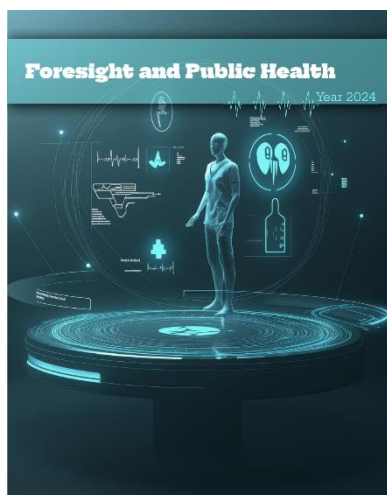


Article type:
Original Research



How to cite this article:

Irandoost, K. (2025). Future Scenarios of Aging and Elderly Care in Post-Industrial Societies. *Foresight and Public Health*, 2(1), 42-51.
<https://doi.org/10.61838/jfph.2.1.5>



© 2025 the authors. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Future Scenarios of Aging and Elderly Care in Post-Industrial Societies

Khadijeh. Irandoost*¹

¹ Associate Professor, Department of Sport Sciences, Imam Khomeini International University, Qazvin, Iran

Corresponding author email address: irandoost@soc.ikiu.ac.ir

ABSTRACT

This study aims to explore future scenarios of aging and elderly care in post-industrial societies. A qualitative research design was employed, utilizing semi-structured interviews with 22 participants from online communities and a review of scientific articles to analyze current trends and anticipate future challenges. Participants included elderly individuals, caregivers, healthcare professionals, social workers, and policymakers. Data collection was conducted through online interviews and thematic analysis was performed using NVivo software. The study reached theoretical saturation, and findings were validated through triangulation with existing literature. The results indicate that technological integration, particularly in AI-assisted home care, telemedicine, and smart monitoring devices, will significantly impact elderly independence and healthcare accessibility. Community-based and decentralized care models emerged as preferable alternatives to institutional care, with intergenerational living, cooperative housing, and local government support playing essential roles. Economic and policy challenges, including financial sustainability of pension systems and workforce shortages in elderly care, were highlighted as significant concerns. The study also found that psychosocial well-being, including social engagement, cognitive stimulation, and family caregiver support, is crucial for maintaining mental health in aging populations. Additionally, ethical and cultural considerations, such as autonomy in decision-making and end-of-life care policies, remain essential in shaping elderly care systems globally. The future of elderly care in post-industrial societies will depend on the effective integration of technology, economic policies, community-driven initiatives, mental health support, and ethical frameworks. Policymakers, healthcare providers, and technology developers must collaborate to create sustainable, inclusive, and ethically responsible elderly care models that address the growing needs of aging populations.

Keywords: Aging, Elderly Care, Long-Term Care, Technology in Aging, Community-Based Care, Policy Challenges, Psychosocial Well-being, Ethical Considerations, Future of Aging, AI in Healthcare.

Introduction

Aging populations are transforming societies worldwide, with post-industrial nations facing some of the most pressing challenges related to elderly care. Advances in healthcare and improved living conditions have significantly extended life expectancy, leading to a demographic shift where older adults represent an increasing proportion of the population (Hwang, 2022). While this trend reflects societal progress, it also brings forth critical concerns regarding long-term care (LTC) systems, economic sustainability, and the integration of technological and community-based solutions to ensure quality care for the elderly (Andréia Cristina Barboza da Silva, 2024). The complexity of aging-related

policies demands a forward-looking perspective, anticipating how healthcare systems, social structures, and financial mechanisms will evolve to accommodate the needs of older adults.

One of the primary challenges in elderly care is ensuring high-quality long-term care facilities and services that cater to both medical and social needs. Studies have highlighted the necessity for standardized evaluation tools to assess the quality of care in institutions dedicated to the elderly (Alexandre & Souza, 2021). Many long-term care facilities struggle with understaffing, inadequate funding, and inconsistencies in care provision, which ultimately affect the well-being of residents (Kang & Hur, 2022). The experiences of caregivers and primary health professionals reflect these issues, as many report difficulties in managing the emotional and physical demands of elderly care (Kim et al., 2021). Given these concerns, improving LTC services requires a multi-faceted approach, combining financial support, policy reforms, and enhanced caregiver training programs to ensure equitable access to quality care (Schulz et al., 2020).

