (Walker & Avant, 2018). Models are formulated by first identifying the concepts, their meanings, and subsequently structuring and contextualising the model. After the model is developed, it should be described in terms of its purpose, concepts, definitions, relationship structure, and underlying assumptions. The model is authenticated through confirmation and validation (Chinn & Kramer, 2015). The model was validated by having experts in the field comment on the elements included. The reviewers were asked to note any omitted or redundant items and to suggest improvements to the wording to enhance clarity and relevance across a broad spectrum of quantitative and qualitative inquiry in the comment section. The steps used to develop the model are those of Chinn and Kramer (2015), as discussed below:

6.2.1 Step 1: Identification and analysis of concepts

The developed model aims to improve the well-being and care of older persons aged 60 years and above in Namibia. Developing the model requires concepts. The concepts are derived from the findings of the four objectives that were also informed by the theoretical models that underpinned the study.

6.2.1.1 Steps of concept identification: summary of the study findings

First, the results from all four study objectives were combined and summarised in Table 6.1 below. Across the various data sources, several key patterns emerged. These included the presence of multiple health conditions referred to as multimorbidity, decline in physical abilities, reliance on pensions and misuse, feeling of loneliness and social isolation, a shortage of trained geriatric professionals, uneven distribution and quality of old-age homes, and the absence of a comprehensive ageing policy for addressing the needs of older persons. These patterns were compared with existing theoretical and policy frameworks such as the ICOPE framework, the Health Belief Model, the Health Promotion Model and the WHOQOL tool.

Table 6.1: Summary of the study designs per objectives and findings used to inform the conceptual model

Type of study/objective/conference	Method	Key findings and recommendations
Scoping review under the title: community-based elderly care approaches implemented in low and middle-income countries: a scoping review (Haufiku-Weyulu et al., 2025c)	The review followed the 2022 Joanna Briggs Institute (JBI) manual for Evidence Synthesis. Rayyan, a cloud-based software, was used to organise, manage, and remove duplicates. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) were used to present the results of the review.	• Households with older people need extra income to maintain a similar living standard to those without. • LMICs face challenges in building comprehensive and sustainable frameworks to support the older population. • Struggle to provide adequate pensions. • There is a significant shortage of skilled geriatricians, and it's not yet an established training pathway in Namibia. • Hospitals are not customised for older persons, either in terms of their physical layout or the care services they offer. • Relying on informal caregivers, who lack training and education. • The institutional care facilities are limited and typically concentrated in affluent or urban areas. **Recommendations:** • Increase the pension allowance for households with older persons to alleviate the income gaps • Implement targeted subsidies (e.g., food, utilities, transport) to ease the expense of living for older people in low-income households. • Formulate a comprehensive national policy on ageing that integrates health, housing, transport, and income security for older persons. • Establish collaborations with NGOs, faith-based groups, and private sector actors to pool resources and maintain support services.

		• Introduce official geriatric medicine as a medical speciality in Namibia, accompanied by scholarships and incentives to attract trainees. • Facilitate ongoing education for existing doctors, nurses, and allied health workers on geriatric care principles. • Redesign hospital wards and clinics to enhance accessibility (ramps, wider corridors, age-friendly signage). • Create concise, practical caregiver training programmes at the community level (e.g. encompassing dementia care, mobility support, and nutrition). • Government-funded dial-a-ride services for older persons to improve mobility and access to health care. • Establish community health clubs and social centres for older persons to promote active ageing, peer support, and early health screening. • Encourage the development of affordable old-age homes in rural and peri-urban areas.
Mixed method on the title: Awareness and attitude toward old-age homes among older persons in Namibia (Haufiku-Weyulu et al., 2025a)	A mixed-method, cross-sectional survey design was employed to study individuals aged 60 years and above (n = 304). Older persons who could communicate independently, had a caregiver for assistance, and were willing to participate were included. Older persons who were unable to communicate independently or with assistance from a caregiver, or who were unwilling to participate, were excluded. Participants were recruited using convenience sampling. Of these, 190 were in the community, while 114 were in old-age homes.	• Marginal disparity in preference for remaining in the community vs relocating to old-age homes (53.7% indicated they do not want to go to old-age homes in the future, while 46.3% preferred to relocate to such facilities). • Older persons residing in old-age homes had a high positive preference for residing there, with 89.5% of them strongly agreeing that it was the best choice for them, and 85.1% were comfortable with residing there for the rest of their lives. • Statistically significant disparity in awareness of old-age homes between the institutionalised and community residents – All individuals living in old-age homes were aware of such facilities, while only 67.4% of community-dwelling individuals had such awareness. • Statistically significant association among living arrangements and educational attainment ($P<0.001$) – old age homes residents tended to

	Regarding the qualitative component, purposive and convenience sampling were employed to recruit 32 key informants (until saturation was reached), comprising 22 caregivers and 10 constituency councillors and village heads across the selected regions. The regions were randomly selected through stratified multistage sampling, with one region chosen from each of Namibia's three geographic clusters. Ohangwena (northern), Khomas (central), and Hardap (southern). Quantitative data were analysed using Statistical Package for the Social Sciences (SPSS) version 30, with statistical significance set at $P < 0.05$. Thematic analysis was utilised to interpret qualitative data.	have higher levels of education than their community counterparts. • Statistically significant association among living arrangements and number of dependents ($P<0.001$) – community residents have more dependents than those residing in old age homes. • The unawareness of old age homes is predominantly found in Ohangwena and Hardap regions, while the Khomas region accounts for the highest proportion of older persons who were aware of old age homes, with none being unaware of them. • Older persons relying predominantly on the old-age pension, with minimal support from family, employment pension, or other economic activities. • Insufficient number and spread of old-age homes in Namibia. • Interviews with key informants (village headman, constituency councillors) and caregivers revealed: - pension misuse - lack of care for the community's older persons - older persons with overcrowded houses and shouldering family responsibilities - transport-related barriers to healthcare - lack of equipment for physical support in old age homes. - None of the caregivers had received geriatric training - Some older persons still lack basic facilities like toilets - Caregiver compounded by inadequate compensation, lack of benefits such as medical aid, housing, transport allowances, and excessive workload

		Recommendations: • Incorporate older care and healthy ageing topics into adult education, public health initiatives, and community development initiatives • Train caregivers. • Expand affordable, well-equipped old-age homes. • Implement policies that ensure older persons' pensions are effectively utilised to enhance their well-being and care. • Implement policies that professionalise caregiving through structured training, better remuneration, and psychological support. • Increase ageing research.
Mixed-method on the article titles Capacity of Old-Age Homes to Meet the Needs of Older Persons in Namibia: Analysis of Quality and Care Gaps and the conference abstract titled: residential care for the older persons: a critical analysis of old-age homes and community settings (Haufiku-Weyulu et al., 2025b, 2025d).	A cross-sectional survey design using a checklist to assess the old-age homes in the three study regions, Khomas, Ohangwena, and Hardap regions. There are no older care facilities in the Ohangwena region. There was one in Hardap, and six in Khomas (seven facilities in total). Of these, six facilities were evaluated; one facility was excluded because it had not secured ethical approval. Of the six assessed institutions, four were privately owned, and two were public. Interviews were conducted with 14 Social workers and two heads of old-age homes. Checklists were analysed using SPSS version 30. Qualitative data were analysed manually and presented in themes.	• Scarce old-age homes, urban-concentrated, with none in some regions. • Limited space capacity in old age homes, most facilities operate at or near full occupancy, with some evidence of overcapacity in the larger homes. • There are substantial disparities between public and private facilities. • Private homes consistently have greater resources, staffing levels, and higher service ratings than public old-age homes, which face major infrastructure, staffing, and accessibility deficits, emergency preparedness, and maintenance. • Private homes are expensive compared to the public old-age homes. • Old age homes face financial constraints; some depend entirely on the older persons' payments, and it is rare to get a donor. • Limited dementia skills, ageing buildings, and the need for transport, on-site clinical support, renovations, and more staff. • Outdated policies and no specific Namibian ageing policy. • Shortage of staff, such as physiotherapists, nurses, social workers, cooks, cleaners, etc.

		• Older persons experience rejection, neglect, and abuse, and some live in deteriorated/overcrowded housing; they also express a need for improved nutrition. • Some older persons in the community lack care. • Some older persons are reported to abuse alcohol. **Recommendations:** • Decentralised old age homes, to reduce geographic disparities. • Enhance capacity in existing homes. • The government should have a budget for old-age homes to enhance infrastructure, maintenance, and staffing. • Review old age homes' admission criteria to facilitate access for individuals in need. • Ensure the registration of all old age homes, irrespective of being private/public. • Regulate pricing structures to prevent high costs in private homes while ensuring quality preservation. • Expand affordable alternatives via government-funded or subsidised care facilities, particularly for vulnerable older persons. • Develop and implement a policy that safeguards long-term care facilities for older persons and their social protection from abuse and neglect.
Quantitative	A cross-sectional survey was conducted among older persons (N = 304) residing in the community and old-age homes. Data was analysed using Statistical Package for Social Sciences version 30 at statistical significance ($P < 0.05$). Correlation analysis was performed to determine the relationships between the variables, while binary logistic regression was used to assess	• Most older persons experience multimorbidity by having multiple chronic conditions simultaneously. • The most reported diagnosed conditions among respondents were musculoskeletal disorders, 179 (58.9%), and high blood pressure, 176 (57.9%). Eye problems (37.5%) were the 3rd most common health issue, and hearing loss (16.1%) was the fourth. • 60% of older persons rely heavily on daily medication. The majority (54.3%) indicated they visit the hospital on a monthly basis.

	the association between the outcome and other independent variables.	• Several regions lack referral hospitals, relying instead on district hospitals and health centres, with uneven staffing levels across the country. • Most older people reported positive living environments, expressing high satisfaction with their residence, comfort, and perceived safety. • Significant social and logistical constraints persist, including loneliness and isolation, financial hardship, and transportation barriers. • The majority of the community residents rated their health poorly, with over 80% describing it as “poor” or “very poor,” and almost no one gave positive evaluations. In contrast, residents of old-age homes showed a more even distribution, with several reporting neutral health, fewer in the “very poor” category, and noticeably more positive ratings. • Logistic regression revealed that the measures of current illness and perceived loss of independence as one ages are likely to be low among residents of old-age homes compared to those in the community ($p<0.05$). Further, older age and higher educational attainment are the strongest independent predictors of residing in an old-age home rather than in the community. Being married is associated with remaining in the community. • Most older persons in this study preferred passive or less physically demanding activities, which may indicate a sedentary lifestyle that contributes to the incidence of non-communicable diseases. Although this article is pure quantitative, 17 nurses were also interviewed, and the findings from their interviews are: • Staff shortage leading to long queues

		• Lack of equipment to help the older persons, and sometimes, the available testing equipment does not work • Shortage of chronic medication leading to older persons defaulting • Lack of care and proper diet for older persons, with some living in poverty • Lack of geriatric training and policies **Recommendations:** • Implement accessible health screening programmes and enhance chronic disease management. • Improve social living conditions through integrated, age-friendly policies and services. • Integrate geriatrics in the education curriculum and provide training to those already employed. • Enhance staff establishments and relevant equipment's • Multisectoral policies are needed to foster healthy ageing and social inclusion in Namibia. • Establish community centres for older persons to socialise. • The MoHSS should scale telemedicine and remote monitoring to improve healthcare access and convenience in remote areas and enable earlier intervention.

6.2.1.2 Steps of concept identification: Concepts and sub-concepts

The results were subsequently organised into higher-order categories, yielding one central/core concept, the well-being and care of older persons in Namibia aged 60 years and above, which represents the primary study outcome and the core outcome the model seeks to influence. Furthermore, four related concepts emerged: Individual/Biological and Health Factors, Social and Community Environment, Health and Care Services, and Institutional/Structural Factors. Within each related concept, sub-concepts were also identified and stipulated in Table 6.2 below. For example, the concept Social & Community Environment includes sub-concepts such as socioeconomic resources (including education level, pension dependence, and misuse of pensions), social support networks (including family caregiving, dependents, and feeling of loneliness), social & spiritual opportunities (like involvement in clubs and community centres), and cultural norms (such as preference for community living over institutional care). In this model, the core outcome represents the basic idea around which all other concepts are organised. Consequently, it serves the same purpose as a central concept, and for this reason, the phrases central concept and core outcome are used interchangeably in this chapter.

Table 6.2: Central and related concepts and sub-concepts forming elements of the conceptual model

Central and related concepts	**Sub-concepts**
Core Outcome	Well-being and Care of Older Persons in Namibia (includes physical health, psychological well-being, autonomy, dignity, and quality of life).
Individual/Biological and Health Factors	•Biological: age, sex, marital status, region. • Multimorbidity (musculoskeletal disorders, hypertension, eye and hearing problems), functional decline • Perceived loss of independence. • Self-rated health (poor vs neutral/positive, medication dependence. • Lifestyle: sedentary behaviours, preference for passive activities.
Social and Community Environment	•Education level (predicts access to old-age homes, awareness). •Source of income (pension dependence, misuse of pensions, household financial hardship). •Support networks: family caregiving, presence/absence of dependents, loneliness, isolation. •Social & spiritual opportunities/Recreational: sports, community centres, social clubs, faith •Cultural norms: preference for community living over institutionalisation, reliance on informal caregiving.
Health and Care Services	•Healthcare system gaps: uneven hospital distribution, lack of chronic medications and equipment, understaffed health centres, and transport barriers. •Lack of trained geriatric professionals: no formal training pathways, absence of a structured geriatric curriculum. •Caregiver challenges: caregivers lack training, face inadequate pay, no benefits, and excessive workload. •Old-age homes disparities:

	- Concentrated in urban/affluent regions. - Overcapacity, limited access. - Private vs public disparity (quality, staffing, resources). - Lack of dementia care skills, ageing infrastructure, and inadequate equipment. - Lack of regulation and affordability.
Institutional/Structural Factors	•Policy gaps: no comprehensive national ageing policy. •Limited Financial support: insufficient pensions, limited subsidies for food, transport, utilities and equipment. •Infrastructure: hospitals are not age-friendly (signage, ramps, accessible design). •Long-term care financing: government funding absent or inadequate, reliance on the private sector. •Transport and mobility: lack of affordable mobility services, barriers to healthcare access. •Technology: limited telemedicine adoption, potential for remote monitoring. •Research and data: insufficient research on ageing and older care. •Awareness campaigns: lack of awareness of old-age homes and healthy ageing aspects.

6.2.1.3 Steps of concept identification: Theoretical foundation

After identifying and grouping the observed patterns into one central concept and four related concepts (see Table 6.2 above), the emerging conceptual structure was then evaluated in relation to existing theories and frameworks to establish its theoretical foundation. The **central concept**, concerning the well-being and care of older persons in Namibia, is grounded in the WHO healthy ageing framework and the WHOQOL tool (Nakane et al., 2012; World Health Organization, 2015). These resources define healthy ageing as maintaining functional ability needed for well-being in later life. They also describe quality of life as including physical, psychological, social and environmental aspects. Therefore, these alignments support including physical health, psychological well-being, autonomy, dignity and quality of life as core sub-concepts of the model's outcome.

The concept of **Individual/Biological and Health Factors** is informed by the Integrated Care for Older People (ICOPE) framework (World Health Organization, 2024a), which emphasises the interaction between health conditions and personal factors, as well as the central role of intrinsic capacity, which includes mobility, cognitive function, sensory abilities, psychological well-being and vitality. The ICOPE framework highlights the importance of assessing and intervening in older persons by focusing on specific circumstances. These conditions include multimorbidity, functional decline, sensory impairment, medication reliance, self-rated health and a perceived loss of independence. This also formed the sub-concepts related to this concept.

The **Social and Community Environment** concept draws on perspectives about social determinants of health and the Health Promotion Model (HPM)**.** The HPM emphasises how interpersonal relationships, past behaviours, and environmental factors strongly affect health-promoting actions (Aqtam & Darawwad, 2018b). Moreover, it represents elements of the Health Belief Model (HBM)**,** specifically perceived benefits and barriers, as well as cues to action (Glanz et al., 2008). **Perceived benefits:** are based on clearer benefits of services (e.g., old-age homes with on-site support, telemedicine, transport); Perceived barriers: cost, transport, urban concentration of services, pension misuse, and limited awareness are regarded as barriers to be reduced through subsidies,

mobility services, decentralisation, and education. **Cues to action:** such as community centres, social clubs, and outreach, serve as catalysts for screening, engagement in activities, and seeking care, and thus should be considered as part of interventions. The interpersonal and contextual influences on the behaviour and well-being of older persons are represented by various sub-concepts. These include education level, reliance on pensions and misuse, support networks such as family caregiving arrangements, emotional support, experience of loneliness and isolation, opportunities for social participation, and cultural norms regarding community care versus institutionalisation.

The **Health and Care Services** concept is conceptually supported by the ICOPE and WHO integrated, person-centred care approaches (World Health Organization, 2017b, 2024a). These approaches advocate for comprehensive, coordinated services at primary care and community levels, designed to address declines in intrinsic capacity. In Namibia, the principles of health systems and long-term care are implemented through specific aspects of service availability, staffing, equipment, geriatric training, caregiver challenges, and the organisation and regulation of old-age homes.

Finally, the **Institutional/Structural Factors** concept is supported by the United Nations (UN) Decade of Healthy Ageing framework (World Health Organization, 2020a). These frameworks situate individual and community experiences within the broader contexts of policy, economics, and built environments. Ageing policy gaps, social protection, and long-term care financing, as well as poor age-friendly infrastructure, transport issues, and mobility, technological readiness (including telemedicine and remote monitoring), and research and data systems, are all sub-concepts that represent the structural factors supporting healthy ageing.

6.2.1.4 Steps of concept identification: Justification for each concept and sub-concept, using Tables 6.1 and 6.2

Building on the identification and description of the central and related concepts, along with the theoretical foundation established in the previous subsections, this subsection provides justification for including these concepts in the proposed model. Table 6.3 summarises these justifications.

Table 6.3: Concept and sub-concept justifications

Why this concept?	**Justification**
Central concept: Well-being and care of older persons in Namibia	The **central concept** of the model is the well-being and care of older persons in Namibia, specifically concerning the capacity of older persons aged 60 years and above to sustain physical health, psychological well-being, autonomy, dignity and overall quality of life, all within their social and structural environment. This concept is justified by the overall purpose of the study and is consistent with the WHO definition of healthy ageing and the WHOQOL domains, which is the process of developing and maintaining the functional ability that enables well-being in older age, having the capabilities that enable all people to be and do what they have reason to value (World Health Organization, 2015, 2020b). The study's findings, which included high multimorbidity, medication dependence, and poor self-rated health among the older persons living in the community, as well as differences in well-being

	between those living at home and those in institutions (see Table 6.1), support this basic idea. Table 6.2 illustrates that the core concept is made up of several sub-concepts, including physical health, psychological well-being, autonomy, dignity, and quality of life.
Related concept 1: Individual/Biological and Health Factors	The related concept of **Individual/Biological and Health Factors** includes person-level characteristics and health issues that affect older persons' basic abilities and everyday activities. This concept was derived from the study's quantitative findings revealing high levels of multimorbidity, especially musculoskeletal disorders and high blood pressure, substantial medication dependence and poor self-rated health among community-dwelling respondents (see Table 6.1). Regression analysis and cross-tabulations also demonstrated that age, marital status, education and regions of stay are significant predictors of living arrangements. At the same time, lifestyle patterns, such as a preference for passive activities, are associated with a higher risk of non-communicable diseases. Accordingly, the sub-concepts associated with this related concept include biological characteristics (age, sex, marital status, region), health status (multimorbidity, functional decline, sensory impairment, medication dependence and perceived loss of independence) and lifestyle choices (sedentary behaviours); these collectively provide the empirical indicators/sub-concepts of the individual-level concept, as detailed in Table 6.2.
Related concept 2: Social and Community Environment	The related concept, **Social and Community Environment**, refers to the social relationships, resources, and cultural background that shape the lives of older persons. This concept was derived from the study findings, which showed that educational attainment predicts awareness about and access to institutional care. Additionally, most older persons were found to depend primarily on government pensions. It was also found that pension misuse, overcrowded households, caregiving duties, and feelings of loneliness are common (see Table 6.1). Qualitative data also indicated strong cultural preferences for living in communities and relying on informal care, alongside unequal access to social and recreational activities. Therefore, the sub-concepts include education, income sources, support networks, social participation opportunities (such as community centres, clubs, and recreational activities), and cultural norms on ageing and care. These sub-concepts help clarify the broader concept of the social environment in the model (see Table 6.2).
Related concept 3: Health and Care Services	The related concept **Health and Care Services** represents the structure, resources, and standards of healthcare and long-term care available to older persons. Several lines of evidence from the study findings support this concept. The scoping review revealed shortages of geriatricians and dependence on untrained informal caregivers. Furthermore, the assessment of old-age homes documented a scarcity of facilities, concentrated in urban areas, alongside

	significant public–private disparities and infrastructure inadequacies. Nurses, in addition, reported staff shortages, long waiting times, medication stock-outs and a lack of essential equipment within public health facilities (see Table 6.1). Consequently, the sub-concepts under this concept include healthcare system gaps, specifically concerning availability, staffing, equipment and transportation obstacles; the adequacy of geriatric competence and training, including the absence of geriatric curricula and continuous professional development; the caregiver challenges such as training, remuneration and workload; and the organisation aspects of old-age homes, which involve distribution, capacity, quality, infrastructure and regulation). These sub-concepts provide the empirical basis for the service-level concept in the model, as shown in Table 6.2.
Related concept 4: Institutional/Structural Factors	The related concept, **Institutional/Structural Factors**, includes the policy gaps, inadequate financing resources, poor infrastructure, and information systems that influence the possibilities for age-friendly communities and services. The scoping review and subsequent empirical findings revealed notable policy gaps, specifically, Namibia's absence of a comprehensive ageing policy and long-term care legislation, alongside inadequate pensions and subsidies for older persons (see Table 6.1). Old-age homes often rely on payments from residents and occasional donations. This reliance can limit both access to the services and their long-term financial stability. Infrastructure, including hospital design and public transportation, is often not age-friendly. At the same time, telemedicine and technology-based solutions remain underutilised. Moreover, the lack of studies on ageing and routine data hinders evidence-based decisions. Therefore, the sub-concepts related to this concept include policy and regulatory frameworks gaps, inadequate financial systems for social protection and long-term care, poor age-friendly infrastructure and transportation issues, technological readiness (such as telemedicine and remote monitoring), research and data systems, and the need for awareness campaigns, as shown in Table 6.2. All these require institutional intervention and budgeting.

6.2.2 Step 2: Construction of relationship statements

After the conceptual meanings were clarified through the identification and definition of the central concept, related concepts, and their sub-concepts (Step 1), the model was further developed and contextualised in Step 2. In this step, following Chinn and Kramer (2015), the concepts identified in Step 1 are linked through clear statements that describe their relationships. These statements demonstrate how the four related concepts, along with their sub-concepts, influence the core outcome: the well-being and care of older persons in Namibia. They also demonstrate how these concepts interact within the larger system described by the model. Tables 6.4 and 6.5 below show these relationships. These relationship statements serve as propositional linkages, visually represented in the model structure presented in Step 3.

Table 6.4: Relationships between each concept and the core outcome

Concept relationship	Description of interaction
Individual/Biological and Health Factors → Core outcome	The ability of older persons to maintain physical health, psychological well-being, independence, and a good quality of life is directly influenced by individual characteristics. These include age, sex, marital status, and their region of residence. Moreover, poor health, characterised by many medical issues, declining physical function, sensory impairments, medication dependence, and feeling less independent, also contributes significantly. Lifestyle choices also contribute to this. Poor health, coupled with multimorbidity and a lack of physical activity, often leads to reduced capacity and independence. In contrast, better management of current health problems and increased physical activities are linked to better well-being and enhanced care.
Social and Community Environment → Core outcome	Educational level, household income, pension security, support networks, social opportunities, and cultural norms all influence the social resources available to older persons. Supportive family and community relationships, emotional support, adequate income, and opportunities for social participation protect against loneliness and social isolation, enhance psychological well-being and dignity, and facilitate access to care. Conversely, pension misuse, overcrowded households, neglect and limited social opportunities undermine older persons' autonomy, mental health and overall quality of life.
Health and Care Services → Core outcome	The availability, accessibility, and quality of healthcare and long-term care services influence the effectiveness with which multimorbidity, functional decline, and other age-related conditions are detected, treated, and managed. Adequate staffing, geriatric competence, appropriate equipment, regulated and affordable old-age homes, and responsive primary care. All work together to help older persons preserve their independence, stay safe, and maintain their dignity. In contrast, the well-being and care of older people are compromised by issues within the healthcare system, such as long waiting times, medication stock-outs, a lack of expertise in geriatric care, and disparities between public and private old-age homes.
Institutional/Structural Factors → Core outcome	The environment conducive to healthy ageing is shaped by policies, financial systems, infrastructure, and information systems, which can either help or hinder progress. Comprehensive policies for ageing and long-term care, coupled with sufficient pensions and subsidies, age-friendly infrastructure and transport, investment in digital inclusion and telemedicine, and ongoing research and awareness campaigns, enhance the safeguarding of older persons' rights and promote their autonomy and quality of life. Policy gaps, inadequate financial support, poor infrastructure and a scarcity of comprehensive data on ageing perpetuate inequalities and limit older persons' ability to achieve optimal well-being and care.

While Table 6.4 above illustrates how each of the four related concepts influences the core outcome of well-being and care of older persons in Namibia, these concepts do not operate in isolation. Instead, they form a dynamic and interconnected system wherein changes in one concept can either support or limit changes in others. To capture these reciprocal influences and feedback loops, the relationships among the four related concepts are further explicated in Table 6.5 below. This offers a more thorough understanding of how individual, social, service-level, and structural factors collectively impact the experience of ageing.

Table 6.5: The interactions between the four related concepts

Concept relationships	Description of interaction
Individual/Biological and Health Factors ↔ Social and Community Environment	Social and community circumstances influence an individual's health and functioning. Health habits, exposure to risk factors, the ability to adhere to treatment, and how people perceive their independence are all shaped by education, source of income, support networks, cultural norms, and social involvement. At the same time, an older person's health and ability to function affect their capacity to participate in family and community activities, maintain relationships, and fulfil their responsibilities. Severe multimorbidity can increase a person's dependence on family, which can then strain support networks, such as caregiving networks and household resources. This situation also alters cultural views on care, establishing a feedback loop that impacts the broader social environment.
Individual/Biological and Health Factors ↔ Health and Care Services	Health and care services respond to the biological and health needs of older persons through screening, diagnosis, management of chronic diseases, rehabilitation, and long-term care. The extent and quality of healthcare services influence the development of multimorbidity, decline in physical abilities, sensory impairment, and self-rated health of older persons. In contrast, the burden of illness and impairment within the older persons population generates a demand for various services. This, in turn, shapes the workload and skill requirements for health workers and caregivers, and may reveal gaps in service design and capacity, thereby necessitating adjustments in service delivery.
Social and Community Environment ↔ Institutional/Structural Factors	The resources available at the community level, including pensions, community centres, transport systems, and healthy ageing initiatives, are shaped by national policies, social protection programs, infrastructure investments, and awareness campaigns. These resources subsequently impact family caregiving dynamics, social engagement, and prevailing cultural attitudes toward ageing. Community experiences and advocacy can also impact the development of policy agendas. When communities observe signs of inadequate pensions, the challenges faced by caregivers, or social isolation, these issues can prompt changes in national social protection, community development, and ageing policies. This establishes a cycle in which community-level issues affect overarching structural policy.
Health and Care Services ↔	Institutional/Structural decisions concerning health and social policy, financing, workforce planning, regulation and infrastructure directly shape the distribution,

Institutional/Structural Factors	capacity and quality of health and care services for older persons. For example, the prioritisation of geriatric training, the funding of old-age homes, and the allocation of services between urban and rural regions are all determined by budgetary constraints, staffing standards, and existing regulations. Thus, the performance and documented gaps in health and care services, including reports of shortages, inequities, or poor outcomes, provide evidence that informs policy revision, resource distribution, and the formulation of new regulations and programmes at the national level.
Institutional/Structural Factors ↔ Individual/Biological and Health Factors	The policies, social protection schemes, transportation and digital infrastructure, and awareness campaigns can directly influence individual lifestyle choices, income accessibility, health behaviours, multimorbidity management, and, ultimately, self-rated health, often independent of community- or service-level mediators. For example, an old-age pension or transport subsidy can directly affect an older person's ability to afford medication or travel to medical appointments.
Health and Care Services ↔ Social and Community Environment	The organisation and availability of health and care services influence community norms and social opportunities (e.g. outreach clinics and day-care centres evolving into social hubs, or caregiver support groups strengthening social networks). On the other hand, community support networks, family caregiving practices, and cultural norms around ageing have a significant impact on how services are accessed, demanded, and shaped.

6.2.3 Step 3: Description and evaluation of the model

In Step 3, building on the identification and analysis of concepts (Step 1) and the formulation of relationship statements (Step 2), the model is presented and critically evaluated according to Chinn and Kramer's (2015) guidance on model generation. In this step, the community-based model, which aims to improve the well-being and care of older persons aged 60 years and above, is depicted graphically, and its purpose, structural components and underlying assumptions are clearly described. The model is subsequently evaluated using Chinn and Kramer's (2015) several evaluation criteria, specifically clarity (Are the concepts clearly defined, and does the diagram clearly show how they relate to one another?), simplicity (Does the model explain the phenomenon using the fewest necessary concepts and relationships without losing its meaning?) generality (Is the model applicable across various context and to all older persons aged 60 years and above?), accessibility (Is the model easy to understand and use or apply in practice by different audiences?) and importance (Does the model address a significant problem, and does it offer practical application?) This evaluation provides evidence that the model is sufficiently clear, usable and relevant to address the study objectives. This provides a foundation for its subsequent application, refinement, and empirical testing in future research and practice.

6.2.3.1 THE NAME OF THE MODEL

A Community-Based Model for Improving the Well-Being and Care of Older Persons, aged 60 years and above.

6.2.3.2 THE MODEL GRAPHICAL PRESENTATION

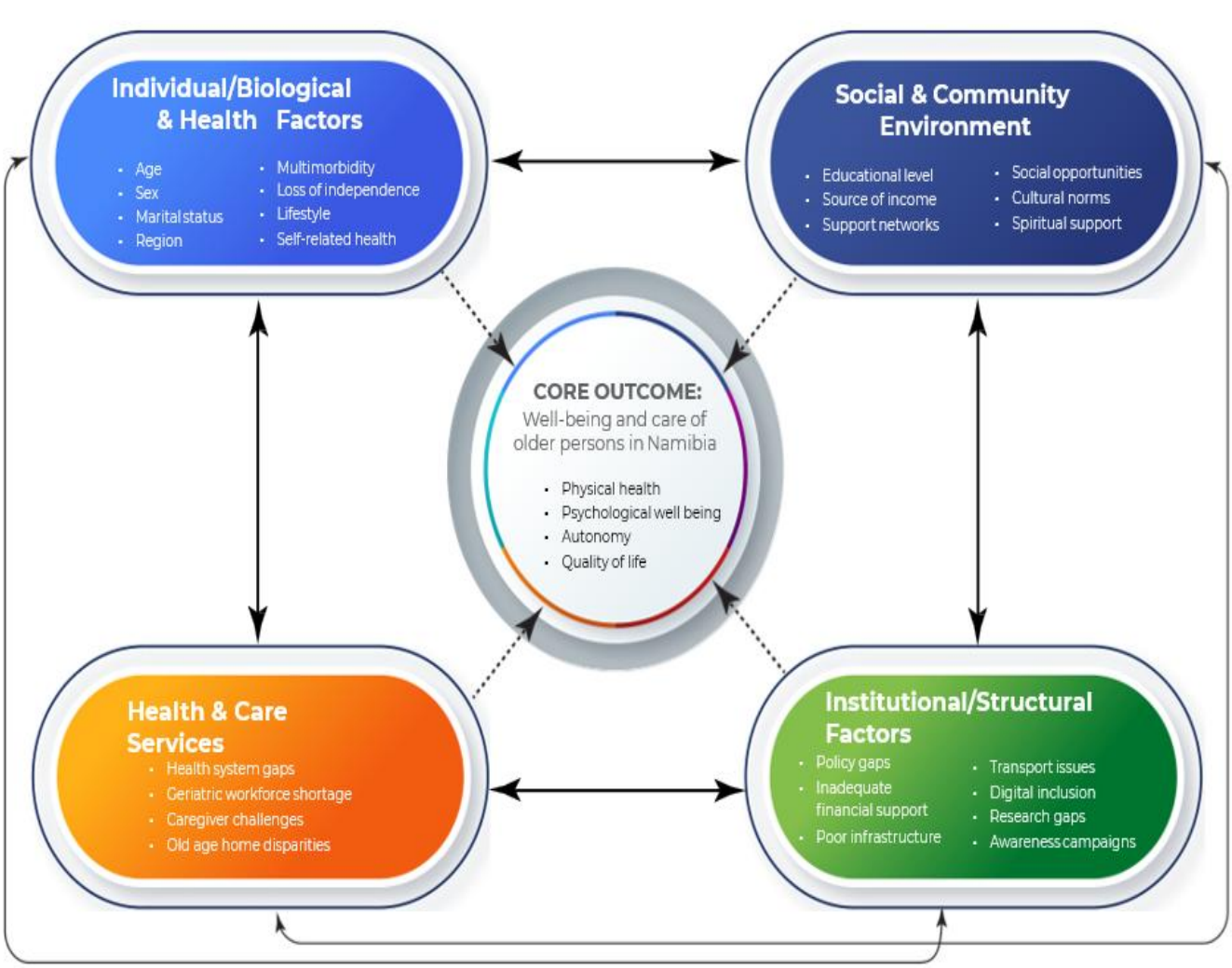


Figure 6.2: The community-based model for improving the well-being and care of older persons

Source: (Researcher's own construction, 2025)

<u>The symbolic meanings of the schematic presentation are as follows:</u>

Shapes and layout

- The **outer rectangle** represents the overall context or system boundary of the model. It shows that the four concepts and the core outcome are all integrated within the broader picture of ageing in Namibia**.** All elements within it form one integrated community-based care system.
- At the centre, the **concentric circles** show the central concept, which is the core outcome.

- The **four coloured horizontally and vertically aligned rounded rectangles** represent the related concepts with their sub-concepts listed under each, with bullets.

Arrows

- **Solid double-headed arrows between the four related concepts** indicate a feedback loop or bidirectional influence between them. They show that changes in one concept both affect and are affected by changes in the others.

- **Dashed single-headed arrows** indicate the direct influence of each related concept on the core outcome in the centre.

Use of colour

- In many conceptual models, the application of colour remains subjective, and colour is not selected systematically (Stark et al., 2017). Consistent with this, the colours in this model do not carry specific theoretical /symbolic meaning but were used merely for visibility and clarity to distinguish between the different concepts.

6.2.3.3 THE MODEL BENEFICIARIES

Primary beneficiaries: Older persons (≥60 years) in Namibia, particularly community-dwelling older persons in rural/peri-urban low-income settings, those with multimorbidity, cognitive or functional impairment, social isolation, and residents of under-resourced public old-age homes, as well as their informal/family caregivers.

Secondary beneficiaries: Professional caregivers and old age home staff; health-care providers; social workers and CHWs; local/national government; NGOs/faith-based/private partners; communities and families; academic institutions; and payers/funders who benefit through capacity building, policy/financing frameworks, and strengthened care systems.

6.2.3.4 PURPOSE OF THE MODEL

The purpose of the model is to provide a person-centred, community-based, evidence-to-implementation model that improves the well-being and care of older persons in Namibia. It does so by integrating four interrelated concepts, namely (i) individual/biological and health factors, (ii) social and community environment, (iii) health and care services, and (iv) institutional/structural factors, while operationalising age-friendly strategies within the Namibian context.

6.2.3.5 OBJECTIVES OF THE MODEL

- Improve the well-being and care for older persons: physical health, psychological well-being, autonomy, dignity, and quality of life.
- Integrate and coordinate operations across the concepts with clear feedback loop influences.

- Strengthen service capacity and quality: Implement geriatric training pathways, elevate the skills of the existing workforce and caregivers, and improve multimorbidity management and the availability of equipment for older care.
- Increase access and equity: Decentralise and expand the availability of affordable, regulated old-age homes; reduce transport barriers; tackle urban–rural disparities.
- Support families and communities: Professionalise and support caregiving; expand community centres, clubs and social/recreation options to mitigate loneliness and foster active ageing.
- Advance chronic disease prevention/management: Expand screening, long-term condition management, telemedicine and remote monitoring.
- Inform and align policy/financing: Contribute to a comprehensive ageing policy; improve pensions and subsidies; establish sustainable long-term-care financing and regulation.
- Integrate learning systems: Strengthen research, continuous monitoring and feedback to improve implementation over time.

