

CAPAGE

Promoting academic and professional excellence in health care
to meet the challenges of aging in Sri Lanka

Need analysis on core competencies for physiotherapists and nurses working with older adults in Sri Lanka

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1 Introduction

The present need analysis is conducted within the CAPAGE project “Promoting academic and professional excellence in health care to meet the challenges of aging in Sri Lanka (SL)”. The main goal of the project is to enhance professional competencies of health care (HC) providers working with older adults through a coordinated interdisciplinary approach. To enhance professional competencies, academic and professional courses focused on aging and geriatrics will be developed for specialists in physiotherapy and nursing. These courses will be developed in collaboration with academics, HC professionals, students, clients/ patients, researchers, and non-governmental organizations. Importantly, this process will consider not only high international standards, but also national health priorities, and available resources in the country. Therefore, it is crucial first to identify the corresponding needs in health care education and professional health care, considering recent sociodemographic trends. This approach aims to ensure that the education contents developed in the project are aligned with current societal changes and demands.

The present need analysis has the following main objectives:

- Describe the contexts related to health and aging and their management in SL;
- Identify the existing resources and gaps in the physiotherapy and nursing curriculum contents related to aging at the partner HEIs in SL;
- Highlight current resources and demands in the professional competencies for physiotherapy and nursing students, HC professionals working with older adults, and academic staff.

To reach these objectives, the needs analysis involves:

- Summarizing data from relevant literature sources on aging-related health issues in SL;
- Analyzing curriculum contents related to aging and geriatrics at the SL partner HEIs;
- Incorporating results from a survey conducted with academic staff, undergraduate students, and health care providers working with older adults.

Using this comprehensive approach, the needs analysis will gather insights necessary for developing a knowledge and skills capacity base that corresponds specifically to the current demands in older adults HC and the education of health care professionals in SL

2 Aging in Sri Lanka: Contextualization

Sri Lanka (SL), an island country with a total area of 65,610 square kms in South Asia, exhibits a diverse range of socioeconomic, epidemiological, and demographic characteristics. Understanding these characteristics is pivotal for formulating effective policies, health care interventions, and development strategies. This section describes the interplay of demographic trends, socioeconomic factors, and epidemiological patterns related to aging within the context of SL.

2.1 Demographic context of Sri Lanka

Sri Lanka exhibits a diverse demographic landscape characterized by its population size, growth rate, age distribution, and urban-rural divide. With a population exceeding 21 million, SL is one of the most densely populated countries globally (Lanka, 2022). According to the United Nations, the total population in SL as of March 2024 was 21,949,268, with a 0.25% increase from 2023. Life expectancy has gradually increased over the past seven decades reaching 77.73 years as of March 2024 (Macrotrends, 2024). Over the past few decades, the country has witnessed a declining fertility rate, leading to a demographic transition towards an aging population structure. The elderly population is defined as individuals who are 65 years of age or older in many industrialized countries, and as those who are 60 years of age or older in the majority of developing countries, including SL. Although there are some exceptions, the common retirement age in both government and private institutions in SL is 55–60 years old, which is why 60 is the cut-off age (Bank, 2019). According to the World Bank's open data, a steep rise in older adults' population can be seen over the past decade. In 2022, the percentage of the population above 65 years old from the total population was around 12% showing 4% growth compared to the year 2012 (Perera, 2017). This transformation has created challenges for the health care system and other social welfare programs, requiring a change in policy focus to address the needs of the older population (Statistics, 2024).

2.2 Socioeconomic context of Sri Lanka

The socioeconomic environment of SL is a major factor in determining the health and general well-being of its citizens. The nation deals with ongoing inequality and inequities in many areas such as income, education, and access to health care, even in the face of consistent economic development (The World Bank, 2022). The rural-urban divides exacerbate these gaps because rural residents often face more challenges in accessing basic services. The growth of the older population significantly affects the socioeconomic status of the country. SL has no established universal pension system. Gaps in schemes' coverage and availability - especially among workers in the informal sector - leave many elders vulnerable without income (Gunaratne, 2023).

2.3 Epidemiological context of Sri Lanka

The complex interactions between non-communicable diseases (NCDs), infectious diseases, and emerging health issues are reflected in the epidemiological trends of SL. Historically, the nation has achieved significant accomplishments by successfully eradicating infectious diseases such as lymphatic filariasis, measles, malaria and polio (Morning, 2023). With the growth of older populations and lifestyle changes, there is a raising concern on NCDs, such as diabetes, cancer, and cardiovascular diseases (WHO, 2015). A clear difference can be seen in the prevalence of chronic illnesses between economically active and economically inactive older populations. The prevalence of diabetes mellitus and hypertension among the total older population is 18.0% and 27.3%, respectively, indicating the highest prevalence among other non-communicable diseases (Satharasinghe, 2016). A multimodal strategy, including illness prevention, health promotion, infrastructure development and multidisciplinary systematic care pathways for health care is required to handle this epidemiological shift.

3 Health system in Sri Lanka

Sri Lanka's (SL) model of primary health care, available free through a government health system with island-wide coverage, forms a solid foundation basis for providing universal health coverage. However, this system is increasingly under pressure, notably from the high burden of non-communicable diseases, increasing older adults care needs and the growing out-of-pocket expenditure for chronic diseases. While the government remains committed to maintaining universal health services of good quality for all, the need for change has been recognized. The government is exploring how a rational model of care can best be instituted, given limited resources.

The present decentralized pyramidal health system was established in 1989. Currently, three levels of health care are offered. At first, management of the primary health care services was devolved to provincial councils. At the secondary level, 68 basic hospitals and 18 district general hospitals provide diagnosis and treatment facilities. At the tertiary level, the central authority manages the National Hospital, the Teaching hospital and 10 larger specialist hospitals together with the procurement of drugs, recruitment and deployment of staff and training (Perera, 2015).

The public health care sector in SL provides nearly 95% of inpatient care and around 50% of outpatient care. The Ministry of Health (MOH) is responsible for stewardship functions such as policy formulation and health legislation, program monitoring and technical oversight, management of health technologies, human resources, and tertiary and other selected hospitals. The primary and secondary levels of curative care and preventive services work under the nine provincial ministries. In mid-2022, there were over 1500 HC institutions in total, of which 588 were hospitals and 517 were primary care institutes. Further, there were 346 MOH offices (Health, 2024).

SL has 555 government hospitals that provide primary health care services including curative care, prevention, and rehabilitation. All citizens and residents are registered for treatment at their local health center and can be referred to secondary care institutions, if necessary. Medicine, nursing, pharmacy, laboratory, physiotherapy and radiology, are part of an integrated health team that provides the services.

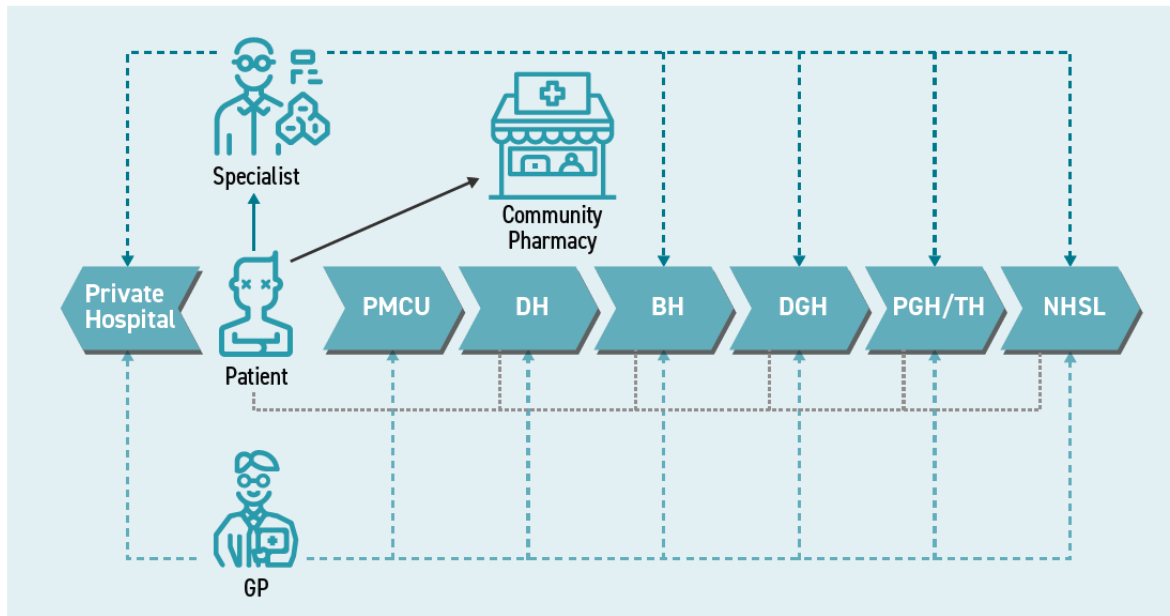
The role of the private sector in health is growing, but it remains accessible to only a fraction of the population who can afford the high costs. In the 2006 was established the Private Health Regulatory Council, aimed for the development and monitoring of standards to be maintained by the registered Private Medical Institutions and for the evaluation of standards in private health institutions. Data from 2014, identified that the public sector accounted for 73% of the hospitals and 93% of the available bed capacity in SL, while handling over 90% of the total patient admissions and outpatient visits to hospitals (PHSRC, 2018).