The economic implications of population aging are profound, influencing pension systems, insurance models, and workforce sustainability (Li, 2022). The financial strain on healthcare systems increases as the demand for specialized services for the elderly grows, particularly for those requiring long-term care due to chronic illnesses and cognitive decline (Bo et al., 2020). The burden of financing these services is often shared between the government, private sector, and families, leading to disparities in access to quality care (Do & Kim, 2022). Countries that rely heavily on out-of-pocket expenditures for elderly care frequently witness higher financial stress among families, particularly for middle- and lower-income households (Wu & Gao, 2020). Efforts to reform financial models, including insurance-based LTC systems, aim to provide more sustainable and equitable solutions for aging populations (Sun, 2024).

The role of technology in elderly care is expanding, with digital solutions offering promising avenues to enhance independence and quality of life for older adults. The integration of artificial intelligence (AI), robotics, and smart home technologies allows for real-time health monitoring, reducing the dependency on institutional care (Ortiz et al., 2021). Wearable health devices and telemedicine have already demonstrated significant benefits, particularly in improving access to healthcare services for elderly individuals in remote or underserved areas (Siu et al., 2021). The application of AI in elderly care also raises ethical and regulatory concerns, particularly regarding data privacy and biases in algorithmic decision-making (Shin et al., 2021). Despite these challenges, the continued advancement of digital health solutions is expected to play a pivotal role in shaping the future of elderly care systems (Li et al., 2020).

Long-term care institutions must also address the psychological and social aspects of aging, recognizing the importance of mental health support, social interaction, and cognitive stimulation (Noskova et al., 2018). Social isolation is a significant concern among elderly individuals, particularly for those residing in long-term care facilities (Hwang & Tu, 2019; Hwang, 2022). Studies indicate that loneliness is a major risk factor for mental health decline, increasing susceptibility to depression and anxiety (Chun, 2024). Programs designed to encourage intergenerational engagement, peer support, and active participation in community activities have demonstrated positive outcomes in mitigating social isolation (Pokrajc, 2021).

Another key aspect of aging and elderly care is the cultural and ethical considerations that shape caregiving approaches in different societies. In many Asian countries, elderly care has traditionally been family-centered, while Western nations have increasingly relied on institutional care models (Hwang, 2022). The cultural transition towards professional caregiving services is often met with resistance, as many older individuals prefer aging in place rather than relocating to care facilities (Lee et al., 2022). Ethical issues such as autonomy in decision-making, dignity in end-of-life care, and the role of religious and spiritual perspectives in elderly well-being further complicate policy development in aging societies (Zhu, 2022). Cross-cultural adaptations of elderly care policies could offer insights into developing more inclusive and respectful care models that balance traditional caregiving values with modern healthcare advancements (Gardner et al., 2020).

Policy frameworks surrounding elderly care must evolve to accommodate the shifting needs of aging populations. Countries with well-established long-term care insurance models, such as South Korea, have shown that structured government interventions can provide stability and improved access to care for the elderly (Do & Kim, 2022). However, such models require ongoing evaluation and adaptation to remain effective in addressing the challenges posed by extended life expectancy and rising healthcare costs (Amigo & Nekada, 2019). Policymakers must also consider the

workforce shortages in elderly care, as many healthcare systems struggle to recruit and retain qualified caregivers (Landsberger, 2024). Investing in caregiver training, offering financial incentives, and implementing workforce retention programs are essential steps in ensuring that elderly care systems remain sustainable. This study aims to explore these potential future scenarios, providing an in-depth analysis of how post-industrial societies can prepare for and adapt to the evolving landscape of elderly care.

Methods and Materials

Study Design and Participants

This study employs a qualitative research design to explore the future scenarios of aging and elderly care in post-industrial societies. Given the multifaceted and evolving nature of elderly care, a thematic analysis approach was chosen to examine the key trends, challenges, and innovations shaping the future of aging. To ensure a comprehensive understanding, data collection involved semi-structured interviews with key stakeholders as well as an extensive review of scientific articles that discuss aging and elderly care policies in post-industrial societies.

The study participants were recruited from online communities where discussions about aging, elderly care, and related social policies are actively held. A total of 22 individuals participated in the study, selected through purposive sampling to include a range of perspectives. These participants consisted of elderly individuals who shared their lived experiences and expectations for future care models, caregivers who provided insights into practical challenges, healthcare professionals who discussed the medical and psychological needs of the aging population, social workers who elaborated on support systems, and policymakers who addressed the broader legislative and infrastructural changes required for effective elderly care. The study reached theoretical saturation, meaning that data collection ceased once no new themes or insights emerged from additional interviews.