6.2.3.6 ASSUMPTIONS OF THE MODEL

During the development of the Community-Based Model for Improving the Well-Being and Care of Older Persons, the following assumptions were made:

1. Shared commitment among stakeholders: It is presumed that government entities, policymakers, healthcare providers, caregivers, families, non-governmental organisations, faith-based groups, development partners and the private sector will collaborate towards improving the well-being and care of older persons in Namibia.
2. Political and policy support: The political environment is anticipated to be conducive, with policymakers and politicians prioritising ageing as a national issue and endorsing the formulation and implementation of a comprehensive ageing policy framework.
3. Acknowledgement of ageing as a public health and social challenge: It is assumed that ageing and the care of older persons will be increasingly seen as a pressing public health, social, and economic challenge, necessitating multisectoral interventions and sustained investment.
4. Community mobilisation and ownership: The model assumes that communities, families, and older persons will engage actively in interventions, hence fostering ownership, sustainability, and cultural acceptance of proposed programmes.
5. Resource mobilisation and allocation: It is assumed that financial, infrastructural, and human resources will be mobilised and equitably distributed across sectors and regions to mitigate inequities in older care services.

6.2.3.7 BENEFITS OF THE MODEL

- Comprehensive and coherent: Integrates individual, social, service and structural levers into one actionable model.
- Contextually appropriate for Namibia/LMICs: Directly tackles identified gaps such as workforce, access, financing, transport, and old age homes allocations.
- Person-centred and equity-oriented: Emphasises dignity, autonomy and inclusion; seeks to reduce geographic and socioeconomic disparities.

- Operational and scalable: Provides clear routes from evidence to programmes and policy (e.g. training, regulation, service redesign).
- Policy-relevant: The model provides key concepts that policymakers can use to structure national ageing policies and direct budget allocations across sectors, including health, social protection, housing, and transport.
- Measurable: Focuses on clearly defined outcomes (wellbeing, care) and encourages ongoing evaluation.

6.2.3.8 MODEL VALIDATION/EVALUATION

The model's development process was initially conducted under the guidance and supervision of the two study supervisors. The supervisors meticulously observed each phase of the process, and adjustments were made as recommended. Thereafter, the model was validated by 10 experts in the field. Methodological literature in nursing and health research, such as that by Polit & Beck, typically recommends using approximately 6 to 10 experts for content validation, as this range effectively balances the diversity of perspectives with practical considerations. A panel larger than 10 members tends to add little additional value, while making consensus more difficult to achieve and interpret (Polit & Beck, 2006). Therefore, the selection of 10 experts aimed to optimise both the diversity of expertise and the clarity of consensus. To define content validity, it assesses how well an instrument's (in this case, model) items represent the content domain (Anuar et al., 2024). The experts included doctors, nurses, social workers, academicians, a general manager, and public health specialists (See the experts' socio-demographics in Table 6.6 below). The experts were chosen by purposive sampling. Those who agreed to participate were sent an invitation letter in which the researcher introduced herself, stated the ethical issues the study considered, and informed them that their participation was voluntary and that they could discontinue at any time. The researcher's contact number and email address were also provided for enquiries. In addition, an electronic copy containing a summarised study problem statement and methodology, objectives, an explicit discussion of the model design approach, the model's graphical presentation, its purposes, beneficiaries, assumptions, benefits, and an overall discussion was also sent together with an evaluation form to complete based on the five criteria for theory generation validation by Chinn and Kramer (2015). The criteria included clarity, simplicity, generality, accessibility and importance as outlined by Chinn and Kramer (2015) (See the model validation tool in Appendix 19). They were requested to familiarise themselves with the write-up first, resolve any uncertainties with the researcher, evaluate the model and therefore provide feedback. The criteria are explained below:

1. **Clarity** of the conceptual model: This entails evaluating the consistency of terminologies and the structure of the model, ensuring that concepts are clearly defined and relationships are easily understood. Are the visual structure of the model and its components easy to understand?
2. **Simplicity** of the conceptual model: This involves assessing if the model explains a phenomenon using the minimal necessary concepts and relationships. Is the model as simple as possible but not too simple?
3. **Generality** of the conceptual model: This pertains to assessing the scope and applicability of the model. Can the model be used in multiple settings? Example in various regions, with all older persons aged 60 years and above?
4. **Accessibility** of the conceptual model: This involves considering how easily the model can be understood and used. Is it conveyed in a manner that is understandable to different audiences?

5. **Importance** of the conceptual model: This aims to assess the importance and relevance of the model. Is this model useful and meaningful in practice?

RESULTS OF THE MODEL VALIDATIONS

Table 6.6 Socio-demographics of the experts (n=10)

VARIABLES	Frequency	(%)
Age groups (years)		
30-39	2	20.0
40-49	5	50.0
50-59	2	20.0
60-69	1	10.0
Sex		
Male	4	40.0
Female	6	60.0
Region		
Khomas	6	60.0
Ohangwena	1	10.0
Zambezi	1	10.0
Oshana	1	10.0
Oshikoto	1	10.0
Highest Education level completed		
Diploma	1	10.0
Bachelors	3	30.0
Masters	3	30.0
Doctorate	2	20.0
Doctor of Medicine	1	10.0
Current occupation		
Academic professor	1	10.0
Lecturer	1	10.0
Director	1	10.0
Epidemiologist	1	10.0
Medical doctor	1	10.0
Social worker	2	20.0
Nurse	2	20.0
Old-age home general manager	1	10.0
Field of expertise		
Public Health	4	40.0
Social work	2	20.0
Nursing	2	20.0
Medical conditions	1	10.0

Policy	1	10.0
Lecturing	1	10.0

Table 6.6 above illustrates that ten experts participated in validating the model. Half of the validators were aged 40–49 years, while the remaining participants were divided between the 30–39 and 50–59-year age groups, with only one validator aged 60–69 years. This indicates that the panel predominantly consisted of mid-career professionals. The majority were female (60%), and most were located in the Khomas Region (60%), with the rest distributed across four other regions, offering a degree of geographic diversity. The panel was highly educated, with all validators holding at least a diploma; the majority held bachelor's or master's degrees (60%), and a significant proportion held doctoral or medical degrees (30%). Their current occupations and areas of specialisation reflected a strong representation from health and social sectors, including public health, nursing, social work, medicine, and policy, thereby guaranteeing that the model was evaluated by individuals possessing pertinent and multidisciplinary expertise in the care and well-being of older persons.

Table 6.7: Experts' ratings on the model based on five criteria for model validation by Chinn and Kramer (2015)

Variable	**Strongly agree N (%)**	**Agree N (%)**	**Neutral N (%)**	**Disagree N (%)**	**Strongly disagree N (%)**
Are the concepts clearly defined, and does the diagram clearly show how they relate to one another (clarity)?	6 (60.0)	4 (40.0)	-	-	-
Does the model explain the phenomenon using the fewest necessary concepts and relationships without losing its meaning (simplicity)?	6 (60.0)	4 (40.0)	-	-	-
Is the model applicable across various contexts and to all older persons aged 60 years and above (generality)?	7 (70.0)	2 (20.0)	1 (10.0)	-	-
Is the model easy to understand and to use or apply in practice by different audiences (such as healthcare providers, social workers, policymakers, local/national government, academic institutions and other stakeholders) (accessibility)?	6 (60.0)	3 (30.0)	1 (10.0)	-	-
Does the model address a significant problem, and does	6 (60.0)	2 (20.0)	1 (10.0)	1 (10.0)	-

it offer practical application (importance)?	

*5 = Strongly agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly disagree

A dash (-) indicates that no experts selected this option

Table 6.7 indicates that the experts rated the model very positively across all five of Chinn and Kramer's validation criteria. For clarity and simplicity, 60% of validators strongly agreed, and 40% agreed that the model met these criteria, with no neutral or negative ratings. With respect to generality and accessibility, 70% and 60%, respectively, expressed strong agreement, and a further 20 - 30% agreed, while only one expert (10%) remained neutral on each of these criteria. For importance, 60% strongly agreed, and 20% agreed that the model addresses a significant problem and offers practical application; one expert (10%) remained neutral, while another one (10%) expressed disagreement. No experts expressed strong disagreement across all criteria. (Due to the ordinal nature of Likert responses, expert ratings were summarised using frequencies and percentages.) The rating was conducted as follows:

Proportion agreeing (ratings 4 or 5)

Counting only those who selected Agree (4) or Strongly agree (5) for each criterion:

Clarity: 10/10 = 100%

Simplicity: 10/10 = 100%

Generality: 9/10 = 90%

Accessibility: 9/10 = 90%

Importance: 8/10 = 80%

Overall, 46 out of 50 possible ratings (92%) fell into the agree or strongly agree categories.

For interpretation, the following cut-offs were introduced:

- ≥80% of experts choosing 4 or 5 - High agreement / acceptable validity
- 60 – 79% - Moderate agreement/needs minor refinement
- <60% - Low agreement/needs revision

The model achieved ≥80% agreement across all 5 criteria, thereby demonstrating high agreement and acceptable validity according to the expert panel. This criterion aligns with other health-related Delphi and consensus studies, which have similarly employed ≥80% agreement to indicate consensus (Arndt et al., 2022; Muhl et al., 2023).

Table 6.8: Comments by the experts

Evaluation criteria	Comments and Suggestions
1. Clarity of the model	▪ The model is well explained and defined, making it easier for one to implement and adopt. And is inclusive of all the needs of older persons. ▪ Excellent ▪ The concepts are comprehensively and clearly defined, and the diagram is able to demonstrate the interrelation between them clearly. ▪ All the concepts are clearly defined, and the diagram clearly shows how they relate to one another. ▪ The concepts are clearly defined, and it is evident that all four concepts shown in this model and the core outcome are integrated very well. ▪ I think there are other directional relationships missed in the model, between institutional/structural factors and individual/biological factors, as well as between Health and Care Services and Social and community environment. I think a robust model should have these, especially if it can be tested in a setting like Namibia (LMICs). **Researcher response/action on this comment:** **Observation acknowledged.** The researcher acknowledges that the original model's graphical presentation omitted the directional relationships between institutional/structural factors and individual and biological factors, as well as between health and care services and the social and community environment. The model has been revised to incorporate these relationships, thereby enhancing its completeness and clarity (see Figure 6.2 for the current graphical representation of the model and Appendix 23 for the version submitted to the validators). ▪ Need to define "Older person" with reference based on the international definition to ensure the model can be applied in other settings/contexts. **Researcher response/action on this comment:** **Comment noted.** The study defined "older persons" as individuals aged 60 years and above, consistent with United Nations terminology and the Namibian context (see Clarification of terms, page XVII). No substantive changes were therefore required. It is acknowledged that this definition was not included in the documentation sent to the validator, as only the model chapter, a summarised problem statement, methodology and study objectives were provided.
2. Simplicity of the model	▪ Yes, the concepts used are easy to understand and relate to. ▪ The model demonstrates achieving the core outcome with the use of a few but complex concepts into one multi-dimensional approach. ▪ The model is well simplified for a better understanding of the concepts. ▪ The model covers some necessary concepts, especially from Chinn and Kramer's (2015)

3. Generality of the model	▪ Yes, the model appears to be applicable and flexible in all contexts, as it defines services to be offered at all levels. It's for the end users to make it tailor-made to suit their context. ▪ Excellent ▪ The model, through the concept definitions and sourced evidence via the study, caters to all persons aged 60 years and above, and the model's multi-dimensional approach to the outcome in question makes it applicable across a multitude of contexts to derive a solution from the identified problems. ▪ The model is applicable across all older persons aged 60 years and above in both urban and suburban communities. ▪ This is clearly evident in the model objectives and model beneficiaries.
4. Accessibility of the model	▪ The model is easily able to demonstrate the key problems and identify the various sectors required to derive tangible solutions. It shows various pragmatic approaches that can be adopted in practice by varying audiences, as they all form an integral part of the overall core outcome. ▪ The model clearly states the gaps and identifies the needs of the age group under study, making it easier for the policy makers to understand. ▪ The model is easily understandable, and everyone can utilise it; this makes it very accessible to any healthcare workers or any other cadre.
5. Importance of the model	▪ Yes, the model addresses the core of humanity, which is wellness. This, in turn, ensures autonomy, ultimately giving life its meaning even in old age. ▪ Professional and personal experience has demonstrated a vast disparity in the geriatric communities as far as well-being is concerned. ▪ The model brings to light a largely neglected part of the conversation. The model outlines the various levels of intervention required and provides a simplified, practical guideline for their application. ▪ The model addresses the need for the care of the old age group and the importance thereof. ▪ The overall objective of the model is to improve the well-being and care for older persons who face physical health, psychological well-being, autonomy, dignity, and quality of life challenges. This model has proposed a practical solution to solve these challenges faced by older persons in Namibia and other LMICs. ▪ After the pilot study, one will be able to confirm. ▪ It does indicate the areas of focus, but it definitely has no practical solution. **Researcher response/action on the last two comments:** **Comment noted.** The researcher recognises that the model's practical significance will need to be confirmed through a future pilot study. Although the model has not yet been implemented, guidelines for its operationalisation, including activities, responsible implementers and monitoring indicators, are provided in the thesis (see Chapter 7). These directly addressed the practical application of the model. However, the guidelines were not disseminated to the validators, and the researcher acknowledges that they should also have been shared with the

	experts to fully address the concerns about practicality. The need for pilot implementation and further testing is acknowledged in the dissemination section (See 7.3). No change to the model was required.
Overall comments	✚ Namibia needs more caregivers and affordable Frail care units. ✚ I fully agree with your statement: "the healthcare system must adapt by strengthening geriatric education, incorporating chronic disease provision and management, and improving accessibility through age-friendly infrastructure and transport services" <u>Recommendations made in Step 1</u> ✚ This is an outstanding recommendation, and I hope it becomes a reality in Namibia. It is greatly needed and should be implemented, with increased awareness raised among our elderly community.

Subsequent to expert model evaluation, the model was refined in response to specific panel feedback. Specifically, missing directional linkages in the initial diagram were added (institutional/structural ↔ individual/biological; health and care services ↔ social/community environment), thereby improving conceptual completeness and internal coherence. Additional feedback regarding practical implementation is addressed through the operationalisation guidelines presented in Chapter 7.

6.2.3.9 MODEL DISCUSSION

The Community-Based Model for Improving the Well-Being and Care of Older Persons offers a comprehensive framework that incorporates individual, social, health, and structural factors influencing ageing. This is consistent with the World Health Organisation (WHO) conceptions of healthy ageing (World Health Organization, 2015). The model illustrates that the well-being of older persons is shaped not solely by biological and health-related factors but also by social environments, accessibility to health services, and the supportive institutional and regulatory frameworks. Developing integrated models of care and support that align with the aforementioned concepts ensures a comprehensive approach to older care, with multidisciplinary teams collaborating to provide thorough care plans for older persons (World Health Organization, 2015, 2020a).

The findings highlight the urgent need for evidence-based policies and multisectoral interventions to tackle the complex issues of ageing in Namibia. As older persons encounter an increasing burden of multimorbidity, medication dependence, and functional deterioration, the healthcare system must adapt by strengthening geriatric education, incorporating chronic disease provision and management, and improving accessibility through age-friendly infrastructure and transport services. These recommendations align with analyses from sub-Saharan Africa and the WHO's healthy ageing framework, highlighting the necessity to strengthen geriatric education, embed chronic disease provision and management into routine care, and improve access through age-friendly infrastructure and transport services (Aboderin & Beard, 2015; World Health Organization, 2015).

At the community level, interventions that support family caregivers, expand community centres, and promote active ageing and quality care are crucial to mitigating loneliness and enhancing autonomy and dignity. Caregivers occupy a pivotal position yet frequently lack training, fair remuneration, and institutional backing. Enhancing

caregiving professionalism and building the capacity of informal caregivers through systemic training and psychosocial support can improve care outcomes and sustainability.

The model further underscores the significance of equity in service delivery. Old-age homes are concentrated in certain regions, primarily in urban areas, with considerable disparities in quality and affordability between public and private institutions. Decentralisation, regulation, and financing reforms are crucial to guarantee equitable access for older persons across various settings, bridging the rural-urban disparities and ensuring uniform standards of affordability and quality.

At the structural level, the lack of a comprehensive ageing policy, inadequate pensions, and insufficient financing for the old age homes pose significant obstacles to improved well-being. Investment in social protection schemes, subsidies, and government-funded or subsidised facilities can bridge income and care gaps. Furthermore, the incorporation of telemedicine and technology-driven solutions presents opportunities to expand healthcare accessibility and convenience in remote areas, as well as to improve the health monitoring of older persons.

The issues of ageing are multisectoral and cross-cutting. Resolving these issues necessitates collaboration among health, social protection, housing, transportation, education, and research sectors. Evidence-based campaigning and community engagement are vital to prioritise older persons in planning and budgeting processes. Consistent with the WHO's emphasis that older persons should be explicitly prioritised in planning and budgeting through evidence-based advocacy and sustained community engagement (World Health Organization, 2020a). By synchronising local community initiatives with national strategies, Namibia can create an environment that promotes dignity, autonomy, and quality of life for its ageing population.

The conceptual and practical soundness of the Community-Based Model for Improving the Well-being and Care of Older Persons was further strengthened through formal content validation by a multidisciplinary panel of ten experts from public health, nursing, social work, medicine and policy. According to Chinn and Kramer's (2015) criteria for validating a conceptual model (clarity, simplicity, generality, accessibility and importance), the panel demonstrated substantial consensus, with 100% of validators rating the model's clarity and simplicity as "agree" or "strongly agree", 90% did so for generality and accessibility, and 80% did so for importance. The model achieved ≥80% agreement across all 5 criteria, thereby demonstrating high agreement and acceptable validity according to the expert panel. This criterion aligns with other health-related Delphi and consensus studies, which have similarly employed ≥80% agreement to indicate consensus (Arndt et al., 2022; Muhl et al., 2023). Furthermore, experts regarded the model as thoroughly articulated, inclusive of the needs of older persons, and applicable across various contexts, emphasising its multidimensional approach and capacity to inform practical solutions at different levels of care. Constructive feedback helped improve the graphical presentation of the model by delineating directional relationships between institutional/structural factors and individual/ biological factors, as well as between health and care services and the social and community environment. This contributed to the enhancement of the model's internal coherence. Some validators pointed out the need for further demonstration of practical implementation. This is addressed through the guidelines to operationalise the model outlined in Chapter 7. This demonstrates that the model is conceptually sound and practically viable, but requires further testing in various real-life settings.

It is essential to note that this model does not present all the findings in detail but rather consolidates them into concepts and sub-concepts to provide a practical and heuristic model. By drawing on the evidence generated

through the original studies, the model outlines pragmatic concepts that can be applied to enhance healthy ageing and cultivate age-friendly environments. Although the strategies as provided under the guideline for model operationalisation in the next chapter are organised in a concept-structured manner, their execution should not be seen as strictly sequential. Instead, they are best applied iteratively, with multiple components occurring concurrently where feasible. Furthermore, strategies should be refined continuously, underpinned by ongoing monitoring, research, and intelligence gathering.

6.3 SUMMARY OF THE CHAPTER

Chapter 6 presented the main outcome of the study, which is a community-based model designed to improve the well-being and care of older persons aged 60 years and above in Namibia. The sections covered in this chapter include the introduction and the four steps used to develop the model, as per Chinn and Kramer (2015). Step 1 involves identifying and analysing concepts. Step 2 involves the construction of relationship statements. Step 3 involves the description and evaluation of the model, which entails the name of the model, its purpose, graphical presentation, model assumptions, benefits, and a discussion of the model, along with its evaluation/validation by experts in the field. Finally, Step 4, outlined in the next chapter (Chapter 7), provides the guidelines to operationalise the model, outlining how the model should be used, specifying the activities/actions, identifying the responsible bodies, and indicating the possible monitoring and evaluation indicators.

CHAPTER SEVEN: GUIDELINES TO OPERATIONALISE THE MODEL FOR IMPROVING THE WELL-BEING AND CARE OF NAMIBIA'S OLDER PERSONS AGED 60 YEARS AND ABOVE

7.1 INTRODUCTION

Chapter 6 described the process used to develop the model, provided a comprehensive description of the model, and presented it in a graphical format along with its evaluation. This chapter presents the guidelines for operationalising the model. The guidelines are developed as activities and strategies to address the ageing issues in Namibia, aiming to be proactive in addressing these issues as the ageing population continues to escalate and requires intervention to ensure the older persons age in good health, as they also occupy vital positions in the country, serving as elders, traditional or religious leaders, farmers, landowners, and decision-makers. They also assume positions as family or household heads, as caregivers, guardians, or as providers of financial and material support to their families. The guidelines were formulated in terms of concepts derived from the study objectives, strategies, and activities based on the findings of the four study objectives that comprised the model, serving as the fifth objective. Recommendations are also given based on the stakeholder specific, such as the older persons themselves, caregivers of the older persons, families, community and political leaders, the Ministry of Health and Social Services (MoHSS), as the custodian of services to older persons and has the mandate to coordinate the activities of all stakeholders to the benefit of older persons, the Ministry of Gender Equality, Poverty Eradication, and Social Welfare, line ministries, old age home management, along with academic institutions and suggestions for future research as generally, there is a need for promoting shared responsibility among all citizens to address the needs of older persons in the Namibian society. Monitoring and evaluation are also provided.

7.2 THE GUIDELINES TO OPERATIONALISE THE MODEL

7.2.1 Cross-cutting implementation principles

1. **Person-centred and rights-based.** All older persons should be treated as individuals with unique preferences, backgrounds, and aspirations, and their autonomy, dignity, informed consent, privacy, and the right to accept or refuse services should be respected and safeguarded.
2. **Equity and rural inclusion.** Services should be designed to ensure that older people in rural, remote, and low-income settings receive the same standard of care as their urban counterparts. This should address barriers associated with cost, distance, and awareness by bringing services closer to people and by offering transportation and financial support where needed.
3. **Family and community partnership.** Acknowledge that families and informal caregivers provide the majority of support to their older relatives; hence, they should be provided with practical training, necessary instruments for elder care, and emotional support. Community leaders, religious leaders and faith-based groups, and volunteers should also be involved in planning and providing ageing services.
4. **Health, wellness and social services.** Primary health care clinics, hospitals, and outreach teams; wellness platforms such as rehabilitation, mental-health and grief support, nutrition counselling, community exercise programmes; and social welfare points including social work offices, pension administration sites, community-based care centres, and old-age homes must collaboratively implement person-

centred, rights-based practice; ensure equity and rural inclusion; engage with families and communities; maintain cultural congruence; and adhere to established quality, safety, and safeguarding standards.

5. **Cultural congruence.** The local languages and traditions, along with the preference for ageing in place, should be respected; nevertheless, transparent information and fair access to quality alternatives, such as old-age homes, should be provided and communicated to all older persons when home-based care becomes unsafe or infeasible.
6. **Quality, safety, and safeguarding.** The basic standards for facilities and services should be established to ensure safety and maintain age-friendly environments.
7. **Learning and accountability.** A compilation of valuable indicators and other metrics is necessary to enhance ageing research. Progress should be reviewed regularly with managers and communities, with adjustments made to the approach based on what is working. Results must be disseminated transparently to foster trust and enhance quality over time.
8. **Sustainability and realistic roll-out.** Start with high-impact, low-cost actions, expand in phases as resources become available, and allocate funds efficiently so that essential services remain affordable and sustainable in the long run.

7.2.2 Concepts guidelines

Individual/Biological and Health Factors

Concept objective. Enhance functional ability and health outcomes for older adults through proactive screening, prevention, self-management support, and personalised care.

Strategies and key activities

1. **Routine, integrated screening and early detection (aligned to WHO Integrated Care for Older People (ICOPE).** Clinics and community teams should screen older people for mobility, mood, nutrition, musculoskeletal health, blood pressure, vision, hearing, medication safety, and other prevalent health issues at least once every 12 months. Monthly community screening events should be conducted at clinics, community centres, and churches, ensuring that all positive screenings are connected to explicit referral pathways and subsequent appointments.
2. **Management of chronic diseases and polypharmacy.** Primary care teams should implement standardised care plans for common conditions (such as hypertension, diabetes, musculoskeletal pain, and eye or hearing problems). During each appointment, a medication review should be conducted to reconcile prescriptions, identify potentially risky drug combinations, and simplify dosing. In situations where adherence is difficult, community health workers/caregivers should be instructed to provide home-based support.
3. **Functional fitness, nutrition, and falls prevention.** Community centres shall implement group exercise sessions at least twice a week. Households to be given home-safety checks (for example, removing falling hazards and improving lighting), and eligible older persons will receive basic assistive devices such as canes, walkers, or grab bars. Care for older persons should also be enhanced. Nutrition awareness is also essential.

4. **Mental health, loneliness, and grief support.** Nurses and community health workers/caregivers should be trained to screen for depression and anxiety, as well as to facilitate peer-support groups. A befriending and phone check-in initiative will connect isolated older persons with volunteers, including youth groups. Community centres should also host sessions for grief and caregiver stress.
5. **Self-management and health literacy.** Clinics should provide plain-language handouts in local languages that explain medicines, warning signs, healthy eating habits, and safe physical activity. Quarterly campaigns should also be conducted to encourage older persons to monitor their blood pressure, blood sugar, and other vital signs, with simple reminders sent via SMS or announced on local radio.

Possible indicators

- % of older persons screened with the ICOPE
- % with medication review completed
- % attending exercises
- % with positive mood and loneliness score change (pre/post).
- % receiving self-management education (quarterly)
- % with health medication card updated at each visit
- % demonstrating correct medication understanding, e.g. can state dose, and timing
- % with documented self-monitoring practice, e.g. reviewed BP (where clinically indicated) at least quarterly.

Social and Community Environment

Concept objective. Strengthen social support, protect household income to meet the needs of older persons, and create welcoming, age-friendly spaces so that older people feel connected, safe, and valued.

Strategies and key activities

1. **Community centres and clubs for active ageing.** Community councillors, village heads, faith groups, and NGOs should establish or repurpose spaces for weekly clubs that offer games, crafts, light physical activity, and intergenerational activities. On club days, health talks, screening booths, and desks for legal and social services may also be provided.
2. **Transport and mobility support.** Communities should coordinate transportation schedules through churches and taxi associations for clinic visits and centre activities. Where feasible, community councillors, village heads, and corporate social responsibility partners should implement dial-a-ride vouchers for older persons facing mobility or financial barriers.
3. **Safeguarding income and pension use.** Social workers and community leaders should collaborate to facilitate brief sessions on financial literacy and pension rights for older individuals and their families. Confidential reporting channels for pension misuse should be publicised, and reported cases should receive timely assessment and subsequent action.
4. **Caregiver support and respite services.** Caregivers should be invited to monthly workshops designed to build skills, share coping strategies, and collaboratively address practical issues. Caregivers are to be given starter caregiver kits (for example, gloves, linen savers) to support them.

5. **Anti-ageism and public awareness.** Educational institutions, broadcasting organisations, and community forums to advocate for favourable representations of ageing and reverence for seniors.
6. **Basic needs.** Community councillors should ensure that older persons have access to basic services, such as food, housing, water and sanitary facilities.

Possible indicators.

- number of functional community centres/clubs and monthly attendance.
- % of elders reporting at least weekly social contact beyond household.
- Number of pension misuse cases identified/resolved, satisfaction with social worker support.
- number of caregivers attending training

Health and Care Services

Concept objective. Expand access to age-friendly health and long-term care, increase service capacity and quality, and ensure that old-age homes and home/community-based care are affordable, regulated, and safe.

Strategies and key activities

1. **Workforce development and competencies in geriatrics.** The Ministry of Health and Social Services (MoHSS) should develop and implement a modular in-service training programme (20–40 hours) for nurses, doctors, social workers, community health workers, and caregivers, covering the fundamental aspects of ageing, including multimorbidity, medication safety, rehabilitation, and end-of-life support. Universities should integrate geriatrics into pre-service curricula and establish elective rotations.
2. **Redesign of services and coordination of care.** Primary care facilities should integrate ICOPE into patient flow and establish “older-person days” or expedite queues to reduce waiting time.
3. **Telemedicine and remote monitoring.** Clinics and health centres should be equipped for basic teleconsultations, incorporating regular virtual sessions for common conditions such as hypertension and diabetes and, where available, geriatric advice. Implement SMS reminders and simple logs to support older persons in remote areas and others in need with medication adherence and self-monitoring.
4. **Old-age homes: access, quality, and affordability.** Capacity should be expanded by establishing affordable old age homes in underserved regions and incentivising providers to operate in rural and peri-urban areas. Minimum service standards should be specified in terms of staffing ratios, emergency readiness, essential equipment, and designs that cater to multimorbidity. All old age homes should be registered and subjected to regular inspections, with a public summary of the inspection results shared. Pricing should also be regulated to ensure affordability while preserving quality.
5. **Equipment and assistive technology.** Priority equipment, including mobility devices, basic hearing aids, and vision aids, should be made available and properly maintained to ensure optimal functionality.
6. **Essential primary care access (health promotion, chronic medication, screening, and acute care).** Primary care facilities and outreach teams should provide a consistent package for older persons that includes: (a) structured health promotion and prevention (including age-appropriate vaccinations, nutrition counselling, education on physical activity and fall prevention, and tobacco/alcohol harm reduction); (b) reliable access to chronic medicines though multi-month dispensing, community collection

points, and home delivery for the homebound; (c) routine health screening integrated with ICOPE (BP, glucose, weight/BMI, vision/hearing, oral health, mood/cognition, fall risk), with clear referral/counter-referral; and (d) prompt treatment of prevalent diseases and minor injuries (respiratory/urinary infections, musculoskeletal pain, wound and pressure-injury care, basic dermatologic and eye problems), utilising standardised treatment protocols and same-day triage for critical indicators. Pharmacy and nursing teams to conduct monthly "chronic clubs" for stable patients to decongest queues, provide brief education, and assess adherence and side effects. Clinics must display availability of medication, sustain stock-out rates below <5% for critical geriatrics medications, and provide after-hours/urgent care pathways when possible, including tele-advice linked to transportation for escalation.

Possible indicators.

- % of staff completing geriatric upskilling; competency assessment pass rate.
- median wait time for older persons' clinic days.
- Number of teleconsultations/months
- % of older persons with at-home BP/glucose logs reviewed.
- % of older persons receiving multi-month chronic medication refills.
- Stock-out rate of essential medicines for older care (<5% target).
- Number of registered old-age homes meeting standards; bed-to-population ratio by region.
- Number of older persons who have received assistive devices; time to device replacement/repair.

Institutional/Structural Factors

Concept objective. Finalise and roll out the Namibia National Policy on the rights, protection, and care of older persons, and establish other enabling policies, financing, regulations, infrastructure, transport, digital readiness, and research to underpin equitable and sustainable older care.

Strategies and key activities

1. **Finalisation and coordination of policy.** The government needs to finalise and implement a comprehensive ageing policy and a long-term care framework with clear roles for MoHSS (as coordinator), the Ministry of Gender Equality, Poverty Eradication and Social Welfare, and other line ministries. A National Healthy Ageing Steering Committee and regional task teams should be established to oversee implementation.
2. **Financing and subsidies.** The government should introduce targeted subsidies for essentials (such as food, transport, and utilities) as well as means-tested support for long-term care. A dedicated budget line to support public and NGO old-age homes with age-friendly infrastructure, staffing, and maintenance should be considered.
3. **Regulation and standards.** Minimum standards for old-age homes and home/community-based services should be gazetted, accompanied by regular inspections, fair sanctions, and constructive repair measures. Considerations should be given to transparent pricing bands and a public dashboard for displaying quality and safety results.
4. **Age-friendly infrastructure and transport in public facilities.** Hospitals, clinics, communities, and old-age homes should adopt age-friendly design features, such as ramps, clear signage, seating, and accessible

toilets. Transport vouchers and dial-a-ride schemes may alleviate access restrictions, prioritising rural routes and other hard-to-reach areas.

5. **Digital health and data.** Telemedicine guidelines appropriate for older care can be approved, and, when feasible, patient reminder SMS should be exempt from charges. Indicators of ageing should be integrated into national health and social information systems, utilising small, regular sampling to assess quality of life.
6. **Research and training framework.** A national ageing research agenda should be launched with small grants, and universities should establish multidisciplinary hubs that bring together medicine, nursing, social work, public health, rehabilitation, and ICT.

Possible indicators.

- Policy rolled out; Steering Committee operational with published workplan.
- Government expenditure on ageing/LTC per capita.
- # of beneficiaries of transport/utility subsidies.
- % of facilities passing inspections; public reporting frequency.
- # of districts implementing age-friendly upgrades;
- # of transport vouchers issued.
- # of research projects funded
- # of ageing-related peer-reviewed outputs/policy briefs.

7.2.3 Stakeholder-specific recommendations

Older persons

- Participate in screenings, exercise groups, and social clubs; appoint a trusted pension co-signer only when necessary; report any misuse of their pension funds.
- attend and listen to educational/seminars related to ageing aspects

Family members and informal caregivers

- Attend caregiver training; implement safe lifting mechanisms and understand the older person's medication schedules.
- Establish transparent household budgets that prioritise the older person's essentials.

Community and political leaders (traditional authorities, councillors, religious, and social networks)

- Provide venues and endorse community centres/clubs.
- Mobilise local transport arrangements.
- Safeguard the rights of older persons in public forums and facilitate mediation of their pension misuse cases involving the social workers.

MoHSS (coordinating role)

- Oversee policy development and implementation, workforce upskilling, ICOPE roll-out, and reporting on the ageing indicators
- Lead the expansion, decentralisation, registration and inspection of old age homes
- Facilitate the initiation/expansion of telemedicine services.
- Assemble the National Healthy Ageing Steering Committee and regional task forces and publish annual reports.

Ministry of Gender Equality, Poverty Eradication and Social Welfare

- Strengthen social worker coverage; oversee pension protections, case management for abuse/misuse, and psychosocial support for the caregivers.

Line ministries (examples)

- **Transport:** vouchers/dial-a-ride, rural routes.
- **Urban and Rural Development/Public Works:** age-friendly facility and community spaces.
- **Education:** curricula incorporating geriatrics; adult education focused on healthy ageing.
- **Finance:** budgetary allocations and subsidy mechanisms that include ageing aspects beyond pension and healthcare
- **ICT:** connectivity for telemedicine and zero-rated patient messaging.

Old-age home management (public and private)

- Adhere to minimum standards, publish staffing ratios and incident reports; implement multimorbidity-friendly practices and establish emergency plans.
- Participate in price-band regulation.

Academic institutions

- Integrate geriatrics into curricula; establish continuing education programmes.
- Co-lead research and evaluation in ageing.

7.2.4 Monitoring and Evaluation

Purpose: Track implementation quality, outcomes, and equity; inform course corrections.

Core outcomes: Physical health, psychological well-being, autonomy, dignity, and quality of life (WHOQOL or equivalent).

Key indicators

As stipulated for each concept above and all others deemed relevant.

Data sources and frequency: PHC registers, inspection reports, transport voucher logs, and facility surveys (biannual); community centre attendance logs (monthly).

Feedback loops include monthly facility dashboards, quarterly district review meetings, an annual national report, and public summaries for accountability. (In this guideline, feedback loops refer to structured quality-improvement cycles in which monitoring data are (i) collected, (ii) summarised into performance dashboards, (iii) reviewed in routine meetings, and (iv) translated into time-bound corrective actions that are implemented and then re-measured in the next cycle.)

Implementation Time horizons: Short-term (0 – 12 months), Medium-term (1 – 3 years), Long-term (3 – 5 years).

Baseline assessment and target setting

Baseline values will be established at the facility and district/regional levels at the start of implementation, then aggregated upward for national reporting.

- **Facility level:** Each PHC clinic and each registered old-age home will compile baseline values using (i) the preceding 6–12 months of routine records (e.g. registers, DHIS2/health information system, pharmacy stock records, attendance logs), and (ii) where indicators are new (e.g. Health literacy), a rapid baseline audit or brief survey is necessary to be conducted during the first implementation quarter.
- **District/Regional level:** District Health Information Officers / M&E officers verify data quality, consolidate facility baselines, and produce district and regional baselines.
- **National level:** The MoHSS M&E unit (with the National Healthy Ageing Steering Committee, which should be established) will consolidate regional baselines and publish national baseline values and definitions.

Targets will be set using a staged approach:

1. Define the indicator precisely (numerator, denominator, data source, frequency).
2. Establish baseline.
3. Set annual targets at the district/regional level, guided by national minimum standards and local feasibility, e.g. budget.
4. Endorse targets through district/regional review structures and the National Healthy Ageing Steering Committee and incorporate them into annual operational plans.
5. Use incremental improvement targets, e.g. percentage-point increases year-on-year, rather than one-off targets only.