The first comprehensive national health policy based on primary health care drafted in 1992, was revised with a focus on universal health coverage. The current policy (2016–2025) addresses emerging health issues, quality and safety, considering the needs and expectations of the population (Ministry of Health - Sri Lanka, 2016).

In public system, citizens can access any of the curative care institutions, first at a primary care level, and then the decision is made to either treat the patient as an outpatient, inpatient or, if deemed

necessary, refer to a specialist care unit. Also, patients are able to directly select an institution of their choice independently, irrespective of the level (secondary or tertiary), as the first point of contact.

In the private sector, patients can visit a GP who also takes the decision on whether the patient needs specialized care, or whether the patients can themselves directly visit a medical specialist as an outpatient (Rajapaksa et al., 2021; Figure 1).



PMCU- Primary Medical Care Unit, DH- Divisional Hospital, BH- Base Hospital, DGH- District General Hospital, PGH- Provincial General Hospital, TH- Teaching Hospital, NHSL- National Hospital of Sri Lanka.

Figure 1 - Health Care System Access in SL. From: Rajapaksa L, De Silva P, Abeykoon A, Somatunga L, Sathasivam S, Perera S et al. SL health system review. New Delhi: World Health Organization Regional Office for South-East Asia; 2021.

3.1 Physiotherapy and Nursing in Sri Lanka

The physiotherapy and nursing practice is regulated by the Sri Lanka (SL) Medical Council and the SL Nursing Council, respectively. Physiotherapists and nurses work in the government, private and non-government organizations.

Physiotherapists are trained in universities and schools of both government and private sectors. A bachelor's degree is the minimum qualification required to practice in SL. The World of Physiotherapy, in 2023, identified there were 680 registered physiotherapists, with a ratio of 0.31 practicing physiotherapists per 10,000 population in SL (World Physiotherapy, 2023).

In 2019, the total number of physiotherapists in the government sector nationwide was 493. Currently, there is no specific allocation for physiotherapy services dedicated to the care of older adults or geriatric care. The physiotherapists employed in government, private and non-government organizations treat patients of all age groups. Physiotherapists are allocated positions in the provincial

hospitals, district and base hospitals. However, at regional levels of the Medical Officer of Health sector, there are no physiotherapists employed.

The older adults in the community have access to regular clinics in the nearby MOH office and the hospital. They are given referrals according to their needs to visit different clinics and units for regular investigation, monitoring and treatment. The procedure is similar for physiotherapy intervention as well. The conditions requiring physiotherapy, including those affecting older adults, are mainly identified by medical doctors. Subsequently, patients are referred to the Department of Physical Medicine for physiotherapy services. From there, the patient is assessed and managed by physiotherapists for their condition. The most common age-related conditions treated by physiotherapists include: 1) musculoskeletal disorders (i.e., arthrosis, arthritis, tendinopathies and regional conditions of the musculoskeletal system). 2) neurological disorders (i.e., stroke, head and spinal cord injuries). 3) Cardiorespiratory disorders (i.e., COPD, bronchitis, asthma, emphysema, heart infarctions, t). In addition to these conditions, there are other different specific systemic conditions (i.e., hypertension, dyslipidemia, diabetes) that commonly affect the older adults, causing sequelae and functional losses; aspects such as deconditioning, reduced muscle strength, loss of balance and risk of falling are the most frequent focuses physiotherapist's intervention.

According to the statistics of SL Nursing Council, the regulatory body of nursing in SL, there are 38 750 nurses employed in government HC institutions. In addition, many nurses work in various private health care institutions, but these numbers are not known (SL Nursing Council, 2024)

Nurses are trained in universities and schools of nursing in both government and private sectors. Currently, most specific training for nurses is conducted by the Post Basic School of Nursing in addition to a few private institutions. The community health nurses are trained at the National Institute of Health Sciences. Importantly, the Post-Basic School of Nursing and SL association of geriatric medicine organize various training programs for geriatric care. In the community, Community Health Nursing officers are responsible for geriatric nursing care.

There are few projects available aimed at enhancing health care delivery for older adults. The government health system has tried to establish specific actions and plans for the care of older adults (e.g., specialized hospitals and health care services), but these are still insufficient to meet the needs of the population. The government also has several ongoing projects related to healthy aging, where nurses are involved in various settings such as nursing homes, day centers, and home care services for older adults.

3.2 Physiotherapy and Nursing for older people in Sri Lanka

The health care system of SL for older people consists of both public and private providers; the majority of the health care delivery is handled by the public sector providing nearly 50% of outpatient care and 95% of inpatient care. Government data identifies that the population has good levels of access to basic health care facilities and services, although with some important geographic differences, with a higher concentration health care services and infrastructure in the major cities (Health, 2024). Physiotherapy and Nursing services are available in government, non-government, and private organizations:

Government Institutions:

The National Secretariat for Elders was established under the Protection of the Rights of Elders Act No. 9 of 2000, and functions under the Ministry of Social Empowerment and Welfare. It is the prime administrative body engaged in implementing programs approved by the Council for Elders.

Non-Governmental Institutions (NGOs):

The non-governmental sector actively contributes to the country's development within the framework of national policies in SL, under the supervision of the National Secretariat for Non-Governmental Organizations. Many NGOs, such as SL Alzheimer's Association, HelpAge SL and Sarvodaya, are older adult's concerned associations, involved in healthy aging programs, and assisting the Social Services Department's Community-Based Rehabilitation programs.

Private Sector:

Several small and large private companies provide home-based nursing and physiotherapy care for a fee. A few fee-levying homes for the elderly and disabled as well as private pensions and insurance schemes for older adults HC are available. Both government banks and private banks now provide such facilities. Additionally, the growing number of private companies that offer life insurance schemes, facilitate additionally the access to health care services particularly for people with financial availability.

Although several laws and policies such as the "Protection of the Rights of Elders Act" and the "National Charter for Senior Citizens" are available and aim to meet the growing needs of the older population in the country, there remains a lacuna in resources, funding and training programs for these specific populations. Additionally, while there are numerous health policies, including the National Elderly Health Policy (National Elderly Health Policy, 2017) and the National Strategic Framework for Palliative Care Development in SL (National Strategic Framework for Palliative Care Development in Sri Lanka, 2018), directed toward the older population, there remains a dearth of trained health professionals with skills and knowledge in geriatric care.

In the medical sector, there are only two geriatric units for the entire country: one at the Colombo South Teaching Hospital in Kalubowila and the other in Kadugannawa, Kandy. These are complemented by only a handful of doctors currently undergoing training in this field

Although SL has an organized health care system, there are several problems such as accessibility issues due to the location, lack of resources, and ineffective service delivery. Overall, the state medical sector is not well prepared and organized to fulfill the requirements of the emerging older population. The needs of the senior citizens are not uniform and depend on the individual's physical and mental condition. Thus, providing care in this context should include activities and services ranging from assisting in simple household activities, and providing companionship to taking care of severely ill or completely or partially older persons to enable them to live independently with dignity (Cader, 2023). In order to achieve uniform health coverage for older populations and meet the diverse health demands of the population, strengthening primary health care facilities and standard of care, expanding the capacity of the health workforce and improving geriatric-specific education are vital priorities.

3.3 Curriculum contents related to geriatrics in physiotherapy and nursing education programs in Sri Lanka: current status

Ensuring a sustainable and appropriately trained health workforce for the 21st century will require careful consideration of the human resources needed to deliver older person-centered and integrated care. It will be important to ensure that HC providers have basic gerontological and geriatric skills, as well as the more general competencies needed to work in integrated systems, including communication, teamwork, and technologies (WHO, 2015).