Data Collection

The data collection process was structured in two interconnected phases. The first phase consisted of semi-structured interviews, which were conducted with participants through online communication platforms. These interviews were designed to be open-ended, allowing participants to freely discuss their perspectives on the future of aging and elderly care. Questions were formulated to cover key topics such as demographic shifts, the impact of technological advancements on caregiving, evolving policies in post-industrial societies, and the socio-economic implications of an aging population. Each interview lasted between forty-five minutes to an hour and was recorded with participant consent. Following each session, the recordings were transcribed verbatim to ensure accuracy in data analysis.

The second phase of data collection involved an extensive review of scientific literature, which was conducted to complement and validate the qualitative findings from the interviews. The literature review focused on studies, reports, and policy analyses related to aging and elderly care in post-industrial societies. Peer-reviewed journal articles, government reports, and institutional publications were examined to identify existing trends and theoretical frameworks that could inform the analysis. The integration of empirical data from interviews with insights from scholarly sources provided a well-rounded perspective on the topic.

Data analysis

The data analysis process followed a structured thematic coding approach using NVivo software. The analysis began with transcription and data familiarization, where interview transcripts were carefully reviewed to identify key patterns and initial impressions. The next step involved open coding, where relevant segments of the text were labeled based on recurring concepts and themes emerging from the data. These initial codes were then refined and categorized into broader thematic groups, reflecting the underlying patterns and shared perspectives among participants. Themes

such as the role of artificial intelligence in elderly care, the shift toward home-based care models, and the challenges of financial sustainability in aging societies were identified and analyzed in depth.

To ensure the reliability and validity of the findings, a cross-validation process was carried out by comparing the interview data with the literature review. This triangulation approach helped to verify the consistency of emerging themes and provided additional context for interpreting participant narratives. The final stage of the analysis involved interpretation and synthesis, where the refined themes were examined within the broader context of aging and elderly care policies. The findings were structured to provide a forward-looking perspective, outlining potential policy adaptations, technological advancements, and societal transformations that could shape the future of elderly care in post-industrial societies.

Findings and Results

The study included 22 participants from online communities, representing a diverse range of individuals engaged in discussions about aging and elderly care in post-industrial societies. Among the participants, 12 were female and 10 were male, with ages ranging from 55 to 87 years old. The majority of participants (15 individuals) were aged 65 and above, while 7 participants were between 55 and 64 years old. Regarding their roles and backgrounds, 8 participants were elderly individuals sharing their lived experiences, 5 were family caregivers responsible for supporting elderly relatives, and 4 were healthcare professionals, including geriatric nurses and physicians. Additionally, 3 participants were social workers specializing in elderly care services, and 2 were policymakers involved in aging-related policies. The geographical distribution of the participants varied, with 14 individuals residing in urban areas and 8 living in suburban or rural communities. Educational backgrounds also varied, as 6 participants held university degrees in health or social sciences, 10 had vocational or secondary education, and 6 had no formal higher education.

Table 1

The Results of Qualitative Analysis

Categories (Main Themes)	Subcategories (Subthemes)	Concepts (Open Codes)
Technological Integration in Elderly Care	AI and Robotics in Home Care	AI-assisted mobility, Companion robots, Automated medication reminders
	Wearable Health Monitoring	Heart rate tracking, Fall detection, Blood pressure monitoring
	Telemedicine and Remote Consultation	Virtual doctor visits, Remote chronic disease management, AI-driven diagnostics
Community-Based and Decentralized Care Models	Smart Homes for Aging in Place	Voice-activated assistants, Smart security systems, Adaptive lighting and accessibility
	Digital Literacy for the Elderly	E-learning for elderly, Digital divide solutions, Online safety training
	Aging in Community Settings	Neighborhood elderly hubs, Age-friendly public spaces, Community resilience programs
	Intergenerational Living Spaces	Shared housing with young adults, Multigenerational home designs, Elder-youth mentorship programs
	Volunteer and Peer Support Networks	Senior volunteer programs, Peer counseling networks, Mutual aid initiatives
	Local Government Involvement	Municipal funding for elderly care, Community health partnerships, Local policy frameworks
	Hybrid Public-Private Care Models	Publicly funded home care, Corporate elderly welfare programs, Blended financial models
Economic and Policy Challenges in Aging Societies	Cooperative Housing Initiatives	Co-housing projects, Collaborative living arrangements, Elder-led governance models
	Financial Sustainability of Pension Systems	Pension reform policies, Sustainability of retirement funds, Aging workforce reintegration
	Workforce Shortages in Elderly Care	Training programs for caregivers, Incentives for elderly care careers, Migrant labor in elderly care
	Governmental vs. Private Sector Involvement	State-funded facilities, Market-driven eldercare models, Regulatory challenges
	Long-term Insurance and Funding Mechanisms	Insurance coverage for aging populations, Healthcare subsidies, Financial literacy for aging
	Economic Burden on Families	Intergenerational financial dependencies, Family caregiving costs, Long-term care expenses
Psychosocial Well-being and Intergenerational Relations	Mental Health Support for the Elderly	Therapeutic counseling, Geriatric psychiatry services, Mental resilience programs
	Social Isolation and Loneliness Interventions	Senior friendship programs, Social media engagement, Community-based loneliness interventions