7.3 DISSEMINATION OF THE MODEL TO IMPROVE THE WELL-BEING AND CARE OF OLDER PERSONS IN NAMIBIA

The model has been developed and refined based on expert feedback, and guidelines to operationalise it have also been established; however, it has not yet been implemented due to time constraints, and therefore, its actual practicality remains uncertain. Theorists stress that, after a conceptual model has been clearly defined, it should be applied and tested in various real-life settings to determine its usefulness and generalisability (McEwen & Wills, 2018). This step lies outside the scope of this study, but it is recommended as a focus for future research, possibly post-doctoral research.

7.4 SUMMARY OF THE CHAPTER

This chapter presented guidelines to operationalise the model for improving the well-being and care of older persons into actionable steps across individual, community, health service, and national levels, with concrete activities, roles, indicators, and safeguards. They are deliberately iterative: implement feasible actions immediately (such as screening, caregiver support, community clubs, medication reviews, and pension safeguarding), while building medium-term capacity (workforce, old-age home standards and subsidies, transport schemes, and telemedicine) and structural enablers (policy, financing, age-friendly facilities data, and research). The result will then be a coherent pathway to improve well-being, autonomy, dignity, and quality of life for older persons aged 60 years and above. The next chapter discusses the conclusion, limitations, recommendations and the study's unique contributions.

CHAPTER EIGHT: CONCLUSION, STUDY LIMITATIONS, RECOMMENDATIONS, AND UNIQUE CONTRIBUTIONS

8.1 INTRODUCTION

The previous chapter presented guidelines for operationalising the model to improve the well-being and care of Namibia's older persons aged 60 years and above. This chapter outlines the study's conclusions, limitations, recommendations and unique contributions. Furthermore, the identified gaps are also addressed.

8.2 CONCLUSION

The purpose of this study was to develop a model for improving the well-being and care of Namibia's older population aged 60 years and above. Namibia is experiencing a high growth in this population, although it is acknowledged that healthcare, environmental factors, long-term care, experience, and skills to cater to them (to mention a few) are not sufficiently harnessed to address this demographic shift, which has necessitated the development of the proposed model. However, the development of the model required concepts that are derived from empirical data. To achieve this, the study design employed a convergent mixed-methods approach, which involved scoping reviews, quantitative, and qualitative methods of data collection, as well as assessments of old-age homes. The study was conducted based on five objectives implemented in three phases. Phase 1 and Objective 1 involved conducting a scoping review due to the novelty of the study's focus. The scoping review mapped community-based care approaches for older persons aged 60 years and above, which are implemented in Low and middle-income countries. Phase 2, included using a mixed-method approach involving: 1) interviewer-administered questionnaires with older persons (n=304), which were conveniently selected ; (ii) semi-structured interviews with key personnel (caregivers (n=22), nurses (n=17), social workers (n=14), community leaders (n=10), head of old-age homes (n=2), which were purposely selected and (iii) structured assessments of old-age homes (n=6) using an observational checklist. These two phases informed Phase 3, which was also Objective 5: The development of the model.

The scoping review for Objective 1 revealed that Namibia, along with other low- and middle-income countries, faces significant challenges in establishing comprehensive and sustainable community-based care systems for older persons. The first null hypothesis (Low- and middle-income countries do not face challenges in developing a comprehensive and sustainable community-based care framework to support their older population) was rejected because pensions were found to be insufficient, there were not enough geriatric skills, primary care was not well-coordinated, and the older persons relied heavily on families as informal caregivers due to the lack or scarcity of community-level programmes and formal services. This suggests that these countries have considerable work to do in establishing such frameworks.

Objectives 2 and 3 demonstrated that awareness and attitudes toward old-age homes, as well as their capacity and quality, vary depending on the region where the older person lives and whether they are living in an old-age home or in the community. The residents of old-age homes expressed more favourable attitudes and higher awareness than community dwellers. Private old-age homes were better resourced than public facilities. These findings led to the rejection of the second (There is no significant relationship between awareness of, and attitude toward, old age homes among older persons residing in facilities and those living in the community)

and the third (There is no significant difference between privately owned and publicly owned Namibian old-age homes) null hypotheses, as a confirmed difference exists in awareness, attitudes, and the quality/capacity of old-age homes.

Objective 4 revealed that older persons residing in the community and those residing in old-age facilities had significantly different health statuses and social living situations. The community residents reported poorer self-rated health, vulnerability to loneliness, and more barriers to care amid multimorbidity. Many older people want to stay in their own homes as they age, although this desire varies based on several factors, including their level of education, family responsibilities, and the availability of support. This supported the rejection of the final null hypothesis (There is no significant difference in the health status and social living conditions of older persons residing in old age homes compared to those living in the community) and underscored the necessity for person-centred interventions.

Objective 5 involved the model development. The model was developed and refined under supervisory guidance and subsequently underwent content validation by a purposively selected panel of 10 experts from public health, nursing, social work, medicine, policy and academia, all possessing at least a diploma, with most holding bachelor's or master's degrees, and a significant number holding doctoral or medical degrees. Using Chinn and Kramer's five criteria for model validation (clarity, simplicity, generality, accessibility and importance), experts rated the model favourably. All participants (100%) agreed or strongly agreed regarding its clarity and simplicity, 90% affirmed its generality and accessibility, and 80% acknowledged its importance, with no ratings of strong disagreement across any criterion. Overall, 92% (46 out of 50) of all ratings fell into the "agree" or "strongly agree" categories. Applying an a priori consensus threshold of ≥80% agreement, in alignment with other health-related consensus studies, the model therefore demonstrated high agreement and acceptable validity across all five criteria, signifying that experts regard it as a clear, parsimonious, widely applicable, usable, and practically meaningful for improving the well-being and care of older persons aged 60 years and above. The proposed model provides an evidence-based model to guide policy and practice, integrating local community initiatives with institutional/structural plans to enhance the dignity, autonomy, and quality of life for older Namibians. Policy measures should include targeted awareness campaigns, investment in geriatric competencies, expansion of affordable and age-friendly old age homes, improved social protection and pension governance, and the implementation of technology-enabled outreach, particularly in remote areas. These efforts can collectively establish a sustainable, person-centred system of care that promotes healthy and equitable ageing in Namibia.

8.3 STUDY LIMITATIONS

The study faced limitations related to methodology, literature availability, as well as testing and implementation limitations, as detailed below:

8.3.1 Changing from focus group discussions to key informant interviews

The study aimed to incorporate focus group discussions (FGDs) with community leaders, but this was not done, and key informant interviews were conducted instead. This may have reduced the breadth of perspectives and limited interaction data; however, this was necessary because Namibia was undergoing elections, and community leaders could have been too busy with election-related activities/fear of misinterpretation, or politically affiliated, which could have introduced bias into the study. The FGD could have also led to heated debates or conflicts,

potentially affecting data quality, as some older persons seemed to have suspected that the study might have political motives.

8.3.2 Language and study regions

Namibia's cultural and linguistic diversity may have shaped how questions were interpreted and answered. Although care was taken to preserve meaning, the process of translating responses from various indigenous languages to English presents a risk of subtle meaning loss or misinterpretation. Additionally, the study is conducted in three of 14 regions in Namibia, which may limit generalisability to older persons in other regions with different norms and customs. Despite the study including only three Namibian regions, participants have come from 66 villages/towns, which enhances generalisability, enables meaningful subgroup analyses, and allows for robust multivariable modelling. Future research needs to be conducted in other regions.

8.3.3 Literature availability

The evidence base on well-being and care for older persons in Namibia is still developing, and local research capacity on this topic remains limited, which may constrain the operationalisation of constructs and comparisons, making it difficult for the researcher to effectively validate findings against the existing literature. Despite these limitations, the study's strengths lie in the utilisation of mixed methods (quantitative and qualitative measures), scoping, and triangulation across data sources, which could have advanced the evidence base for policy and targeted action for older Namibians.

8.3.4 Village headman and constituency councillors' interviews

The study used the same interview guide for village headmen and constituency councillors, as both occupy influential leadership positions within the community and are involved, directly or indirectly, in issues affecting older persons. Nevertheless, the study acknowledges that these actors differ in their institutional mandates, daily engagement with older persons, and political orientations. Village headmen are typically more closely connected to community members' daily realities, whereas constituency councillors may approach ageing issues from a more formal governance or policy perspective. This may have limited the extent to which the study captured role-specific subtleties.

8.4 RECOMMENDATIONS

The recommendations arising from this study were grouped into four categories: (1) policy and legislative framework; (2) access to services and age-friendly support; (3) social and economic participation of older persons; and (4) system strengthening through partnerships and knowledge generation.

Policy and legislative framework for older persons

Finalise and implement national policy: The MoHSS should finalise, implement and evaluate the draft Namibia National Policy on the Rights, Protection and Care of Older Persons.

Recognise geriatrics as a separate speciality: The MoHSS, health professional regulatory bodies, universities, and training institutions should promote the recognition and development of geriatrics as a distinct speciality in order to strengthen specialised care for older persons.

Regulate/oversee old-age homes: The MoHSS should also consider registering the publicly owned old-age homes.

Include marginalised and disabled older people in policy design: The policy makers should consider marginalised older people or those with disabilities when developing long-term care and age-friendly environments.

Access to services and age-friendly support

Targeted awareness and education on older care and healthy ageing: The MoHSS, Ministry of Education, Innovation, Youth, Sport, Arts and Culture, faith-based organisations and media platforms should strengthen targeted awareness campaigns and integrate older care and healthy ageing topics into adult education, public health, and community development initiatives.

Expand and decentralise old-age homes: The Namibian government should expand and decentralise old-age homes, particularly in underserved northern regions, while targeting investment to upgrade public old-age homes.

Strengthen accessible health screening and chronic disease management: The MoHSS should strengthen accessible health screening programmes and enhance chronic disease management for older persons across all levels of care.

Access to medication and repeat prescriptions: The MoHSS should put in place measures to enable older persons to access their repeat prescriptions through their nearest points (pharmacies, outreach points, clinics, and hospitals).

Affordable transport: The Namibian government should subsidise transport services for older persons.

Social and economic participation of older persons

Post-60 volunteering/micro-jobs: Employers should include in their employment policies the option for older persons to participate in volunteering or micro-jobs after 60 years for those capable of helping others age well.

System strengthening, partnerships and knowledge

Education and training for informal caregivers: The MoHSS, academic and training institutions, community-based organisations, social workers, and healthcare professionals should develop targeted education and training programmes for informal caregivers to improve the quality of care and support provided to older persons at the household and community levels.

Pilot and test the developed model: The MoHSS, academic institutions, regional health directorates, local authorities, community-based organisations, and development partners should help with the testing of the developed community-based care model in different real-life settings to determine its usefulness, practicality, and generalisability.

Partnerships and trust-building: The MoHSS should develop and maintain trusting relationships with all partners.

Knowledge generation and use: The MoHSS and academic institutions should continually publish new knowledge on ageing.

8.5 UNIQUE CONTRIBUTIONS OF THE STUDY

Contribution to the body of scientific knowledge includes:

- This study is among the first in Namibia to integrate quantitative and qualitative data on older persons and assessments of residential places, providing both robust and richly contextual evidence, which has led to the development of a model to guide policymakers in enhancing ageing in Namibia.
- The Namibia Community-Based Conceptual Model for Improving the Well-being and Care of Older Persons was developed, along with its guidelines for operationalisation, to help tackle the complex issues of ageing in Namibia. According to the researchers' knowledge, informed by extensive literature, the model developed is the first of its kind in Namibia to help improve the well-being and care of older persons.
- The findings of this study identified and provided valuable information on the well-being and care of older persons aged 60 years and above, which has the potential to bring about several benefits for older persons, for the community, and society at large.
- The scoping review conducted demonstrated the existence of strategies and programmes available to older persons in low- and middle-income countries, which can help Namibia improve its care for the older persons.
- The study assessed old age homes alongside the awareness and attitudes of older persons, providing a holistic overview that links supply (in terms of quality, capacity, and gaps in residential care) with demand (in terms of acceptability, perceived need, and barriers). This dual lens enhances the precision of needs assessment, guides equitable resource distribution, and identifies targeted interventions.
- The study further assessed the prevalent health status of older persons and their social living conditions and identified gaps that need to be addressed to further improve their well-being and care.
- This research enables community leaders, healthcare workers, policymakers, and managers to gain a deeper understanding of the current issues faced by older persons aged 60 years and above and persuade them to create an age-friendly environment and promote inclusivity for all.

8.6 GAPS IDENTIFIED

- There is no recent, nationwide assessment of institutional care models (including governance, financing, staffing, admission criteria, and quality indicators) across all regions, including those without formal homes, nor is there an understanding of how these models align with the contemporary needs and preferences of older persons in Namibia. The recent study in this area was conducted in 2003 (Dima, 2003).

- Future studies should quantify and map regional disparities in access to long-term care across all the national regions, including old-age homes, community services, and home-based care. This is because recently, there have been a few old-age homes in the country (World Health Organization, 2022a). Additionally, future studies should assess the feasibility, acceptability, and cost-effectiveness of decentralised or community-embedded alternatives, such as small homes, satellite units, and day-care centres, in underprivileged northern and rural regions

- The growing urbanisation and internal migration of young adults from rural to urban centres have profoundly affected the older persons left behind in rural areas (Indongo & Sakaria, 2016). This area requires further study of its considerable influence on the well-being, health, and dignity of older people. Furthermore, comprehensive research is required on the attitudes of younger adults toward older persons, old-age homes, and intergenerational obligations to understand how evolving societal norms are influenced by urbanisation and capitalism on family structures. This directly impacts the sustainability of family-based care.

- Namibia lacks a systematic assessment of the age-friendliness and geriatric competence of primary care clinics and hospitals. This includes the staff's knowledge and attitudes toward older patients, the availability and use of geriatric assessment tools, physical accessibility (e.g. ramps, seating, and signage), and continuity of care for multimorbid older patients. It is challenging to develop or evaluate age-friendly health system reforms or WHO ICOPE-style programmes without this type of baseline data. Other African countries' geriatric care knowledge and its determinants were recently evaluated (Solbana et al., 2025).

- The emotional, physical, and financial burden of caregiving for older persons, both for paid workers in old-age homes and unpaid family caregivers, remains inadequately studied in Namibia (Hailu et al., 2025). Subsequent research should explore caregiver depression, burnout and coping strategies, gendered patterns (e.g. daughters vs sons, female vs male staff), and the most effective kinds of support (respite, peer groups, supervision, and allowances).

- The Ombudsman has observed the absence of a specific law addressing the abuse of older persons, and that older persons often experience domestic violence with little legal safeguards for their protection (Ombudsman: Namibia, 2023). Research is needed on the older persons' awareness of their rights, their knowledge and utilisation of reporting mechanisms (law enforcement, social workers, ombudsman, traditional leaders), and barriers they face when seeking help (fear, dependency, cultural norms, and distance).

8.7 SUMMARY OF THE CHAPTER

This chapter presented the study's conclusions, including its purpose, the phases involved in data collection, and the overall findings that informed the model. Furthermore, this chapter discussed the study's limitations, including regional coverage, the limited existing literature, and the model's implementations. The recommendations were also made to the MoHSS, other policymakers, and employers. The study's unique contributions and gaps identified are also captured in this chapter. The researcher believes that the effective implementation of the model will contribute to improved well-being and care and enhance overall aspects of ageing across the entire country and its older persons.

REFERENCES

Abekah-Carter, K., Awuviry-Newton, K., Oti, G. O., & Umar, A. R. (2022). The unmet needs of older people in Nsawam, Ghana. *Health & Social Care in the Community*, *30*(6), e4311–e4320. https://doi.org/10.1111/hsc.13824

Aboderin, I. A. G., & Beard, J. R. (2015). Older people's health in sub-Saharan Africa. *The Lancet*, *385*(9968), e9–e11. https://doi.org/10.1016/S0140-6736(14)61602-0

Adamek, M. E., Gebremariam Kotecho, M., Chane, S., & Gebeyaw, G. (2022). Challenges and Assets of Older Adults in Sub-Saharan Africa: Perspectives of Gerontology Scholars. *Journal of Aging & Social Policy*, *34*(1), 108–126. https://doi.org/10.1080/08959420.2021.1927614

Agborsangaya, C. B., Lau, D., Lahtinen, M., Cooke, T., & Johnson, J. A. (2013). Health-related quality of life and healthcare utilization in multimorbidity: results of a cross-sectional survey. *Research*, *22*(4), 791–799. https://doi.org/10.1007/s

Ahmad, A., & Komai, S. (2015). Geriatrics and Gerontology: Neglected Areas of Research in Most Developing Countries. *Journal of the American Geriatrics Society*, *63*(6), 1283–1284. https://doi.org/10.1111/jgs.13521

Ahmed, S. K., Mohammed, R. A., Nashwan, A. J., Ibrahim, R. H., Abdalla, A. Q., M. Ameen, B. M., & Khdhir, R. M. (2025). Using thematic analysis in qualitative research. *Journal of Medicine, Surgery, and Public Health*, *6*, 100198. https://doi.org/10.1016/j.glmedi.2025.100198

Akinwumi, A. F., Esimai, O. A., Arije, O., Ojo, T. O., & Esan, O. T. (2023). Preparedness of primary health care facilities on implementation of essential non-communicable disease interventions in osun state south-west Nigeria: a rural–urban comparative study. *BMC Health Services Research*, *23*(1). https://doi.org/10.1186/s12913-023-09138-8

Albers, G., Pasman, H. R. W., Deliens, L., De Vet, H. C. W., & Onwuteaka-Philipsen, B. D. (2013). Does health status affect perceptions of factors influencing dignity at the end of life? *Journal of Pain and Symptom Management*, *45*(6), 1030–1038. https://doi.org/10.1016/j.jpainsymman.2012.06.012

Aliyu, M. H., Adediran, A. S., & Washington, M. (2003). Predictors of hospital admissions in the elderly: analysis of data from the longitudinal study on ageing. *Journal of the National Medical Association*, *95*(12).

American Psychological Association. (2017). *Older adults's health and age-related changes*. https://www.apa.org/pi/aging/resources/guides/myth-reality.pdf

Amini, R., Chee, K. H., Keya, S., & Ingman, S. R. (2021). Elder Care in Iran: A Case with a Unique Demographic Profile. In *Journal of Aging and Social Policy* (Vol. 33, Number 6, pp. 611–625). Routledge. https://doi.org/10.1080/08959420.2020.1722896

Ana Habjanic. (2009). *Quality of Institutional Elderly Care in Slovenia* . Acta University Oulu.

Ananias, J., & Keating, N. (2023). Experiences of family carers of older people in marginalised communities in Namibia. *International Journal of Care and Caring*, *7*(2), 307–325. https://doi.org/10.1332/239788221X16746542916467

Ananias, J., & Moore, E. (2024). *Older persons and community care in Namibia (Family Caregiving Programme report)*. https://doi.org/10.25375/uct.25771332.v1

Anuar, F. K., Zainudin, N. M., & Fauzi, M. A. (2024). A Content Validity: Organisational Performance's Assessment Instrument in the Construction Industry. *Built Environment Journal*, *21*(2), 141–158. https://doi.org/10.24191/bej.v21i1.947

Aqtam, I., & Darawwad, M. (2018a). Health Promotion Model: An Integrative Literature Review. *Open Journal of Nursing*, *08*(07), 485–503. https://doi.org/10.4236/ojn.2018.87037

Aqtam, I., & Darawwad, M. (2018b). Health Promotion Model: An Integrative Literature Review. *Open Journal of Nursing*, *08*(07), 485–503. https://doi.org/10.4236/ojn.2018.87037

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, *8*(1), 19–32. https://doi.org/10.1080/1364557032000119616

Arndt, H., Nordanstig, J., Bertges, D. J., Budtz-Lilly, J., Venermo, M., Espada, C. L., Sigvant, B., & Behrendt, C. A. (2022). A Delphi Consensus on Patient Reported Outcomes for Registries and Trials Including Patients with Intermittent Claudication: Recommendations and Reporting Standard. *European Journal of Vascular and Endovascular Surgery*, *64*(5), 526–533. https://doi.org/10.1016/j.ejvs.2022.08.011

Aromataris E, M. Z. editors. (2020). *JBI Manual for Evidence Synthesis*. https://jbi-global-wiki.refined.site/space/MANUAL/4687404/About+this+Manual

Ayana, A. (2012). *Who takes care of the Elderly in Ethiopia when Reciprocal Relationships Breakdown ?* 1–58.

Balki, E., Hayes, N., & Holland, C. (2023). The Indirect Impact of Educational Attainment as a Distal Resource for Older Adults on Loneliness, Social Isolation, Psychological Resilience, and Technology Use During the COVID-19 Pandemic: Cross-Sectional Quantitative Study. *JMIR Aging*, *6*(1). https://doi.org/10.2196/47729

Banjare, P., Dwivedi, R., & Pradhan, J. (2015). Factors associated with the life satisfaction amongst the rural elderly in Odisha, India. *Health and Quality of Life Outcomes*, *13*(1). https://doi.org/10.1186/s12955-015-0398-y

Baranwal, A., & Mishra, S. (2021). The Condition of Elderly Inmates Living in the Old Age Homes of Mumbai: An Exploratory study. *Indian Journal of Gerontology*, *35*(3), 390–406.

Bassah, N., Ubenoh, U. S., & Palle, J. N. (2018). An Exploratory Study of the Knowledge and Practices of Family Caregivers in the Care of the Elderly at Home in the Buea Health District, Cameroon. *Journal of Gerontology & Geriatric Research*, *07*(03). https://doi.org/10.4172/2167-7182.1000473

Beard, J. R., Officer, A., & Cassels, A. K. (2016). The world report on ageing and health. In *Gerontologist* (Vol. 56, pp. S163–S166). Gerontological Society of America. https://doi.org/10.1093/geront/gnw037

Bell-Gam, H., & Amadi, E. S. (2015). Perception and attitude of doctors on ageing. Old age and geriatric care in Rivers State, Nigeria. *Gazette of Medicine*, *4*(1). https://www.researchgate.net/publication/342281972

Beshyah, S. A., Hafidh, K., Abdulrahman, H., & Hammami, S. O. (2022). Perceptions of Geriatric Medicine and Care of the Elderly: An Exploratory Survey of Physicians from the Middle East and Africa. *Ibnosina Journal of Medicine and Biomedical Sciences*, *14*(01), 012–021. https://doi.org/doi:10.1055/s-0042-1748777

Bhat, B. A. (2021). *Old age homes and traditional support systems*. (July). https://www.researchgate.net/publication/264534627_Definition_of_an_older_person_Proposed_working_definition_of_an_older_person_in_Africa_for_the_MDS_Project

Bill, F., & Foundation, M. G. (2018). *Articles Estimates of the global , regional , and national morbidity , mortality , and aetiologies of lower respiratory infections in 195 countries , 1990 – 2016 : a systematic analysis for the Global Burden of Disease Study 2016*. 1191–1210. https://doi.org/10.1016/S1473-3099(18)30310-4

Boah, M., Cyuzuzo, C., Uwinkindi, F., Kalinda, C., Yohannes, T., Isano, S., Greig, C., Davies, J., Hirschhorn, L. R., & Amberbir, A. (2025). Health and well-being of older adults in rural and urban Rwanda: epidemiological findings from a population based cross-sectional study. *Journal of Global Health*, *15*. https://doi.org/10.7189/jogh.15.04108

Boro, B., Srivastava, S., & Saikia, N. (2023). Is There an Association Between Change in Old-Age Living Arrangements and Older Adults' Psychological Health and Subjective Well-Being in India? Evidence from a Cross-Sectional Study. *Ageing International*, *48*(1), 281–300. https://doi.org/10.1007/s12126-021-09470-6

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Britt, C. J., Storey, E., Woods, R. L., Stocks, N., Nelson, M. R., Murray, A. M., Ryan, J., Rance, G., & McNeil, J. J. (2025). Age-Related Hearing Loss: A Cross-Sectional Study of Healthy Older Australians. *Gerontology*, *71*(2), 88–99. https://doi.org/10.1159/000541895

Bužgová, R., Kozáková, R., & Bobčíková, K. (2024). Predictors of attitudes towards aging in elderly living in community care. *BMC Geriatrics*, *24*(1), 266. https://doi.org/10.1186/s12877-024-04840-6

Byrnes, A. (2022). Older Persons. In *Elgar Encyclopedia of Human Rights* (4th ed., Number 4th Edition, pp. 594–601). Edward Elgar Publishing. https://doi.org/10.4337/9781789903621.older.persons

Cadmus, E. O., Adebusoye, L. A., & Owoaje, E. T. (2021). Attitude towards ageing and perceived health status of community-dwelling older persons in a low resource setting: a rural-urban comparison. *BMC Geriatrics*, *21*(1), 454. https://doi.org/10.1186/s12877-021-02394-5

Cadmus, E. O., Adebusoye, L. A., & Owoaje, E. T. (2023). Ageing in place or stuck in place: Preferred care setting for community-dwelling older persons in a low-resource country in Sub Saharan Africa. *PLoS ONE*, *18*(10 October). https://doi.org/10.1371/journal.pone.0292939

Chatterji, S., Byles, J., Cutler, D., Seeman, T., Verdes, E., & Statistics, H. (2016). *HHS Public Access*. *385*(9967), 563–575. https://doi.org/10.1016/S0140-6736(14)61462-8.Health

Cheng, M. Y., Low, S. K., & Pheh, K. S. (2021). Age-based Analysis of the Perceptions of Aging and Successful Aging in Malaysia. *Makara Human Behavior Studies in Asia*, *25*(2), 170–181. https://doi.org/10.7454/hubs.asia.2281121

Chinn, P. L., & Kramer, M. K. (2015). *Knowledge development in Nursing, theory and process* (9th ed.). Elsevier.

Cho, E., Kim, H., Kim, J., Lee, K., Meghani, S. H., & Chang, S. J. (2017). Older Adult Residents' Perceptions of Daily Lives in Nursing Homes. *Journal of Nursing Scholarship*, *49*(5), 495–503. https://doi.org/10.1111/jnu.12314

Clift, B. C., Gore, J., Bekker, S., Batlle, I. C., & Hatchard, J. (2021). *Temporality in Qualitative Inquiry*.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Cumming, R. G., Dorj, G., Yiengprugsawan, V. S., Dracakis, J. G., Lkhagvaa, U., Naidoo, N., & Kowal, P. (2025). Health and Wellbeing of Older People in Mongolia: A Population-Based Survey. *Asia-Pacific Journal of Public Health*, *37*(2–3), 290–296. https://doi.org/10.1177/10105395251315885

Dasgupta, A., Pan, T., Paul, B., Bandopadhyay, L., & Mandal, S. (2018). Quality of life of elderly people in a rural area of West Bengal: A community-based study. *Medical Journal of Dr. D.Y. Patil Vidyapeeth*, *11*(6), 527. https://doi.org/10.4103/mjdrdypu.mjdrdypu_78_18

Dawud, M., Kotecho, M. G., & Adamek, M. E. (2022). "It is all About Giving Priority to Older Adults' Needs:" Challenges of Formal Caregivers in Two Old Age Homes in Ethiopia. *Ageing International*, *47*(4), 847–865. https://doi.org/10.1007/s12126-021-09436-8

De Bellis, A. (2010). Opinion Piece. *Contemporary Nurse*, *35*(1), 100–113. https://doi.org/10.5172/conu.2010.35.1.100

DeJonckheere, M., & Vaughn, L. M. (2019). Semistructured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*, *7*(2). https://doi.org/10.1136/fmch-2018-000057

Dima, E. M. (2003). *Models of institutional care for the elderly in Namibia*.

Douglass, R. (2016). The aging of Africa: Challenges to African development. *African Journal of Food, Agriculture, Nutrition and Development*, *16*(1), 1–15.

Dovie, D. A. (2019). The Status of Older Adult Care in Contemporary Ghana: A Profile of Some Emerging Issues. *Frontiers in Sociology*, *4*. https://doi.org/10.3389/fsoc.2019.00025

Dunton, R. (2021). *Discussion section for research papers*. https://www.sjsu.edu/writingcenter/docs/handouts/Discussion%20Section%20for%20Research%20Papers.pdf

Ebimgbo, S. O., Atama, C. S., Igboeli, E. E., Obi-keguna, C. N., & Odo, C. O. (2022). Community versus family support in caregiving of older adults: implications for social work practitioners in South-East Nigeria. *Community, Work and Family*, *25*(2), 152–173. https://doi.org/10.1080/13668803.2021.1926222

Edwards, K. J., & Gaber, M. M. (2014). Research Methodology. In *Studies in Big Data* (Vol. 6). https://doi.org/10.1007/978-3-319-06599-1_5

Essuman, A., Gold, K. J., Vitale, C., Toma, G., Cigolle, C., Gyakobo, M., Spangenberg, K., Odoi-Agyarko, K., Skye, E., & Zazove, P. (2019). Establishing the First Geriatric Medicine Fellowship Program in Ghana. *Journal of the American Geriatrics Society*, *67*(8), 1718–1723. https://doi.org/10.1111/jgs.16014

Ethel, N. N., Njikam, M., & Yenshu, E. (2015). Care for Older Persons in Cameroon: Alternatives for Social Development. *Greener Journal of Social Sciences*, *5*(1), 001–012. https://doi.org/10.15580/GJSS.2015.1.102214369

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Feng, Z. (2019). Global Convergence: Aging and Long-Term Care Policy Challenges in the Developing World. *Journal of Aging and Social Policy*, *31*(4), 291–297. https://doi.org/10.1080/08959420.2019.1626205

Ferreira, M. (2013). *Housing for older people globally: What are best practices?* https://www.ilc-alliance.org/wp-content/uploads/publication-pdfs/Housing_for_older_people_-_an_ILC_Global_Alliance_Discussion_Paper.pdf

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs - Principles and practices. *Health Services Research*, *48*(6 PART2), 2134–2156. https://doi.org/10.1111/1475-6773.12117

Fryar, C. D., Ostchega, Y., Hales, C. M., Zhang, G., & Kruszon-Moran, D. (2017). *Hypertension Prevalence and Control Among Adults: United States, 2015–2016* (Number 289). https://www.cdc.gov/nchs/products/databriefs/db289.htm?ref=blog.socialboat.live

Galenkamp, V., Braam, A. W., Huisman, M., & Deeg, D. J. H. (2011). Somatic Multimorbidity and Self-rated Health in the Older Population. *The Journals of Gerontology*, *66B*(3), 380–386.

Galvin, K. T., Pound, C., Cowdell, F., Ellis-Hill, C., Sloan, C., Brooks, S., & Ersser, S. J. (2020). A lifeworld theory-led action research process for humanizing services: improving “what matters” to older people to enhance humanly sensitive care. *International Journal of Qualitative Studies on Health and Well-Being*, *15*(1). https://doi.org/10.1080/17482631.2020.1817275

Garbarski, D. (2016). Research synthesis research in and prospects for the measurement of health using self-rated health. In *Public Opinion Quarterly* (Vol. 80, Number 4, pp. 977–997). Oxford University Press. https://doi.org/10.1093/poq/nfw033

Glanz, K., Rimer, barbara k., & Viswanath, K. (2008). *Health behavior and health education theory, research,and practice*.

Gliem, J. A., & Gliem, R. R. (2003). *Midwest Research to Practice Conference in Adult, Continuing, and Community Education*.

Goharinezhad, S., Maleki, M., Baradaran, H. R., & Ravaghi, H. (2016). A qualitative study of the current situation of elderly care in Iran: what can we do for the future? *Global Health Action*, *9*(1), 32156. https://doi.org/10.3402/gha.v9.32156

González-Celis, A. L., & Gómez-Benito, J. (2013). Spirituality and Quality of Life and Its Effect on Depression in Older Adults in Mexico. *Psychology*, *04*(03), 178–182. https://doi.org/10.4236/psych.2013.43027

Govil, P., & Gupta, S. (2016). Domestic Violence against Elderly People: A Case Study of India. *Advances in Aging Research*, *05*(05), 110–121. https://doi.org/10.4236/aar.2016.55011

Hailu, G. N., Gebru, H. B., Hagos, G. G., Weldemariam, A. H., Tadesse, D. B., & Mebrahtom, G. (2025). The role of family caregivers in supporting older adults in Africa: systematic review. In *BMC Geriatrics* (Vol. 25, Number 1). BioMed Central Ltd. https://doi.org/10.1186/s12877-025-06154-7

Haufiku-Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025a). Awareness and Attitude Toward Old-Age Homes among Older Persons in Namibia. *International Journal of Sub-Saharan African Research (IJSSAR)*, *3*, 3043–4459. https://doi.org/10.5281/zenodo.17245643

Haufiku-Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025b). Capacity of Old-Age Homes to Meet the Needs of Older Persons in Namibia: Analysis of Quality and Care Gaps. *International Journal of Sub-Saharan African Research (IJSSAR)*, *3*, 3043–4459. https://doi.org/10.5281/zenodo.18085555

Haufiku-Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025c). Community-based elderly care approaches implemented in low and middle-income countries: A scoping review. *Research Journal of Health Sciences*, *13*(2), 127–141. https://doi.org/10.4314/rejhs.v13i2.5

Haufiku-Weyulu, M., Mahalie, R., & Aku-Akai, L. (2025d, September 9). Residential care for the older persons: A critical analysis of old age homes and community settings. *International Federation on Ageing (IFA) 17th Global Conference on Ageing*. https://www.ifa-abstracts.com/age-friendly-environments/residential-care-for-the-older-persons-a-critical-analysis-of-old-age-homes-and-community-settings/

Haufiku-Weyulu, M., Mahalie, R., Aku-Akai, L., & Sikunawa, S. (2024). *The community-based elderly care approaches implemented in low and middle-income countries: A scoping review protocol*.

Hayden, J. (2009). *Introduction to health behavior theory.* (3rd ed.). Jones & Barlett.

He, W., Aboderin, I., & Adjaye-Gbewonyo, D. (2020). *Africa Aging: 2020 International Population Reports*.

Hearing Loss Collaborators. (2021). Hearing loss prevalence and years lived with disability, 1990-2019: findings from the Global Burden of Disease Study 2019. *Lancet*. https://doi.org/https://www.sciencedirect.com/science/article/pii/S014067362100516X?via%3Dihub

Heidari, S., Babor, T. F., De Castro, P., Tort, S., & Curno, M. (2016). Sex and Gender Equity in Research: rationale for the SAGER guidelines and recommended use. *Research Integrity and Peer Review*, *1*(1). https://doi.org/10.1186/s41073-016-0007-6

Help Age International. (2015). *Global Age Watch Index*. Https://Www.Helpage.Org/News/Switzerland-Top-Global-Agewatch-Index-2015/.

Herl, R. C., Kabudula, C., Kahn, K., Tollman, S., & Canning, D. (2022). Pension exposure and health: Evidence from a longitudinal study in South Africa. *Journal of the Economics of Ageing*, *23*. https://doi.org/10.1016/j.jeoa.2022.100411

HI, B., & Rensburg, V. G. (2022). *Fundamentals of Research Methodology for Healthcare Professionals 5e* (5th ed.).

Hong, J. H., Charles, S. T., Lee, S., & Lachman, M. E. (2019). Perceived changes in life satisfaction from the past, present and to the future: A Comparison of U.S. and Japan. *Psychology and Aging*, *34*(3), 317–329. https://doi.org/10.1037/pag0000345

Hossain, S., Ferdousi, Mt. J., Siddique, Md. A., Tipu, SM. M. U., Qayyum, M., & Laskar, M. (2019). Self-reported health problems, health care seeking behaviour and cost coping mechanism of older people: Implication for primary health care delivery in rural Bangladesh. *Journal of Family Medicine and Primary Care*, *8*(3), 1209. https://doi.org/10.4103/jfmpc.jfmpc_162_18

Indongo, N., & Sakaria, N. (2016). Living Arrangements and Conditions of Older Persons in Namibia. *Advances in Aging Research*, *05*(05), 97–109. https://doi.org/10.4236/aar.2016.55010

Institute for Health Metrics and Evaluation. (2018). *Global Burden of Disease Study 2017*. https://www.healthdata.org/sites/default/files/files/policy_report/2019/GBD_2017_Booklet.pdf

Jahan, S., Islam, R., Rahman, T., Kabir, M. F., Islam, M. W., Hossain, K., Hossain, K. M. A., Hossain, M. Z., Rahman, E., Chakrovorty, S. K., Sarker, A. H., Moula, G., Antara, A., & Afridi, S. (2023). The assessment of musculoskeletal disorders, quality of life, and comorbidities in older people in Bangladesh. *Frontiers in Public Health*, *11*. https://doi.org/10.3389/fpubh.2023.1269444

Johns Hopkins Health System. (2025). *Appendix F: Evidence Terminology and Considerations*. https://www.hopkinsmedicine.org/-/media/nursing/documents/cni-documents/appendix-f_evidence-terminology-and-considerations-guide_2025final.pdf

Kandapan, B., Pradhan, J., & Pradhan, I. (2023). Living arrangement of Indian elderly: a predominant predictor of their level of life satisfaction. *BMC Geriatrics*, *23*(1). https://doi.org/10.1186/s12877-023-03791-8

Kelly, G., Mrengqwa, L., & Geffen, L. (2019). They don't care about us": older people's experiences of primary healthcare in Cape Town, South Africa. *BMC Geriatrics*, *19*, 1–14. https://doi.org/https://doi.org/10.1186/s12877-019-1116-0

Keziah, K. C. (2020). *Aging in Kenya: A qualitative study of residents in an old age home*.