Physiotherapy education in Sri Lanka (SL) began in 1957 with an Australian tutor sponsored by the *Colombo Plan*. This evolved later into a Diploma in Physiotherapy, offered by the School of Physiotherapy and Occupational therapy. This Diploma program was discontinued in 2006, when the Bachelor of Science in Physiotherapy degree program was initiated at the University of Colombo and the University of Peradeniya, followed by the General Sir John Kotelawala University. The. Currently, these three institutions collectively produce about 150 graduates annually, each completing a four-year honors degree program of 120 credits.

Geriatric physiotherapy has been identified as an important aspect of the physiotherapy curriculum. A summary of the geriatric content of the three physiotherapy degree programs in SL state higher education institutions (HEIs) is provided in Table 1.

Table 1 - Summary of geriatric physiotherapy curriculum in SL HEIs

Institute	Main objective/s	Curricular content	Teaching -learning method	Assessment method *
University of Colombo (UoC)	To provide knowledge, attitudes and skills to assist elderly to improve or maintain the health status	<p>Taught as a specific area in physiotherapy under the Applied Physiotherapy stream to provide theoretical knowledge and practical skills.</p> <p>Content covered under the geriatric physiotherapy topic include introduction to aging, common physical and psychological conditions arise with aging, role of physiotherapy in geriatrics, and falls and falls prevention.</p> <p>Learning outcomes</p> <ol style="list-style-type: none"> 1. Describe the basic principles related to h geriatrics. 2. Make clinical judgments based on information gathered from assessment, analysis and problem identification. 3. Describe the physiotherapy approaches and role of a physiotherapist in geriatrics. 4. Develop the skills which are needed to deliver a safe and effective physiotherapy treatment program for the elderly. 	<p>Lectures and practical training - 8 hours</p> <p>Field visit to an elder's home – 4 hours</p> <p>Student presentations - 2 hours</p> <p>In addition, musculoskeletal, neurological, cardiothoracic, general medical and surgical aspects of the elderly are addressed in respective modules.</p>	<p>SBRQs</p> <p>MCQs</p> <p>SEQs</p>
University of Peradeniya (UoP)	To prepare physiotherapists to work effectively with the older adult in a variety of settings	<p>A 3-credit compulsory module is taught with the emphasis on examination, treatment, and interactions with individuals after middle-age.</p> <p>Role of physiotherapy in geriatrics, assessment of changes with aging, musculoskeletal disorders, neuromuscular and neurological disorders, and cardiopulmonary diseases in the elderly, and other specific areas related to aging are discussed in detail within the module.</p>	<p>Lectures - 28 hours</p> <p>Practical sessions - 4 hours</p> <p>Clinical training - 45 hours</p>	<p>SEQs</p> <p>PR</p> <p>CR</p>

Institute	Main objective/s	Curricular content	Teaching -learning method	Assessment method *
		Learning outcomes: 1. Explain the effects of aging on the various systems of the body and discuss the concepts of aging as a “disease” and aging as a “process”. 2. Perform a thorough physical therapy examination including specific tests. 3. Synthesize knowledge of diseases, examinations, and interventions of common diseases/conditions in the older adult those referred to physical therapy.		
General Sir John Kotelawa Defenceu University (KDU)	To provide fundamental theoretical knowledge of geriatrics	Taught as a 2-credit module combined with community-based rehabilitation. Major areas covered within the module include principles in geriatric physiotherapy, physiology of aging, geriatric assessment, and falls and falls prevention.	Lectures – 08 hours Tutorials – 02 hours Practical session – 02 hours	SBRQs MCQs SEQs
		Learning outcomes are not specified for geriatric physiotherapy.		

* SBRQs - Single best response questions; MCQs - Multiple choice questions; SEQs - Structured essay questions; PR - Project report; CR – Case report; OSCE - Observed Structured Clinical Examination.

In the 1930’s the first formal nursing school in SL was established. But it was after 1948, following SL's independence from British colonial rule, that there was a concerted effort to improve and expand HC services, including nursing education. Nursing schools began to proliferate, often affiliated with major hospitals across the country.

Nowadays, in SL, nursing education is currently taking place in Government Nursing Schools, universities and private nursing schools. In the SL state Higher Education Institutions (HEIs) it is a four-year program conducting to a bachelor of science in nursing.

Geriatric nursing contents are progressively being included in the present academic curriculum of the nursing degree programs in the SL HEIs. A summary of this content is provided in Table 2.

Table 2 -Summary of geriatric nursing curriculum in SL HEIs

Institute	Main objective/s	Curricular content	Teaching -learning method	Assessment method*
General Sir John Kotelawa Defenceu University (KDU)	Introduction to Psychology	Psychological concerns of Ageing. Psychological and behavioral responses to pain, critical and advancing illness	Lectures - 02 hours	MCQs SEQs
	Fundamentals of Nursing	Care needs of Elderly.	Lectures - 02 hours	MCQs SEQs
	Nursing Skills Practice	Clinical Placement – Reflective writings, basic care needs of older adults, history taking, physical examination, fall risk assessment, comfort measures (positioning, moving and lifting, assisting with walking aids, rest and sleep)	Clinical training - 10 hours	Portfolio OSCE
	History, Ethics and Professional Adjustments	Ethical aspects of caring for elderly.	Lectures - 2 hours	SEQs
	Gynecology and Obstetric Nursing III	Age related Concerns of Women’s Health.	Lectures - 2 hours	SEQs OSCE
	Adult Nursing IV	Disorders common in elderly, history taking, physical examination, nursing care interventions	Clinical training - 10 hours	MCQs SEQs
	Nursing Skills Practice VI	Clinical Placement – Caring for older adults with chronic illness and age-related physical needs.	Lectures - 2 hours	OSCE CR
	Psychiatric & Mental Health Nursing II	Mental Illnesses in Elderly (Dementia, Depression, Delerium, Parkinsons, etc).	Clinical training - 15 hours	OSCE Portfolio
	Health Teaching & Learning	Characteristics of Gerogogic Learners.	Lectures - 3 hours	SEQs
	Family Nursing	Home-based care for older adults. Person and family centered care aspects.	Clinical training - 10 hours; Lectures - 30 min	PR
Geriatric Nursing (Elective)	Introduction to gerontology nursing, theories of ageing, factors influencing ageing, Physical and Psychological conditions in elderly, screening and assessment tools used in practice, role and responsibilities of geriatric nurse, care needs of older adults, promoting quality of	Lectures - 15 hours Clinical training - 180 hours Elderly care homes Hospital-based training	CR Portfolio PR	

Institute	Main objective/s	Curricular content	Teaching-learning method	Assessment method*
		life, positive and healthy ageing, trends and issues, emerging concerns of elderly care, provision of elderly care in clinical, community and home-based settings, research concerns	Field and Family visits Day visit to HelpAge SL	
University of Ruhuna (UoR)	Gerontological Nursing (Elective)	Gerontological nursing concepts. Ageing, physical and psychological conditions in elderly. Specific nursing interventions in geriatric conditions.	Lectures - 15 hours Clinical training - 180 hours: Elderly care homes Hospital-based training Family visits Day visit to HelpAge SL	OSCE CR
	Nutrition & Dietetics Fundamentals of Nursing Community Health in Nursing	Nutrition and dietetics concerns in older adults. Principles of community nursing in older adults. Practical clinical training in different older adults' institutions.	Elderly Home Attachment – 1 Day Family Attachment – 3 Days	
Eastern University Sri Lanka (EUSL)	Geriatric Nursing	Introduction to geriatric nursing; Principles, standards and scope of geriatric nursing. Normal physiological changes with aging. Pathophysiology of aging. Nutrition for healthy aging. Prescribing for elderly. Management of common health problems of older persons. Gerontological issues.	Skill lab practice throughout their course period; Home for elders, Batticaloa - 4th Year 1st Semester (2 weeks) Community field visit – Family assessment - (2 week) Teaching Hospital Batticaloa – From year 1 to year 4 Base Hospital, Kattankudy - year 3 onwards	TFQs MCQs SEQs
University of Jaffna (UoJ)	Geriatric Nursing	Overview of aging: terms, theories, rights of elders, attitudes about aging. Physiological changes in all systems and common problems. Effects of impairment on communication	Lectures - 15 hours Clinical training - 30 hours Field activities - 50 hours Field visit - 100 hours	Group work presentation and discussion