Ethical and Cultural Considerations in Elderly Care	Cognitive Stimulation and Lifelong Learning	Brain training apps, Lifelong education initiatives, Arts and creativity workshops
	Elderly Participation in Community Activities	Volunteering in old age, Active senior citizen clubs, Public engagement opportunities
	Family Caregiver Support Systems	Caregiver stress management, Support groups for family members, Mental health resources
	Resilience and Coping Strategies	Adaptive coping mechanisms, Resilience-building exercises, Crisis intervention models
	Ethical Challenges of AI in Caregiving	Data privacy concerns, AI biases in elderly care, Ethical regulation of robotics
	Cultural Variations in Elderly Care	Asian vs. Western aging models, Traditional vs. institutional care, Cross-cultural elderly expectations
	Dignity and Autonomy in Decision-Making	Autonomy in healthcare decisions, Legal frameworks for elderly rights, Dignity-centered care approaches
	End-of-Life Care and Palliative Ethics	Palliative care training, Assisted dying debates, Ethical dilemmas in terminal care
	Spirituality and Aging	Religious perspectives on aging, Mindfulness in later life, Spiritual caregiving programs
	Elderly Rights and Advocacy	Legal protection for elderly, Human rights advocacy, Elder abuse prevention laws
	Cross-Cultural Policy Adaptations	Global policy benchmarking, Culturally responsive care models, International cooperation on elderly welfare

Technological Integration in Elderly Care

The increasing role of artificial intelligence and robotics in home care is transforming elderly support systems by providing AI-assisted mobility, companion robots, and automated medication reminders. Many participants emphasized the convenience these technologies bring to daily life. One respondent mentioned, *"Having a robotic assistant at home gives me a sense of security, especially when moving around the house alone."*

Wearable health monitoring devices, such as heart rate tracking, fall detection, and blood pressure monitoring, are becoming essential for elderly care. Several participants expressed that these tools provide a sense of reassurance. One caregiver noted, *"My father's smart wristband alerts me whenever his blood pressure fluctuates, making it easier to respond quickly."*

The rise of telemedicine and remote consultation services enables virtual doctor visits, remote chronic disease management, and AI-driven diagnostics, reducing the need for frequent hospital visits. One elderly participant explained, *"I don't have to travel long distances to see my doctor anymore; I can just consult through a video call and get the help I need."*

Smart homes designed for aging in place incorporate voice-activated assistants, smart security systems, and adaptive lighting and accessibility features to enhance independence. One interviewee stated, *"With smart lights and voice commands, I can navigate my home safely even at night without worrying about falls."*

Digital literacy programs for the elderly focus on e-learning for seniors, solutions to bridge the digital divide, and online safety training to enable older adults to engage with technology confidently. However, some participants expressed concerns about accessibility. As one noted, *"I try to use my tablet for online services, but sometimes it feels too complicated, and I worry about being scammed."*

Community-Based and Decentralized Care Models

Aging in community settings is increasingly viewed as an alternative to institutional care, with neighborhood elderly hubs, age-friendly public spaces, and community resilience programs providing social and structural support. One participant explained, *"I prefer living in a community where I can interact with people my age instead of feeling isolated at home."*

Intergenerational living spaces are being promoted through shared housing with young adults, multigenerational home designs, and elder-youth mentorship programs, fostering relationships across different age groups. A younger interviewee living in such an arrangement described, *"Living with my grandmother has been an enriching experience; she shares her wisdom while I help her navigate technology."*

Volunteer and peer support networks are strengthening elderly well-being through senior volunteer programs, peer counseling networks, and mutual aid initiatives. One participant noted, *"Being part of a peer support group makes me feel useful and valued; I help others while also receiving emotional support myself."*

Local government involvement in elderly care is expanding through municipal funding, community health partnerships, and local policy frameworks to create sustainable solutions. A policymaker involved in elderly care explained, *"We are working towards policies that ensure elderly people receive home-based care without financial strain."*