Kiarsipour, N., Borhani, F., Esmaeili, R., & Zayeri, F. (2017). The correlation of aging perceptions and life satisfaction in Iranian older adults. *Annals of Tropical Medicine and Public Health*, *10*(4), 861–868. https://doi.org/10.4103/ATMPH.ATMPH_232_17

Kılıç, M., & Uzunçakmak, T. (2022). THE HEALTH AND SOCIAL STATUS OF THE ELDERLY: A MULTIVARIATE ANALYSIS. *Eskişehir Türk Dünyası Uygulama ve Araştırma Merkezi Halk Sağlığı Dergisi*, *7*(1), 26–41. https://doi.org/10.35232/estudamhsd.963497

Kloppers, J. M. (2011). *An educational, practice-oriented programme for caregivers of the elderly in old age homes in Windhoek and Rehoboth.*

Kloppers, J. M., Dyk, A. van, & Pretorius, L. (2015). The Experiences of the Elderly and Caregivers in Respect of Caring for the Elderly in Windhoek and Rehoboth Namibia: An Exploratory and Descriptive Study. *Open Journal of Nursing*, *05*(03), 246–259. https://doi.org/10.4236/ojn.2015.53029

Kohl, H. W., Craig, C. L., Lambert, E. V., Inoue, S., Alkandari, J. R., Leetongin, G., Kahlmeier, S., Andersen, L. B., Bauman, A. E., Blair, S. N., Brownson, R. C., Bull, F. C., Ekelund, U., Goenka, S., Guthold, R., Hallal,

P. C., Haskell, W. L., Heath, G. W., Katzmarzyk, P. T., … Wells, J. C. (2012). The pandemic of physical inactivity: Global action for public health. In *The Lancet* (Vol. 380, Number 9838, pp. 294–305). Elsevier B.V. https://doi.org/10.1016/S0140-6736(12)60898-8

Koo, M., & Yang, S.-W. (2025). Questionnaire Use and Development in Health Research. *Encyclopedia*, *5*(2), 65. https://doi.org/10.3390/encyclopedia5020065

Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, *24*(1), 120–124. https://doi.org/10.1080/13814788.2017.1375092

Kowai, P. (2018). Proposed working definition of an older person in Africa for the MDS Project. *Zagreb International Review of Economics & Business*, *18*(1), 1–15. https://doi.org/10.13140/2.1.5188.9286

Kowal, P., & Dowd, J. E. (2001). *Project*.

Kpessa-Whyte, M. (2018). Aging and Demographic Transition in Ghana: State of the Elderly and Emerging Issues. *The Gerontologist*, *58*(3), 403–408. https://doi.org/10.1093/geront/gnx205

Kpessa-Whyte, M., & Tsekpo, K. (2020). Lived Experiences of the Elderly in Ghana: Analysis of Ageing Policies and Options for Reform. *Journal of Cross-Cultural Gerontology*, *35*(3), 341–352. https://doi.org/10.1007/s10823-020-09401-z

Kraus, M., & Riedel, M. (2022). Three dimensions of long-term care provision in middle-income countries—A view across Africa, Latin America and Asia. *International Journal of Social Welfare*. https://doi.org/10.1111/ijsw.12537

Kumar, R. (2011). *Research Methodology: a step-by-step guide for beginners* (3rd ed.). SAGE. www.sagepublications.com

Kumar, S., & Kumar, K. A. (2019). Living Arrangement and Economic Dependency among the Elderly in India: a Comparative Analysis of EAG and Non EAG States. *Ageing International*, *44*(4), 352–370. https://doi.org/10.1007/s12126-019-9344-3

Laidlaw, K., Power, M. J., & Schmidt, S. (2007). Attitudes to ageing questionnaire (AAQ-24)(Scoring). *Geriatr Psychiatry*, (4), 1–4. https://ugc.futurelearn.com/uploads/files/76/f7/76f7a255-90a0-4aa4-8ca2-a2f45de82daa/Attitudes_To_Ageing.pdf

Lane M, Lane V, Abbott J, Braithwaite T, Shah P, & Denniston AK. (2018). Multiple deprivation, vision loss, and ophthalmic disease in adults: global perspectives. *Survey of Ophthalmology*, *63*(3), 406–436.

Lara, J., Godfrey, A., Evans, E., Heaven, B., Brown, L. J. E., Barron, E., Rochester, L., Meyer, T. D., & Mathers, J. C. (2013). Towards measurement of the Healthy Ageing Phenotype in lifestyle-based intervention studies. In *Maturitas* (Vol. 76, Number 2, pp. 189–199). Elsevier Ireland Ltd. https://doi.org/10.1016/j.maturitas.2013.07.007

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, *5*(1). https://doi.org/10.1186/1748-5908-5-69

Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. In *Journal of Personality and Social Psychology* (Vol. 83, Number 2, pp. 261–270). https://doi.org/10.1037/0022-3514.83.2.261

Lim, S. C., Chan, Y. M., & Gan, W. Y. (2023). Social and Health Determinants of Quality of Life of Community-Dwelling Older Adults in Malaysia. *International Journal of Environmental Research and Public Health*, *20*(5). https://doi.org/10.3390/ijerph20053977

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. https://doi.org/10.4236/ojn.2015.53029

Lloyd-Sherlock, P., & Agrawal, S. (2014). Pensions and the Health of Older People in South Africa: Is there an Effect? *Journal of Development Studies*, *50*(11), 1570–1586. https://doi.org/10.1080/00220388.2014.936399

Mah, J. C., Stevens, S. J., Keefe, J. M., Rockwood, K., & Andrew, M. K. (2021). Social factors influencing utilization of home care in community-dwelling older adults: a scoping review. *BMC Geriatrics*, *21*(1), 145. https://doi.org/10.1186/s12877-021-02069-1

Mahapatro, S. R., Acharya, A., & Singh, P. (2017). The health of India's older population: Do living arrangements matter? *Working with Older People*, *21*(2), 82–89. https://doi.org/10.1108/WWOP-10-2016-0031

Maharaj, P. (2020). Health and care in old age in Africa. In *Health and Care in Old Age in Africa*. Taylor & Francis Group. https://doi.org/10.4324/9780429020759

Maharani A, Pendleton N, & Leroi I. (2019). Hearing impairment, loneliness, social isolation, and cognitive function: longitudinal analysis using English longitudinal study on ageing. *The American Journal of Geriatric Psychiatry*, *27*(12), 1348–1356.

Martey, E. (2022). Blessing or Burden: The Elderly and Household Welfare in Ghana. *Social Indicators Research*, *162*(2), 803–827. https://doi.org/10.1007/s11205-021-02871-9

Mathison, S. (2005). *Checklists*. Sage Publications. https://doi.org/https://doi.org/10.4135/9781412950558.n79

Matthews, N. R., Porter, G. J., Varghese, M., Sapkota, N., Khan, M. M., Lukose, A., Paddick, S. M., Dissanayake, M., Khan, N. Z., & Walker, R. (2023). Health and socioeconomic resource provision for older people in South Asian countries: Bangladesh, India, Nepal, Pakistan and Sri Lanka evidence from NEESAMA. In *Global Health Action* (Vol. 16, Number 1). Taylor and Francis Ltd. https://doi.org/10.1080/16549716.2022.2110198

McEwen, M., & Wills, E. M. (2018). *Theoretical Basis for Nursing* (5th ed.). Wolters Kluwer.

McQuoid-Mason, D. J., & Dhai, A. (2020). *Bioethics, Human Rights and Health Law: Principles and Practice*. Juta, Limited. https://books.google.com.na/books?id=JrdfzgEACAAJ

Md Nor, N. N. F., & Ghazali, S. (2021). Malaysia towards an ageing country. *Malaysian Journal of Society and Space*, *17*(3). https://doi.org/10.17576/geo-2021-1703-17

Mefteh, K. Y. (2022). Health Related Challenges of Rural Elderly Living in Co-Residential Family Care Arrangements. *Qualitative Report*, *27*(8), 1765–1782. https://doi.org/10.46743/2160-3715/2022.5488

Mehta, K. K., & Leng, T. L. (2017). Experiences of Formal and Informal Caregivers of Older Persons in Singapore. *Journal of Cross-Cultural Gerontology*, *32*(3), 373–385. https://doi.org/10.1007/s10823-017-9329-1

Melnikovas, A. (2018). Towards an explicit research methodology: Adapting research onion model for futures studies. *Journal of Futures Studies*, *23*(2), 29–44. https://doi.org/10.6531/JFS.201812_23(2).0003

Miller, B. K., Zivnuska, S., & Kacmar, K. M. (2019). Self-perception and life satisfaction. *Personality and Individual Differences*, *139*, 321–325. https://doi.org/10.1016/j.paid.2018.12.003

Min, L., & Huilan, X. (2019). Comparative analysis of long-term care quality for older adults in China and Western countries. *Journal of International Medical Research*, *48*(2). https://doi.org/10.1177/0300060519865631

Ministry of Health and Social Services. (2014). Namibia Demographic and Health Survey 2013. *Namibia Demographic and Health Survey 2013*.

Ministry of Health and Social Services. (2017). *National Multisectoral Strategic Plan for Prevention and Control of NCDs*.

Ministry of Health and Social Services. (2022). *Health Care Workforce Status Report 2022*. https://mhss.gov.na/documents/146502/1709166/Status+Report.pdf

Ministry of Health and Social Services. (2024, April 10). *Namibia's health ministry unveils plans to meet growing population needs*. https://english.news.cn/20240410/32c04f55f0f6418cb9b15a64e1304cd9/c.html

Mokkink, L. B., Elsman, E. B. M., & Terwee, C. B. (2024). COSMIN guideline for systematic reviews of patient-reported outcome measures version 2.0. *Quality of Life Research*, *33*(11), 2929–2939. https://doi.org/10.1007/s11136-024-03761-6

Muhl, C., Mulligan, K., Bayoumi, I., Ashcroft, R., & Godfrey, C. (2023). Establishing internationally accepted conceptual and operational definitions of social prescribing through expert consensus: a Delphi study. *BMJ Open*, *13*(7). https://doi.org/10.1136/bmjopen-2022-070184

Murwani, A., Santoso, S., Lestari, E., & Sulaeman, E. S. (2019). The Health Promotion Model of Public Health Program for Elderly. *Global Journal of Health Science*, *11*(7), 119. https://doi.org/10.5539/gjhs.v11n7p119

Mwita, K. (2025). Understanding Research Philosophies and Designs: A Guide for Early-Career Researchers. *Eminent Journal of Social Sciences*, *1*(1), 43–52. https://doi.org/10.70582/m1ne6430

Nakane, Y., Tazaki, M., & Miyaoka, E. (2012). Whoqol. *Iryo To Shakai*, *9*(1), 123–131. https://doi.org/10.4091/iken1991.9.1_123

Namibia Statistics Agency. (2012). *Namibia 2011 Population & Housing Census Main Report*. https://nsa.nsa.org.na/publications/

Namibia Statistics Agency. (2014). *Namibia Population Projections 2011-2041* (Vol. 2014, Number December).

Namibia Statistics Agency. (2021). *Multidimensional Poverty Index*. 160–161. https://doi.org/10.18356/4b450313-en

Namibia Statistics Agency. (2024). *Namibia 2023 Population and Housing Census Report*. https://nsa.org.na/publications/

National Cancer Institute. (2005). Theory at a Glance A guide For Health Promotion Practice (Second Edition). *Health (San Francisco)*, viii–52. https://cancercontrol.cancer.gov/sites/default/files/2020-06/theory.pdf

National Gender and Equality Commission. (2016). *Audit of Residential Institutions of Older Members Of Society in Selected Counties of Kenya*.

Nkansah, O. J., Awuviry-Newton, K., Gyasi, M., Newton, A., & Boateng, A. S. A. (2021). "Who doesn't Have Challenges? I Have a Lot of Challenges": Exploring the Challenges and Coping Strategies of Neglected Older Adults in Ghana. *Journal of Cross-Cultural Gerontology*, *36*(1), 91–104. https://doi.org/10.1007/s10823-020-09419-3

Nord, C. (2022). Institutional Traits in an African Residence for Older Adults: An Obstacle to Community Care? *Journal of Aging and Environment*, *36*(4), 433–449. https://doi.org/10.1080/26892618.2021.1987372

Nord, C., & Ananias, J. (2022). Urbanised Ageing and Strategic Welfare Space in a Namibian Former Township. *African Studies*, *81*(1), 45–69. https://doi.org/10.1080/00020184.2022.2060796

Nowell, L. (2015). Pragmatism and integrated knowledge translation: Exploring the compatabilities and tensions. *Nursing Open*, *2*(3), 141–148. https://doi.org/10.1002/nop2.30

Ombudsman : Namibia. (2023). *Contributions from the ombudsman, Namibia, to identify possible gaps in the protection of the human rights of older persons, and how best to address them*.

Omotara, B. A., Yahya, S. J., Wudiri, Z., Amodu, M. O., Bimba, J. S., & Unyime, J. (2015). Assessment of the Determinants of Healthy Ageing among the Rural Elderly of North-Eastern Nigeria. *Health*, *07*(06), 754–764. https://doi.org/10.4236/health.2015.76090

Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan-a web and mobile app for systematic reviews. *Systematic Reviews*, *5*(1). https://doi.org/10.1186/s13643-016-0384-4

Pamela Qualter, Janne Vanhalst, Rebecca Harris, Eeske Van Roekel, Gerine Lodder, Munirah Bangee, Marlies Maes, & Maaike Verhagen. (2015). Loneliness Across the Life Span. *Perspectives on Psychological Science*, *10*(2), 250–264. https://doi.org/10.1177/1745691615568999

Panza, F., Lozupone, M., Sardone, R., Battista, P., Piccininni, M., Dibello, V., La Montagna, M., Stallone, R., Venezia, P., Liguori, A., Giannelli, G., Bellomo, A., Greco, A., Daniele, A., Seripa, D., Quaranta, N., & Logroscino, G. (2019). Sensorial frailty: age-related hearing loss and the risk of cognitive impairment and dementia in later life. In *Therapeutic Advances in Chronic Disease* (Vol. 10). SAGE Publications Ltd. https://doi.org/10.1177/2040622318811000

Pascolini, D., & Mariotti, S. P. (2012). Global estimates of visual impairment: 2010. *British Journal of Ophthalmology*, *96*(5).

Peters, M., Godfrey, C. M., McInerney, P., & Khalil, H. (2017). 2017 Guidance for the Conduct of JBI Scoping Reviews Chapter 11 : Scoping Reviews Scoping Reviews. *Understanding Scoping Reviews: Definition, Purpose, and Process*, *18*(10), 2119–2126. https://www.researchgate.net/profile/Micah-

Peters/publication/319713049_2017_Guidance_for_the_Conduct_of_JBI_Scoping_Reviews/links/59c355d40f7e9b21a82c547f/2017-Guidance-for-the-Conduct-of-JBI-Scoping-Reviews.pdf

Peters, M., Godfrey, C. M., McInerney, P., Soares, C. B., Khalil, H., & Parker, D. (2015). The Joanna Briggs Institute Reviewers' Manual 2015: Methodology for JBI scoping reviews. *Joanne Briggs Institute*, (February 2016), 1–24. https://reben.com.br/revista/wp-content/uploads/2020/10/Scoping.pdf

Phillippi, J., & Lauderdale, J. (2017). A Guide to Field Notes for Qualitative Research: Context and Conversation. *Sage*, *28*(3), 381–388. https://doi.org/10.1177/1049732317697102

Polit, D. F., & Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing and Health*, *29*(5), 489–497. https://doi.org/10.1002/nur.20147

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). *Guidance on the Conduct of Narrative Synthesis in Systematic Reviews A Product from the ESRC Methods Programme Peninsula Medical School, Universities of Exeter and Plymouth*. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=ed8b23836338f6fdea0cc55e161b0fc5805f9e27

Ranganathan, P., & Aggarwal, R. (2018). Study designs: Part 1-An overview and classification. *Perspectives in Clinical Research*, *9*(4), 184–186. https://doi.org/10.4103/picr.PICR_124_18

Rantanen, T., Portegijs, E., Kokko, K., Rantakokko, M., Törmäkangas, T., & Saajanaho, M. (2019). Developing an Assessment Method of Active Aging: University of Jyvaskyla Active Aging Scale. *Journal of Aging and Health*, *31*(6), 1002–1024. https://doi.org/10.1177/0898264317750449

Risal, A., Manandhar, S., Manandhar, K., Manandhar, N., Kunwar, D., & Holen, A. (2020). Quality of life and its predictors among aging people in urban and rural Nepal. *Quality of Life Research*, *29*(12), 3201–3212. https://doi.org/10.1007/s11136-020-02593-4

Rizal, H., Said, M. A., Abdul Majid, H., Su, T. T., Maw Pin, T., Ismail, R., & Shah Zaidi, M. A. (2022). Health-related quality of life of younger and older lower-income households in Malaysia. *PLOS ONE*, *17*(2), e0263751. https://doi.org/10.1371/journal.pone.0263751

Robinson, S. M. (2018). Improving nutrition to support healthy ageing: What are the opportunities for intervention? *Proceedings of the Nutrition Society*, *77*(3), 257–264. https://doi.org/10.1017/S0029665117004037

Ruel, E., Wagner, E. W., & Gillespie, B. B. (2016). *The practice of survey research: Theory and applications*. Sage.

Rutakumwa, R., Mugisha, J. O., Bernays, S., Kabunga, E., Tumwekwase, G., Mbonye, M., & Seeley, J. (2020). Conducting in-depth interviews with and without voice recorders: a comparative analysis. *Qualitative Research*, *20*(5), 565–581. https://doi.org/10.1177/1468794119884806

Sánchez-Moreno, E., Gallardo-Peralta, L., Barrón López de Roda, A., & Rivera Álvarez, J. M. (2024). Socioeconomic status, loneliness, and depression among older adults: a cross-sectional study in Spain. *BMC Geriatrics*, *24*(1). https://doi.org/10.1186/s12877-024-04978-3

Santiago, L. M., Mercante, D. R., & Mattos, I. E. (2017). Self-rated health and associated factors in elderly patients with non-Hodgkin lymphoma. *Cancer Epidemiology*, *51*, 30–34. https://doi.org/10.1016/j.canep.2017.10.002

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality and Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, *61*(3), 261–264. https://doi.org/10.4103/0019-5154.182410

Sharma, M. (2021). *Theoretical foundations of health education and health promotion* (4th ed.). Jones & Bartlett Learning.

Siebert, J. S., Wahl, H.-W., Degen, C., & Schröder, J. (2018). Attitude toward own aging as a risk factor for cognitive disorder in old age: 12-year evidence from the ILSE study. *Psychology and Aging*, *33*(3), 461–472. https://doi.org/10.1037/pag0000252

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, *104*, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Social Protection Policy 2021 - 2030, 56 (2021).

Solbana, L. kajela, Dulo, A. O., Tola, D. E., Ilala, B. W., Kune, G., Mamo, D. E., Ganeti, D. D., Ayenew, B., Diriba, M., Keweti, T. B., Olana, F. T., Hailu, W. B., & Yadeta, T. A. (2025). Geriatric care knowledge and its determinants in Africa: a systematic review and meta-analysis. *BMC Geriatrics*, *25*(1), 928. https://doi.org/10.1186/s12877-025-06623-z

Stark, J., Braun, R., & Esswein, W. (2017). *Systemizing Colour for Conceptual Modeling*. https://www.wi2017.ch/images/wi2017-0146.pdf

Tabachnick, B. G., & Fidell, L. S. (2012). *Using Multivariate Statistics* (6th ed.). Pearson.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. In *International journal of medical education* (Vol. 2, pp. 53–55). https://doi.org/10.5116/ijme.4dfb.8dfd

Teka, A., & Adamek, M. E. (2014). "We Prefer Greeting Rather Than Eating:" Life in an Elder Care Center in Ethiopia. *Journal of Cross-Cultural Gerontology*, *29*(4), 389–404. https://doi.org/10.1007/s10823-014-9244-7

The Council for International Organizations of Medical Sciences. (2016). *International ethical guidelines for health-related research involving humans*. https://doi.org/https://doi.org/10.56759/rgxl7405

Tian, R., Almeida, O. P., Jayakody, D. M. P., & Ford, A. H. (2021). Association between hearing loss and frailty: a systematic review and meta-analysis. *BMC Geriatrics*, *21*(1). https://doi.org/10.1186/s12877-021-02274-y

Tongco, Ma. D. C. (2007). Purposive Sampling as a Tool for Informant Selection. *A Journal of Plants, People, and Applied Research*, 147–158. https://doi.org/http://hdl.handle.net/10125/227

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft,

A., Wilson, M. G., Garritty, C., … Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. In *Annals of Internal Medicine* (Vol. 169, Number 7, pp. 467–473). American College of Physicians. https://doi.org/10.7326/M18-0850

Tu-Allah Khan, A., Toor, R. H., & Amjad, Q. (2018). Assessment and Management of Geriatric Care in Pakistan. *Journal of Gerontology & Geriatric Research*, *07*(05). https://doi.org/10.4172/2167-7182.1000488

United Nations. (2011). *World Population Prospects: The 2010 Revision, Volume I: Comprehensive Tables*.

United Nations. (2024). *World Population Prospects 2024: Summary of Results*. https://doi.org/UNDESA/POP/2024/TR/No.9

United Nations Children's Fund. (2006). Women and Children: The Double Dividend of gender Equality. In *The State of the World's Children 2007*.

United Nations High Commissioner for Refugees. (2025). *Older persons: Key points*. https://emergency.unhcr.org/protection/persons-risk/older-persons

United Nations Population Division. (2016). Sub-Saharan Africa's growing population of older persons. *Population Facts*, (2016), 2015–2016.

Van Rooy, G., Mufune, P., & Amadhila, E. (2015). Experiences and Perceptions of Barriers to Health Services for Elderly in Rural Namibia. *Sage Open*, *5*(3). https://doi.org/10.1177/2158244015596049

Velaithan, V., Tan, M. M., Yu, T. F., Liem, A., Teh, P. L., & Su, T. T. (2024). The Association of Self-Perception of Aging and Quality of Life in Older Adults: A Systematic Review. In *Gerontologist* (Vol. 64, Number 4). Gerontological Society of America. https://doi.org/10.1093/geront/gnad041

Vogelsang, E. M., Raymo, J. M., Liang, J., Kobayashi, E., & Fukaya, T. (2019). Population Aging and Health Trajectories at Older Ages. *Journals of Gerontology - Series B Psychological Sciences and Social Sciences*, *74*(7), 1245–1255. https://doi.org/10.1093/geronb/gbx071

Wagg, E., Blyth, F. M., Cumming, R. G., & Khalatbari-Soltani, S. (2021). Socioeconomic position and healthy ageing: A systematic review of cross-sectional and longitudinal studies. *Ageing Research Reviews*, *69*. https://doi.org/https://doi.org/10.1016/j.arr.2021.101365

Wagiman, A., Mohidin, H. H. B., & Ismail, A. S. (2016). Elderly Care Centre. *IOP Conference Series: Earth and Environmental Science*, *30*(1). https://doi.org/10.1088/1755-1315/30/1/012008

Walker, L. O., & Avant, K. C. (2018). *Strategies for theory construction in nursing* (6th ed.). Pearson.

Wang, X., Wang, P., Wang, P., Cao, M., & Xu, X. (2022). Relationships among mental health, social capital and life satisfaction in rural senior older adults: a structural equation model. *BMC Geriatrics*, *22*(1). https://doi.org/10.1186/s12877-022-02761-w

Wöbbeking Sánchez, Marina., Sánchez Cabaco, Antonio., Bonete-López, Beatriz., Urchaga Litago, J. David., Loureiro, M. Joaquím., & Mejía, M. (2021). Physical Activity and Life Satisfaction: An Empirical Study in a Population of Senior Citizens. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.636914

World Bank. (2023). *World Bank Country and Lending Groups*. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

World Bank. (2025, April 10). *Namibia overview: Development news, research, data*. World Bank. https://www.worldbank.org/en/country/namibia/overview

World Health Organization. (2002). *Active Ageing: A policy framework*. https://extranet.who.int/agefriendlyworld/wp-content/uploads/2014/06/WHO-Active-Ageing-Framework.pdf

World Health Organization. (2015). *World report on ageing and health*. https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf?sequence=1&isAllowed=y

World Health Organization. (2017a). *Global strategy and action plan on ageing and health*. https://www.who.int/publications/i/item/9789241513500

World Health Organization. (2017b). *Integrated care for older people Guidelines on community-level interventions to manage declines in intrinsic capacity*. https://iris.who.int/bitstream/handle/10665/258981/9789241550109-eng.pdf?sequence=1.

World Health Organization. (2017c). *Towards long-term care systems in sub-Saharan Africa*. https://www.who.int/publications/i/item/9789241513388

World Health Organization. (2020a). *Decade of Healthy Ageing :baseline report*. https://iris.who.int/handle/10665/338677

World Health Organization. (2020b, October 26). *Healthy ageing and functional ability*. https://www.who.int/news-room/questions-and-answers/item/healthy-ageing-and-functional-ability

World Health Organization. (2022a). *World Health Statistics 2022:Monitoring health for the Sustainable Development Goals*.

World Health Organization. (2022b, November 25). *Ensuring a policy framework for healthy ageing in Namibia*. https://www.afro.who.int/countries/namibia/news/ensuring-policy-framework-healthy-ageing-namibia

World Health Organization. (2022c, December 1). *Long-term Care*. https://www.who.int/europe/news-room/questions-and-answers/item/long-term-care

World Health Organization. (2024a). *Integrated care for older people (ICOPE): guidance for person-centred assessment and pathways in primary care, 2nd ed*. https://iris.who.int/bitstream/handle/10665/380175/9789240103726-eng.pdf?sequence=1

World Health Organization. (2024b). *Namibia: Health at a glance*. https://srhdpeuwpubsa.blob.core.windows.net/whdh/DATADOT/COUNTRY/PDF/516_Namibia.pdf

World Health Organization. (2024c, October 1). *Ageing and health*. https://www.who.int/news-room/fact-sheets/detail/ageing-and-health

World Health Organization. (2024d, October 1). *Ageing and health*. https://www.who.int/en/news-room/fact-sheets/detail/ageing-and-health

World Health Organization. (2024e, December 11). *Namibia: Health at a glance*. https://srhdpeuwpubsa.blob.core.windows.net/whdh/DATADOT/COUNTRY/PDF/516_Namibia.pdf

World Health Organization. (2025a). *GHE:Life expectancy and healthy life expectancy* . Global Health Observatory. https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-life-expectancy-and-healthy-life-expectancy

World Health Organization. (2025b). *Health Data Overview for the Republic of Namibia*. https://data.who.int/countries/516

World Medical Association. (2025, April 3). *WMA Declaration of Helsinki – Ethical principles for medical research involving human participants*. World Medical Association.

Zamuee, C. (2022). *An exploration of the care needs of frail older persons in Namibia: perspectives and experiences of formal and informal caregivers*.

Zhang, W., & Creswell, J. (2013). The Use of "Mixing" Procedure of Mixed Methods in Health Services Research. *Medical Care*, *51*(8), e51–e57. https://doi.org/10.1097/MLR.0b013e31824642fd

APPENDICES

APPENDIX 1: THE SUMMARY OF THE 22 ELIGIBLE ARTICLES INCLUDED IN THE SCOPING REVIEW SYNTHESIS

NO	Author & Year	Country	Study Design	Sample size	Objective	Key findings related to the review question
1	Riumallo Herl, 2022 (Riumallo Herl et al., 2022)	South Africa	Desktop	5059	To evaluate the association between pension exposure and dimensions of health amongst older persons.	The older person's pension exposure is most likely to have a long-lasting positive impact on health by delaying the onset of physical impairments. This highlights how South Africa's social grant may be helpful in either postponing the onset of physical disabilities or providing assistance in managing them. The old-age stipend might give a household the opportunity to purchase health-maintaining goods or a better diet.
2	Goharinezhad, 2016 (Goharinezhad et al., 2016)	Iran	Qualitative	37	To identify the challenges of elderly care in Iran and to help policymakers develop roadmaps for the future by providing a clearer image of the current state of affairs in this area of healthcare.	Five main issues arose from the aged care process: access, technical infrastructure, integrity and coordination, policymaking, and health-based care services.
3	Martey, 2022 (Martey, 2022)	Ghana	Desktop	14,009 house holds	To estimate the extra cost of an elderly household member. To examine the relationship and mechanism between the elderly and	Rural households with older family members experience more additional costs compared to urban households. An older person's presence decreased household welfare by about 4%. Homes without any older people members

					household welfare in Ghana.	recorded the best standard of living index, while households with the highest number of older people reported the lowest standard of living index.
4	Adamek et al, 2022 (Adamek et al., 2022)	Sub-Saharan Africa	Online Survey	72	To identify the major challenges faced by older adults and older adults' 5assets as viewed by experts.	Out of 15 challenges affecting older persons in sub-Saharan Africa, poverty, food insecurity, disability, health issues, and the growing need for long-term care were identified as the top five. In sub-Saharan Africa, the two biggest concerns for the future of older persons are the lack of social services catered to their requirements (57%) and the lack of government attention to their needs (63%), respectively.
5	Abekah-Carter et al, 2022 (Abekah-Carter et al., 2022)	Ghana	Qualitative study	14	To explore and understand the pertinent needs of older people in Ghana, and ascertain from them how they could be supported by the state to meet their needs.	The study discovered that older people desired social events where they could interact with other seniors, enough diet, good healthcare, and appropriate housing. Ensuring adequate financial support, accessible and high-quality healthcare, regular social and group activities, together with home-based care and assistance, may enable older adults to better meet these needs.
6	Amini et al, 2021 (Amini et al., 2021)	Iran	Desktop	Health care systems	To examine Iran's health care system and informal care in consideration of the country's demographic changes.	There is little data and information regarding the efficacy and efficiency of informal care in Iran. Policymakers' lack of attention to the nation's demographic shift has resulted in limited funds for pertinent research and insufficient resources for providing high-quality elder care.

7	Feng, 2019 (Feng, 2019)	China	Desktop	Long-term care policies	To highlight the phenomenon of global convergence in population aging and the resulting long-term care policy challenges shared across LMICs.	The challenges of aging are most acutely felt in low- and middle-income countries (LMICs), as the population ages faster than policies and services for elder care are developed. The problems include the weakening of informal family care networks, the rise in the need for formal long-term care for the frail and disabled who are unable to receive enough help from their families, and the increasing demands on policymakers to address these societal issues.
8	Mefter, 2022 (Mefteh, 2022)	Ethiopia	Qualitative	12	To explore the health-related experiences of dependent rural 9elderly who get care and support within a family setting.	Elderly people who are dependent and live in rural areas face several physical and psychological issues, such as difficulties with vision and movement, emotions of loneliness, grief, and sadness, feelings of inferiority within the family, abuse, and neglect, a lack of meaningful activities, and the perception of being a burden to the family. Economic hardships can make it difficult for families of the elderly to provide adequate care.
9	Kelly et al, 2019 (Kelly et al., 2019)	South Africa	Qualitative	64	To understand older persons' experiences of primary healthcare services in their communities.	The Results revealed that participants from high-income areas encountered minimal barriers in accessing quality care or support services, whereas those living in lower-income areas described services as less responsive and expressed low levels of trust in the healthcare system, feeling that their needs were

						disregarded. Participants who experienced poor doctor–patient communication were unlikely to adhere to their treatment plans, whereas those who reported patient-centred interactions facilitated through private-sector partnerships or collaborations between NGOs and the public sector viewed the care they received as better.
10	Kandapan et al, 2023 (Kandapan et al., 2023)	India	Desktop survey	30 370	To determine whether the older adults' living arrangement is one of the potential determinants of their level of life satisfaction (LS).	The findings reveal that 45.5% and 25.4% of the elderly, respectively, reported having a high and low level of LS. Living alone was linked to a low level of LS. Co-residing with a spouse was associated with an increased chance of reporting a high level of LS. The study also discovered that having both a spouse and children as coresident increases the likelihood of reporting a high level of LS.
11	Ebimgbo et al, 2022 (Ebimgbo et al., 2022)	Nigeria	Qualitative	40	To assess the the extent to which families and communities provide care to older adults as well as social work implications.	Older people receive more social support, material, health, and instrumental support from their families than from the community.
12	Teka & Adamek, 2024 (Teka & Adamek, 2014)	Ethiopia	Qualitative	29	To explore the psychosocial needs of older adults in a residential elder care centre from the perspective of	The elderly are largely isolated from society. They eat the same meal every day and live subsistence lifestyles with little access to basic amenities. They yearned for meaningful social connections more

					both staff and residents.	than they did for basic conveniences. Staff members undervalue and underuse psychological support, which puts older people's psychosocial well-being in jeopardy.
13	Cadmus et al, 2023 (Cadmus et al., 2023)	Nigeria	Mixed method	1,180	To determine factors associated with the preferred care setting among community-dwelling older persons and explore their views about their choices.	The studies show that older persons favour Age in Place despite their functional capacity.
14	Matthews et al, 2023 (Matthews et al., 2023)	South Asia	Mixed method	Review and qualitative (local informants number not indicated)	To review the health and socioeconomic resources currently available for older people in South Asian countries, Bangladesh, India, Nepal, Pakistan, and Sri Lanka, to identify gaps in available resources and assess areas for improvement.	Few postgraduate training programs existed in geriatric medicine or psychiatry, so it was unclear how many medical practitioners were skilled in caring for the elderly. Older adults are, therefore, cared for by general physicians. Nurses and community health workers, all of whom are present in insufficient numbers per capita.
15	Kraus & Riedel, 2022 (Kraus & Riedel, 2022)	nine middle-income countries (MIC)	Desktop	Document analysis	Assesses gaps and deficits in the provision of long-term care (LTC) services.	It is discovered that very few older people have legal rights to particular LTC services. The most common requirements for being admitted to an institution are having a minimum age and having little or no money. It can be inferred that institutional care facilities are typically concentrated in wealthy or urban locations. They frequently only exist in the

						capital region, but even then, their capabilities are constrained. Home-based care is hardly available at all.
16	Risal et al, 2020 (Risal et al., 2020)	Nepal	Cross-sectional survey	439	Explore the quality of life (QoL) of the elderly in Nepal and their special needs	The quality of life (QoL) of the elderly in Nepal could be enhanced by providing them with care that is focused on their mental and physical health, fostering stronger family bonds, and ensuring their financial independence.
17	Dawud et al, 2022 (Dawud et al., 2022)	Ethiopia	Qualitative	20	To examine the challenges and needs of formal caregivers working in older adult homes.	Due to their high workloads, long hours, lack of training, and low compensation, caregivers faced many challenges. Among these challenges were handling the challenging behavior of elderly individuals, being near health hazards, and carrying a tremendous workload. The heavy burden of caring for the elderly in environments with little resources produced negative effects that filtered into the personal lives of those who provided the care. Formal caregivers in developing nations can better meet the requirements of long-term care residents by receiving training in geriatric care, adequate compensation, and long-term care best practices.
18	Nkansah et al, 2021 (Nkansah et al., 2021)	Ghana	Qualitative	12	To explore the challenges neglected older adults experience and the strategies they employ to cope.	Neglected older adults face financial hardships, health issues, and social isolation. They also lack wholesome food and comfortable accommodation. These neglected older adults survived by adopting internal and external coping mechanisms.

19	Kumar & Kumar, 2019(S. Kumar & Kumar, 2019)	India	Desktop	27,245	The purpose of this study was to compare the pattern of living arrangements and economic dependency among the elderly in Empowered Action Group (EAG) and those demographically more advanced states of India called non-EAG states.	The percentage of older adults who live alone and economic dependency is higher in non-EAG states than in EAG states. Age, gender, and education are the main factors of economic dependency, whereas the number of surviving children, education, and the quintile of consumer expenditure are the major predictors of living alone.
20	Boro et al, 2023 (Boro et al., 2023)	India	Desktop	9231	To investigate the association between the change in living arrangements after reaching age 60 years with subjective well-being and psychological health	Compared to older adults who did not change their living arrangement after turning old, it was discovered that those who did so had 84% and 54% higher likelihood, respectively, of reporting worst psychological health [AOR: 1.84; CI: 1.48–2.27] and worst subjective well-being [AOR: 1.54; CI: 1.22–1.93].
21	Hossain et al, 2019 (Hossain et al., 2019)	Bangladesh	Qualitative	362	To measure self-reported health problems, health care seeking behavior and expenditure coping mechanism of older people, and to describe its implication for primary health care delivery.	The most common self-reported health problems were fever (43.8%) and bodily pain (15.2%). Of the respondents, more over half (57.5%) experienced another health issue. The majority of older adults (54%) paid for their own medical treatment out of pocket. Just 2% of older adults had to take out loans or sell assets to pay for their medical expenses.
22	Mahapatro et al, 2017 (Mahapatro et al., 2017)	India	Desktop	9,852	To examine the association between living arrangements with health	Older adults in poorer health prefer co-residential arrangements. It's possible that these arrangements provide older individuals

					among older people.	with the care, support, and health awareness they need to improve their ongoing health status and receive the necessary healthcare interventions for the various illnesses they've experienced.