Institute	Main objective/s	Curricular content	Teaching -learning method	Assessment method*
	Geriatric Nursing practice	<p>Problems affecting mental health. Dementia, delirium, depression; Cognition and perception needs. Nutrition and fluid balance: changes in body composition, nutritional assessment. Safety needs of older adults: identify the risk client, falls, burns, poisoning & accidents. Love & Sexual needs: changes in reproductive organs and sexual behavior, barriers to sexual health and measures to solve the problem. Spiritual needs: coping and Stress methods to reduce the stress. Rest and Sleep. Medications for older adults. Promoting quality of life: recommended healthy practices. End-of-life care. Making comfortable beds and arrange the patient unit. Changing position, lifting and transporting the client. Assisting with walking. Assisting the client with daily care- brushing, bathing, hair washing, dressing and grooming. Help in active and passive physical exercises. Giving medications. Assisting the clients to use Assistive devices (e.g., hearing aids, spectacles, dentures). Organize spiritual events documentation --- Maintain daily care note. Assessing and reporting any significant changes in physical & mental status of the client. Plan and prepare meals according to the nutrient's requirement and condition of the client. Assess and care for the client with common problems: proper communication in all situations.</p>		

Institute	Main objective/s	Curricular content	Teaching -learning method	Assessment method*
		<p>Perform Therapeutic Communications with older adults.</p> <p>Identify the older adults who are most at risk for experiencing stress-related problems.</p>		
	Geriatric Practical Record Book	<p>Case study - history -physical examination - fall risk assessment - personal risk assessment - Cognitive function.</p> <p>Assessment tool - Short Confusion.</p> <p>Assessment - Geriatric depression.</p> <p>Assessment - Mini Mental status.</p> <p>Examination - Care to be given based on needs, care plan for 4 days.</p>		
University of Peradeniya (UoP)	<u>Existing old curriculum</u>			
	Community Health Nursing -2	Aging and aged care in the community - Family home visit -Contracting with families.	Theory Field visit	MCQs SEQs CR
	Adult Nursing - 4	Care of patients with geriatric oncologic conditions. -Age related demographic changes, health policy and health care provision. -The physical, psychological and social impact of ageing. -Societies and nurses' attitudes towards elderly.	Theory Clinical training	MCQs SEQs CR OSCE
		Theory and skills practice pertaining to geriatric patients, and older patients with chronic conditions, and to death and dying care.		
	Nursing Theory and Practice-6	Scope of community Health Nursing (Administrative supervisory, teaching and research) -Rehabilitation centers Geriatrics and preventive Medicine - Health problems of the aged -Problems due to the aging process -Problems associated with long term illness.	Theory Practical demonstration	MCQs SEQs CR OSCE

Institute	Main objective/s	Curricular content	Teaching -learning method	Assessment method*
	Leadership and Management	Introduction to gerontological nursing - Physiological changes in older people - Assessment of older people -Common age-related health problems -Older adult in acute care setting.	Theory	MCQs SEQs
	<i><u>New curriculum</u></i>			
	Adult Nursing 3	Field visit to elderly home -Family visit and conduct a family study -Identify common health problems experienced by the family and plan, implement and evaluate care.	Theory Clinical training	MCQs SEQs CR OSCE
	Community Health Nursing	Health and wellness in an Aging Society - Review of physiological and functional changes in older people -Review of assessment of older people -Nursing consideration for older people -Wellness and function in older people -Individual and family psychodynamics -Alterations in mental processing -Caring older people at the end-of-life -Future challenged for gerontological nursing.	Theory Field visit	MCQs SEQs CR
	Gerontological nursing (Optional)		Theory Field visit Clinical training	MCQs SEQs Portfolio OSCE

* SBRQs - Single best response questions; TFQs - True/False questions; MCQs - Multiple choice questions; SEQs - Structured essay questions; PR - Project report; CR – Case report; OSCE - Observed Structured Clinical Examination.

4 Need analysis Online survey

A need analysis was performed to identify core competencies for HC professionals working with older adults, through an online survey. The respondents for the survey were physiotherapy and nursing HC professionals, academic staff members and undergraduates from HEIs (University of Colombo, University of Peradeniya, University of Ruhuna, University of Jaffna and Eastern University) in Sri Lanka.

4.1 Online survey objectives

1. To assess the level of core competencies in elderly care among physiotherapists, nurses, and undergraduates in the respective fields.
2. To identify potential gaps related to health care professionals' core competencies in elderly care.
3. To identify socio-demographic, educational and professional variables associated with HC competencies.
4. To develop a framework to enhance professional competencies for physiotherapists and nurses in elderly care.

4.2. Participants definition and inclusion and exclusion criteria

Academics from the Sri Lanka (SL) HEI's were responsible for the questionnaire dissemination. The recruitment of 3 different types of participants was performed using direct institutional databases, or through a contact list of partner and/or internship institutions: the academic teachers from 5 selected universities (that teach physiotherapy and nursing graduated courses in SL); final year physiotherapy and nursing undergraduate students; physiotherapists and nurses who are currently working in health care services with elderly in SL.

4.2.1. Inclusion criteria

Three groups of participants were defined:

- Physiotherapists and nurses working in health care settings in SL.
- Academic staff members involved in teaching, training and research in physiotherapy and nursing degree programs in Universities in SL.
- Final year physiotherapy and nursing undergraduates in selected state universities in SL.

4.2.2. Exclusion criteria

- Participants who did not provide informed consent or who refused to participate.
- Physiotherapists and nurses working outside SL.
- Academic staff members not directly or actively involved in teaching, training and research in physiotherapy and nursing.
- Students from other courses or other years of graduation.

4.2.3. Pre-test

Ten academics from physiotherapy and nursing departments, ten physiotherapists and nurses working in HC settings and ten physiotherapy and nursing undergraduates were invited to participate in the pre-test survey to determine the understandability and comprehensiveness of the questions and validity of the content.

Changes were made to the online survey based on the feedback and results of the pre-test. The changes were mainly related to understandability of questions, response options and interpretation aspects.

4.3. Survey application procedures

The survey was developed based on previous literature and specialists' discussions. The questionnaire was progressively improved by the collaboration of the different HEIs involved. It was divided into the following sections: General demographic Information, Professional and Education related information, Competence in Clinical Skills, Communication Skills, Empathy and Patient-Centered Care, Training and Professional Development, Understanding of Competencies required to elderly care, Challenges and Opportunities (Attachment A).

The survey was implemented digitally using *Google forms*[®] (<https://forms.gle/ZXXwDVHq8SQAeppR9>). The online survey link was sent through e-mails and *WhatsApp*[®] to all the participants according to the inclusion and exclusion criteria. The participants were requested to fill in the online form and submit it. A three-week time frame was defined for data collection. The participants received two reminders in the second and third weeks to complete the survey.

4.4. Ethical considerations

The study was submitted to the Ethics Committee of the Escola Superior de Saúde Santa Maria – Porto, Portugal and approved with the code CE2024/05.

An Informed consent form was sent to all participants along with the questionnaire in digital format. The form contained information about the study objectives, study design, the guarantee of confidentiality, and the absence of prejudice in case of withdrawal.

4.5. Data extraction and analysis

Data was collected by the project members who are academics from the partner Universities in SL. Data extraction and analysis were performed in cooperation with the EU project partners. The statistical analysis was performed using the SPSS (Statistical Package for the Social Sciences, IBM) 28.0.1.0 version. A 95% confidence interval was used for the analysis. Descriptive statistics were used to summarize the data and identify variables related to core competencies of HC professionals working with the elderly. Qualitative variables (categorical) were grouped into frequency tables (absolute and relative); for quantitative variables, mean and standard deviation values were used. The chi-square test and the Exact Fisher test were used to identify differences between groups.

4.6. Results

One hundred [and] eighty-nine (189) respondents participated with positive informed consent in the online survey, with a mean age \pm SD of 32.44 ± 8.16 years. There were 145 (76.7%) females. Among the respondents, nurses were older compared to physiotherapists ($p < 0.01$).

The sample comprised 113 (59.8%) physiotherapists and 76 (40.2%) nurses. Of the total participants, 54 (28.6%) were academic staff members, 64 (33.9%) were final-year undergraduates and 71 (37.6%) were health care professionals (physiotherapists and nurses) (Table 3).

Table 3 - Socio-demographic characteristics of the population studied (SL, 2024)

N (%)		Total	Physiotherapists 113 (59.8%)	Nurses 76 (40.2%)	P value
		189 (100%)			
Age (mean \pm SD)		32.44 \pm 8.16	30.51 \pm 6.24	35.32 \pm 9.75	<0.01
Female n (%)		145 (76.7)	86 (76.1)	59 (77.6)	0.48
Group of participants	Academics	54 (28.6)	28 (24.8)	26 (34.2)	0.24
	Health care professional	71 (37.6)	42 (37.2)	29 (38.2)	
	Undergraduate student	64 (33.9)	43 (38.1)	21 (27.6)	

Of the academic staff members and health care professionals, 90 (73.8%) respondents had a Bachelor's degree, 19 (15.6%) had a Master's degree and 13 (10.7%) had a Doctorate.