Hybrid public-private care models are being developed, combining publicly funded home care, corporate elderly welfare programs, and blended financial models to provide flexible care options. One elderly interviewee emphasized, *"Private home care is too expensive, but the public system is overburdened. We need a balance where both sectors work together."*

Cooperative housing initiatives that include co-housing projects, collaborative living arrangements, and elder-led governance models are gaining popularity as alternative living arrangements. A participant in a co-housing initiative noted, *"We manage our own space, share responsibilities, and create a strong support system without feeling dependent on our families."*

Economic and Policy Challenges in Aging Societies

The financial sustainability of pension systems remains a pressing concern, with discussions focusing on pension reform policies, sustainability of retirement funds, and aging workforce reintegration. One retiree expressed frustration, *"My pension barely covers my expenses. I worry about how I will manage if costs keep rising."*

Workforce shortages in elderly care are being addressed through training programs for caregivers, incentives for elderly care careers, and the involvement of migrant labor. A care facility manager emphasized, *"We struggle to find qualified caregivers. More needs to be done to attract young people to this field."*

Governmental and private sector involvement in elderly care remains a contested issue, with debates over state-funded facilities, market-driven eldercare models, and regulatory challenges. One respondent working in policy explained, *"The government alone cannot manage elderly care; we need private investment, but with proper regulation to prevent exploitation."*

Long-term insurance and funding mechanisms, such as insurance coverage for aging populations, healthcare subsidies, and financial literacy programs for the elderly, are being explored as solutions. One elderly participant shared, *"I never thought about long-term care insurance until now, but it's something I wish I had considered earlier."*

The economic burden on families supporting elderly relatives is increasing due to intergenerational financial dependencies, family caregiving costs, and long-term care expenses. One caregiver explained, *"Caring for my elderly mother has affected my job and savings. There needs to be more financial support for family caregivers."*

Psychosocial Well-being and Intergenerational Relations

Mental health support for the elderly is gaining attention through therapeutic counseling, geriatric psychiatry services, and mental resilience programs. One participant emphasized, *"I see a therapist regularly now, and it has helped me cope with the emotional challenges of aging."*

Interventions for social isolation and loneliness include senior friendship programs, social media engagement, and community-based loneliness interventions to foster connection. One elderly interviewee explained, *"Joining an online community for seniors has helped me feel less alone, especially since I lost my spouse."*

Cognitive stimulation and lifelong learning opportunities are expanding through brain training apps, lifelong education initiatives, and arts and creativity workshops to maintain cognitive health. A retired teacher shared, *"I take online courses now. Learning keeps my mind sharp and gives me a sense of purpose."*

Elderly participation in community activities is being encouraged through volunteering, senior citizen clubs, and public engagement opportunities, helping older individuals stay active. One participant stated, *"I volunteer at a local library, and it gives me a sense of purpose and connection."*

Family caregiver support systems offer caregiver stress management, support groups for family members, and mental health resources to ease the burden of caregiving. A family caregiver explained, *"Sometimes I feel overwhelmed caring for my father, but the support group I joined has been incredibly helpful."*

Resilience and coping strategies for elderly individuals involve adaptive coping mechanisms, resilience-building exercises, and crisis intervention models to support emotional well-being. One interviewee reflected, *"Aging comes with challenges, but developing resilience helps me navigate life's uncertainties."*

Ethical and Cultural Considerations in Elderly Care

Ethical challenges of AI in caregiving include concerns about data privacy, AI biases in elderly care, and the ethical regulation of robotics. One participant expressed concern, *"AI tools are useful, but I worry about privacy. Who controls all this data?"*

Cultural variations in elderly care highlight differences between Asian and Western aging models, traditional versus institutional care, and cross-cultural expectations. One elderly participant explained, *"In my culture, family takes care of the elderly, but I see younger generations shifting toward professional care services."*

Dignity and autonomy in decision-making involve autonomy in healthcare choices, legal frameworks for elderly rights, and dignity-centered care approaches. One elderly respondent emphasized, *"I want to make my own decisions about my care, not have them made for me."*

End-of-life care and palliative ethics include palliative care training, assisted dying debates, and ethical dilemmas in terminal care. One respondent stated, *"Having control over end-of-life choices is important to me, but not everyone agrees on what's right."*

Spirituality and aging involve religious perspectives, mindfulness practices, and spiritual caregiving programs to support elderly individuals. One participant reflected, *"My faith gives me strength as I grow older."*

Discussion and Conclusion

The findings of this study highlight several key trends and challenges in the future of aging and elderly care in post-industrial societies. The results indicate that technological integration, community-based and decentralized care models, economic and policy sustainability, psychosocial well-being, and ethical and cultural considerations will play a significant role in shaping the future of elderly care. Participants' perspectives align with existing literature, emphasizing the increasing reliance on AI, robotics, and telemedicine, the shift towards aging-in-place models, and the critical need for long-term financial strategies to support elderly care systems. Additionally, concerns surrounding mental health, social isolation, and ethical considerations continue to shape discourse on the future of aging populations.