APPENDIX 2: CHECKLIST (To assess the older persons' residential care facilities)

The capacity of nursing homes

Number of older persons it can accommodate_____

Number currently accommodated_____

Capacity	**Yes**	**No**	**N/A**	**Comment**
The elderly are paying to be accommodated.				
There are gender-separated rooms.				
There is a separate bed for each resident.				
Number of residents per room.				
The average size of the room.				
There are hygienic toilets and bath facilities with sinks and a shower/tub with grab bars.				
There is a living area.				
There is adequate provision for safe drinking water.				
There is sufficient lighting in all areas, such as the living room, kitchen, bedrooms, and bathrooms.				
Available electricity, fans, and heating arrangements for residents (when necessary).				
There is a kitchen and dining hall with a refrigerator, sink, stove, microwave, table, chairs, and storage cabinets.				
There are recreation facilities, television, newspapers, and books.				
There are activities to keep the residents productively occupied.				
First aid, sick bay, and primary healthcare facilities are available.				

There are emergency preparedness measures in place, such as fire extinguishers, assembling points, fire alarms, etc.				
The house is safe and secure, with lockable doors and gates, a neighbourhood watch, and perimeter fencing.				
There is a provision for the storage of belongings in the homes.				
The entire house floor is anti-slippery(carpets), with no cracks or uneven surfaces.				
Provisions are made for the disabled, including raised toilet seats, walking and standing aids, wheelchair ramps, and handrails in strategic locations (Please indicate all that are available in the comment section).				
Provision of railing on the front or back steps of the house.				
There are sufficient staff to properly care for residents. Number of male staff = Number of female staff =				
The quality of care provided in this old age home is? (Excellent, Good, Fair, Poor, Very Poor)				
Improvements needed in this old-age home (Write under the comments section)				

APPENDIX 3: INTERVIEW GUIDES

3.1 CAREGIVERS [AT OLD AGE HOMES & FAMILY CAREGIVERS]

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia." Participation in the study will be anonymous, as no names or identity information will be required; strict confidentiality of information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2). Thank you for your willingness to participate in this study.

Demographic characteristics

1) Could you please indicate your age range? 20-29, 30-39, 40-49, 50-59,60-69, 70+
2) How do you identify your gender? (Male, Female, prefer not to say) _____
3) How would you describe your religious affiliation? (Lutheran, Catholic, Anglican, Traditional faith/Indigenous, No affiliation religion, Other Christians (e.g. Pentecostal, Dutch reformed)
4) Could you tell me the highest level of education you have completed? (No formal education, primary education, secondary education, vocational education, bachelor's degree, master's degree, Doctorate, other _____ (please specify)
5) What is your current occupation? _____
6) What is your region name?_____
7) What is your current employment status? (Employed full-time, employed part-time, self-employed, unemployed, retired, student, other_____ (please specify)
8) How do you identify your current marital status? (Single, Married, Divorced, Widowed, in a domestic partnership, other_____ (Please specify)
9) How long have you been caring for older persons/working here?_____

Actual interview questions

10) What are the reasons that have made you care for older persons at home?
11) Can you share your thoughts or experiences (good and bad) about providing care for older persons?
12) Have you received training in caring for older persons? If yes, what training have you received in elder care/ health care? Do you have a suggestion for improving the training/education you have received?
13) What challenges, problems, and issues do you face when caring for older persons?
14) What factors influence older people's decisions when considering moving to or not to an old-age home?
15) What feedback do you receive from older persons and their families about old-age homes? (Skip if family caregiver)
16) Have you encountered health issues in older people? If yes, at your current old age home, what are the most common health issues that older people experience?
17) What improvements would you suggest to enhance the quality of care in this old age home?
18) What social or recreational activities are available for the residents in this home?
    a) Do social or recreational activities impact older persons' well-being? If yes, elaborate on how.
19) How do you ensure that older persons' social, physical, emotional, and spiritual needs are met?

3.2 CONSTITUENCY COUNCILORS AND VILLAGE HEADS

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia." Participation in the study will be anonymous as no names or identity information will be required, Strict confidentiality of information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2). Thank you for your willingness to participate in this study.

Demographic characteristics

1. Could you please indicate your age range? 20-29, 30-39, 40-49, 50-59,60-69, 70+
2. How do you identify your gender? (Male, Female, prefer not to say) _____
3. How would you describe your religious affiliation? (Lutheran, Catholic, Anglican, Traditional faith/Indigenous, No affiliation religion, Other Christians (e.g. Pentecostal, Dutch reformed)
4. Could you tell me the highest level of education you have completed? (No formal education, primary education, secondary education, vocational education, bachelor's degree, master's degree, Doctorate, other _____ (please specify)
5. What is your current occupation? _____
6. What is your region name? _____
7. What is your current employment status? (Employed full time, employed part-time, self-employed, unemployed, retired, student, other_____ (please specify)
8. How do you identify your current marital status? (Single, Married, Divorced, Widowed, in a domestic partnership, other_____ (Please specify)
9. How long have you been in this role?_____

Actual interview questions

10. Do you have older persons (60 years +) in your community?
11. Are there older persons in the community without care?
12. Are there older persons in the community staying alone? If yes, are you familiar with how they are cared for?
13. Are there any challenges, problems, and issues the older persons have? If yes, what are those challenges, and how can they be overcome?
14. What is your understanding of the role and benefits of old age homes in your community?
15. Do older adults generally want to go to old-age homes?
16. What are the common concerns or misconceptions people have about old age homes?
17. How can the community awareness and acceptance of old age homes be improved?
18. What are the prevalent health issues faced by older adults in the community?
19. How accessible are healthcare and social services for the elderly?
20. How is the social life for our elderly (living conditions, health care seeking, meal preparation, safe drinking water e.t.c)
21. What support systems are currently in place for older persons in your community? Are they perhaps aware of such support systems, and how effective are those systems?
22. To what extent do community and family provide support to older persons?
23. How can community leaders and local government support the health and well-being of older adults?

3.3 EXPERTS (NURSES)

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia." Participation in the study will be anonymous, as no names or identifying information will be required. Strict confidentiality of the information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2). Thank you for your willingness to participate in this study.

Demographic characteristics

1. Could you please indicate your age range? 20-29, 30-39, 40-49, 50-59,60-69, 70+
2. How do you identify your gender? (Male, Female, prefer not to say) _____
3. How would you describe your religious affiliation? (Lutheran, Catholic, Anglican, Traditional faith/Indigenous, No affiliation religion, Other Christians (e.g. Pentecostal, Dutch Reformed)
4. Could you tell me the highest level of education you have completed? (No formal education, primary education, secondary education, vocational education, bachelor's degree, master's degree, Doctorate, other _____ (please specify)
5. What is your current occupation? _____
6. What is your region name? _____
7. What is your current employment status? (Employed full-time, employed part-time, self-employed, unemployed, retired, student, other_____ (please specify)
8. How do you identify your current marital status? (Single, Married, Divorced, Widowed, in a domestic partnership, other_____ (Please specify)
9. How long have you been in this profession? _____

Actual interview questions

10. What are the prevalent health issues faced by older persons in Namibia?
11. What challenges do you face in providing optimal care to older persons at the hospital?
12. How do social and living conditions impact the health and well-being of older adults?
    a) **Social Interaction:** How does social interaction with family, friends, and community members affect older adults' mental and emotional health?
    b) **Living Environment:** What aspects of the living environment (e.g., safety, cleanliness, space, accessibility) are most important for the physical health of older adults?
13. Are there policies or interventions in place to improve older persons' health status and living conditions?
14. Are there hospital separate wards for older persons?
15. Are geriatric doctors and nurses in place?
16. Are you trained in Geriatric care?

3.4 EXPERTS (SOCIAL WORKERS)

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia." Participation in the study will be anonymous as no names or identity information will be required, Strict confidentiality of information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2). Thank you for your willingness to participate in this study.

Demographic characteristics

1. Could you please indicate your age range? 20-29, 30-39, 40-49, 50-59,60-69, 70+
2. How do you identify your gender? (Male, Female, prefer not to say) _____
3. How would you describe your religious affiliation? (Lutheran, Catholic, Anglican, Traditional faith/Indigenous, No affiliation religion, Other Christians (e.g. Pentecostal, Dutch Reformed)
4. Could you tell me the highest level of education you have completed? (No formal education, primary education, secondary education, vocational education, bachelor's degree, master's degree, Doctorate, other _____ (please specify)
5. What is your current occupation? _____
6. What is your region name? _____
7. What is your current employment status? (Employed full-time, employed part-time, self-employed, unemployed, retired, student, other_____ (please specify)
8. How do you identify your current marital status? (Single, Married, Divorced, Widowed, in a domestic partnership, other_____ (Please specify)
9. How long have you been in this profession? _____

Actual interview questions

10. What is your perspective on the role of old age homes in caring for older persons?
11. How would you describe the current old age home care system for older persons?
12. Are there financial challenges for old-age homes? If yes, what are the possible solutions for financing these homes?
13. What are the psychosocial issues/family issues faced by older persons in Namibia?
14. How can public awareness and attitudes toward old age homes be improved?
15. What best practices can be adopted to enhance the capacity and conditions of old-age homes in your region?
16. How do social and living conditions impact the health and well-being of older adults?
    a) Can you provide examples of how isolation or social engagement has influenced the well-being of residents?
17. Are there policies or interventions in place to improve older persons' health status and living conditions?
18. What social supports do you have available for older adults?

3.5 HEADS OF RESIDENTIAL FACILITIES/OLD-AGE HOMES (MANAGERS)

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia." Participation in the study will be anonymous as no names or identity information will be required, Strict confidentiality of information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2). Thank you for your willingness to participate in this study.

Demographic characteristics

1. Could you please indicate your age range? 20-29, 30-39, 40-49, 50-59,60-69, 70+
2. How do you identify your gender? (Male, Female, prefer not to say) _____
3. How would you describe your religious affiliation? (Lutheran, Catholic, Anglican, Traditional faith/Indigenous, No affiliation religion, Other Christians (e.g. Pentecostal, Dutch reformed)
4. Could you tell me the highest level of education you have completed? (No formal education, primary education, secondary education, vocational education, bachelor's degree, master's degree, Doctorate, other _____ (please specify)
5. What is your current occupation? _____
6. What is your region name? _____
7. What is your current employment status? (Employed full-time, employed part-time, self-employed, unemployed, retired, student, other_____ (please specify)
8. How do you identify your current marital status? (Single, Married, Divorced, Widowed, in a domestic partnership, other_____ (Please specify)
9. How long have you been the head of this old age home? _____

Actual interview questions

10. How did you get into this profession of caring for older persons?
11. How is caregiver training done in your institution? Do you have any suggestions in this regard? (Probe for pre-commencement and intermittent training or specialised care training)
12. What are the qualifications/requirements to recruit caregivers? Do you have any suggestions to improve this, if necessary?
13. Are there any challenges that old age homes face in providing care to older persons?
14. Do you have a caregiver payment structure in place?
    a) If yes, does it have any challenges?
    b) What is your suggested solution to deal with the financial challenges?
15. What are your thoughts on the services offered by old age homes in Namibia, particularly in terms of their quality, accessibility, affordability, and the overall care provided to the elderly?
16. What improvements or expansions do you think are necessary for old age homes to better serve the elderly population?
17. Can you describe the current capacity and resources of your old-age home?
18. Are there any negative perceptions about old age homes or resistance to old age homes from the communities or families? If so, how do you handle it?
19. What strategies do you use to promote awareness and acceptance of old age homes in the community?
20. How do you monitor and address the health needs of your residents?
21. How do you ensure that residents' social, physical, emotional, and spiritual needs are met?
22. What partnerships or collaborations do you have with healthcare providers regarding the healthcare provision of older persons at these old-age homes?

APPENDIX 4: QUESTIONNAIRE (Interviewer administered to the older persons)

Section 1: INTRODUCTION

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia." Participation in the study will be anonymous, as no names or identifying information will be required. Strict confidentiality of the information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2). Thank you for your willingness to participate in this study. For any further inquiries, I can be reached at mhaufiku@nust.na or 0818679177.

HOW MANY PEOPLE WILL BE IN THE STUDY?

About 291 older persons from Khomas, Ohangwena, and Hardap regions will participate in this study.

HOW LONG WILL I BE IN THE STUDY?

This questionnaire will take approximately 30 minutes to complete. You can stop participating at any time without penalty.

WHAT ARE THE RISKS OF BEING IN THE STUDY?

None

CONFIDENTIALITY

Participation in the study will be anonymous as no names or identity information will be required, and individual information will be identified by a code number only. Strict confidentiality of information collected in this study will be ensured. Information produced by this study will be stored in a password-protected computer and in locked files in a secure location. No personal record will be accessed, and no record from the study will be given to anyone unaffiliated with the study in any form except as required by law.

TIMELINE

We anticipate completing the study by the end of the year 2025. You will be able to access the results from the Ministry of Health and Social Services, to whom the final report will be submitted. Periodic updates highlighting key milestones, any significant findings (if applicable), and the overall status of the research will be provided on the progress of the research through publications, emails, or other communication channels.

WILL I BE COMPENSATED FOR PARTICIPATING IN THE STUDY?

You will receive no payment for taking part in this study.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

Participation in this study is voluntary; you do not have to participate.

INSTRUCTIONS FOR THE QUESTIONNAIRE ARE BELOW:

- Please answer the questions to the best of your ability.
- Answer by filling in the spaces provided or ticking the appropriate box.
- Please skip any questions that are not appropriate for you.

1. **SECTION A: SOCIO-DEMOGRAPHICS**

1.1 How old are you? (Years)

60-69 ☐

70-79 ☐

80-89 ☐

90+ ☐

1.2 What is your Gender? Male ☐ Female ☐ Prefer not to say ☐

1.3 What is your Marital status: Single ☐ Married ☐ ☐ Divorced

Widowed ☐ Separated ☐ Cohabitating ☐ Other(specify)_____

1.4 What is your religious affiliation?

Lutheran ☐ Catholic ☐ Anglican ☐ Traditional faith/indigenous ☐

No affiliation religion ☐ Other Christians (Specify) (Pentecostal, Dutch reformed) ☐

_____

1.5 What is your main language spoken at home? Oshiwambo ☐ Khoekhoegowab ☐

Afrikaans ☐ Kavango ☐ Otjiherero ☐ Setswana ☐

1.6 What is the highest education that you have received?

No Formal education ☐ Primary ☐ Secondary ☐ Tertiary ☐

Literacy classes only ☐ Other (Specify) _____

1.7 What is your primary source of income/source of livelihood? Old age pension ☐

Family Support ☐ Employment pension ☐ Agriculture ☐ Business ☐

Other (Specify) ☐ _____

1.8 Could you please share an approximate range of your monthly income?

_____

1.9 Who do you live with regularly? (Tick all that applies)? Alone ☐ Spouse only ☐

Children ☐ Family members ☐ Friends ☐ Other(Specify) ☐ _____

1.10 What is your physical mobility like? Unable to walk own ☐ able to walk a limited distance ☐ able to walk with no difficulty ☐ in a wheelchair ☐ able to walk with the help of a walking stick ☐

1.11 Region name: _____

1.12 What is your village/town name: _____

1.13 Is your place of residence rural ☐ or urban ☐ ?

1.14 What was your occupation at retirement: _____

1.15 How many surviving children do you have: _____

1.16 How many grandchildren do you have: _____

1.17 How many great-grandchildren do you have: _____

1.18 Based on the above number of children/grandchildren/great-grandchildren, how many are you staying with? _____ How many depend on you? _____

2 SECTION B: COMMUNITY AWARENESS AND ATTITUDES ON NURSING HOME

COMMUNITY AWARENESS

2.1 Are you aware that there are old-age homes in Namibia? Yes ☐ No ☐

If yes answer 2.2 and 2.3, if no, skip to 2.4

2.2 If yes, do you know of any in your area? Yes ☐ No ☐

2.3 How did you first learn about old-age homes? Family/Friends ☐ Media ☐

Healthcare Provider ☐ Other (Specify) ☐ _____

2.4 Where are you currently living? Own home ☐ With family ☐ old-age home ☐ Other ☐ _____

2.5 If in an old-age home, how long have you been living in an old-age home_____

2.6 If not in an old-age home, have you ever lived in an old-age home? Yes ☐ No ☐

2.7 If not in an old-age home, would you like to reside (live in) in an old-age home (in the future)?
Yes ☐ No ☐

Give the reason for your option _____

2.8 If you do not want to reside in an old-age home, what are your main concerns about moving to an old-age home? _____

(Example: Loss of independence, Cost, Quality of care, Distance from family)

2.9 Do you know the benefits of being in an old-age home? Yes ☐ No ☐

If yes, what are the benefits?

_____

_____

(Example: Medical care, Recreational activities, Physical therapy, Religious services, Personal care assistance, Safety, Regular meals)

ATTITUDE TOWARD NURSING HOMES

For older persons in old-age homes

Respond to the following statements with a tick (√) at the response that best reflects your opinion.

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
2.10 Being at an old age home is the best option for older persons.					
2.11 An old age home provides professional, well-suited care for older persons.					
2.12 Most of my needs are met in the old-age home.					
2.13 The older persons are housed together in a facility, which provides an opportunity to build supportive relationships that help them maintain a socially productive life.					
2.14 Being in an old-age home takes the burden of caring for the elderly from the family and society.					
2.15 My family has access to me at the old age home.					
2.16 I would recommend any older person to stay in an old-age home.					
2.17 I would not mind staying in an old-age home for the rest of my life.					

2.18 What is the nature of your relationship with staff?

Very negative	Negative	Neutral	Positive	Very Positive

2.19 What challenges do you face in this home?

_____

2.20 What are your recommendations in terms of the care that you receive here? If any_____

For older persons at home

2.21 What is your overall opinion of old age homes? Very Negative ☐ Negative ☐
Neutral ☐ Positive ☐ Very Positive ☐

2.22 Do you think old age homes can provide better care than living at home?
Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree ☐

2.23 Would you consider living at an old-age home if you needed care?
Yes ☐ No ☐ Unsure ☐

2.24 Do you have family or friends who visit you regularly? Yes ☐ No ☐

If not, what are some of the reasons they have not visited you? _____

2.25 Are you satisfied with the conditions of your living place? Yes ☐ No ☐

If no, what are some of the reasons for your dissatisfaction? _____

3 SECTION C: PREVALENT HEALTH STATUS AND SOCIAL LIVING CONDITIONS

Respond to the following statements with a tick (√) at the response that best reflects your opinion.

	Not at all true	Slightly true	Moderately true	Very true	Extremely true
3.1 Reaching old age has been easier than I thought.					
3.2 I am losing my physical independence as I get older.					
3.3 I see my old age mainly as a time of loss. (Satisfaction with oneself)					
3.4 How much do you worry about your health?					
3.5 To what extent do you think your life is meaningful?					

3.4, 3.5 – remove true

3.6 How would you describe your current health status?

Very Poor	Poor	Neither poor nor good	Good	Very good

If very poor or Poor, explain why.

_____

3.7 Are you currently ill? Yes ☐ No ☐

If yes,

What is your diagnosis? _____

3.8 What diseases/conditions among the following do you suffer from?

(Depression, dementia, mental disorders, heart diseases, diabetes, high blood pressure, back pain, joint pain, rheumatoid arthritis, hearing loss, eye problems, cataracts, pneumonia, asthma, gastrointestinal problems, urinary incontinence, falls(fractures), bedridden, paralysis, stroke)
Others(specify)_____

3.9 How would you rate your overall quality of life? (General health, energy level, self-esteem, personal relationships, financial resources, and living conditions)

Very Poor	Poor	Neither poor nor good	Good	Very good

3.10 How often do you visit a healthcare provider?

Never	Rarely	Every few months	Monthly	Weekly

3.11 Are you able to get the medical care you need?

Never	Rarely	Sometimes	Usually	Always

3.12 How hard is it for you to bear any kind of pain or discomfort?

Not at all	A little	A moderate amount	Very much	An extreme amount

Dependence on medication/medical aids

Respond to the following statements with a tick (√) at the response that best reflects your opinion.

	Not at all	A little	A moderate amount	Very much	An extreme amount
3.13 How much do you need any medication/treatment to function in your daily life?					
3.14 To what extent does your quality of life depend on the use of medical substances or medical aids (wheelchairs, walking sticks, shower chairs, reacher grabbers)					

Place or residence.

Respond to the following statements with a tick (√) at the response that best reflects your opinion.

	Not at all	A little	A moderate amount	Very much	An extreme amount
3.15 How much do you like it where you live?					
3.16 How comfortable is the place where you live?					
3.17 Are you satisfied with your ability to move around?					
3.18 Do you think you are living in a safe and secure environment?					
3.19 How often do you experience loneliness or isolation?					
Financial and Access to Health Services					
3.20 Do you have financial difficulties?					
3.21 How satisfied are you with your access to health services?					
3.22 To what extent do you have problems with transport?					
3.23 How much do difficulties with transport restrict your life?					

3.24 Do you receive an old-age pension? ☐ Yes ☐ No

If yes, answer question 3.25; if no, skip to question 3.26

3.25 This is how I spend my pension money (Select all that applies):

On my non-family members	On my other family members	On my grand/ great-grandchildren	On my children	On myself

Others (Specify)_____

3.26 What support do you need in your everyday life? (Example: Health, Financial, Social, Spiritual, Physical, Counselling)

_____

3.27 Do you get the kind of support that you need from others? (Satisfaction with personal relationships)

Not at all	A little	A moderate amount	Very much	An extreme amount

3.28 What type of social/Physical/Spiritual activities do you enjoy (Example: needle-work, soccer, church)? _____

3.29 Are you eating the right balance of nutritious foods and drinks daily? (Nutritious foods and beverages refers to a dietary approach that provides the necessary nutrients in appropriate proportions to support your overall health and well-being, e.g., proteins, carbohydrates, vitamins and minerals, fiber, and calcium).

Yes No Sometimes

3.30 Indicate your typical daily type of meals_____

3.31 Have you suffered from any form of abuse (physical, emotional, and financial)?

Yes No

3.32 If yes, explain in which way you have been abused.

_____

3.33 Do you currently smoke or have you ever smoked in the past? Yes No

If yes, how often do you smoke? Daily weekly monthly

less than monthly

3.34 Do you consume alcohol? Yes No

If yes, how frequently do you drink? Daily weekly monthly

less than monthly

Thank you so much for taking the time to complete the questionnaire. Your input is highly appreciated

APPENDIX 5: PARTICIPANT CONSENT FORM

PARTICIPANT CONSENT FORM

Project Title: DEVELOPMENT OF A COMMUNITY-BASED MODEL FOR IMPROVING THE QUALITY OF LIFE OF THE OLDER PERSONS IN NAMIBIA

I have been given a clear and understandable explanation of the study, and I willingly and freely consent to take part. My questions concerning the research have been addressed. I am aware that my identity will remain private, that I can leave the study at any time without giving a reason, and that doing so will not have any negative consequences for me.

- Participant's signature..... OR
- Witness/caregiver/guardian's signature: .....
- If you cannot sign/any witness, you may make a distinct mark as a form of consent.....
- Region: .....
- Date: .....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the researcher:

Researcher: Mouyelele Haufiku.

Cell: 0818679177

Email: mhaufiku@nust.na

APPENDIX 6: SEMINARS AND TRAININGS ATTENDED

Name	Date
Developing online surveys and questionnaires	05 July 2023
Hands-on parametric and non-parametric inferential statistics using statistical software	06 March 2024 14h00-16h30
Conquering the challenges and uncovering the power of large datasets	06 March 2024 09h00-11h00 06 March 2025 11h00-12h00
Effective literature review strategies and Citation Management Tools: An introduction to Endnote	04 April 2024
Insight series: Mastering research proposal writing- a workshop for master's and doctoral students (Hybrid)	11 April 2024
Quantitative and qualitative data analysis	10-14 July 2023 02-06 September 2024
NUST/Stellenbosch University academic writing	13-17 May 2024
Contemporary and robust research design: Essential guidance for master's and doctoral studies	25 July 2024
Postgraduate seminar by Prof Gail Hughes on the keys to staying updated with technological advances in multidisciplinary research	20 February 2025
Crafting a winning research proposal seminar	11 April 2025
Insight seminar series: Qualitative research methods- designing & and conducting robust studies	17 April 2025
Insight seminar series: Quantitative research methods and statistical analysis	25 April 2025
Academic Writing for Publication Winter Retreat	16-20 June 2025
Scholarly Communication Workshop	07 August 2025
Quantitative Data Analysis	13-14 August 2025
Incorporating Knowledge Translation and Research Impact in Grant Applications	04 November 2025

APPENDIX 7: ETHICAL APPROVAL FROM NUST

NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Faculty of Health, Natural Resources and Applied Sciences
School of Health Sciences

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FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES

DECISION/FEEDBACK ON RESEARCH PROPOSAL ETHICAL CLEARANCE

Dear Prof/Dr/Mr/Ms/Other(s): Mouyelele Haufiku - Weyulu

Student No (if applicable): 200977938

Research Topic:	Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia
Supervisor (if applicable):	Dr Roswitha Mahalie
Co-supervisor(s): if applicable	Dr Larai Aku Akai
Qualification registered for (if applicable):	Doctorate in Health Sciences

Re: Ethical screening application No: FHNRAS:61/2023

The Research Ethics Screening Committee has reviewed your application for the above-mentioned research project. Based on the recommendation of the expert reviewer, the research as set out in the application is hereby:

(Indicate with an X)

Approved: i.e. may proceed with the project	X	
Approved provisionally: i.e. may proceed but subject to compliance with recommendation(s) listed below		
Not approved: Not to proceed with the project until compliance with recommendation(s) listed below and resubmit ethics application for consideration		
IS MINISTRY OF HEALTH & SOCIAL SERVICES (MoHSS) APPROVAL REQUIRED?	YES: X	NO:

It is important to note that as a researcher, you are expected to maintain ethical integrity of your research, strictly adhere to the ethical policy of NUST, and remain within the scope of your research proposal and supporting evidence as submitted to the REC. Should any aspect of your research change from the information as presented, which could have an impact or effect on any research participants/subjects/environment, you are to report this immediately to your supervisor or REC as applicable in writing. Failure to do so may result in withdrawal of approval. Kindly consult your supervisor or HoD if you need further clarification.

We wish you success in your research endeavour and are of the belief that it will have positive impact on your career as well as the development of NUST and the society in general.

Ethical issues that require compliance/ must be addressed		
No.	**Ethical issues**	**Comment/recommendation**
1.		
2.		

NB: May attach additional page as required

Full Name (reviewer) Dr BE van der Colf Signature: BEV Date: 27/10/2023

Full Name: Dr Larai Aku-Akai Signature: Date: **06 November 2023**

Chair: Ethics Screening Committee

APPENDIX 8: ETHICAL APPROVAL FROM THE MINISTRY OF HEALTH AND SOCIAL SERVICES

REPUBLIC OF NAMIBIA

MINISTRY OF HEALTH AND SOCIAL SERVICES

Ministerial Building
Harvey Street
Private Bag 13198, Windhoek

OFFICE OF THE EXECUTIVE DIRECTOR

Tel: No: 061 -203 2507
Fax No: 061-222 558
Andreas.Shipanga@mhss.gov.na

Ref: 22/3/1/2
Date: 09 January 2024

Enquiries: Mr. A. Shipanga

Ms. Mouyelele T. Haufiku-Weyulu
Namibia University of Science and Technology
Windhoek

Dear Ms. Haufiku-Weyulu

Title: Development of a community-based model for improving the quality of life of the elderly in Namibia.

1. Reference is made to your application to conduct the above study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
   - 3.1 The data to be collected must only be used for academic purposes;
   - 3.2 No other data should be collected other than the data stated in the proposal;
   - 3.3 No any specimen should be collected from Human Subjects;
   - 3.4 Stipulated ethical considerations in the protocol related to the protection of Human Subjects' information should be observed and adhered to; any violation thereof will lead to termination of the study at any stage;
   - 3.5 A quarterly report to be submitted to the Ministry's Research Unit;
   - 3.6 Preliminary findings to be submitted upon completion of the study;
   - 3.7 Final report to be submitted upon completion of the study;
   - 3.8 Separate permission should be sought from the Ministry for the publication of the findings.
4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,

BEN NANGOMBE
EXECUTIVE DIRECTOR

All official correspondence must be addressed to the Executive Director.

My NAMIBIA MY COUNTRY, MY PRIDE

APPENDIX 9: ETHICAL APPROVAL FROM CITY OF WINDHOEK

DEPARTMENT OF HUMAN CAPITAL AND CORPORATE SERVICES
59
80 Independence Avenue
WINDHOEK, NAMIBIA
Tel: (+264) 61 290 2280 e-mail: HCC@windhoekcc.org.na www.cityofwindhoek.org.na

ENQ: Mr. AM Nikanor **TEL:** 061 290 2630
DATE: 24/06/2024 **REF:** *RESEARCH*

RE: DEVELOPMENT OF A COMMUNITY-BASED MODEL FOR IMPROVING THE QUALITY OF LIFE OF THE OLDER PERSONS IN NAMIBIA: A CASE STUDY OF CITY OF WINDHOEK, NAMIBIA - MS. MOUYELELE HAUFIKU-WEYULU, (STUDENT NO: 200977938)

This letter serves as confirmation that Ms. Mouyelele Haufiku- Weyulu a student pursuing a PhD in Health Sciences at the Namibia University of Science and Technology (NUST), has been granted permission to conduct her research on the above subject within the City of Windhoek.

Respondents to the study are therefore requested to render Ms. Mouyelele Haufiku- Weyulu their cooperation and assistance.

Should there be any queries, please feel free to contact the Human Resources Development Division on the above contact details.

Yours Sincerely;

CITY OF WINDHOEK 20 JUN 2024 Signature Organisational & Human Resources Development Division Department of Human Capital & Corporate Services

AM Nikanor
Manager: Organizational & Human Resources Development

All official correspondence must be addressed to the Chief Executive Officer

APPENDIX 10: ETHICAL APPROVAL FROM MOHSS- KHOMAS REGIONAL DIRECTORATE

REPUBLIC OF NAMIBIA
MINISTRY OF HEALTH AND SOCIAL SERVICES

OFFICE OF THE REGIONAL DIRECTOR

Private Bag 13322
Windhoek
Namibia

Khomas Directorate
Florence Nightingale Street
Windhoek

Tel: (061) 203 5016
Fax: (061) 235997
International: (264 61 235997)

Enq: Ms. Mabengano | Ref: 25/5.4/2/9 | Date: 07 June 2024

STAFF MATTER: CONFIDENTIAL

MS. MOUYELELE T. HAUFIKU-WEYULU
NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY
WINDHOEK
NAMIBIA

Dear Ms. Haufiku- Weyulu

SUBJECT: APPROVAL OF THE ACADEMIC RESEARCH PROPOSAL AT PRIMARY HEALTH CARE FACILITIES IN WINDHOEK DISTRICT, KHOMAS REGION.

1. The above matter bears reference.
2. Your request to conduct a research through data collection at the Khomas Regional Directorate in Windhoek was received and noted.
3. You are hereby informed that on the recommendation of the Executive Director permission has been granted for you to conduct a study on "Development of a community-based model for improving the quality of life of the elderly in Namibia," at Primary Health Care facilities in Windhoek District- Khomas Region, for a period of one (1) year as from 01 July 2024 until 30 June 2025.
4. The Office wishes you success with your research.

Yours sincerely

TOMAS UKOLA
DIRECTOR: KHOMAS REGION

MINISTRY OF HEALTH AND SOCIAL SERVICES
OFFICE OF THE DIRECTOR
2024 -06- 12
TEL NO: 061 203 5001 / 6
P/BAG 13322 WINDHOEK
DIRECTORATE KHOMAS REGION

Signature & date received _____

All Official Correspondence must be addressed to the Regional Director

APPENDIX 11: ETHICAL APPROVAL FROM MOHSS- OHANGWENA REGIONAL DIRECTORATE

REPUBLIC OF NAMIBIA

MINISTRY OF HEALTH AND SOCIAL SERVICES

RMT - Eenhana
Private Bag 88006
Eenhana

OHANGWENA HEALTH DIRECTORATE
OFFICE OF THE DIRECTOR

Tel: No: 065 – 263260/239
Fax No: 065 – 263063
Email: geotho2@gmal.com

Enq: George T. Jeremia

6 June 2024

To: **Ms. Mouyelele Haufiku**
Course: Ph. D in Health Science
Student – NUST - Whk

RE: APPLICATION FOR PERMISSION TO CONDUCT ACADEMIC STUDY AT ENGELA, EENHANA AND OKONGO DISTRICT HOSPITALS, OHANGWENA REGION

1. The abovementioned subject bears reference.
2. The Ohangwena Health Directorate is hereby delighted to grant you permission to conduct your study titled: *Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia.*
3. This permission is granted on condition that you adhere to the rules as stipulated in approval in the letter from the Ministry's Research Unit.
4. Additionally, when at the district hospitals, you are required to report yourself to the Office of the Senior Medical Officers (SMOs) who will direct you accordingly.
5. We wish you success in your work and hope the research will generate data that will contribute to the body of knowledge in the professional.

Kind regards

.....
GEORGE T. JEREMIA
ACTING REGIONAL DIRECTOR
OHANGWENA REGION

MINISTRY OF HEALTH AND SOCIAL SERVICES
OFFICE OF THE DIRECTOR
OHANGWENA REGION
07 JUN 2024
Private Bag 88006 Eenhana
Tel: 065-263260
Fax: 065-263064
REPUBLIC OF NAMIBIA

All official correspondences must be addressed to the Regional Director

My NAMIBIA MY COUNTRY, MY PRIDE

APPENDIX 12: ETHICAL APPROVAL FROM MOHSS- HARDAP REGIONAL DIRECTORATE

Hardap Regional Health Directorate

8/10/2024

Dear Ms Stephanus

REF: REQUEST FOR PERMISSION TO CONDUCT A STUDY ON THE PREVALENT HEALTH STATUS AND SOCIAL LIVING CONDITIONS OF OLDER ADULTS (60+ YEARS)

My name is Mouyelele Haufiku. I am pursuing my Doctor of Philosophy in Health Science at the Namibia University of Science and Technology. I am conducting a mixed-method study on older adults (60+ years) titled "Development of a Community-Based Model for Improving the Quality of Life of the Elderly in Namibia."

The objectives of this study are as follows:

- To assess community awareness and attitudes toward old age homes and their benefits among the elderly.
- To evaluate the capacity of nursing homes to accommodate the complex needs of Namibia's elderly population, considering both current conditions and potential future expansions.
- **To appraise the prevalent health status and social living conditions of the elderly.**

To achieve the third objective, I plan to conduct a hospital record analysis in the regional district hospitals to appraise the health conditions our older persons are being treated for. I will then want to access the HIS staff and their DHIS database. Additionally, I intend to conduct in-depth interviews with social workers, community health workers, and healthcare workers who care for the elderly. I am requesting your permission to access the databases and conduct these interviews.

This study will provide valuable insights to healthcare providers and policymakers, aiding in the creation and amendment of health facilities and promoting a healthy aging environment. Such measures are crucial to reducing risks and preventing complications of chronic diseases as the global trend of increasing life expectancy continues.

Participation in the study will be anonymous as no names or identity information will be required, and individual information will only be identified by a code number. Strict confidentiality of information collected in this study will be ensured. The study has received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC), reference (FHNRAS:61/2023), and from the Ministry of Health and Social Services, approval reference (22/3/1/2).

I plan to collect data between July 2024 and July 2025, allowing ample follow-up time if further information is needed during the data analysis phase.

I would greatly appreciate your positive consideration of this request.