Only 6.5% of the participants, 3 (4.3%) physiotherapists and 5 (9.1%) nurses, had an academic or professional specialization in Geriatrics. Almost half of the sample had less than 3 years of experience in older adult care: 27 (57.2%) nurses and 26 (47.3%) physiotherapists (Table 4).

Table 4 - Educational characteristics of the academics and health professionals (SL, 2024)

N (%)		Total	Physiotherapists	Nurses	p value
		124 (100)	69 (55.7)	55 (44.3)	
Level of education (n%) (=122)	Bachelor's degree	90 (73.8)	51 (72.9)	39 (75.0)	<0.01
	Master's degree	19 (15.6)	14 (20.0)	5 (9.6)	
	Doctorate	13 (10.7)	5 (7.1)	8 (15.4)	
Professional or academic specialization in Geriatrics (n=124)	Yes	8 (6.5)	3 (4.3)	5 (9.1)	0.24
	No	116 (93.5)	66 (95.7)	50 (90.9)	
Years of experience in older people care (n/%) (n=125)	Less than 1 year	45 (36.0)	23 (32.9)	22 (40.0)	0.01
	1≥3 years	21 (16.8)	17(24.3)	4 (7.3)	
	3 ≥-6 years	17 (13.6)	10 (14.3)	7 (12.7)	
	6 ≥-10 years	19 (15.2)	13 (18.6)	6 (10.9)	
	More than 10 years	23 (18.4)	7 (10.0)	16 (29.1)	

Regarding competence evaluation, no significant differences were found between physiotherapists and nurses, except in “managing of chronic pain in older adults”, where it was found that higher proportion of physiotherapists reported less confidence, compared to nurses. The ability to differentiate “changes in normal physiological aging and pathological aging in elderly” was the aspect that both physiotherapists and nurses identified as having less ability/confidence (Table 5).

Table 5 - Competence evaluation of academics and health professionals (SL, 2024)

n (%)		Total 125	PTs* 69 (55.7)	Nurses 55 (44.3)	p value	
Competence in Clinical Skills	How proficient are you in assessing mobility issues in older adults	Very proficient	5 (4.0%)	2 (1.6)	3 (2.4)	0.10
		Proficient	70 (56.0%)	45 (36.0)	25 (20.0)	
		Somewhat proficient	43 (34.4%)	21 (16.8)	22 (17.6)	
		Not proficient	6 (4.8%)	1 (0.8)	5 (4.0)	
		Not Applicable	1 (0.8)	1(0.8)	0 (0)	
Rate your ability to develop individualized treatment plans for older adults based on their physical condition and needs		Excellent	8 (6.4)	3 (4.3)	5 (9.1)	0.39
		Good	88 (70.4)	52 (74.3)	36 (65.5)	
		Fair	25 (20.0)	14 (20.0)	11 (20.0)	
		Poor	4 (3.2)	1 (0.8)	3 (5.5)	



	How confident are you in managing chronic pain in older adults	Very confident	8 (6.4)	4 (7.3)	4 (5.7)	0,03
		Confident	78 (62.4)	27 (49.1)	51 (72.9)	
		Somewhat confident	33 (26.4)	19 (34.5)	14 (20.0)	
		Not confident	6 (4.8)	5 (9.1)	5 (9.1)	
	How confident are you in differentiating changes in normal physiological aging and pathological aging in elderly	Very confident	4 (3.2)	2 (2.9)	2 (3.6)	0.41
		Confident	70 (56.0)	40 (57.1)	30 (54.5)	
		Somewhat confident	46 (36.8)	27 (38.6)	19 (34.5)	
		Not confident	5 (4.0)	1 (1.4)	4 (7.3)	
Communication Skills	How effectively do you communicate with older adults to understand their health care goals and preferences?	Very effectively	23 (18.4)	12 (17.1)	11 (20.0)	0.845
		Effectively	83 (66.4)	48 (68.6)	35 (63.6)	
		Somewhat effectively	19 (15.2)	10 (14.3)	9 (16.4)	
		Not effectively	0 (0)	0 (0)	0 (0)	
	Rate your ability to communicate complex medical information to older adults and their families clearly and understandably	Excellent	20 (16.0)	11 (15.7)	9 (16.4)	0.11
		Good	82 (65.6)	51 (72.9)	31 (56.4)	
		Fair	22 (17.6)	8 (11.4)	14 (25.5)	
		Poor	1 (0.8)	0 (0)	1 (1.8)	
	Rate your ability to demonstrate interpersonal communication skills that result in effective information transfer among multidisciplinary team members.	Excellent	25 (20.0)	12 (17.1)	13 (23.6)	0,40
		Good	85 (68.0)	51 (72.9)	34 (61.8)	
		Fair	14 (11.2)	6 (8.6)	8 (14.5)	
		Poor	1 (0.8)	1 (1.4)	0 (0)	
Empathy and Patient-Centered Care	How often do you involve older adults in decision-making regarding their treatment and care?	Always	42 (33.6)	21 (30.0)	21 (38.2)	0,01
		Often	48 (38.4)	35 (50.0)	13 (23.6)	
		Sometimes	31 (24.8)	14 (20.0)	17 (30.9)	
		Rarely	3 (2.4)	0 (0)	3 (5.5)	
		Not applicable	1 (0.8%)	0 (0)	1 (1.8)	

* PTs – Physiotherapists.

“Active listening” (88%) and “respect for dignity and autonomy” (76.8%) were the characteristics more relevant for health professionals in terms of empathy in the care for older adults (Figure 2).

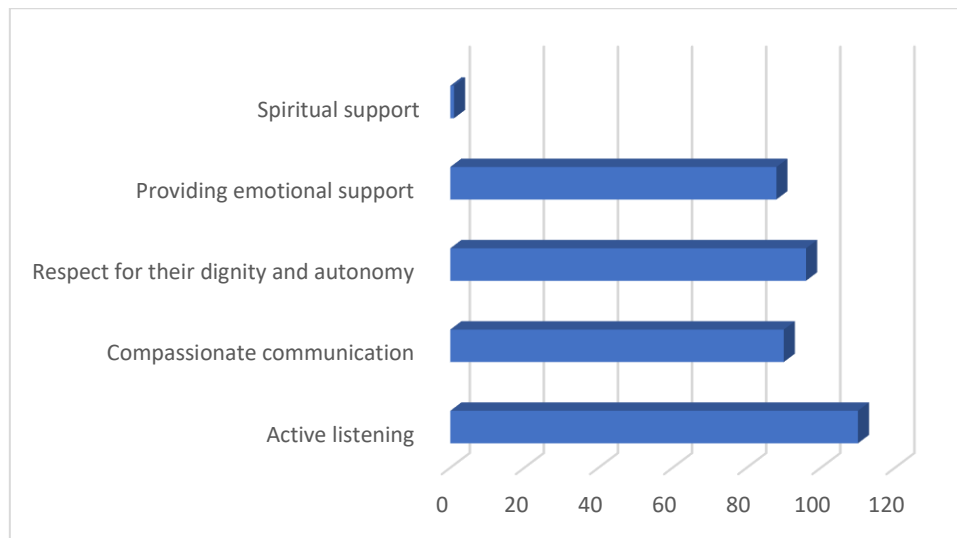


Figure 2 - How physiotherapists and nurses demonstrate empathy towards older adults during their care (n=125).

According to the stratified analysis for each group, nurses presented a lower proportion of participants who identified ‘specific training in older adults care’, including academics, health care professionals and students, compared to physiotherapists (50% vs. 15%) ($p < 0.01$).

Most of the participants identified the need to have updated knowledge, however, it was found that more than 25% of the participants in all groups (both physiotherapists and nurses), rated “fair” as their current understanding of the core competencies required for health care professionals working with the older adults (Table 6).