The results demonstrate that AI, robotics, and smart home technologies will play an essential role in elderly care, particularly in facilitating independence and reducing reliance on traditional care institutions. Many participants expressed optimism about AI-assisted mobility, remote health monitoring, and automated medication management, citing these technologies as crucial for improving their quality of life. These findings align with studies that emphasize the role of technology in enhancing elderly care and ensuring safety in aging populations (Ortiz et al., 2021).

Wearable health monitoring and telemedicine were also key themes, with participants acknowledging the benefits of real-time health tracking and virtual consultations. Research supports these findings, as previous studies have shown that telemedicine significantly improves access to healthcare for elderly individuals, particularly those in rural or underserved regions (Siu et al., 2021). However, digital literacy remains a barrier, as several participants expressed challenges in using technology effectively. This concern is also noted in prior research, which suggests that elderly individuals often face difficulties adapting to new technologies, necessitating targeted training programs to bridge the digital divide (Shin et al., 2021).

Despite the advantages of technology, ethical considerations regarding privacy, data security, and AI biases remain prevalent. Some participants raised concerns about data privacy and the potential for AI systems to make impersonal or inaccurate healthcare decisions. These concerns are echoed in the literature, where scholars argue that AI and machine-learning applications in elderly care require stringent ethical frameworks to protect patients' rights and ensure unbiased decision-making (Li et al., 2020).

The shift toward community-based and decentralized care models emerged as a dominant theme, with participants emphasizing the benefits of aging in familiar environments and being surrounded by social support networks. Many respondents expressed a preference for aging-in-place models, cooperative housing initiatives, and peer support networks over institutionalized care. These perspectives are consistent with research that highlights the increasing

demand for community-driven elderly care models, particularly in Western societies where independent living is valued (Hwang & Tu, 2019).

Intergenerational living spaces were also discussed as a potential solution to social isolation and caregiving challenges. Participants who lived with younger family members or in multigenerational housing reported higher levels of emotional well-being and security. Prior research confirms that intergenerational living can improve the quality of life for elderly individuals by fostering meaningful relationships and reducing loneliness (Pokrajc, 2021). However, challenges remain, particularly in urban areas where housing affordability and space constraints limit the feasibility of such models (Gardner et al., 2020).

The role of local governments in elderly care was another critical discussion point. Participants acknowledged the need for strong municipal involvement in funding, policy frameworks, and community-based elderly care initiatives. This aligns with studies showing that local governments play a crucial role in shaping elderly care systems through funding, infrastructure development, and public-private partnerships (Amigo & Nekada, 2019). Countries with established municipal-led elderly care programs have demonstrated greater success in integrating social services, healthcare, and financial support (Sun, 2024).

Economic sustainability remains one of the most pressing challenges for elderly care. The study findings suggest that pension reform, long-term insurance models, and financial sustainability will determine the future of elderly care systems. Many participants expressed concern about the adequacy of pension systems and the affordability of long-term care services, fearing that current financial structures may not be sustainable in the long run. These concerns are consistent with prior research, which suggests that traditional pension systems are increasingly strained due to longer life expectancy and lower birth rates (Li, 2022).

Workforce shortages in elderly care were also highlighted, with participants noting the challenges in hiring and retaining skilled caregivers. Many pointed out that caregiving professions are underpaid and undervalued, leading to staffing shortages and high turnover rates. Studies have shown that these issues are widespread across many countries, and efforts to improve wages, working conditions, and training programs are needed to sustain elderly care workforces (Kang & Hur, 2022). Some countries have implemented policies to incentivize young professionals to enter the caregiving sector, but retention remains a challenge (Landsberger, 2024).

The role of governmental vs. private sector involvement was also discussed, with participants divided on the best approach to funding elderly care. Some preferred state-funded facilities, while others believed that private-sector involvement could improve service quality. Research indicates that hybrid models, which combine public funding with private sector efficiency, often yield the best outcomes (Bo et al., 2020). However, regulation remains essential to prevent market-driven eldercare models from becoming financially inaccessible to lower-income individuals (Schulz et al., 2020).