Yours sincerely,

+264 81 8679177
mhaufiku@nust.na

HARDAP REGIONAL DIRECTOR
MINISTRY OF HEALTH AND SOCIAL SERVICES

APPENDIX 13: ETHICAL APPROVAL FROM OHANGWENA REGIONAL COUNCIL

REPUBLIC OF NAMIBIA

OHANGWENA REGIONAL COUNCIL

Private Bag 88011 Eenhana, Namibia

Tel. No: +264 65 264355
Enquiries: Onesmus Shapopi
Email: oshapopi@ohangwenarc.gov.na

Fax. No: +264 65 263033
Our Ref.: S.4/5/1
02 July 2024

Mouyelele Haufiku - Weyulu
Namibia University of Science and Technology
Fuculty of Health, Natural Resources and Applied Sciences
Windhoek

Dear Ms. Haufiku-Weyulu,

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH IN OHANGWENA REGION

Reference is made to your letter on the above-mentioned subject.

Ohangwena Regional Council is conscious that research is one of the main academic functions of any academic institution.

Based on the above, you are hereby informed that approval has been granted for you to conduct research study on the development of a community -based model for improving the quality of life of the elderly in Namibia.

The Council will highly appreciate if a copy of your research project is made available to this office and wish you a fruitful endeavor.

Yours faithfully,

FILLIPUS H SHILONGO
CHIEF REGIONAL OFFICER

OHANGWENA REGIONAL COUNCIL
Office of the
Chief Regional Office
2024 -07- 03
Private Bag 88011 Eenhana Namibia
Tel. 065-264306 Fax. 065-264322
REPUBLIC OF NAMIBIA

All official correspondences must be addressed to the Chief Regional Officer

APPENDIX 14: ETHICAL APPROVAL FROM THE MINISTRY OF GENDER EQUALITY, POVERTY ERADICATION AND SOCIAL WELFARE

REPUBLIC OF NAMIBIA

OFFICE OF THE PRESIDENT

MINISTRY OF GENDER EQUALITY, POVERTY ERADICATION AND SOCIAL WELFARE

2111 Juvenis Building, Independence Avenue
Tel: +264 61 283 3111
Fax: +264 61 283 941/240 898
E-mail: genderequality@mgepesw.gov.na
Website: www.mgepesw.gov.na
Ref: 15/R

Private Bag 13359
Windhoek
Namibia

17 June 2024

Ms. Mouyelele Haufiku - Weyulu
Doctoral Researcher
Namibia University of Science and Technology (NUST)
Windhoek

Dear Ms. Haufiku - Weyulu

SUBJECT: REQUEST FOR PERMISSION TO CONDUCT A STUDY ON OLDER ADULTS (60+ YEARS) TO IMPROVE THEIR QUALITY OF LIFE

Reference is made to your undated letter on the above mentioned subject.

The Ministry regrets to inform you that your request with respect to information about pay points cannot be considered favourably, as the information you require for your research is of a very sensitive nature with a potentially high risk. You are therefore advised to approach Messrs Epupa Investment Technology to secure information in respect of the particular pay points you contemplate to consider for your research.

Furthermore, the Ministry does not have any objections to your intent to interview the old age grant beneficiaries at the pay points. However, the interview should be conducted after the beneficiaries have received their grants and not while they are in the queue.

Finally, you are advised to follow the requisite ethical considerations with respect to research and that preliminary findings be shared with the Ministry before final publications.

Yours sincerely,

Mr. Manasse Nichlas Mbingeneeko
Acting Executive Director

EXECUTIVE DIRECTOR
17 JUN 2024
MINISTRY OF GENDER EQUALITY, POVERTY ERADICATION & SOCIAL WELFARE

All official correspondences must be addressed to the Executive Director

My NAMIBIA MY COUNTRY. MY PRIDE

APPENDIX 15: ARTICLE 1: SCOPING REVIEW

This was the study's first objective, a scoping review conducted to map the available evidence on community-based care (CBC) approaches/services implemented in Low- and Middle-Income Countries (LMICs).

REFERENCE:

Haufiku-Weyulu, M., Mahalie, R., & Aku Akai, L. (2025b). Community-based elderly care approaches implemented in low and middle-income countries: A scoping review. *Research Journal of Health Sciences Res. J. Health Sci*, *13*(2), 127. https://doi.org/10.4314/rejhs.v13i2.5

FULL PDF DOCUMENT BELOW:

Community-based elderly care approaches implemented in low and middle-income countries: A scoping review

Haufiku-Weyulu, M., Mahalie,R., Aku-Akai, L.

Environmental Health Sciences, Department of Preventative Health Sciences, Namibia University of Science and Technology, Namibia

Article Info

Article type:
Review Article

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Elderly, older persons, community-based, elder care, low- and middle-income countries

Corresponding author:
Mouyelele Haufiku-Weyulu,
ORCID No: 0009-0008-9490-5762
mouyelele1@gmail.com

This article can be accessed at:
www.rjhs.org

http://dx.doi.org/10.4314/rejhs.v13i2.5

Abstract

Introduction: Globally, the average lifespan has become prolonged in recent years. Strong community-based care services (CBCS) are imperative to maintain the health of older persons when family care falls short. Data on the health and care of older persons in low—and middle-income countries (LMICs) like Namibia are scarce. The review aimed to map the available evidence on CBC approaches implemented in LMICs.
Methodology: The review followed the 2022 Joanna Briggs Institute (JBI) manual for Evidence Synthesis. Rayyan cloud-based software was used to organize, manage, and remove duplicates. The Preferred Reporting Items for Systematic Review and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) were utilized to convey the review's results.
Results: The final analysis included 22 articles. Households with older people need extra income to maintain a similar living standard to those without. LMICs face challenges in building comprehensive and sustainable frameworks to support the older population, struggle to provide adequate pensions, have a significant shortage of skilled geriatrics, and rely on informal caregivers as care homes and primary health care systems are insufficient.
Conclusion: As the challenge of population aging intensifies, strengthening CBC approaches is essential, given that most older persons prefer to age at home rather than in facilities.

Approches communautaires de soins aux personnes âgées mis en œuvre dans les pays à revenu faible et moyen : un examen de la portée

Résumé
Introduction : À l.échelle mondiale, l'espérance de vie moyenne s'est allongée ces dernières années. Des services de soins de proximité performants sont indispensables pour préserver la santé des personnes âgées lorsque les soins familiaux sont insuffisants. Les données sur la santé et les soins des personnes âgées dans les pays à revenu faible et intermédiaire (PRFI) comme la Namibie sont rares. Cette revue visait à recenser les données disponibles sur les approches de soins de proximité mises en œuvre dans les PRFI.
Méthode de l'étude : L'analyse a suivi le manuel de synthèse des données probantes de 2022 du Joanna Briggs Institute (JBI). Le logiciel cloud Rayyan a été utilisé pour organiser, gérer et supprimer les doublons. Les éléments de rapport préférés pour la revue systématique et l'extension de méta-analyse pour les revues de portée (PRISMA-ScR) ont été utilisés pour présenter les résultats de l'analyse.
Résultat de l'étude : L'analyse finale comprenait 22 articles. Les ménages comptant des personnes âgées ont besoin de revenus supplémentaires pour maintenir un niveau de vie similaire à celui des ménages sans personnes âgées. Les pays à revenu faible ou intermédiaire (PRFI) ont du mal à mettre en place des cadres complets et durables pour soutenir la population âgée, peinent à fournir des pensions adéquates, connaissent une pénurie importante de gériatres qualifiés et dépendent des aidants informels, car les maisons de retraite et les systèmes de soins de santé primaires sont insuffisants.
Conclusion : Alors que le défi du vieillissement de la population s'intensifie, le renforcement des approches de CBC est essentiel, étant donné que la plupart des personnes âgées préfèrent vieillir à domicile plutôt que dans des établissements.
Mots-clés : Personnes âgées, personnes âgées, soins communautaires, soins aux personnes âgées, pays à revenu faible et intermédiaire

INTRODUCTION

Today, most people globally anticipate living into their 60s and beyond, and as a result, the number and proportion of older people in the population are rising in every country (1). Improvements in medicine and technology could be the contributing factors (2). This demographic shift has not kept pace with the resources, skills, training/education, research, and government commitment that is required to meet the needs of an increasing number of older adults and to enable them to flourish as valuable members of their communities (3).

To define an older person, the United Nations (UN) accepted the cut-off age of 60 and above as a reference to the older population in many countries, including Namibia (4,5). The shift in the distribution of the countries' aging population started in high-income countries. However, it is now the Low and Middle-Income Countries (LMICs) undergoing the most transformation (6). The World Bank defines Low- and Middle-Income Countries (LMICs) based on Gross National Income (GNI) per capita, calculated annually. The following are the thresholds for the fiscal year 2023: Countries with a GNI per capita of $1,145 or less are considered low-income. GNI per capita in lower-middle-income nations ranges from $1,146 to $4,515. GNI per capita in upper-middle-income nations ranges from $4,516 to $14,005 (7). As of 2024, an estimated 1.2 billion older people aged 60 and over lived worldwide, constituting about 12% of the world population; of the 1.2 billion, 80% will be residing in low and middle-income countries by 2050 (1,8). Furthermore, by 2030, one in six (1 in 6) people in the world will be aged 60 years or over; the same population will double (two billion) by 2050, while those aged 80 years or older are expected to triple between 2020 and 2050 to reach 426 million (1,9). Namibia's life expectancy at birth is projected to rise from 53.3 years to 64.1 years for men and from 60.5 to 72.1 years for women between 2011 and 2041 (10). Further, according to the findings of the Namibia 2023 Population & Housing Census, the overall older persons (60+) population of Namibia in 2023 was 206675 compared to the 2011 population of 113303 elderly, representing an increase of 29 percent over 12 years (11,12).

Population aging has far-reaching effects on both the elderly and society. Not only are people living longer, but they are living longer in poor health, which may necessitate more extensive medical care, social support systems, and, at times, even long-term care (2,13,14). As people age, several body systems, including the cardiovascular and musculoskeletal systems, become less capable of meeting the body's needs (15). Hearing loss, cataracts, back pain, osteoarthritis, chronic obstructive pulmonary disease, diabetes, depression, cardiovascular diseases, and dementia are among the common health issues that older people suffer (14,16). Therefore, creating a healthy aging environment to reduce the risks and prevent complications of chronic diseases is necessary. Equally, governments will need to keep up with rising welfare expenditures on health and related care services in the coming years. The World Health Organisation (WHO) has recognized that 'without considering the health and social care needs of the ever-increasing numbers of older people, SDG 3 on Universal Healthcare Coverage (UHC) will be impossible to achieve' (1). Subsequently, studies have shown that modernization, urbanization, and the quest for a better living for older people's children have resulted in older persons' neglect and cruel treatment (17–19). Further, the decline of the joint family system, weakened traditional systems of family care for older persons, and the rise of nuclear families have isolated older individuals (14,20). With this backdrop, the need for services to assist older persons is steadily climbing, and the need for nursing homes/home modifications and community services continues to become apparent as time goes on (20,21).

Due to Namibia's increasing aging population, designing a community-based model for improving their quality of life is necessary. There is, however, a dearth of scoping review studies regarding community-based care approaches for the aged in underdeveloped nations, with the researcher finding none conducted in Namibia. The elderly care sector, especially in Africa, remains understudied and has few interventions (22,23). Efforts to collect information on these issues are required. In the same way, Namibia is not mentioned as one of the common countries in Africa that published research on aging-related issues between 2010 and 2020 (3). Consequently, due to a lack of comprehensive information systems for the elderly, Namibia is not ranked by the Global Age Watch (24). It is also described that when there is no sufficient data on older persons, taking action will be like pouring water into a sieve (25). Further, the Namibian National Policy on the rights protection and care of older persons is in the finalization stages before implementation. Therefore, this scoping review is anticipated to map community-based care approaches used in

other LMICs to assist Namibia in providing care for its older population.

MATERIALS AND METHODS

Study design

To map the existing literature on community-based elderly care approaches, the latest Joanna Briggs Institute (JBI) manual for Evidence Synthesis methodologies was adopted (26). This edition follows the JBI methodologies of 2015 and 2017, respectively (27,28). This manual provides a clear methodological and transparent process for our review, which can be replicated. The Preferred Reporting Items for Systematic Review and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) (29) and the Guidance on conducting narrative synthesis in systematic review was utilized in presenting the review's findings (29,30). The PRISMA-ScR was used throughout the review process (screening and reporting) (see Figure 1 study selection flow chart). To limit the occurrences of reporting bias, the objectives, inclusion criteria, and methods for this scoping review were specified in advance and documented in a protocol. The protocol was registered on the Open Science Framework (OSF) on 22 March 2024 and is accessible at: https://doi.org/10.17605/OSF.IO/45RC2.

Eligibility criteria

The inclusion and exclusion criteria were determined based on the Population, Concept, and Context (PCC) mnemonic. The main aim of the study was to map the available evidence on community-based elderly care approaches implemented in LMICs. Hence, the review included articles and reports on community-based elderly care approaches, level of care, home-based services, formal and informal care provided to the elderly 60 years and above, both male and female, conducted in low- and middle-income countries, aimed at providing support and improving their quality of life after 60 years. Namibia is classified as a middle-income country. The study focused on LMICs because, according to the WHO (2015), aging around the world poses a global challenge in eldercare. However, the challenge is most felt in the LMICs, where population aging outpaces the development of aged care policies and services (31). Due to the novelty of the subject area, sources of information were broad to help retrieve all full-text primary research studies (quantitative, qualitative, and mixed methods studies), books, guidelines, systematic reviews and scoping reviews and dissertations, newspapers, conference proceedings/abstract and other grey literature meeting the eligibility criteria, published in English (the researcher understands only English). Papers were also included if they were published between 01 January 2014 December 2023 (because of new area of study, as studies done outside of this time range were scarce and limited in the scope of topics relevant to aging (3) Furthermore, recent publications are likely to reflect current challenges, societal changes, policies, and innovations in older person care that are more relevant to this study, ensuring that the results align with the current legislative environment; studies were also to be published in LMICs to be eligible for inclusion). Articles and reports on older people under 60 years, non-English, conducted in high-income countries before 2014 and after 2023 were excluded. This review is one of the study's objectives in progress in Namibia under the title development of a community-based model for improving the quality of life of the elderly.

The search strategy

The search strategies (Table 1) followed the three steps recommended by the JBI manual(26). 1: performing a preliminary search of published studies in the Science Direct and Google Scholar databases. 2: using the PCC mnemonic key terms of the inclusion and exclusion criteria; and search in Namibia University of Science and Technology (NUST) library database/ EBSCO discovery services, (including major databases such as MEDLINE, CINAHL, SCOPUS, Springer Nature Journals, Complementary Index, Academic Search Premier, Health Source: Nursing/Academic Edition, SAGE Knowledge, Newspaper Source, Open Dissertations, eBook Collection (EBSCOhost), Health Source, African Journals, Science, ERIC, etc.); EBSCO host (contains Medline, CINAHL, Health Source: Nursing academic edition and Academic search premiers, Open dissertations, Newspaper Source and eBook collection); Science Direct; ProQuest Science and Technology, Google Scholar and websites of organizations (World Health Organisation and United Nations were also searched for unpublished 'grey' literature. 3. All reports and articles meeting the review's eligibility criteria were searched to identify additional studies.

Data management

Electronic databases were searched using the finalised search strings. The Rayyan online software (32) was used to organize, manage, and remove duplicates. Reviewers were also invited

onto this APP to participate in the review process. Three independent reviewers carried out the two-step process of selecting the eligible articles. All titles and abstracts produced by the search were reviewed independently by three reviewers (MH, RM, and LA) blinded to each other, based on the inclusion and exclusion criteria. Full papers were retrieved for literature considered potentially relevant. The first reviewer (MH) reviewed the full-text articles chosen in detail. The second reviewer (RM) agreed to the choices of the full-text articles; any disagreement was resolved through discussions or with the third reviewer (LA). After the full-text review, 22 studies were found to have met the eligibility criteria and are therefore included in the synthesis.

Data charting process

Data were extracted from the included literature. A data extraction form (Table 2) was produced in Microsoft Excel for Office 365 (version 2404) by the first reviewer (MH) with a minimum of three eligible articles; this was agreed upon with the other two reviewers before it was adopted. The reviewer extracted relevant data based on the evidence related to community-based elderly care approaches. The following information was recorded: Author(s), year of publication, origin/country of origin (where the study was published or conducted), Study design, sample size (where applicable), aims/purpose, and the key findings that relate to the scoping review question/s. A systematic narrative synthesis was utilized to analyze the results. Results were reported descriptively.

RESULTS AND DISCUSSION

Inclusion and Exclusion criteria

The extracted data items of all eligible articles were tabulated and summarized (Table 2). The main themes and concepts were extracted and presented in the narrative below. The search yielded 238 articles, of which 172 remained after duplicates were removed. A further 150 articles were removed after the title and full-text screening because they either looked at older persons less than 60 years old, were conducted in high-income countries, focused on patients, or looked at specific diseases or conditions and published before or after the inclusion criteria range. A total of 22 eligible articles were included in the final analysis (conducted as 4- India; 3 each from Ghana and Ethiopia; 2 each from Iran, South Africa, and Nigeria, and 1 each from Nepal, China, Bangladesh, South Asia, and Sub-Saharan Africa and middle-income countries), (See the PRISMA flow chart Fig 1 for selected studies).

Synthesis of Results

Owing to the broad scope of our research question, the results and discussion section are combined and organized according to the main themes that emerged from the included studies. The strength of community-based elderly care approaches in LMICs varies for several reasons, such as economic resources. Some nations have high budgets for social services, others have government policy commitments to inclusive frameworks that prioritize aging populations, and others are falling behind due to a lack of healthcare workforce capacity, cultural attitudes, and public awareness (25,33–36).The recommendations based on the findings are also stipulated as they will benefit developing appropriate policies and long-term funding, bolstering the caregiver education program, and improving the service delivery system.

Pension

In Namibia, support systems such as pension payments and free accessible health care are all available and utilized by older people. The Old Age Pension (OAP) in Namibia is a government-funded social assistance program that provides financial support to Namibian citizens and permanent residents aged 60 years and above. Regardless of their income level or employment history, all eligible recipients get a monthly pension of N$1,600.00, guaranteeing financial support for all older citizens. The pension system also indirectly supports older persons who are caregivers for their grandchildren and other dependents. Countries like Ghana have the same support systems, but the targeted older people do not benefit from these programs (37). Other countries such as Bangladesh, India, Nepal, and Sri Lanka offer social pensions, too, but they are very low/ below the poverty line (33). The study that estimated the extra cost of older persons in Ghana found that disparity in educational attainment between locations had a detrimental effect on one's ability to secure employment and prepare for retirement, and hence, some older people entirely rely on pension benefits (21). Martey (2022) suggested that extra income be given to households taking care of older persons to improve their welfare outcomes. The data showed that for a home with an aged member to reach a comparable level of living to that of a similar household without an older member, 8% and 24% of additional annual household consumption expenditures were needed in 2012/2013 and

2016/2017, respectively (22). Despite Namibia's OAP, 44.5% of older people are reported to experience multidimensional poverty (38). Meanwhile, 72% of older persons in India were found to be fully or partially economically dependent on others, which increases with increasing age, place of residence, and educational status (39).

Skilled geriatric workforce (Geriatric and gerontology)

The geriatric workforce is the main component of elderly care, and it is scarce in LMICs (3,25,33). In Namibia, geriatrics is not yet an established training pathway. This is a similar situation to countries such as India and Pakistan (33). An older person can present at the hospital with several diseases and be treated by each of their disease specialists/general physician, each prescribing the drug to cure the ailment they have identified; the simultaneous consumption of sometimes more than ten medications may pose side effects for the older person (25,33). Instead, if a geriatrician had been there, the patient would have had a thorough evaluation and treatment. A study done in Iran found that their hospitals are not customized for older persons, either in terms of their physical layout or the care services they offer. They, however, have a skilled geriatric workforce but cannot meet the country's older population demand (25).

Informal carers-specific education and training

Family members in LMICs primarily shoulder caregiving responsibilities. The main issues in this area are the lack of training programs and empowerment initiatives for unofficial home caregivers and the limited financial support (25). In countries such as India, Bangladesh, Nepal, Sri Lanka, and Pakistan, the number of state care homes is conspicuously out of proportion to need, reflecting family caregiving tradition (33).The government's subsidy for elderly care is believed to be too little to meet the elderly's diverse needs, especially those of families that must take care of disabled older persons. These families require specialized training courses to teach them how to care for their older relatives. Due to a lack of training and education for caregivers, they resort to cultural values and their knowledge, and this may lower the standard of care (40). Community-based services for the elderly include meals-on-wheels, clubs, cultural centers, nursing homes, or adult day care, and transportation for the vulnerable, frail, and disabled elderly are required (25). Africa, 2019 recommends government-subsidized dial-a-ride transport service for the disabled to be available (41).

State long-term care

The studies showed that while aging populations necessitate formalized long-term care policies, many countries lack frameworks to support these needs comprehensively. For instance, China and Iran are starting to recognize the need for public policies and financial models that prioritize long-term elderly care over family-based systems (3,25,36). On the other hand, Kraus & Riedel's (2022) Study on long-term care (LTC) provision in nine large middle-income countries (MIC) across three continents: Algeria, Nigeria, and South Africa in Africa, Brazil, Colombia, and Mexico in Latin America, and China, India, and Turkey in Asia, could not obtain information on home-based care for these countries (42). The institutional care facilities available in these countries are limited and typically concentrated in affluent or urban areas, sometimes even only in the capital region. There is very little access to publicly funded home-based care. Only South Africa has established legal entitlements to LTC services among these countries.

The legislation in Algeria and the three Asian nations has instead shifted LTC liability onto the families. The quality of care provided by families will depend on their financial circumstances (43). This explains why institutional care has only recently begun to exist, while home-based care has long been considered the more acceptable type of long-term care services (42). Following this, some older persons follow the younger generation to cities, leaving their modern networks behind, or some stay in their ancestral homes alone with little help from their families or the community; thus, the "empty nest syndrome" may affect them (44).

Building strong primary healthcare, home-based care, and community-level social services

South Asia, including India, has somewhat stronger public health infrastructure with some government-funded elder care initiatives, though these are still limited and largely urban-focused (34). Ethiopia and other African countries have even fewer primary healthcare facilities dedicated to elder care with minimal geriatric healthcare integration (34). The dependent older adults though, such as those with disabilities and mental illness, need redesigned facilities such as toilets and bathrooms to be able to use them independently as the current design is too classic and narrow; this will help to reduce the

caregiving burden (34). Lack of proper housing for the elderly has a negative impact on their health, their sense of security, and their peace of mind (37). The community can set up a health club specifically designed for older persons. This health club would be a place to improve older persons' social relationships and can serve as a primary healthcare facility as it can serve as a point for social interactions and a source of health messaging; for instance, the Community Health Workers can use it to be conveying issues of geriatric health messages (37). Another study also found that social relations are one of the critical components of healthy ageing (45). The odds of perceiving ill health and activities of daily living limits were lower among older adults who participated in social activities compared to those who did not (46).

On a broader area, members of the HelpAge network realised that to eradicate ageism and prejudice, the issue of population aging had to be tackled through inter-generational approaches (47). However, these grassroots initiatives must be backed by laws, regulations, and programs implemented by the government using a comprehensive and methodical approach to ensure that everyone ages with dignity. Furthermore, with support from the UNFPA Asia Pacific regional office, HelpAge International carried out case studies in several LMICs in 2021, including the Maldives, Vietnam, Sri Lanka, Malaysia, Iran, Indonesia, and India (47). The studies indicated that the policy interventions in each of the case study countries were inevitably implemented at varying stages, reflecting their different stages in the demographic transition (47). Nevertheless, it was discovered that policy interventions adopted were not able to demonstrate a fully rights-based approach – with components like empowering older people and enhancing their social engagement and involvement. This demonstrated the need for more specific criteria to appraise and categorise policy interventions that take a rights-based stance. Thus, population ageing compounded with other development trends like climate change, urbanisation, conflict, and humanitarian crisis, will have a significant impact if policies and programs that address the difficulties systemically are not adopted (33,47). Further, in Iran, the policies are described as idealistic, treatment-based, ideology-based, lacking legal sanction, and oblivious to the infrastructures and prerequisites (25).

CONCLUSION

Despite the government's support for community-based care, no special services or programs are offered to older persons at the primary/community care level. This review has demonstrated the existence of strategies and programmes available to older persons in LMICs. Studies have, however, highlighted inconsistencies in the delivery of the services, insufficient capacity and skills to deal with geriatric health and social issues, with most of the geriatric care burden being borne by families in already vulnerable situations, and an absolute or relative lack of institutionalised or non-institutionalised programmes being offered for older persons at the community level.

Recommendations: In Namibia, new healthcare policies are urgently needed to support informal caregivers by providing targeted education and training. Policymakers should clearly define the roles of key bodies in aging, including the government, community, private sector, NGOs, civil society, the National Council, and other development partners. As family caregivers lack or become overburdened, the government should proactively fill gaps with accessible, affordable long-term care options. Co-residence should be encouraged through housing policies and financial incentives to support economically reliant older people. Comprehensive care programs for older persons should be integrated into urban and rural health centers, addressing challenges in infrastructure and resources. The National Pension Scheme should also include informal sector workers to secure their retirement contributions. Recognizing geriatrics as a separate specialty would improve elderly care, and establishing community-based programs like daycare and outreach can further support this demographic with the government's stewardship.

Ethical issues: The study did not pose any direct risks or benefits to any persons as there was no direct contact with participants. Transparency and reproducibility are assured through the documentation of all decisions taken to include or exclude studies throughout the review process. The main study received ethical approval from the Namibia University of Science and Technology Faculty Research Ethics Committee (F-REC) on 06 November 2023, approval code FHNRAS:61/2023. The Ministry of Health and Social Services also granted approval on 09 January 2024, approval reference 22/3/1/2.

Limitations: The search strategy has eliminated articles not published in English; it may omit

crucial articles; this is the review's limitation. Therefore, publications produced in different languages should be considered in future reviews.

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REFERENCES

1. World Health Organisation. Ageing and health [Internet]. 2024. Available from: https://www.who.int/en/news-room/fact-sheets/detail/ageing-and-health
2. Šídlo L, Šprocha B, Durček P. A retrospective and prospective view of current and future population ageing in the European Union 28 countries. Moravian Geographical Reports [Internet]. 2020 Sep 1 [cited 2024 Jul 2];28(3):187–207. Available from: https://sciendo.com/article/10.2478/mgr-2020-0014
3. Adamek ME, Gebremariam Kotecho M, Chane S, Gebeyaw G. Challenges and Assets of Older Adults in Sub-Saharan Africa: Perspectives of Gerontology Scholars. J Aging Soc Policy. 2022;34(1):108–26.
4. Byrnes A. Older Persons. 4th ed. Elgar Encyclopedia of Human Rights. Cheltenham; 2022. 1–7 p.
5. Dasgupta A, Pan T, Paul B, Bandopadhyay L, Mandal S. Quality of life of elderly people in a rural area of West Bengal: A community-based study. Medical Journal of Dr DY Patil Vidyapeeth,. 2018;11(6):527–31.
6. World Health Organisation. Health situation. WHO Country Cooperation Strategy. 2015;570(April):0–1.
7. World Bank. World Bank Country and Lending Groups [Internet]. 2023 [cited 2024 Oct 31]. Available from: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
8. Office for National Statistics. National Statistical. 2024 [cited 2024 Nov 2]. Improving the visibility of older people in global statistics. Available from: https://blog.ons.gov.uk/2024/10/01/improving-the-visibility-of-older-people-in-global-statistics/
9. United Nations. World Population Ageing 2019: Highlights. New York; 2019.
10. Namibia Statistics Agency. Namibia Population Projections 2011-2041. Vol. 2014. Windhoek; 2014.
11. Namibia Statistics Agency. Namibia 2011 Population & Housing Census Main Report [Internet]. 2012 [cited 2024 Mar 20]. Available from: https://nsa.nsa.org.na/publications/
12. Namibia Statistics Agency. Namibia 2023 Population and Housing Census Report [Internet]. Windhoek; 2024 Oct [cited 2024 Nov 4]. Available from: https://nsa.org.na/publications/
13. Institute for Health Metrics and Evaluation. Global Burden of Disease Study 2017. 2017; Available from: https://www.healthdata.org/sites/default/files/files/policy_report/2019/GBD_2017_Booklet.pdf
14. Maharaj P. Health and care in old age in Africa. Health and Care in Old Age in Africa. Taylor & Francis Group; 2020. 1–166 p.
15. Beshyah SA, Hafidh K, Abdulrahman H, Hammami SO. Perceptions of Geriatric Medicine and Care of the Elderly: An Exploratory Survey of Physicians from the Middle East and Africa. Ibnosina Journal of Medicine and Biomedical Sciences. 2022;14(01):012–21.
16. World Health Organization. Decade of Healthy Ageing :baseline report [Internet]. Switzerland; 2020 [cited 2024 Nov 5]. Available from: https://iris.who.int/handle/10665/338677
17. Boro B, Srivastava S, Saikia N. Is There an Association Between Change in Old-Age Living Arrangements and Older Adults' Psychological Health and Subjective Well-Being in India? Evidence from a Cross-Sectional Study. Ageing Int. 2023 Mar 1;48(1):281–300.
18. Aboderin I. Intergenerational Support and Old Age in Africa. 1st Edition. New York; 2017. 1–222 p.
19. Tawiah EO. Population ageing in Ghana: a profile and emerging issues [Internet]. Vol. 25, African Population Studies. 2011. Available from: http://aps.journals.ac.za
20. Bhat BA. Old age homes and traditional support systems. 2021;(July). Available from: https://www.researchgate.net/publication/264534627_Definition_of_an_older_person_Proposed_working_definition_of_an_older_person_in_Africa_for_the_MDS_Project
21. Kpessa-Whyte M. Aging and Demographic Transition in Ghana: State of the Elderly and Emerging Issues. Vol. 58, Gerontologist. Gerontological Society of America; 2018. p. 403–8.
22. Martey E. Blessing or Burden: The Elderly and Household Welfare in Ghana. Soc Indic Res. 2022 Jul 1;162(2):803–27.
23. Nawagi F, Mukisa J, Najjuma JN, Nabirye RC. "We are never taught anything about the elderly."

Establishing the gap in elderly health care competencies in nursing education in Uganda. BMC Nurs. 2022 Dec 1;21(1).
24. Help Age International. https://www.helpage.org/news/switzerland-top-global-agewatch-index-2015/. 2015. Global Age Watch Index.
25. Goharinezhad S, Maleki M, Baradaran HR, Ravaghi H. A qualitative study of the current situation of elderly care in Iran: what can we do for the future? Glob Health Action. 2016 Dec 1;9(1).
26. Aromataris E MZ editors. JBI Manual for Evidence Synthesis [Internet]. 2020 [cited 2024 Feb 26]. Available from: https://jbi-global-wiki.refined.site/space/MANUAL/4687404/About+this+Manual
27. Peters M, Godfrey C, McInerney P, Munn Z, Tricco A, Khalil H. 2017 Guidance for the Conduct of JBI Scoping Reviews Chapter 11 : Scoping Reviews Scoping Reviews. Understanding scoping reviews: Definition, purpose, and process [Internet]. 2017;18(10):2119–26. Available from: https://www.researchgate.net/profile/Micah-Peters/publication/319713049_2017_Guidance_for_the_Conduct_of_JBI_Scoping_Reviews/links/59c355d40f7e9b21a82c547f/2017-Guidance-for-the-Conduct-of-JBI-Scoping-Reviews.pdf
28. Peter M, Godfrey M Christina, Mcinerney P SB. The Joanna Briggs Institute Reviewers' Manual 2015: Methodology for JBI scoping reviews. Joanne Briggs Institute [Internet]. 2015;(February 2016):1–24. Available from: https://reben.com.br/revista/wp-content/uploads/2020/10/Scoping.pdf
29. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. Vol. 169, Annals of Internal Medicine. American College of Physicians; 2018. p. 467–73.
30. Popay J, Roberts H, Sowden A, Petticrew M, Arai L, Rodgers M, et al. Guidance on the Conduct of Narrative Synthesis in Systematic Reviews A Product from the ESRC Methods Programme Peninsula Medical School, Universities of Exeter and Plymouth [Internet]. 2006 [cited 2024 Mar 13]. Available from: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=ed8b23836338f6fdea0cc55e161b0fc5805f9e27
31. World Health Organisation. World report on ageing and health [Internet]. 2015. Available from: https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf?sequence=1&isAllowed=y
32. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan-a web and mobile app for systematic reviews. Syst Rev [Internet]. 2016 Dec 5 [cited 2024 Mar 20];5(1). Available from: https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-016-0384-4
33. Matthews NR, Porter GJ, Varghese M, Sapkota N, Khan MM, Lukose A, et al. Health and socioeconomic resource provision for older people in South Asian countries: Bangladesh, India, Nepal, Pakistan and Sri Lanka evidence from NEESAMA [Internet]. Vol. 16, Global Health Action. Taylor and Francis Ltd.; 2023 [cited 2024 Feb 9]. Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=23&sid=314d25dd-5c82-49f5-8b28-3e369aef3b59%40redis
34. Dawud M, Kotecho MG, Adamek ME. "It is all About Giving Priority to Older Adults' Needs:" Challenges of Formal Caregivers in Two Old Age Homes in Ethiopia. Ageing Int [Internet]. 2022 Dec 1 [cited 2024 Feb 23];47(4):847–65. Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=28a539c7-fc56-4a6b-8ed3-42324e92abb9%40redis
35. Mefteh KY. Health Related Challenges of Rural Elderly Living in Co-Residential Family Care Arrangements. Qualitative Report. 2022 Aug 1;27(8):1765–82.
36. Feng Z. Global Convergence: Aging and Long-Term Care Policy Challenges in the Developing World. J Aging Soc Policy. 2019 Aug 8;31(4):291–7.
37. Nkansah OJ, Awuviry-Newton K, Gyasi M, Newton A, Boateng ASA. "Who doesn't Have Challenges? I Have a Lot of Challenges": Exploring the Challenges and Coping Strategies of Neglected Older Adults in Ghana. J Cross Cult Gerontol [Internet]. 2021 Mar 1 [cited 2024 Feb 23];36(1):91–104. Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=8296f1ce-0f16-44e5-a42e-52392ec50715%40redis
38. Namibia Statistics Agency. Multidimensional Poverty Index. 2021;160–1.
39. Kumar S, Kumar KA. Living Arrangement and Economic Dependency among the Elderly in India: a Comparative Analysis of EAG and Non EAG States. Ageing Int. 2019 Dec 1;44(4):352–70.
40. Amini R, Chee KH, Keya S, Ingman SR. Elder Care in Iran: A Case with a Unique Demographic Profile. Vol. 33, Journal of Aging and Social Policy. Routledge; 2021. p. 611–25.
41. Africa S, Kelly G, Mrengqwa L, Geffen L. " They don ' t care about us " : older people ' s experiences of primary healthcare in Cape. BMC Geriatr [Internet]. 2019;1–14. Available from: https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-019-1116-0
42. Kraus M, Riedel M. Three dimensions of long-term care provision in middle-income countries—A view across Africa, Latin America and Asia. Int J Soc Welf [Internet]. 2022 [cited 2024 Feb 23]; Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=98947f48-e148-4d6f-b9c9-e2561a7d6890%40redis

43. Tanyi PL, André P, Mbah P. Care of the elderly in Nigeria: Implications for policy. Cogent Soc Sci. 2018 Jan 1;4(1):1–14.
44. Risal A, Manandhar S, Manandhar K, Manandhar N, Kunwar D, Holen A. Quality of life and its predictors among aging people in urban and rural Nepal. Quality of Life Research [Internet]. 2020 Dec 1 [cited 2024 Feb 9];29(12):3201–12. Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=551ecc45-6924-4ebd-bc0d-b10aeb143dd6%40redis
45. Hossain S, Ferdousi MtJ, Siddique MdA, Tipu SMMU, Qayyum M, Laskar M. Self-reported health problems, health care seeking behaviour and cost coping mechanism of older people: Implication for primary health care delivery in rural Bangladesh. J Family Med Prim Care. 2019;8(3):1209.
46. Mahapatro SR, Acharya A, Singh P. The health of India's older population: Do living arrangements matter? Working with Older People. 2017;21(2):82–9.
47. Mathews C. Population Ageing in Lower- and Middle-income Countries. Celebrating 40 Years of HelpAge International. J Popul Ageing. 2024;
48. Riumallo Herl C, Kabudula C, Kahn K, Tollman S, Canning D. Pension exposure and health: Evidence from a longitudinal study in South Africa. J Econ Ageing. 2022 Oct 1;23.
49. Abekah-Carter K, Awuviry-Newton K, Oti GO, Umar AR. The unmet needs of older people in Nsawam, Ghana. Health Soc Care Community [Internet]. 2022 Nov 1 [cited 2024 Feb 23];30(6):e4311–20. Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=d9dc9ecf-ab32-41e2-ae64-a40a119ca98c%40redis
50. Kandapan B, Pradhan J, Pradhan I. Living arrangement of Indian elderly: a predominant predictor of their level of life satisfaction. BMC Geriatr. 2023 Dec 1;23(1).
51. Ebimgbo SO, Atama CS, Igboeli EE, Obi-keguna CN, Odo CO. Community versus family support in caregiving of older adults: implications for social work practitioners in South-East Nigeria. Community Work Fam [Internet]. 2022 [cited 2024 Feb 1];25(2):152–73. Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=12280dfa-189c-4eee-913e-e561b9d8b752%40redis
52. Teka A, Adamek ME. "We Prefer Greeting Rather Than Eating:" Life in an Elder Care Center in Ethiopia. J Cross Cult Gerontol. 2014 Dec 1;29(4):389–404.
53. Cadmus EO, Adebusoye LA, Owoaje ET. Ageing in place or stuck in place: Preferred care setting for community-dwelling older persons in a low-resource country in Sub Saharan Africa. PLoS One [Internet]. 2023 Oct 1 [cited 2024 Feb 9];18(10 October). Available from: https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=22&sid=314d25dd-5c82-49f5-8b28-3e369aef3b59%40redis

APPENDICES

Table 1: The search strategies used in the process of looking for eligible studies.