Table 6 - Competences understanding of the different groups (SL, 2024)

		Total	Physiotherapists			Nurses			p value
n (%)		n=189	n=113 (59.8%)			n=76 (40.2%)			
			AC*	HC**	US** *	AC*	HC**	US** *	
Training and Professional Development	Have you received any training specific to older adults' care during your educational or professional career?	Yes	23 (83.1)	31 (73.8)	42 (97.7)	12 (46.2)	10 (34.5)	16 (76.2)	<0.01
		No	5 (17.9)	11 (26.2)	1 (2.3)	14 (53.8)	19 (65.5)	5 (23.8)	
	Effectiveness of the older adults training program(s)	Very Effective	1 (3.6)	10 (23.8)	11 (25.6)	7 (26.9)	6 (20.7)	6 (28.6)	0.04
		Effective	16 (57.1)	18 (43.9)	26 (60.5)	7 (26.9)	10 (34.5)	9 (42.9)	
		Neutral	11 (39.3)	14 (33.3)	6 (14.0)	12 (46.2)	13 (44.8)	6 (28.6)	
		Ineffective	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
		Very Ineffective	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
	How frequently do you engage in continuing education or professional development activities related to older adults' care	Monthly	1 (3.6)	3 (3.7)	8 (19.0)	2 (7.7)	3 (10.7)	3 (15.0)	0,22
		Quarterly	2 (7,1)	6 (15.4)	9 (21.4)	1 (3.8)	2 (7.1)	4 (2.0)	
		Annually	7 (25)	7 (17.9)	4 (8.9)	4 (15.4)	3 (10.0)	2 (10.0)	
		Rarely	17 (60.7)	21 (53.8)	19 (45.2)	16 (61.5)	14 (50.0)	8 (40.0)	
		Never	1 (3.6)	2 (5.1)	2 (4.89)	3 (11.5)	6 (21.4)	3 (15.0)	
	Rate the importance of staying updated with current research and best practices in geriatric care for your professional development.	Extremely important	21 (75.0)	31 (81.0)	24 (55.8)	20 (76.9)	13 (44.8)	11 (52.4)	0.02
		Important	7 (25.0)	8 (19.0)	18 (41.9)	4 (15.4)	14 (48.3)	8 (38.1)	
		Somewhat important	0 (0)	0 (0)	1 (2.3)	2 (7.7)	2 (6.9)	2 (9.5)	
		Not important	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	
		Not Applicable	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	

Understanding of competencies required to older adult's care	How would you rate your current understanding of core competencies required for health care professionals working with the older adults	Excellent	0 (0.0)	1 (2.4)	5 (11.6)	1 (3.8)	3 (10.3)	3 (14.3)	0.11
		Good	17 (60.7)	28 (66.7)	26 (60.5)	12 (46.2)	15 (51.7)	9 (42.9)	
		Fair	11 (39.3)	12 (28.6)	12 (27.9)	12 (46.2)	9 (31.0)	6 (28.6)	
		Poor	0 (0)	1 (2.4)	0 (0)	1 (3.8)	2 (6.9)	3 (14.3)	
		Not Applicable	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	

*AC – Academics from Health Educations Institutions in SL; **HC – Health care professionals (physiotherapists and nurses); *** US - Undergraduate student (final year students)

Challenges that health care professionals face when working with older adults were mainly “communication barriers” (83.1%), “financial constraints” (66.7%) and “cultural sensitivity” (63.0%) aspects (Figure 3).

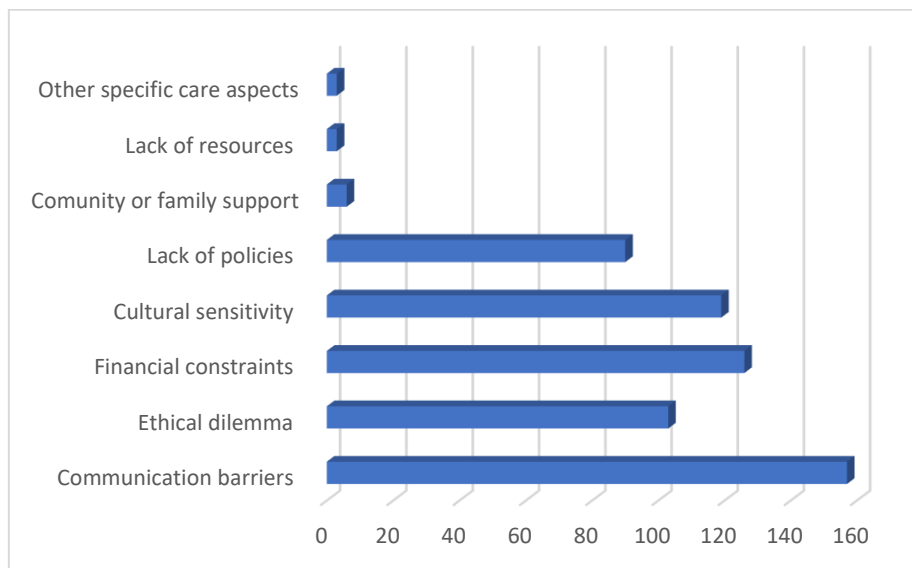


Figure 3 - Challenges that health care professional face when working with older adults (n=189).

Participants identified that competence in the care of older adults should be reinforced in SL HEIs, with “geriatric education integration” (86,8%), “evidence-based practice” approach (75,1%) and “communication skills training” (73,5%). The data is presented in Figure 4.

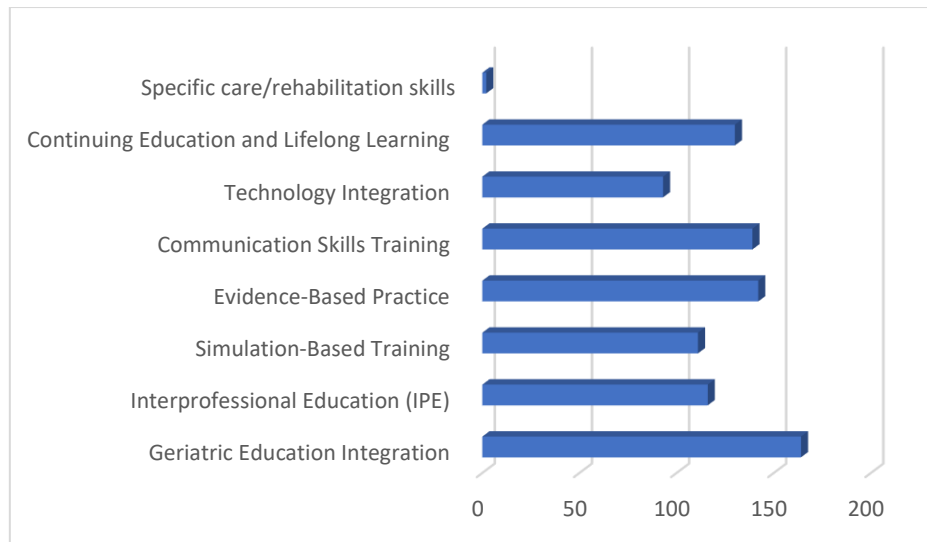


Figure 4 - Aspects that HEIs should improve to prepare health care professionals for working effectively with older adults (n=189).

Several core competencies for health care professionals working with older adults were identified. “Communication with older adults and their families” (88.4%) and the “integration in a multidisciplinary team” (87.3%) were two of the major aspects identified as essential by participants. Other competencies are described in Figure 5.

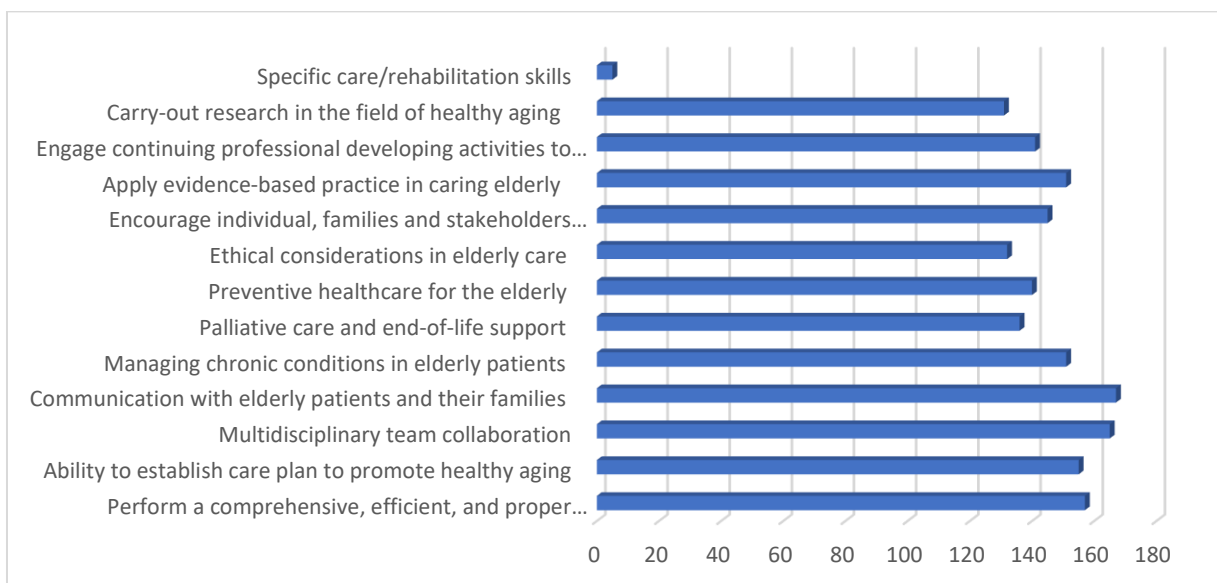


Figure 5 - Core competencies essential for health care professionals working with older adults (n=189).