The study findings reaffirm the importance of social interaction, mental health support, and cognitive stimulation in promoting well-being among elderly individuals. Many participants described feelings of loneliness and social isolation, particularly those living alone or in long-term care facilities. Previous studies have documented the negative effects of loneliness on elderly individuals, linking it to increased risks of depression, cognitive decline, and overall poorer health outcomes (Chun, 2024).

Programs aimed at social engagement, such as senior friendship groups, intergenerational mentorship programs, and community-based activities, were identified as effective interventions. Research supports this perspective, showing that participation in structured social activities significantly improves mental health and reduces feelings of loneliness (Pokrajc, 2021).

Family caregiver support systems were another important theme, as many participants noted that caring for elderly relatives placed emotional and financial burdens on family members. Prior research emphasizes that caregivers often experience high levels of stress and burnout, necessitating greater access to support services and mental health resources (Noskova et al., 2018). Strategies such as caregiver support groups and respite care programs have been recommended to reduce stress and improve overall well-being among caregivers (Hwang & Tu, 2019).

Ethical considerations surrounding autonomy, dignity, and palliative care were frequently discussed in the study. Many participants expressed the need for greater respect for elderly individuals' choices in healthcare and end-of-life decisions. Studies have highlighted similar concerns, emphasizing that autonomy and informed consent should be central to elderly care policies (Zhu, 2022).

Cultural variations in elderly care also play a significant role in shaping caregiving models. Some participants from non-Western backgrounds expressed a preference for family-based caregiving models, whereas others supported institutional care frameworks. Research confirms that cultural perceptions strongly influence attitudes toward elderly care, with some societies prioritizing family involvement while others favor professional care services (Hwang, 2022).

This study has several limitations. First, the sample size was relatively small, consisting of only 22 participants from online communities, which may limit the generalizability of the findings. The study also relied on self-reported experiences and perceptions, which can introduce biases in how participants view elderly care systems. Additionally, while interviews provided in-depth insights, the inclusion of more diverse demographic groups could have strengthened the findings.

Future studies should explore elderly care from a comparative international perspective, examining how different countries approach aging and long-term care models. Research could also incorporate quantitative methods to measure the effectiveness of various elderly care interventions, including technology adoption, financial sustainability models, and caregiver support programs.

Healthcare professionals, policymakers, and technology developers must work collaboratively to create inclusive, accessible, and sustainable elderly care systems. Expanding caregiver training programs, improving LTC funding structures, and developing ethical AI frameworks will be essential in shaping elderly care models that align with the evolving needs of aging societies.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Written consent was obtained from all participants in the study.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