1. (("elderly" OR "old" OR "ageing "OR "aged" OR "Aged60 years and older"OR "elder*"OR "Seniors" OR "Geriatric" AND ("Community-based elderly care " OR "level of care" OR " Eldercare "OR " long-term care " OR " formal care "OR " informal care" OR " home-based services "OR " Community Health Service*" AND ("Low- and middle-income countries "OR "Poor countries " OR "developing countries"))

2. (("elderly" OR "old" OR " ageing "OR "aged" OR "Aged 60 years and older "OR " Seniors" OR "Geriatric" AND ("Community-based elderly care " OR "level of care" OR " Eldercare "OR " long-term care " OR " formal care " OR " informal care" OR " home -based services "OR " Community Health Services" AND ("Low- and middle-income countries "OR "Poor countries " OR "developing countries"))

3. ((elderly OR old OR ageing OR aged OR "Aged 60 years and older "OR elder*OR Seniors OR Geriatric AND ("Community-based elderly care " OR"level of care" OR " Eldercare "OR " long-term care " OR " formal care " OR " informal care" OR " home-based services "OR " Community Health Service*" AND ("Low - and middle -income countries "OR " Poor countries " OR " developing countries"))

Table 2: The summary of eligible articles

Author & Year	Country	Study Design	Sample size	Objective	Key findings related to the review question
Riumallo Herl, 2022 (48)	South Africa	Desktop	5059	To evaluate the association between pension exposure and dimensions of health amongst older persons	The older person's pension exposure most likely to have a long-lasting positive impact on health by delaying the onset of physical impairments. Th highlights how South Africa's social grant may be helpful in either postponing the onset of physical disabilities or providing assistance in managing them. The old age stipend might give a household the opportuni to buy health-maintaining goods or a better diet.
Goharinezhad, 2016 (25)	Iran	Qualitative	37	To identify the challenges of elderly care in Iran and to help policymakers develop roadmaps for the future by providing a clearer image of the current state of affairs in this area of healthcare.	Five main issues arose from the aged care process: access, technical infrastructure, integrity and coordination, policymaking, and health-based care services.
Martey, 2022 (22)	Ghana	Desktop	14,009 households	To estimate the extra cost of an elderly household member. To examine the relationship and mechanism between the elderly and household welfare in Ghana.	Rural households with older family members experience more additional costs compared to urban households An older person's presence decreased household welfare by about 4%. Homes without any older people members recorded the best standard of living index, while households with the highest number of older people reported the lowest standard of living index.

Adamek et al, 2022 (3)	Sub-Saharan Africa	Online Survey	72	To identify the major challenges faced by older adults and older adults' assets as viewed by experts.	Out of 15 challenges affecting older persons in sub-Saharan Africa, poverty food insecurity, disability, health issues, and the growing need for long-term care were identified as the top five. In sub-Saharan Africa, the two biggest concerns for the future of older persons are the lack of social services catered to their requirements (57%) and the lack of government attention to their needs (63%), respectively.
Abekah-Carter et al, 2022 (49)	Ghana	Qualitative study	14	To explore and understand the pertinent needs of older people in Ghana, and ascertain from them how they could be supported by the state to meet their needs.	The study discovered that older people desired social events where they could interact with other seniors, enough diet, good healthcare, and appropriate housing. Providing sufficient financial support, quality healthcare, frequent organisation of social and group events for older people, and the availability of home care and support could assist them in meeting these demands.
Amini et al, 2021 (40)	Iran	Desktop	Health care systems	To examine Iran's health care system and informal care in consideration of the country's demographic changes.	There is little data and information regarding the efficacy and efficiency of informal care in Iran. Policymakers' lack of attention to the nation's demographic shift has resulted in limited funds for pertinent research and insufficient resources for providing high-quality elder care.
Feng, 2019 (36)	China	Desktop	Long-term care policies	To highlight the phenomenon of global convergence in population aging and the resulting long-term care policy challenges shared across LMICs.	The challenges of aging are most acutely felt in low- and middle-income countries (LMICs), as the population ages faster than policies and services for elder care are developed. The problems include the weakening of informal family care networks, the rise in the need for formal long-term care for the frail and disabled who are unable to receive enough help from their families, and the increasing demands on policymakers to address these societal issues.
Mefter, 2022 (35)	Ethiopia	Qualitative	12	To explore the health-related experiences of dependent rural elderly who get care and support within a family setting.	Elderly people who are dependent and live in rural areas face several physical and psychological issues, such as difficulties with vision and movement, emotions of loneliness, grief, and sadness, feelings of inferiority within the family, abuse, and neglect, a lack of meaningful activities, and the perception of being a burden to the family. Economic hardships can make it difficult for families of the elderly to provide adequate care.

Africa et al, 2019 (41)	South Africa	Qualitative	64	To understand older persons' experiences of primary healthcare services in their communities.	Findings showed that, although participants in the high-income area faced few obstacles in receiving quality care or support services, those in lower-income areas experienced significantly less responsive service, and they showed low levels of trust in the healthcare system, believing that their needs were overlooked. Participants who experienced poor doctor-patient communication did not follow through on their treatment plans, whereas those who had patient-centered communication—either through private-sector partnerships or NGO-public sector collaborations—perceived better care.
Kandapan et al, 2023 (50)	India	Desktop survey	30 370	To determine whether the older adults' living arrangement is one of the potential determinants of their level of life satisfaction (LS).	The findings reveal that 45.5% and 25.4% of the elderly, respectively, reported having a high and low level o LS. Living alone was linked to a low level of LS. Co-residing with a spouse was associated with an increased chance of reporting a high level of LS. The study also discovered that having both spouse and children as coresident increases the likelihood of reporting a high level of LS.
Ebimgbo et al, 2022 (51)	Nigeria	Qualitative	40	To assess the the extent to which families and communities provide care to older adults as well as social work implications.	Older people receive more social support, material, health, and instrumental support from their families than from the community.
Teka & Adamek, 2024 (52)	Ethiopia	Qualitative	29	To explore the psychosocial needs of older adults in a residential elder care center from the perspective of both staff and residents.	The elderly are largely isolated from society. They eat the same meal every day and live subsistence lifestyles with little access to basic amenities. They yearned for meaningful social connection more than they did for basic conveniences. Staff members undervalue and underuse psychological support, which puts older people's psychosocial well-being in jeopardy.
Cadmus et al, 2023 (53)	Nigeria	Mixed method	1,180	To determine factors associated with the preferred care setting among community-dwelling older persons and explore their views about their choices.	The studies show that older persons favor Age in Place despite their functional capacity.

Matthews et al, 2023 (33)	South Asia	Mixed method	Review and qualitative (local informants number not indicated)	To review the health and socioeconomic resources currently available for older people in South Asian countries, Bangladesh, India, Nepal, Pakistan, and Sri Lanka, to identify gaps in available resources and assess areas for improvement.	Few postgraduate training programs existed in geriatric medicine or psychiatry, so it was unclear how many medical practitioners were skilled in caring for the elderly. Older adults are, therefore, cared for by general physicians. nurses and community health workers, all of whom are present in insufficient numbers per capita.
Kraus & Riedel, 2022 (42)	nine middle-income countries (MIC)	Desktop	Document analysis	Assesses gaps and deficits in the provision of long-term care (LTC) services.	It is discovered that very few older people have legal rights to particular LTC services. The most common requirements for being admitted to an institution are having a minimum age and having little or no money. It can be inferred that institutional care facilities are typically concentrated in wealthy or urban locations. They frequently only exist in the capital region, but even then, their capabilities are constrained. Home-based care is hardly available at all.
Risal et al, 2020 (44)	Nepal	Cross-sectional survey	439	Explore the quality of life (QoL) of the elderly in Nepal and their special needs	The quality of life (QoL) of the elderly in Nepal could be enhanced by providing them with care that is focused on their mental and physical health, fostering stronger family bonds, and ensuring their financial independence.
Dawud et al, 2022 (34)	Ethiopia	Qualitative	20	To examine the challenges and needs of formal caregivers working in older adult homes.	Due to their high workloads, long hours, lack of training, and low compensation, caregivers faced many challenges. Among these challenges were handling the challenging behavior of elderly individuals, being near health hazards, and carrying a tremendous workload. The heavy burden of caring for the elderly in environments with little resources produced negative effects that filtered into the personal lives of those who provided the care. Formal caregivers in developing nations can better meet the requirements of long-term care residents by receiving training in geriatric care, adequate compensation, and long-term care best practices.

					and long-term care best practices.
Nkansah et al, 2021 (37)	Ghana	Qualitative	12	To explore the challenges neglected older adults experience and the strategies they employ to cope.	Neglected older adults face financial hardships, health issues, and social isolation. They also lack wholesome food and comfortable accommodation. These neglected older adults survived by adopting internal and external coping mechanisms.
Kumar & Kumar, 2019(39)	India	Desktop	27,245	The purpose of this study was to compare the pattern of living arrangements and economic dependency among the elderly in Empowered Action Group (EAG) and those demographically more advanced states of India called non-EAG states.	The percentage of older adults living alone and economic dependency is higher in non-EAG states than in EAG states. Age, gender, and education are the main factors of economic dependency, whereas the number of surviving children, education, and the quintile of consumer expenditure are the major predictors of living alone.
Boro et al, 2023 (17)	India	Desktop	9231	To investigate the association between the change in living arrangements after reaching age 60 years with subjective well-being and psychological health	Compared to older adults who did not change their living arrangement after turning old, it was discovered that those who did so had 84% and 54% higher likelihood, respectively, of reporting worst psychological health [AOR: 1.84; CI: 1.48–2.27] and worst subjective well-being [AOR: 1.54; CI: 1.22–1.93].
Hossain et al, 2019 (45)	Bangladesh	Qualitative	362	To measure self-reported health problems, health care seeking behavior and expenditure coping mechanism of older people, and to describe its implication for primary health care delivery.	The most common self-reported health problems were fever (43.8%) and bodily pain (15.2%). Of the respondents, more over half (57.5%) experienced another health issue. The majority of older adults (54%) paid for their own medical treatment out of pocket. Just 2% of older adults had to take out loans or sell assets to pay for their medical expenses.
Mahapatro et al, 2017 (46)	India	Desktop	9,852	To examine the association between living arrangements with health among older people.	Older adults in poorer health prefer co-residential arrangements. It's possible that these arrangements provide older individuals with the care, support, and health awareness they need to enhance their ongoing health status and receive the healthcare interventions they need for the many illnesses they've experienced.

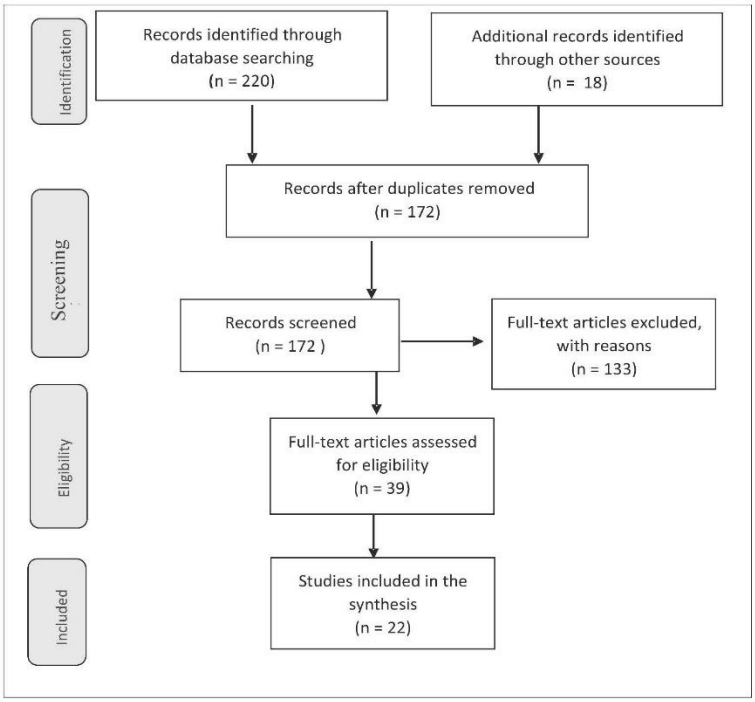


Figure 1: PRISMA flow chart for selected studies

APPENDIX 16: ARTICLE 2 AWARENESS AND ATTITUDE TOWARD OLD AGE-HOME AMONG THE OLDER PERSONS IN NAMIBIA

This was the study objective two, which assessed the awareness and attitudes toward old age homes among older persons residing in old age homes and those living in the community. Its findings underscore the potential value of implementing targeted community awareness campaigns, training caregivers, and expanding affordable, well-equipped old-age homes.

REFERENCE:

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Awareness and Attitude Toward Old-Age Homes among Older Persons in Namibia

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ABSTRACT

Background: The burgeoning population of older persons is widely acknowledged as a pertinent societal concern. Understanding the attitude and awareness of older persons towards old-age homes is crucial, as these homes are a viable option when family support falls short.
Objectives: This study assessed older persons' awareness and attitude toward old-age homes in three selected regions of Namibia.
Methods: A mixed-methods, cross-sectional survey design was employed to study individuals aged 60 years and above. Quantitative data were analysed using Statistical Package for Social Sciences version 30 at significance ($P < 0.05$). Thematic analysis was utilised to interpret qualitative data.
Results: The outcomes revealed a marginal disparity in preference for remaining in the community vs relocating to old-age homes, with a statistically significant association among living arrangements, educational attainment, and number of dependents ($P<0.001$). Interviews with key informants and caregivers revealed pension misuse, transport-related barriers to healthcare, and caregiver challenges, including mood fluctuations, forgetfulness, and inadequate mobility aids to assist older persons.
Conclusion: The preferences of older persons in their living places are influenced by significant factors such as education level and familial obligations.
Unique Contribution: This study is among the first in Namibia to integrate quantitative and qualitative data on older persons' awareness and attitude toward old-age homes. It contributes to the limited research on this population and identifies that education, number of dependents, and family obligations influence their living preferences. Moreover, it brings forward the voices of caregivers and community leaders, revealing systemic gaps in training, resources, and awareness.
Key Recommendation: The findings underscore the potential value of implementing targeted community awareness campaigns, training caregivers, and expanding affordable, well-equipped old-age homes. Furthermore, policies should strengthen caregiver support and ensure pensions are effectively utilised to enhance the welfare of older persons.

Keywords: Older persons, elderly, awareness, attitudes, old age homes

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INTRODUCTION

Namibia's demographic structure shows ageing increasing amid rapid social and economic transformations. Traditional familial caregiving practices persist, though migration, urbanisation, and resource constraints increasingly strain households' capacity to provide direct support for older persons. Against this backdrop, old-age homes are stationed at a delicate intersection of need and acceptability, making it essential to understand older persons' awareness of and attitudes towards these facilities. Despite Africa's rapidly growing ageing population, gerontological research remains underexplored, especially studies emphasising the viewpoints of older persons aged 60 years and above regarding ageing and institutional care (Ahmad & Komai, 2015). Examining these attitudes is essential since they influence the willingness to relocate, negotiations within families, and the uptake of formal services. In this study, the term "older persons" is used to refer to individuals aged 60 years and above, consistent with terminology commonly used in Namibia and recommended by the United Nations (UN) as it is neutral, respectful, and inclusive. Although "elderly" is more commonly used globally, "older persons" was deemed more contextually appropriate (United Nations, 2025).

Research indicates that the population is quickly ageing, with a projected two billion individuals over 60 years worldwide by 2050, doubling from 11% to 22%. The 2023 Namibia Population and Housing Census reported a 29% increase in older persons over 12 years, rising from 113,303 in 2011 to 206,675 in 2023 (Namibia Statistics Agency, 2012, 2024). Based on the claims that Africa is the most impoverished continent globally, and with the accelerated rate of the aging population compared to other world regions, Africa might become demographically old before socio-economic development (Mangombe & Muza, 2019). The older persons' perceptions of ageing were found to strongly shape their health-behaviour acceptance, survival, adaptation, and decision-making, underscoring the value of assessing their awareness and attitudes toward old-age homes (Cadmus et al., 2021). Aligning with the Sustainable Development Goals, the United Nations' Decade of Healthy Ageing (2021–2030) underscores the urgency of promoting the well-being and inclusion of older persons globally(World Health Organisation, 2024).

The quality of care for older persons in many low- and middle-income countries is significantly hindered by a lack of trained caregivers and inadequate support systems. Qualitative evidence revealed that some caregivers provide care without any formal training, relying instead on personal experiences, enthusiasm, and parental teachings (Kloppers et al., 2015). This issue extends to other African countries, such as Cameroon and Ghana (Bassah et al., 2018; Dovie, 2019). To enhance older persons' physical and psychological well-being, caregivers should undergo training in essential areas such as

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basic physical care, wound management, and emergency response to diseases. At a broader level, policies and educational initiatives must be developed to strengthen the capacity of both formal and family caregivers to foster active and healthy aging (Kloppers et al., 2015).

Empirical research has predominantly examined qualitative studies involving caregivers' and nurses' attitudes or facility-level challenges, in which the voices of older persons, their views and attitudes have been largely unheard, and fewer still compare community-dwelling and institutionalised older persons within the same study, or triangulate the perspectives of older persons with those of caregivers and community leaders (Ahmad & Komai, 2015; Bassah et al., 2018; Dawud et al., 2022; Goharinezhad et al., 2016; Kloppers et al., 2015; Mehta & Leng, 2017). To our knowledge, none was conducted in Namibia meeting the above criteria. This study tackles the gap by (i) examining older persons' awareness and attitudes, (ii) explicitly contrasting community residents with those in old-age homes, and (iii) incorporating stakeholder viewpoints to highlight system-level constraints. The simultaneous mixed-methods design across three regions enhances inference and helps clarify what exists (fragmented awareness, significant dependence on state pensions, caregiver resource constraints) and what is lacking (population-level data on awareness sources; factors influencing living-arrangement preferences; Namibia-specific evidence regarding the impact of education and family dependency on decision-making). The theoretical issue centres on decision-making under changing support ecologies, and the literature gap due to paucity of Namibia-based, mixed-methods evidence that foregrounds older persons' perspectives while contextualising them within their care ecosystems. The findings will guide policies and interventions aimed at enhancing care quality, aligning services with older persons' needs, and strengthening healthcare and social support in old-age homes.

METHOD

Study Design and Setting

This study employed a pragmatist research philosophy, which supports a mixed-methods approach and a cross-sectional survey design, carried out in three Namibian regions, each representing one of the country's main clusters: Ohangwena (northern), Khomas (central), and Hardap (southern).

Study Population and Eligibility Criteria

The study focused on persons aged 60 years and older who could communicate independently or had a caregiver for assistance and were willing to participate. Older

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persons who were unable to communicate independently or with caregiver assistance, or unwilling to participate, were excluded.

Sample Size and Sampling Procedures

A total of 304 persons aged 60 years and older were recruited using convenience sampling. Of these, 190 were in the community, while 114 were in old-age homes. The regions were randomly selected through cluster sampling, with one region chosen from each of Namibia's three geographic clusters. The older persons were conveniently recruited from pension points, homesteads, clinics, and hospital open-day wards. Regarding the qualitative component, purposive and convenience sampling were employed to recruit 32 key informants (until saturation was reached), comprising 22 caregivers and 10 constituency councillors and village heads across the selected regions.

Data Collection Instruments, Procedures, and Quality Control

Quantitative data were gathered using a semi-structured questionnaire, drawing on selected items and guidance from the World Health Organisation quality of life (WHOQOL) tool and the attitudes to the ageing questionnaire (Laidlaw Kirsty et al., 2007; Nakane et al., 2012). The questionnaire was tailored to the Namibian context and included open-ended and closed-ended questions. The questionnaire underwent pre-testing to assess its validity and reliability, with Cronbach's alpha coefficient (α) also used to evaluate its reliability. Interviews were conducted in-person at participants' workplaces or online, lasting between 20 and 45 minutes, and audio-recorded with participants' consent. All non-English interviews were translated before transcription, and the inclusion of key informants with substantial field experience enhanced data credibility.

Data Processing and Analysis

Quantitative data analysis was utilised using SPSS, version 30. Descriptive statistics were employed to summarise categorical variables through frequencies and percentages. Associations between variables were examined using Chi-square tests, with statistical significance set at $P<0.05$. The qualitative data were analysed manually using Braun and Clarke's [2006] thematic analysis phases. This involved engaging with the data, transcription, and translation (where necessary), coding, developing themes, and then rigorously reviewing, defining, and labelling the themes, to ensure coherence and accurate representation of participant responses (Braun & Clarke, 2006).

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RESULTS

Table 1. Socio-Demographic Characteristics of the Respondents.

VARIABLES	Frequency(n)	Percentage (%)
Age (years)		
60-69	120	39.5
70-79	115	37.8
80-89	57	18.8
90+	12	3.9
Total	304	100
Gender		
Male	109	35.9
Female	195	64.1
Total	304	100
Marital Status		
Single	65	21.4
Married	119	39.1
Divorced	17	5.6
Widowed	103	33.9
Total	304	100
Highest Education level completed		
No formal education	61	20.1
Primary	124	40.8
Secondary	95	31.3
Tertiary	21	6.9
Literacy classes only	3	1.0
Total	304	100
Residence		
Rural	144	47.4
Urban	160	52.6
Total	304	100
Place of living		
Own home	119	39.1
With family	69	22.7
With friends	2	0.7
Old age home	114	37.5
Total	304	100
Physical mobility		
Unable to walk on their own	21	6.9
Able to walk a limited distance	78	25.7
Able to walk with no difficulty	136	44.7
In a wheelchair	17	5.6
Able to walk with a walking stick	52	17.1
Total	304	100
Duration of residence in an old-age home		
less than 6 months	4	3.5
6 months to less than 1 year	4	3.5
1 year to less than 3 years	12	10.5
3 years to less than 5 years	32	28.1
5+ years	62	54.4
Total	114	100

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Table 1 presents the participants' sociodemographic characteristics. Among the 304 older participants, almost one-third came from each region: Ohangwena (32.9%), Hardap (32.9%), and Khomas (34.2%). The largest age group was those aged 60-69, 120 (39.5%). Females made up most of the participants at 195 (64.1%). The majority, 119 (39.1%), were married. Education levels varied, with most possessing only primary education 124 (40.8%). Over half, 160 (52.6%), lived in urban areas. Regarding living arrangements, 114 (37.5%) resided in old-age homes, while the rest lived in the community. Among those in old-age homes, the majority, 62 (54.4%), had lived there for over five years. Physical mobility also varied among the respondents.

Figure 1: Older person's income source.

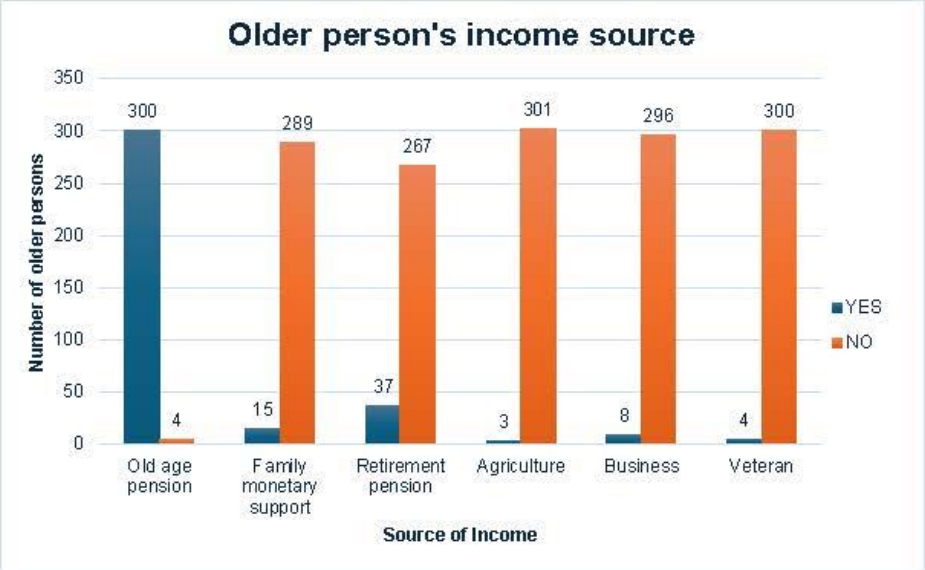


Figure 1 shows that old-age pension served as the dominant income source for nearly all older persons, with 300 (98.7%) relying on it predominantly, with minimal support from family, retirement pension, or economic activity like agriculture or business (Figure 1).

Knowledge on nursing homes

Of the 190 respondents in the community, 128 (67.4%) were aware of old-age homes, while 62 (32.6%) were not. In contrast, all 114 residents living in old-age homes (100%) were aware of such facilities. This difference in awareness between the two groups is statistically significant ($P< 0.001$). The 242(community & old-age home residents) who were aware, their predominant source of awareness of old-age homes was family and friends, 171 (71%), followed by media,

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with 50 (21%) respondents. A smaller number reported sources, such as healthcare providers 10 (3.3%), employers 7 (2.3%), the church two (0.7%), and those indicated "other sources" were two (0.7%).

Attitude towards old-age homes

Attitude towards old age homes among older persons in the community

Among the older persons surveyed in the community (n=190),102 (53.7%) indicated they do not want to go to old-age homes in the future. In contrast, 88 (46.3%) preferred to relocate to such facilities. To further understand these preferences and concerns, participants were queried about their overall attitudes toward old-age homes and how they perceived the quality of care offered in such facilities. They were asked to rate their overall opinion of old-age homes on a five-point scale, ranging from very positive (5) to very negative (1). A significant portion, 98 (51.6%) expressed a positive or very positive view of potentially residing at an old-age home if they required care. In contrast, 29 (15.2%) individuals feel a negative or very negative attitude toward this option. A notable share, 63 (33.2%), held a neutral opinion.

Table 2: Attitudes toward old-age homes among old-age residents (N=114).

No	Variables	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
1	Being at an old-age home is the best option.	2 (1.8)	7 (6.1)	3 (2.6)	80(70.2)	22(19.3)
2	An old-age home provides professional, well-suited care.	2 (1.8)	6 (5.3)	18 (15.8)	70(61.4)	18(15.8)
3	Most of my needs are met.	2 (1.8)	9(7.9)	6(5.3)	82(71.9)	15(13.2)
4	The facility provides an opportunity to build supportive relationships.	0	7(6.1)	12(10.5)	86(75.4)	9(7.9)
5	Being in an old-age home takes the burden of care from the family and society.	0	5(4.4)	14(12.3)	76(66.7)	19(16.7)
6	My family has access to me here.	1(0.9)	5(4.4)	8(7.0)	69(60.5)	31(27.2)
7	I would recommend that any older person stay in an old-age home.	3(2.6)	3(2.6)	7(6.1)	75(65.8)	26(22.8)
8	I would not mind staying in an old-age home for the rest of my life.	2(1.8)	5(4.4)	10(8.8)	54(47.4)	43 (37.7)

*n (%). Total 114 (100%)

Table 2 highlights that the old-age home respondents predominantly have a positive opinion about their residency. A significant majority affirmed that residing in an old-age home is the best option (89.5% agree/strongly agree) and that they would recommend it to other older people

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(88.6%). Perceived family access was high (87.7%), and most expressed that they would not mind residing there for the rest of their lives (85.1%).

Living arrangements and their determinants

The relationship between older persons' living arrangements, educational background, number of dependents, and their perceptions toward old-age homes uncovers significant social and demographic patterns. The internal consistency of items measuring attitudes toward old-age homes, assessed via Cronbach's alpha, was good, α=0.829 for residents of old-age homes and α=0.846 for community-dwelling older persons, indicating strong reliability across items.

A statistically significant association was found between living arrangements and the highest level of education attained (P< 0.001). Of the 190 older persons residing in the community, the majority had attained primary education, 103 (54.2%), followed by those lacking formal education, 55 (29.0%). Others possessed secondary education 27, 14.2%), attended solely literacy lessons three (1.6%), or achieved tertiary education two (1.0%). In contrast, among the 114 older persons residing in old-age homes, the largest proportion had attained secondary education, 68 (59.6%), followed by primary education with 21 (18.4%) and university education with 19 (16.7%), whereas six individuals (5.2%) lacked formal schooling; none had attended literacy classes.

Moreover, there was a significant association between living arrangements and the number of dependents (P<0.001). Older persons living in the community were more likely to have dependents. Of the 190 community-dwelling individuals, only 36 have no dependents, while 94 have 1–5 dependents, 42 have 6–10, 10 have 11–15, and a small number have 16–20 or more than 20 dependents (3 and 5, respectively). In contrast, among the 114 residents in old-age homes, a significant majority, 112, have no dependents. Only two individuals had dependents (one with 1–5 and one with 6–10).

Qualitative analysis

Characteristics of the participants

To triangulate the data, interviews were conducted with caregivers, constituency councillors, and village leaders. The ages of the caregivers varied from 20 to 69 years, with the predominant age group being 50-59 years, seven (31.8%). Most were female, 20 (90.9%). Many of them had completed secondary school, 20 (90.9%). None of the caregivers held a bachelor's degree or higher qualifications. Regarding experience, most of them, nine (40.9%), had been caring for older persons for 10 years or more, while five (22.7%) had between one and three years of experience. Moreover, 10 key informants (Constituency Councillors/Headman) participated in the study. Their ages ranged from 30 to 60 years, with the majority of four (40.0 %) aged between 50 and 59 years. The majority were male, 9 (90.0%). Regarding education, three (30%) each held a secondary school qualification, a certificate, or a diploma, while only one (10%) had attained a bachelor's degree.

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Table 3: Thematic analysis from the caregivers and Constituency councillors

Theme	Subtheme	Sample quote
Caregivers		
Training and Education	Lack of Formal Training	No, I have only learned from the radio. (Caregiver 2)
Challenges Faced	Behavioural Issues	They like seeking attention, behave like children, and are very short-tempered. (Caregiver 2)
	Violent or Aggressive Behaviour	They sometimes do shout and scratch me. (Caregiver 17)
	Substance Abuse	They abuse alcohol and, sometimes, end up quarrelling and fighting; one must stand in the middle to avoid fights. (Caregiver 10)
Resource Constraints	Lack of Equipment for Physical Support	We need equipment to help lift older persons from their beds to wheelchairs, as we must do this about six times a day, which is physically challenging. (Caregiver 13)
Constituency councillors and village heads		
Care and Support	Lack of Proper Care	Yes, some older persons were reported to have left home unattended, even for a half-day, and some were locked in rooms with little food and a bucket to relieve themselves. (Constituency Councillor 3)
	Family Dependency on Pension	The older people's pension is mostly not used in their favour, as some still sleep on uncomfortable chain beds. Others only use clean blankets for special occasions like mourning ceremonies and weddings. (Village Head 2)
Living Conditions	Overcrowded Homes	"Older persons are often left to care for many grandchildren. I know one caring for 15. This places a heavy financial and caregiving burden on them". (Constituency Councillor 8)
	Lack of Basic Needs (Water, Food, Sanitation)	"While some older persons have access to services, many still lack basic facilities like toilets. In our constituency, since 2022, the water pressure has declined due to population growth and increased gardening". (Constituency Councillor 6)

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Table 3 summarises the interviewees' responses. The councillors indicated a complex landscape of issues encountered by older persons. Caregivers reported encountering significant challenges when caring for older persons. At the same time, they are compounded by inadequate compensation, lack of benefits such as medical aid, housing, transport allowances, and excessive workload, which further strain their well-being.

DISCUSSION

The older persons' perspective on ageing plays a vital role in their health behaviour acceptance, survival, adaptation, and decision-making. Thus, this study assessed the awareness and attitudes of older persons towards old-age homes.

The key findings include a limited inclination among community-dwelling older persons to relocate to old-age homes. Further, there is a statistically significant disparity in awareness of old-age homes between the institutionalised and community residents. Another significant relationship was found between living arrangements and the highest level of education attained, and between living arrangements and the number of dependents, all ($P< 0.001$). The study further found that most older persons depend on the old-age pension grant for their daily livelihood. The qualitative findings highlighted a wide range of challenges older persons and their caregivers face.

The varied responses among older persons regarding migration to old-age homes reveal a divide between those who consider institutional care as a viable support option and those who, despite potential care needs, choose to remain within their familiar home. Previous research has shown that older individuals often fear entering care homes than the prospect of death itself (De Bellis, 2010). However, this study's relatively balanced distribution of preferences may indicate a shifting perspective, where traditional preferences for family-based care are gradually being balanced by a growing openness to formal care settings, potentially attributable to changing family dynamics and evolving needs in old-age.

There was a significant difference in awareness of old-age homes between institutionalised and community-dwelling older persons. All individuals living in old-age homes were aware of such facilities, while only 67.4% of community-dwelling individuals had such awareness. This discrepancy is likely to be due to the direct exposure that institutionalised older persons have, whether through personal experience, the admission process, or interactions with staff and administrators. In contrast, their counterparts in the community may face economic or educational barriers that restrict their access to information. Prior research confirms that older persons with an optimistic perspective on ageing tend to engage in healthy behaviour and experience lower mortality (Bužgová et al., 2024; Siebert et al., 2018). These findings reinforce the need for targeted awareness campaigns in the community, at outreach points such as clinics, radio programs, or churches, to bridge the awareness gap. Policymakers and Non-Governmental Organisations (NGOs) should prioritise inclusive and culturally sensitive outreach strategies.

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To further emphasise the above, this study also identified a statistically significant association between older persons' living arrangements and educational attainment ($P<0.001$). Institutionalised older persons tended to have higher levels of education than their community counterparts. Education is critical in influencing health behaviours and awareness of preventive strategies (Rizal et al., 2022). Countries such as Iran also reported that illiteracy and lack of awareness are major barriers to accessing older persons' care services (Goharinezhad et al., 2016). These findings support the argument for incorporating older care and healthy ageing topics into adult education, public health initiatives, and community development initiatives.

Another major finding was an insufficient number and spread of old-age homes in Namibia; among the three surveyed regions, one region lacked such facilities, the second region had one, and the third region, the capital city, had the most, though primarily private and costly. This is consistent with patterns noted in countries such as India, where affordable old-age homes are scarce and public facilities are often under-resourced (Mah et al., 2021). Government-sponsored old-age homes, despite being more affordable, tend to be under-resourced and overcrowded (Dawud et al., 2022). The predominant reliance on old-age pensions was another key result. This highlights the significance of the formal state in safeguarding older persons' well-being. Similar issues have been reported in Iran and Cameroon (Ethel et al., 2015; Goharinezhad et al., 2016).

In the qualitative analysis, most caregiver respondents were female, between 50 and 59 years, and these demographics were similar to the findings in various studies (Bassah et al., 2018; Dawud et al., 2022; Mehta & Leng, 2017). This could be because caregiving has traditionally been associated with females, as they may be more nurturing, and historically expected to manage the home and care for the family. Caregivers face many challenges, such as being underpaid, mistreated, work overload, and lacking training. These challenges mirror those experienced by caregivers in Ethiopia and Singapore (Dawud et al., 2022; Mehta & Leng, 2017). Notably, none of the caregivers in this study had received geriatric training, as most had learned on the job and had only completed secondary education. Furthermore, most African countries, including Namibia, lack geriatric education in their healthcare curriculum (Essuman et al., 2019). Their motivation to work as caregivers varied from unemployment to passion and family tradition. The caregivers in this study seek better salaries, benefits, minimal work, and advanced training. The local authority leaders have also highlighted numerous challenges. These findings stress the necessity for national strategies to professionalise caregiving through structured training, better remuneration, and psychological support.