Participants identified that additional training or professional development opportunities should be offered for health care professionals working with older adults; they reported that these opportunities should be related mainly to knowledge in providing psychological support (7,4%), specific rehabilitation skills (4,8%), new technologies in health care (4,2%), communication skills (4,2%) and geriatric assessment and outcomes (3,7%) (Figure 6).

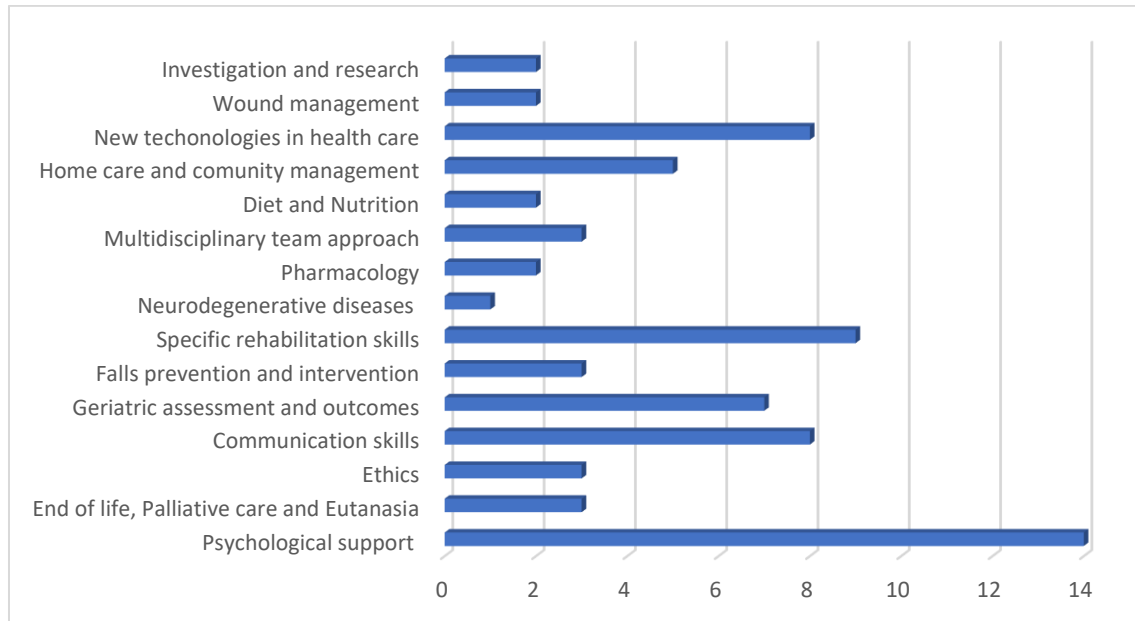


Figure 6 - Additional training or development opportunities that should be offered for health care professionals working with older adults (n=189).

Finally, in the space provided for additional comments or suggestions regarding competencies in physiotherapy and nursing professionals working with older adults, few undergraduates (n=5) stated that elderly care should be added to the core curriculum (without keeping it as an elective module); further, they expressed that there should be more educational courses and post-graduate studies, masters and PhD in Geriatrics.

On the other hand, academics and health professionals (n=8) stated that evidence-based practice in geriatrics and updated knowledge in this area are essential. The main areas to explore should be psychological assessment and intervention and communication skills.

5 Discussion

Sri Lanka (SL) is considered one of the fastest-aging countries in the South Asia region. The growth of the older population is nearly double compared to other countries in the region. Currently, 12.4% of SL's total population is aged above 60 years, which means that approximately one in every seven Sri Lankan citizens falls in this age group. In just 15 years, almost 25% of SL population will be over 60. This demographic transition with an aging society creates several economic, health and social challenges (Institute of Policy Studies of SL - IPS, 2017).

The phenomenon of aging in SL is a tangible reality, akin to the demographic trends observed in Europe, although the demographic transition is still ongoing. This aging population necessitates the adaptation of societal and health policies, as well as the adjustment of professionals, specifically physiotherapists and nurses, who provide care for these populations.

Despite efforts to organize social and health systems, it will be necessary to reconsider certain aspects, particularly those related to the improvement of social protection of the older adults and the access and availability of long-term HC and palliative care of older adults (SL Medical Association, 2017).

Unprepared health workers and health professionals are often unprepared to address the HC needs of older adults. Many current training approaches were developed in the 20th century when acute infectious diseases were the world's most prevalent health problems. As a result, health workers have been trained primarily to identify and treat symptoms and conditions using an episodic approach to care. This does not prepare them well to adopt the holistic perspective, which has been proven most effective in caring for older people. They also struggle with effectively managing and controlling the consequences of chronic conditions in a manner that aligns with the priorities of older adults. Health workers are often trained to respond to address immediate health issues concerns, rather than to proactively anticipate and counter changes in function. Additionally, they are seldom trained to collaborate with older people to empower them to take greater control over their health (WHO, 2015).

The physiotherapy and nursing degree programs in SL have been progressively adapting to this new reality, by including new content in the area of aging in the respective programs. Table 1 and 2 analyses, allow us to understand that both physiotherapy and nursing course curricula comprise up-to-date physiological and psychological aspects of aging. The main content included in the physiotherapy curriculum is geriatric assessment and interventions, fall prevention, and specific common deficits and functional limitations (i.e. strength, balance, mobility, sensory-motor control) seen among older adults. In the nursing curriculum, content included in the courses is mainly associated with the understanding of multi-systemic changes with aging, specific common conditions (i.e. dementia, Alzheimer's disease, frailty), assessment and specific skills in nursing for older people. It is important to ensure that in both courses these contents are approached both in theoretical and practical classes. There seems to be a need to efficiently train these professionals so that they can have good clinical skills to intervene in this population. For example, there seems to be a difference in the number of the existing theoretical and practical hours in the geriatric contents that may need to be balanced.

There also seems to be some heterogeneity between HEIs in terms of contents and the number of hours to cover those contents. Besides this uniformization, it will be necessary to adapt to the growing need and modify the number of hours allocated for these contents, as well as to maintain the best level of knowledge in terms of state-of-the-art and evidence-based interventions in the area of aging. For example, SIENHA project, proposed 4 main curricula content areas for health professionals: determining healthy aging interventions, plan for healthy aging interventions, implementation of healthy ageing interventions and researching impact of healthy aging interventions (SIENHA, 2023). It is also important that curricular contents are updated, changing the perspective and approach of more traditional geriatric care approach (centered on the disease) to actual new bio-psycho-social and multidimensional perspectives on healthy aging, longevity and well-being of the older adults.

The present online survey sample comprised 189 participants; the sample represented young professionals and academics, with less experience in the field of geriatrics. Almost half of the sample had less than 3 years of experience in older adult care. Only 6.5% of the participants, 3 (4.3%) physiotherapists and 5 (9.1%) nurses had academic or professional specialization in geriatrics.

The results of the survey allowed us to understand the existing knowledge and needs of SL academics, HC professionals and also undergraduates. As far as competence evaluation is concerned, physiotherapists (more often than nurses) identified the challenges in “managing chronic pain in older adults”. The ability to differentiate “changes in normal physiological aging and pathological aging in older adults” is also an important theme identified to develop further knowledge and understanding.

Challenges that HC professionals face when working with older adults are mainly communication barriers, financial constraints, and cultural sensitivity. Effective communication with older adults requires adjustments to account for sensory and motor impairments, cognitive declines, and cultural differences. Health care professionals’ competences in this area are essential to answer these challenges. But these challenges stem from the unique needs and vulnerabilities of the aging population, as well as health care system specificities and availability.

These results need to be understood considering less experience in geriatric care among the sample and the low specialization of participants in this field; nevertheless, (and we can argue that it can be somewhat contradictory) they are self-reported and provide adequate overall knowledge in this area.