References

- Alexandre, M., & Souza, N. P. D. (2021). Instrumento Válido Para Avaliação Da Qualidade Do Cuidado Nas Instituições De Longa Permanência Para Idosos: Uma Revisão Integrativa. *Revista Científica Cognitionis*, 4(1), 1-24. <https://doi.org/10.38087/2595.8801.80>
- Amigo, T. E. A., & Nekada, C. D. Y. (2019). Pengaruh Edukasi Perawatan Jangka Panjang Pada Lansia Dengan Pengetahuan Kader Kesehatan Di Area Komunitas. *Jurnal Ilmu Keperawatan Komunitas*, 2(2), 1. <https://doi.org/10.32584/jikk.v2i2.408>
- Andréia Cristina Barboza da Silva, M. (2024). Challenges and Perspectives for Population Aging. *Health and Society*, 4(01), 288-300. <https://doi.org/10.51249/hs.v4i01.1906>
- Bo, S., Feng, S., & Guan, C. (2020). A Study on the Integration of Multiple Subjects in Financial Supply of Traditional Chinese Medicine for Long-Term Care. *E3s Web of Conferences*, 214, 03047. <https://doi.org/10.1051/e3sconf/202021403047>
- Chun, Y. (2024). Survey of Oral Health for Old People in Elderly Care Facility. *J Korean Dent Assoc*, 62(3), 172-180. <https://doi.org/10.22974/jkda.2024.62.3.003>
- Do, H.-Y., & Kim, Y.-J. (2022). Longitudinal Effects of Health Status on Changes in the Use of the Elderly Long-Term Care Insurance System of Older Adults in Korea. *Journal of Korean Gerontological Nursing*, 24(3), 301-310. <https://doi.org/10.17079/jkgn.2022.24.3.301>
- Gardner, W., States, D., & Bagley, N. (2020). The Coronavirus and the Risks to the Elderly in Long-Term Care. *Journal of Aging & Social Policy*, 32(4-5), 310-315. <https://doi.org/10.1080/08959420.2020.1750543>
- Hwang, H.-L., & Tu, C.-T. (2019). Factors Related to Perceived Caring Among Older People Residing in Long-term Care Facilities: A Cross-sectional Study. *Scandinavian Journal of Caring Sciences*, 34(4), 964-970. <https://doi.org/10.1111/scs.12804>
- Hwang, H. (2022). Tackling the Challenges of Population Ageing. <https://doi.org/10.1787/10498db9-en>
- Kang, H., & Hur, J. (2022). A Qualitative Study on the Experiences of Primary Caregivers of the Elderly Using Long-Term Care Insurance for the Elderly: Focused on Long-Term Care Facility. *Korea Academy of Care Management*, 43, 57-93. <https://doi.org/10.22589/kaocm.2022.43.57>
- Kim, J.-O., Kim, H.-S., Kim, Y.-j., Kang, S.-J., & Kim, S. (2021). Review of the Long-Term Care Insurance System for the Elderly and Visiting Nursing. *Ijbsa*, 3(4), 17-22. <https://doi.org/10.22662/ijbsa.2021.3.4.017>
- Landsberger, B. H. (2024). Long-Term Care for the Elderly. <https://doi.org/10.4324/9781003422792>
- Lee, Y., Jang, S., Kang, H.-J., & Jang, S. (2022). Comparative Analysis of Potentially Inappropriate Medication Use in Long-Term Care Facility Residents and Community-Dwelling Elders: A Matched Cohort Study. *Medicine*, 101(49), e31739. <https://doi.org/10.1097/md.00000000000031739>
- Li, W. (2022). Study on Population Aging, Birth Policy and Long-Term Care Insurance Participation. *BCP Business & Management*, 18, 118-125. <https://doi.org/10.54691/bcpbm.v18i.545>
- Li, X., Zhao, X., & Bai, J. (2020). Ubiquitous Measurement Methods of Long-term Nursing Bed Resource Allocation Based on Multi-sensor Social Internet of Things. *Internet Technology Letters*, 6(1). <https://doi.org/10.1002/itl2.253>
- Noskova, I. S., Ivko, K. O., Krokhmaleva, E. V., & Pozdnyakova, N. M. (2018). Long-Term Care for Elderly People With Dementia. *Meditsinskaya Sestra*, 20(5). <https://doi.org/10.29296/25879979-2018-05-07>
- Ortiz, L. L., Chacón, S. A., Crespo, C. C., Luengo-Polo, J., & González, B. M. (2021). Technology in the Face of the Challenges of the Long-Term Care System for the Elderly in Spain. 371-379. https://doi.org/10.1007/978-3-030-72567-9_34
- Pokrajc, T. (2021). Prevention and Rehabilitation in the Context of Long-Term Care (LTC) in Slovenia. 143-155. <https://doi.org/10.26493/978-961-293-129-2.143-155>
- Schulz, M., Czwikla, J., Tsiasioti, C., Schwinger, A., Gand, D., Schmiemann, G., Schmidt, A., Wolf-Ostermann, K., Kloep, S., Heinze, F., & Rothgang, H. (2020). Differences in Medical Specialist Utilization Among Older People in Need of Long-Term Care – Results From German Health Claims Data. *International Journal for Equity in Health*, 19(1). <https://doi.org/10.1186/s12939-020-1130-z>
- Shin, S.-K., Bae, Y.-H., & Choi, J.-H. (2021). Development of Fire Safety Evaluation Indices for Long-Term Care Hospitals for the Elderly Through Analytic Hierarchy Process Analysis. *Fire Science and Engineering*, 35(6), 61-67. <https://doi.org/10.7731/kifse.4f55fb1f>
- Siu, P. K., Tang, V., Choy, K. L., Lam, H. Y., & Ho, G. T. S. (2021). An Intelligent Clinical Decision Support System for Assessing the Needs of a Long-Term Care Plan. <https://doi.org/10.5772/intechopen.89663>
- Sun, X. (2024). Inspection and Analysis of the Implementation Effect of Long-Term Care Insurance in Jinan City. *Frontiers in Science and Engineering*, 4(7), 26-33. <https://doi.org/10.54691/023fsj93>
- Wu, D., & Gao, X. (2020). A Geographic Review of Western Research on Long-Term Care for the Elderly. *地理科学进展*, 39(1), 132-142. <https://doi.org/10.18306/dlkxjz.2020.01.013>
- Zhu, H. (2022). Research on the Supply and Demand of Long-Term Care for Disabled Elderly in Hohhot Under the Background of Combination of Medical Care and Nursing. *Studies in Social Science & Humanities*, 1(1). <https://doi.org/10.56397/sssh.2022.08.01>