Finally, through the triangulation of older persons' views with caregivers and local leaders, this study extends knowledge in three distinct manners: (1) identifying plausible mechanisms (education, dependency load, and information/access pathways) linking sociodemographic factors to preferences; (2) illustrating how systemic barriers (costs, uneven distribution of old-age homes) influence the older persons attitudes and uptake; and (3) quantifying a near parity in willingness to relocate, suggesting a transition from purely family-based norms to a mixed ecology of care. These insights extend beyond mere agreement/disagreement with previous research to specify the reasons for local pattern emergence and identify policy leverage points,

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including targeted community awareness, caregiver training, and the provision of sufficient, affordable, better-equipped old-age homes.

CONCLUSION

Based on the results, the study concludes that Namibia is transitioning from exclusively family-based elder care to a mixed model, where old-age homes are a credible alternative; nevertheless, actual uptake is chiefly influenced by education and dependency load. Advanced education and having few/no dependents tilt preferences toward institutional living, while information gaps and the inequitable distribution and cost of facilities hinder informed decision-making among community-dwellers. Residents who enter old-age homes rate them positively, suggesting that perceived benefits surpass prior fears. Therefore, the study's judgement is that policy should prioritise targeted community awareness, professionalised and adequately resourced caregiving, the expansion of affordable, well-equipped old-age homes, and protection of pensions for care actions aligned with the mechanisms evidenced in our data.

Ethical clearance
Ethical consent was sought and obtained from the Ministry of Health and Social Services in Namibia (reference 22/3/1/2), the managers of old-age homes, and the participants used in this study. They were made to understand that the exercise was purely for academic purposes, and their participation was voluntary.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Authors' Contributions.
Mouyelele Haufiku conceived the study, including the design, and wrote the original manuscript, while Dr. Mahalie and Dr. Aku-Akai guided data collection and analysis. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

Availability of data and materials.
The datasets on which conclusions were made for this study are available on reasonable request.

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REFERENCES

Ahmad, A., & Komai, S. (2015). Geriatrics and Gerontology: Neglected Areas of Research in Most Developing Countries. *Journal of the American Geriatrics Society*, *63*(6), 1283–1284. https://doi.org/10.1111/jgs.13521

Bassah, N., Ubenoh, U. S., & Palle, J. N. (2018). An Exploratory Study of the Knowledge and Practices of Family Caregivers in the Care of the Elderly at Home in the Buea Health District, Cameroon. *Journal of Gerontology & Geriatric Research*, *07*(03). https://doi.org/10.4172/2167-7182.1000473

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bužgová, R., Kozáková, R., & Bobčíková, K. (2024). Predictors of attitudes towards aging in elderly living in community care. *BMC Geriatrics*, *24*(1), 266. https://doi.org/10.1186/s12877-024-04840-6

Cadmus, E. O., Adebusoye, L. A., & Owoaje, E. T. (2021). Attitude towards ageing and perceived health status of community-dwelling older persons in a low resource setting: a rural-urban comparison. *BMC Geriatrics*, *21*(1), 454. https://doi.org/10.1186/s12877-021-02394-5

Dawud, M., Kotecho, M. G., & Adamek, M. E. (2022). "It is all About Giving Priority to Older Adults' Needs:" Challenges of Formal Caregivers in Two Old Age Homes in Ethiopia. *Ageing International*, *47*(4), 847–865. https://doi.org/10.1007/s12126-021-09436-8

De Bellis, A. (2010). Opinion Piece. *Contemporary Nurse*, *35*(1), 100–113. https://doi.org/10.5172/conu.2010.35.1.100

Dovie, D. A. (2019). The Status of Older Adult Care in Contemporary Ghana: A Profile of Some Emerging Issues. *Frontiers in Sociology*, *4*. https://doi.org/10.3389/fsoc.2019.00025

Essuman, A., Gold, K. J., Vitale, C., Toma, G., Cigolle, C., Gyakobo, M., Spangenberg, K., Odoi-Agyarko, K., Skye, E., & Zazove, P. (2019). Establishing the First Geriatric Medicine Fellowship Program in Ghana. *Journal of the American Geriatrics Society*, *67*(8), 1718–1723. https://doi.org/10.1111/jgs.16014

Ethel, N. N., Njikam, M., & Yenshu, E. (2015). Care for Older Persons in Cameroon: Alternatives for Social Development. *Greener Journal of Social Sciences*, *5*(1), 001–012. https://doi.org/10.15580/GJSS.2015.1.102214369

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Goharinezhad, S., Maleki, M., Baradaran, H. R., & Ravaghi, H. (2016). A qualitative study of the current situation of elderly care in Iran: what can we do for the future? *Global Health Action*, *9*(1), 32156. https://doi.org/10.3402/gha.v9.32156

Kloppers, J. M., Dyk, A. van, & Pretorius, L. (2015). The Experiences of the Elderly and Caregivers in Respect of Caring for the Elderly in Windhoek and Rehoboth Namibia: An Exploratory and Descriptive Study. *Open Journal of Nursing*, *05*(03), 246–259. https://doi.org/10.4236/ojn.2015.53029

Laidlaw Kirsty, Power Michael J, & Schmidt Stefan. (2007). Attitudes to ageing questionnaire (AAQ-24) (Scoring). *Geriatr Psychiatry*, *4*, 1–4. https://ugc.futurelearn.com/uploads/files/76/f7/76f7a255-90a0-4aa4-8ca2-a2f45de82daa/Attitudes_To_Ageing.pdf

Mah, J. C., Stevens, S. J., Keefe, J. M., Rockwood, K., & Andrew, M. K. (2021). Social factors influencing utilization of home care in community-dwelling older adults: a scoping review. *BMC Geriatrics*, *21*(1), 145. https://doi.org/10.1186/s12877-021-02069-1

Mangombe, K., & Muza, C. (2019). Population development in Africa with special regards to ageing. *African Population Studies*, *33*(2), 4913–4926.

Mehta, K. K., & Leng, T. L. (2017). Experiences of Formal and Informal Caregivers of Older Persons in Singapore. *Journal of Cross-Cultural Gerontology*, *32*(3), 373–385. https://doi.org/10.1007/s10823-017-9329-1

Nakane, Y., Tazaki, M., & Miyaoka, E. (2012). Whoqol. *Iryo To Shakai*, *9*(1), 123–131. https://doi.org/10.4091/iken1991.9.1_123

Namibia Statistics Agency. (2012). *Namibia 2011 Population & Housing Census Main Report*. https://nsa.nsa.org.na/publications/

Namibia Statistics Agency. (2024). *Namibia 2023 Population and Housing Census Report*. https://nsa.org.na/publications/

Rizal, H., Said, M. A., Abdul Majid, H., Su, T. T., Maw Pin, T., Ismail, R., & Shah Zaidi, M. A. (2022). Health-related quality of life of younger and older lower-income households in Malaysia. *PLOS ONE*, *17*(2), e0263751. https://doi.org/10.1371/journal.pone.0263751

Siebert, J. S., Wahl, H.-W., Degen, C., & Schröder, J. (2018). Attitude toward own aging as a risk factor for cognitive disorder in old age: 12-year evidence from the ILSE study. *Psychology and Aging*, *33*(3), 461–472. https://doi.org/10.1037/pag0000252

United Nations. (2025). *Older persons Key points*. https://emergency.unhcr.org/protection/persons-risk/older-persons

APPENDIX 17: CONFERENCE PRESENTATION: COMPARISON BETWEEN PRIVATE AND PUBLIC OLD AGE HOMES

This was the study's objective three on the capacity of old age homes. This objective was presented at the International Federation on Ageing (IFA)'s 17th Global Conference on Ageing, held in Cape Town, South Africa, from September 9 to 12, 2025, under the theme 'Age-friendly environments' (Haufiku-Weyulu et al., 2025d). The abstract book is located at https://www.ifa-abstracts.com/abstract-book/



APPENDIX 18: ARTICLE 3: SELF-RATED HEALTH STATUS AND SOCIAL LIVING CONDITIONS AMONG THE NAMIBIAN OLDER PERSONS

This was study objective 4, which assessed the prevalent health status and social living conditions of older persons in Namibia. This objective surfaced that in order to improve the health and well-being of Namibia's older persons, it is essential to implement accessible health screening programs, enhance chronic disease management, and improve social living conditions through integrated, age-friendly policies and services. (This manuscript is under review.)

APPENDIX 19: THE MODEL VALIDATION TOOL

PART 2: MODEL VALIDATION

The purpose of this exercise is to validate the developed model (Figure 2), designed to improve the well-being and care of older persons and to obtain your feedback on its clarity, simplicity, generality, accessibility, and importance, as described by Chinn and Kramer's criteria for model validations.

Below are brief explanations of these five attributes that you will use to validate the model.

6. **Clarity** of the model: This entails evaluating the consistency of terminologies and the structure of the model, ensuring that concepts are clearly defined, and that relationships are easily understood. Are the concepts clearly defined, and does the diagram clearly show how they relate to one another?
7. **Simplicity** of the model: This involves assessing if the model explains the phenomenon using the minimal necessary concepts and relationships without losing meaning or depth. Does the model explain the phenomenon using the fewest necessary concepts and relationships without losing its meaning?
8. **Generality** of the model: This pertains to assessing the scope and applicability of the model. Is the model applicable across various context and to all older persons aged 60 years and above?
9. **Accessibility** of the model: This involves considering how easily the model can be understood, used by different audiences and how readily it can be translated into practice, research, education or policy. Is the model easy to understand and use or apply in practice by different audiences (such as healthcare providers, social workers, policymakers, local/national government, academic institutions and other stakeholders)?
10. **Importance** of the model: This aims to assess the importance and relevance of the model. Does the model address a significant problem, and does it offer practical application?

Read carefully the model described in **Part 1** and answer the following questions. Please use the respective scale to evaluate the model's clarity, simplicity, generality, accessibility, and importance.

Please mark a cross (×) in one box for each question:

5 = Strongly agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly disagree

Kindly first complete the demographic information. All information will be kept strictly confidential. The approval for the validation process was covered under the broader ethics clearance obtained for this PhD study.

Demographic characteristics

1. Could you please indicate your age range? 20-29, 30-39, 40-49, 50-59, 60-69, 70+
2. How do you identify your gender? (Male, Female, prefer not to say) _____
3. Could you tell me the highest level of education you have completed? (Diploma, Bachelor's degree, Master's degree, Doctorate, other _____ (please specify)
4. What is your current occupation? _____
5. What is your field of expertise? (Public health, social work, nursing, policy, community development, others _____ (please specify)

6. What is the name of your region? _____

Question 1:

Are the concepts clearly defined, and does the diagram clearly show how they relate to one another (clarity)?

Strongly agree	agree	neutral	disagree	Strongly disagree

Comment:

……
……..

Question 2:

Does the model explain the phenomenon using the fewest necessary concepts and relationships without losing its meaning (simplicity)?

Strongly agree	agree	neutral	disagree	Strongly disagree

Comment:

……
……

Question 3:

Is the model applicable across various contexts and to all older persons aged 60 years and above (generality)?

Strongly agree	agree	neutral	disagree	Strongly disagree

Comment:

……
……

Question 4:

Is the model easy to understand and to use or apply in practice by different audiences (such as healthcare providers, social workers, policymakers, local/national government, academic institutions and other stakeholders) (accessibility)?

Strongly agree	agree	neutral	disagree	Strongly disagree

Comment:

……

……

Question 5:

Does the model address a significant problem, and does it offer practical application (importance)?

Strongly agree	agree	neutral	disagree	Strongly disagree

Comment:

……

……

Thank you so much for taking the time to complete the model validation tool. Your input is highly appreciated.

APPENDIX 20: LANGUAGE EDITORIAL CERTIFICATE

EDITORIAL CERTIFICATE

This document certifies that the manuscript listed below was edited for English language by an editor at HI Language Services.

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APPENDIX 21: ARTICLE 3 CAPACITY OF OLD-AGE HOMES TO MEET THE NEEDS OF OLDER PERSONS IN NAMIBIA: ANALYSIS OF QUALITY AND CARE GAPS

This was study objective three, which evaluated the capacity of old-age homes to accommodate the needs of Namibia's older population aged 60 years and above. Its findings recommend a phased expansion and decentralisation of old-age homes, prioritising attention to the northern regions, alongside targeted investment to upgrade public old-age homes and strengthen regulatory oversight.

REFERENCE:

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Capacity of Old-Age Homes to Meet the Needs of Older Persons in Namibia: Analysis of Quality and Care Gaps

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ABSTRACT

Background: The population of older persons is increasing, while the Traditional Joint Family System (TJFS) is declining, often leaving older persons isolated and vulnerable. This may increase the demand for old-age homes, underscoring the need to understand the capacity and limitations of these facilities in Namibia.
Objectives: This study evaluated the capacity of old age homes to accommodate the needs of Namibia's older population aged 60 years and above in three selected regions of Namibia.
Methods: A mixed-methods, cross-sectional survey design was employed in this study, utilising a checklist to assess the old-age homes and interview guides for the social workers and heads of facilities. Quantitative data were analysed using Statistical Package for Social Sciences version 30 at significance ($P < 0.05$). Qualitative data were analysed manually and presented in themes.
Results: Old age homes in Namibia are scarce, urban-concentrated, and operating at (or near) full capacity. Private old-age homes are generally better resourced and rated, while public homes are lower-cost but face significant deficits in infrastructure, staffing, and accessibility. The voices of key informants highlight chronic funding shortfalls, transportation issues, and the need for renovations and additional staff.
Conclusion: There is an insufficiency of old-age homes, and disparities exist in facilities between publicly and privately run homes.
Unique Contribution: This study is one of the current Namibian triangulated analyses that link structural capacity, and staff perspectives in both the public and private old-age homes. It addresses a reported evidence gap in institutional long-term care in Namibia and offers context-specific insights to the broader literature on ageing and residential care.
Key Recommendation: The study recommends a phased expansion and decentralisation of old-age homes, prioritising the need for attention to the northern regions, alongside targeted investment to upgrade public old-age homes and strengthen regulatory oversight.

Keywords: Older persons, old age homes, long-term care, residential care facilities

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INTRODUCTION

Population ageing is a defining global demographic trend. Today, most people can anticipate reaching their 60s and beyond, and in every country, the size and the proportion of older persons are rising (World Health Organization, 2024). According to the Namibia 2023 Population and Housing Census, the population aged 60 years and above reached 206,675 in 2023, compared with 113,303 in 2011, an increase of 29 per cent over 12 years, which constitutes 6.8% of the population aged 60 years and above (Namibia Statistics Agency, 2012, 2024b). The ageing population has far-reaching effects on both the older person and society, and Namibia is no exception. Not only are people living longer, but they are living longer in poor health, which may necessitate more extensive medical care, at times even long-term care (Institute for Health Metrics and Evaluation, 2017). However, data on the health and care of older persons in low- and middle-income countries, such as Namibia, are scarce, and efforts to collect information on these issues are required (Chatterji et al., 2016). Namibia is particularly underrepresented, as it is not among the African countries that publish research on ageing-related issues most frequently (Adamek et al., 2022). Reflecting the wider data gaps on older persons, Namibia is also not included among the 96 countries ranked in the Global Age Watch Index 2015, a tool that highlights persistent weaknesses in age-disaggregated information systems worldwide (Help Age International, 2015).

Historically, older care in Namibia, like much of sub-Saharan Africa, has been rooted in extended family systems. Urbanisation, declining birth rates, and migration have altered household structures, frequently weakened the availability of kin caregivers, and increased the share of older people living as household heads or in smaller family units (Indongo & Sakaria, 2016). The decline of the joint family system and the rise of nuclear families have left older individuals isolated (Bhat, 2021; Maharaj, 2020). Based on this view, the need for old-age homes became clear, and it continues to become increasingly apparent as time passes (Bhat, 2021). During the national consultation meeting, conducted from 15 to 17 November 2022 (the latest meeting publicly available online, on this specific policy), the National Policy on the Rights, Protection, and Care of Older Persons in Namibia was reviewed, and recommendations were made regarding the draft policy (World Health Organization, 2022). During this meeting, Dr Charles Sagoe-Moses, WHO Representative to Namibia, remarked on advancements in the care of older persons in Namibia, including the provision of pensions for all older persons, and the availability of 17 long-term care facilities registered in the country, though all these are private; the other seven are publicly owned and not registered (World Health Organization, 2022). These facilities are concentrated in urban areas and are scarce in the northern regions, where the majority of older people reside (See Table 1 on the distribution of older persons and Table 2 for the distribution of old-age homes in Namibia). He further cautioned that the increase in the number of older persons renders these facilities inadequate, and thus advised the country to move from the centralised approach to a more decentralised approach (World Health Organization, 2022).

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Furthermore, existing literature predominantly emphasised the living arrangements and household-level conditions of older persons, using census data, without examining the capacity or quality of formal care institutions (Indongo & Sakaria, 2016). Earlier research on institutional care, such as Dima's thesis on models of old-age homes, employs a comparable methodology to this study; however, it is now outdated (Dima, 2003). The study by Kloppers et al. on experiences of older persons and their caregivers in old-age homes interviewed caregivers and older persons only (Kloppers et al., 2015). More recent Namibian studies have also been conducted on older persons, but they are either totally qualitative (Zamuee, 2022) or focused on awareness and attitudes towards old-age homes among older persons, rather than assessing the structural readiness of the homes themselves (Haufiku-Weyulu et al., 2025). This constellation of gaps, including the limited system-level mapping of old-age homes, a lack of up-to-date information on public private disparities, and minimal triangulation of facility capacity with provider and resident perspectives, constitutes the objective of this study: to assess the capacity of existing old-age homes and to understand the challenges they face. This objective forms part of an ongoing PhD study conducted in Namibia that aims to develop a community-based model to improve the well-being and care of older persons. It builds on an earlier published objective that examined awareness and attitudes toward old-age homes among older persons in Namibia (Haufiku-Weyulu et al., 2025). In this study, long-term care is used, specifically focusing on long-term care for older persons provided in institutional settings. Hence, the term long-term care is used interchangeably with old age homes and residential care facilities for older persons.

METHODS

Study Design and Setting

The study utilised a mixed-methods approach using a cross-sectional survey methodology. Data were gathered from three Namibian regions chosen to exemplify the country's principal geographic clusters: Ohangwena in the north, Khomas in the centre region, and Hardap in the south.

Study Population and Eligibility Criteria

The study focused on the old-age homes available in the selected regions, where consent was obtained. The key informants were recruited based on their willingness to participate in the study. The old-age homes and key informants outside the three regions, as well as those who were unwilling to participate, were excluded from the study.

Sample Size and Sampling Procedures

In the three study regions, there were no old age homes in the Ohangwena region, there was one in the Hardap region, and six in the Khomas region (seven facilities in total). Of these, six facilities were evaluated; one facility was excluded because it had not granted ethical approval. Of the six assessed institutions, four were privately owned, and two were public. Regarding the qualitative component, purposive and convenience sampling were employed

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to recruit 16 key informants (until saturation was reached), comprising 14 Social workers and two heads of old-age homes.

Data Collection Instruments, Procedures, and Quality Control

A structured checklist written in English was used to evaluate the old age home's capacity and service readiness. A checklist is defined as a list of factors, properties, aspects, components, criteria, tasks or dimensions that a respondent evaluates and documents (as present/absent or scored for quantity) during its completion (Mathison, 2005). The instrument consisted of 23 closed-ended questions covering various items, including capacity, staffing, fees and admission, hygiene, indoor conditions, safety and security, accessibility, recreation and activities, health services, and overall ratings. Options to select the correct response upon satisfaction with the researcher's observation were provided on the checklist, including Yes, No, N/A, and an option for comments. There were different study guides for the social workers and that for the heads of old age homes. The data collection tools were shared with the study supervisors and experts in the field for review, and errors, ambiguities, and redundancies identified were addressed through necessary adjustments. Interviews were conducted in-person at participants' workplaces, lasting between 20 and 45 minutes, and audio-recorded with participants' consent. All non-English interviews were translated prior to transcription, and the inclusion of key informants with substantial field experience enhanced the credibility of the data.

Data Processing and Analysis

Quantitative data were analysed using IBM SPSS Statistics, version 30. Descriptive statistics were used to compare public and private old age homes in terms of staffing levels, monthly fees, care services, living conditions, and overall quality ratings. A scatter plot was constructed to examine the relationship between facility capacity and the number of older persons accommodated. Qualitative data were manually analysed using Braun and Clarke's thematic analysis framework. The procedure included familiarisation with the data, transcription and translation where necessary, coding, and the generation of themes. Themes were subsequently reviewed, refined, and clearly defined to ensure they coherently and accurately reflected participants' responses (Braun & Clarke, 2006).

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RESULTS

Table 1: Older person distribution in Namibia (n = 206,675)

Regions	Older person distribution n (%)
Northern regions	
Ohangwena	27 116 (13%)
Omusati	32 794 (16%)
Oshana	16 884 (8%)
Oshikoto	21 232 (10%)
Kunene	8 483 (4%)
Zambezi	7 723 (4%)
Kavango West	8 822 (4%)
Kavango East	13 478 (7%)
Central regions	
Erongo	13 991 (7%)
Khomas	20 782 (10%)
Omaheke	7 246 (4%)
Otjozondjupa	12 601 (6%)
Southern regions	
Hardap	8 946 (4%)
//Kharas	6 577 (3%)

Table 1 outlines that the demographic distribution of older persons is significantly concentrated in the northern regions, which collectively comprise around two-thirds (66%) of the older population. In contrast, the central regions collectively contribute about 27% of older persons, while the southern regions account for only 7%, recording the smallest proportions nationally.

Table 2: Distribution of old age homes in Namibia

Region	Number of old age homes
Khomas	4x Private, 2x Public
Erongo	4x Private, 2x Public
Otjozondjupa	4x Private
Karas	3x Private, 1x Public
Omaheke	1x Private, 1 x Public
Hardap	1x Private
Kunene	1x Public
Total	24

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Table 2 illustrates that the distribution of old age homes in Namibia is uneven across regions, with a predominance of privately owned facilities. Khomas and Erongo are the most resourced, together accounting for half of all 24 old-age homes, while Otjozondjupa and Karas also have several facilities, mostly private. In contrast, Omaheke, Hardap, and Kunene have only one or two homes each, and the remaining seven regions (Kavango East, Kavango West, Ohangwena, Omusati, Oshana, Oshikoto, and Zambezi) have no old-age homes at all, highlighting significantly limited institutional care options across large parts of the country. The capacity of the old-age homes is displayed in Figure 1 below.

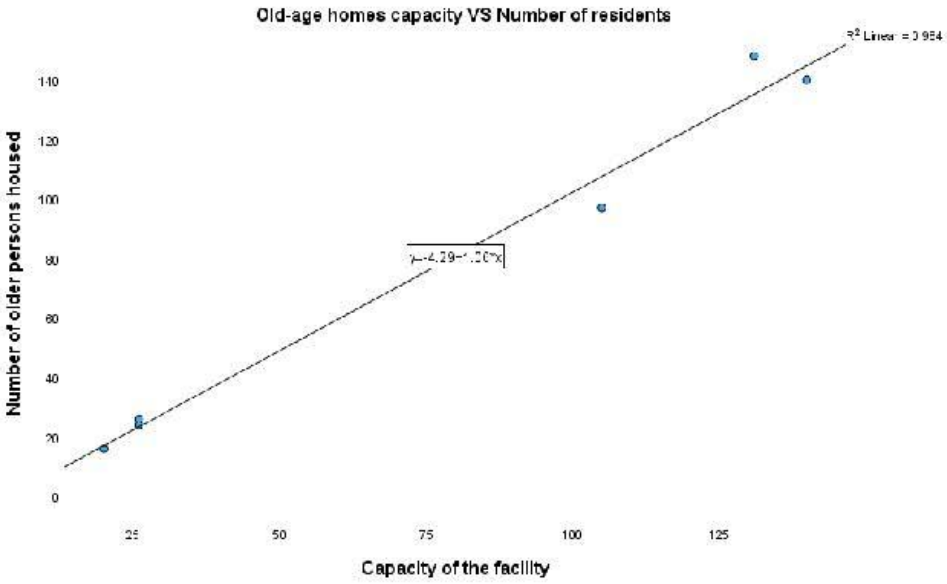


Figure 1: Old age homes capacity vs the number of older persons residents.

Figure 1 above shows a scatterplot that demonstrates a near- perfect linear relationship between facility capacity and the number of older persons accommodated across the six homes ($R^2 \approx 0.98$). The fitted line ($\hat{y} = -4.29 + 1.06x$) has a slope slightly greater than one, indicating that occupancy increases approximately in direct proportion to reported capacity, and in several cases, marginally exceeds it. Overall, the pattern suggests limited space capacity as most facilities operate at or near full occupancy, with some evidence of overcapacity in the larger homes, underscoring potential pressure on available beds. The comparison of old-age homes is presented in Table 3 below.

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Table 3: Comparison of private and public old age homes

Variable	Category	Private Old-age homes N (%)	Public Old-age homes N (%)
Number of staff	1-3		2 (100.0)
	4-7	2 (50.0)	
	8 and above	2 (50.0)	
Payment per month (NAD)	0-299		2 (100.0)
	300-999	1 (25.0)	
	1000-5000	1 (25.0)	
	5001 and above	2 (50.0)	
First aid and sick bays are available	Yes, both first aid, social welfare, and health care	4 (100.0)	
	Yes, first aid and social welfare only		2 (100.0)
Emergency preparedness is in place	Yes	3 (75.0)	2 (100.0)
	No	1 (25.0)	
The house is safe (lockable doors, neighbourhood watch, perimeter fencing)	Yes, rooms with locks only, no neighbourhood watch and an electrical fence	1 (25.0)	
	Yes, with locks, gates locked, and an electrical fence	3 (75.0)	2 (100.0)
Anti-slippery floor	Yes	3 (75.0)	2 (100.0)
	No	1(25.0)	
Provisions made for people with disabilities.	Yes	3 (75.0)	
	No	1 (25.0)	2 (100.0)
Provision of railings at the steps of the house	Yes	2 (50.0)	
	No	2 (50.0)	2 (100.0)
Overall quality of care	Very good	2 (50.0)	
	Good	2 (50.0)	
	Neither poor nor good		2 (100.0)
Improvements needed	No action needed	2 (50.0)	
	Significant upgrade	2 (50.0)	
	Extreme renovations/service gaps		2 (100.0)

* Data are descriptive only. Due to the small number of facilities (N = 6), no inferential statistics were conducted. NAD = Namibian dollar.

Table 3 above illustrates the comparison between private (n = 4) and public (n = 2) facilities, revealing that private homes consistently have greater resources and higher ratings. All public

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homes reported having just 1–3 staff members, whereas all private homes employed four or more staff members. Private institutions had a more extensive service infrastructure, including (first aid + social-welfare + healthcare/sick-bay available in all four), whereas public homes reported only first aid and social welfare. Emergency preparedness measures, including fire extinguishers, assembly points, fire alarms, and basic security, were present in most sites. However, one private home lacked emergency preparedness, and another was equipped solely with room locks. Accessibility gaps were prevalent in the public sector: neither public home had disability provisions (such as raised toilet seats, walking and standing aids, ramps for wheelchairs, etc.) or stair railings at the front and rear of the facilities, while most private homes did. The perceived quality mirrored these disparities, private homes were rated "good/very good," while public homes were deemed "neither poor nor good" and improvement needs diverged sharply, with both public homes classified as needing "extreme renovations/service gaps having cracks, some non-functional bathrooms, fire extinguishers are there, but they were due for service, requiring high priority)," in contrast to private residences, which were split between "no action (routine maintenance only) and " and "significant upgrade (medium priority)." However, public homes fell exclusively in the lowest monthly fee band (N$0–299), while private homes charged N$300 or more, with half in the highest rate band. Apart from what is shown in Table 3, all six old age homes have gender-segregated rooms, toilets, and bathrooms with grab bars, adequate provision of safe drinking water, sufficient lighting in all areas, and available recreational facilities, including TVs, books, and newspapers.

QUALITATIVE ANALYSIS

Characteristics of the participants

To triangulate the data, interviews were conducted with the social workers and the head of old-age homes. All fourteen (14) interviewed social workers were female (100%) and concentrated in early to mid-career age bands, with 21.4% aged 20 – 29; 35.7% aged 30 – 39, while the remaining participants were evenly distributed between the ages of 40 – 49 (21.4%) and 50 – 59 (21.4%). Educational attainment was significant: 78.6% possessed a bachelor's degree, 14.3% a master's degree, and 7.1% a diploma. The participants were primarily based in Khomas (57.1%), with additional representation from Ohangwena (21.4%) and Hardap (21.4%). Professional experience demonstrated indicated a balanced skills mix, with 35.7% reporting ≥10 years in practice and a further 28.6% with 5 – <10 years, while 14.3% had 3 – <5 years, 14.3% had 1 – <3 years, and 7.1% had 6 months' experience. Five themes and five subthemes emerged from the interviews with social workers. Among the two heads of old-age homes interviewed (N = 2), both were female and employed full-time; one was aged 40 – 49, and the other was 50 – 59. Educational achievement was split, with one individual possessing a secondary education and the other holding a master's degree. Occupational roles included those of Administrative Officer and General Manager. Professional experience in older care revealed that one respondent had 3 – <5 years and another had 5 – <10 years. Seven themes and six subthemes emerged from the interviews with the head of old-age homes. See the thematic tables below:

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Table 4: The social workers' thematic table

Theme	Subthemes	Sample quotes
Insufficient capacity and regional disparities	No homes in some regions; long waiting lists; limited spaces open only when someone leaves; insufficient dementia centres.	"We do not have old-age homes in the north, and that is why I wish the government would come in, as they did in the southern and central regions." (Social Worker 2) "It is insufficient; we can only take 5-6 from the yearly waiting list as the houses are full. Spaces are only available when someone dies or gets sick and is unable to take care of themselves, and thus, their family members come to take them." (Social Workers 10)
Financial constraints and affordability	Fees insufficient; reliance on donations; utilities costly; need government/NGO/private support.	"The 300 paid by the old people is not enough." (Social Worker 8) "Private old age home charges so much because of utilities, salaries; state ones are not maintained on time." (Social Worker 14)
Abuse and housing conditions	deplorable living conditions	"The older persons face rejection, neglect, and abuse, and some houses are in depleted situations." (Social Worker 7)
Policy/guideline gaps and uneven implementation	Outdated/insufficient policies.	"The older person policy we are using is outdated." (Social Worker 6) "The Ministry of Health and Social Services is currently drafting a Policy on the Rights, Care and Protection of Older Persons in Namibia; there is no other policy in place." (Social Worker 14)
Staffing and training needs	Staff shortages and training needs.	"Training of staff with special skills is needed." (Social Worker 4) "We need to recruit more staff, such as nurses, physiotherapists, a cook, and some cleaners." (Social Worker 8)

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Table 5: The head of old-age homes thematic table

Theme	Subthemes	Sample quotes
Funding and sustainability constraints	Lack of sponsors and reliance on resident fees	"We do not have sponsors; the old age home depends entirely on the payment of the old people accommodated here." And "We do not pay the caregivers enough." (Head of old age homes 1)
Capacity limits and waiting lists	Demand exceeds supply	"We have a very limited capacity here." (Head of old age homes 1) "We can accommodate up to 140 older people, but we are currently full with a long waiting list. It is sad because they need these services now and not when they are dead." (Head of old age homes 2)
Dementia care gaps	Caregivers often lack dementia-specific skills.	"It is also difficult for the old people with dementia as caregivers do not have qualifications on how to deal with dementia older persons." (Head of old age homes 2)
Affordability and pricing model		"They pay depending on the type of room they are accommodated in and the amount of care they need. Prices range between N$4,280 and N$14,590 per month." (Head of old age homes 2)
Night care and shift patterns	No night-shift caregivers	"We are unable to provide night care as we have day caregivers only." (Head of old age homes 1)
Infrastructure and facility upgrades	physio room and physiotherapist; infrastructure support	"We also want a physiotherapist and a physio room" (Head of old age homes 1)
Community perceptions and family engagement	Negative perceptions; low family visitation; stigma ("only for white people"); outreach via churches and rural talks	"People are always negative; most families never come to visit their old people here." (Head of old age homes 1) "Some community members also believe old age homes are only for white people, which is not valid. We need to speak mostly to the rural community about the benefits of old age homes." (Head of old age homes 2)

Tables 4 and 5 summarise the interviewees' responses in themes and sub-themes supported by quotes from the participants.

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DISCUSSION

The study aimed to assess the capacity and readiness of existing old-age homes in Namibia and to explore the challenges they face, as perceived by key informants. Quantitative findings reveal that old-age homes are scarce, concentrated in urban areas, and operate at or near full occupancy. Moreover, private facilities are generally better resourced and more highly rated than public homes. Furthermore, capacity roughly aligns with actual occupancy, leaving a minimal buffer for increasing demand. Qualitative results from social workers and facility managers corroborate these patterns, highlighting funding constraints, staff shortages, gaps in dementia care, and infrastructural deficits.

About two-thirds of Namibia's older population reside in northern regions, whereas old-age homes are concentrated in central and southern urban centres. This mismatch is also captured by one social worker, who noted: "We do not have old-age homes in the north, and that is why I wish the government would come in, as they did in the southern and central regions." (Social Worker 2). This urban bias is consistent with previous Namibian research that documented rural–urban disparities in living conditions and service accessibility for older persons (Indongo & Sakaria, 2016; World Health Organization, 2022). Old-age homes were also generally found to be scarce and mostly privately owned. This aligns with findings from a study in Kenya, which reported that the capacity of old-age homes is similarly limited, with an estimated 16 residential care facilities nationwide, most of which are run by religious organisations (Murage, 2022). Together, these findings highlight a significant gap in the provision of both long- and short-term care for older persons.

The finding that private facilities are typically better resourced and more highly rated than public homes echoes patterns reported in other countries; for instance, in Ethiopia, government-funded homes for older persons are typically characterised by limited resources and overcrowding, hindering their ability to provide adequate care (Dawud et al., 2022). Similarly, a study in Malaysia comparing public and non-governmental facilities found that government-owned homes tended to be financially driven and failed to provide high-quality services (Wagiman et al., 2016). It was further discovered that in developing countries, residential facilities for older persons are often not subject to systematic regulation or monitoring by state authorities (Dawud et al., 2022). Consistent with this pattern, this study found that only private old-age homes in Namibia are registered and therefore subject to mandatory inspection. As one social worker explained in relation to policy, "The Ministry of Health and Social Services is currently drafting a Policy on the Rights, Care and Protection of Older Persons in Namibia; there is no other policy in place" (Social Worker 14, See Table 4). At the regional level, WHO reports that in many sub-Saharan African countries, formal long-term care systems are largely absent (World Health Organization, 2017). The near-perfect alignment between capacity and occupancy observed in this study indicates that old-age homes are operating as tightly constrained bottlenecks rather than flexible components of a wider long-term care system. This pressure on capacity was further vividly described by one facility manager: "We can accommodate up to 140 older people, but we are currently full, with a long waiting list. It is sad because they need these services now and not when they are dead" (Head of old age homes 2, See Table 5). In the Namibian context,

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this likely reflects both increasing demand driven by demographic ageing and changing family structures.

The documented emergency preparedness and accessibility deficiencies revealed from some old-age homes in this study, such as expired fire extinguishers, missing alarms and assembly points, and the absence of ramps, handrails or adaptive toilets in public homes, are inconsistent with WHO guidance on age-friendly infrastructure, which recommends elevators, ramps, wide doorways to accommodate wheelchair users, suitably graded stairs with handrails, non-slip flooring and resting areas with comfortable seating (World Health Organization, 2015).

By triangulating the perspectives of key informants with facility assessments, the study extends prior Namibian research that focused primarily on awareness and attitudes towards old-age homes (Haufiku-Weyulu et al., 2025), shifting the discourse from whether old-age homes are acceptable to how they are distributed, resourced and governed in practice.

CONCLUSION

Based on the results, this study concludes that Namibia's old-age homes are insufficient to meet the current and future long-term care needs of its rapidly ageing population. The evidence shows that facilities are too few, concentrated in urban centres far from where the majority of older persons reside, and operating at or beyond capacity, with public homes in particular facing significant staffing, infrastructure, and accessibility challenges. Concurrently, key informants clearly articulate feasible improvements, including enhancements to staffing and infrastructure capacity, as well as adjustments to fees and policy implementation. This study concludes that Namibia requires a deliberate, equitable strategy to expand and decentralise old-age homes, while bridging the quality disparity between public and private homes. In the absence of these measures, the country risks deepening regional and socio-economic inequalities in the access of older persons to safe and dignified care.

Ethical clearance
Ethical consent was obtained from the Ministry of Health and Social Services in Namibia (reference 22/3/1/2), the managers of the old-age homes, and the participants involved in this study. They were informed that the exercise was purely for academic purposes and that their participation was voluntary.

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APPENDIX 22: TURNITIN ORIGINALITY REPORT

Mouyelele Haufiku PhD Thesis

ORIGINALITY REPORT

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APPENDIX 23: VALIDATED MODEL