The participants also identified the requirement to stay updated in their current understanding of core competencies, which are mandatory for HC professionals working with older adults. They recognized that additional training and development opportunities should be offered to health care professionals in this field. Furthermore, communication with older adults and their families, integration into a multidisciplinary team, psychological support, specific rehabilitation skills, new technologies in health care, geriatric assessment, and outcomes are some of the major aspects identified as core competencies essential for HC professionals.

There are some limitations to the survey, regarding the developed questionnaire. It was not tested through a pilot study and some questions with multiple options to choose, could lead to a response bias, with the tendency to select the higher number of options. Moreover, only a few participants identified further aspects besides those referred/proposed as answers (although there was an open field for other responses).

Critical insights gleaned from the need analysis indicate that both physiotherapists and nurses identify the care of the older person as a specialized area that needs enhanced knowledge and skills both presently and in the near future. It is noteworthy that alongside post-graduate specialized training, there is a need for continuous education within the undergraduate programs, as a foundation for the development of high competencies for both physiotherapists and nurses to address the needs of the progressively increasing aging population.

6 Key messages

- Population aging has a significant impact on economic, social and health systems in Sri Lanka.
- Health professionals, namely physiotherapists and nurses need to improve and update their knowledge in older adult's care.
- There should be a paradigm change, allowing a continuous improvement of the access, availability and quality of the health care provided to older adults in SL.
- Higher Education Institutions in SL should modernize their programs to enhance the knowledge in the field of healthy aging and geriatrics considering the bio-psycho-social model.
- Health care professionals face different challenges when working with older adults, mainly associated with communication, social, financial and cultural barriers.
- This online survey allowed us to identify the need to develop competencies in communication, psychological support, specific rehabilitation skills, new technologies in health care, geriatric assessment/outcomes and multidisciplinary teamwork.

CAPAGE project will address the identified needs, by developing a modern and sustainable capacity for academic and professional education. It aims to enhance training and educational resources to meet the demands of caring for the older population effectively.

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Appendix A

**Need analysis online survey:
Competency Assessment for Physiotherapy and Nursing
Professionals Working with Older Adults**

Introduction:

Thank you for participating in this survey. Your feedback will help us to understand the competencies of physiotherapy and nursing professionals working with the elderly. Please respond honestly and to the best of your ability. Your responses will remain confidential.

This need analysis online survey is a part of the CAPAGE project "Promoting academic and professional excellence in health care to meet the challenges of aging in Sri Lanka". The main goal is to enhance professional competencies of health care providers in Sri Lanka, working with older adults through a coordinated interdisciplinary approach, in line with EU standards, national health priorities and in collaboration with academics, health care professionals, students, clients, researchers and (non)governmental organizations.

Questions marked with "*" are mandatory.

1. The above-mentioned research study is intended to assess the core competencies on elderly care among physiotherapist, nurses, and the students of the respective fields, through an online questionnaire. *

It is assured that all data regarding the identification of the study participants is confidential and that anonymity will be maintained.

By participating in this survey, you declare that you have read and understood this document, as well as the information provided. It is assured that you can refuse to participate in this study at any time without any kind of consequences.

If you want any clarification about this study, please contact the researcher Duarte Pereira by email: duarte.pereira@santamariasaude.pt.

*Please select only one option. **

- I agree to participate in this study and authorize the use of the data that I voluntarily provide.
- I do not agree to participate in this study and do not authorize the use of my data.

Section 1: General demographic Information

2. Gender: *

Select only one option.

Male

Female

3. Age *

4. Background/Professional/Academic area: *

Select only one option.

Physiotherapy

Nursing

5. Current working/study place/division: *

6. Current position/Title: *

Select only one option.

Academic Staff Member

Undergraduate Student (final year student) *Move to question 21.*

Healthcare Professional

Section 2: Professional and Education related information

7. Highest level of education: *

Select only one option.

Diploma

Bachelor's degree

Master's degree

Doctorate

Post-doctorate

Other: _____



8. Area/ Field of specialization: *

9. Current position/Title: *

10. Years of experience in area/field of specialization: *

Select only one option.

- Less than 1 year
- 1 ≥ 3 years
- 3 ≥ 6 years
- 6 ≥ 10 years
- More than 10 years

11. Years of experience in older people care: *

Select only one option.

- None
- Occasionally
- Less than 1 year
- 1 to 3 years
- 3 to 6 years
- 6 to 10 years
- More than 10 years
- Other: _____

Section 3: Competence in Clinical Skills

12. How proficient are you in assessing mobility issues in older adults? *

Select only one option.

- Very proficient
- Proficient
- Somewhat proficient
- Not proficient
- Not Applicable



13. Rate your ability to develop individualized treatment plans for older adults based on their physical condition and needs. *

Select only one option.

- Excellent
- Good
- Fair
- Poor
- Not Applicable

14. How confident are you in managing chronic pain in older adults? *

Select only one option.

- Very confident
- Confident
- Somewhat confident
- Not confident
- Not Applicable

15. How confident are you in differentiating changes in normal physiological aging and pathological aging in older adults? *

Select only one option.

- Very confident
- Confident
- Somewhat confident
- Not confident
- Not Applicable



Section 4: Communication Skills

16. How effectively do you communicate with older adults to understand their healthcare goals and preferences? *

Select only one option.

- Very effectively
- Effectively
- Somewhat Effectively
- Not effectively
- Not Applicable

17. Rate your ability to communicate complex medical information to older adults and their families clearly and understandably.

Select only one option.

- Excellent
- Good
- Fair
- Poor
- Not Applicable

18. Rate your ability to demonstrate interpersonal communication skills that result in effective information transfer among multidisciplinary team members. *

Select only one option.

- Excellent
- Good
- Fair
- Poor
- Not Applicable

Section 5: Empathy and Patient-Centered Care

19. How do you demonstrate empathy towards older adults during their care? *
- Select all that apply.

- Active listening



- Compassionate communication
- Respect for their dignity and autonomy
- Providing emotional support
- Other: _____

20. How often do you involve older adults in decision-making regarding their treatment and care? *

Select only one option.

- Always
- Often
- Sometimes
- Rarely
- Never
- Not Applicable

Section 6: Training and Professional Development

21. Have you received any training specific to elderly care during your educational or professional career? *

Select only one option.

- Yes
- No Move to question 25.

22. If yes, please rate the effectiveness of the training program(s): *

Select only one option.

- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective



23. How frequently do you engage in continuing education or professional development activities related to older adults' care? *

Select only one option.

- Monthly
- Quarterly
- Annually
- Rarely
- Never
- Other: _____

24. Rate the importance of staying updated with current research and best practices in geriatric care for your professional development. *

Select only one option.

- Extremely important
- Important
- Somewhat important
- Not important
- Not Applicable

Section 7: Understanding of Competencies required to elderly care

25. How would you rate your current understanding of core competencies required for healthcare professionals working with older adults? *

Select only one option.

- Excellent
- Good
- Fair
- Poor
- Not Applicable

26. Please select the core competencies you believe are essential for healthcare professionals working with older adults: (select all that apply) *

- Perform a comprehensive, efficient, and proper geriatric assessment
- Ability to establish care plan to promote healthy aging
- Multidisciplinary team collaboration
- Communication with elderly patients and their families
- Managing chronic conditions in elderly patients
- Palliative care and end-of-life support
- Preventive healthcare for the elderly
- Ethical considerations in elderly care
- Encourage individual, families and stakeholders regarding healthy aging
- Apply evidence-based practice in caring for the elderly
- Engage in continuing professional development activities to promote healthy aging
- Carry-out research in the field of healthy aging
- Other: _____

27. What additional training or development opportunities would you like to see offered for healthcare professionals working with older adults?

Section 8: Challenges and Opportunities

28. In your opinion, what are the challenges healthcare professional faces when working with older adults? Select all that apply. *

- Communication barriers
- Ethical dilemma
- Financial constraints
- Cultural sensitivity
- Lack of policies
- Other: _____

29. How can Higher Education Institutions (HEIs) better prepare healthcare professionals for working effectively with older adults? (Select all that apply) *

- Geriatric Education Integration
- Interprofessional Education
- Simulation-Based Training/Pratice
- Evidence-Based Practice
- Communication Skills Training
- Technology Integration
- Continuing Education and Lifelong Learning
- Other: _____

30. Additional Comments:

Please provide any additional comments or suggestions regarding competencies in physiotherapy and nursing professionals working with older adults.

Conclusion:

Thank you for completing the survey. Your input is valuable and will allow gathering comprehensive feedback from academic staff, undergraduate students, and healthcare professionals regarding their perspectives on core competencies.