

Assessment of European health professionals' educational needs in basic principles of Geriatric Medicine: a focus group qualitative analysis from the PROGRAMMING COST Action 21122

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Abstract

Purpose

Europe's ageing population necessitates high quality care for older people. However, in many countries geriatrics is still emerging as a specialty, with limited training options for healthcare professionals (HCPs). This international qualitative study aimed to understand the geriatric educational needs of HCPs, focusing on countries where Geriatric Medicine (GM) is emerging or underdeveloped.

Methods

Fourteen focus groups (n = 125 participants) were carried out representing 11 European countries and a range of HCPs and settings. Focus groups were recorded, transcribed verbatim and inductively coded in the original language. Codes were aggregated into a shared English codebook which was applied to all transcripts. Descriptive and subsequently analytical themes were then developed.

Results

Three themes were identified: 1) Current experiences of geriatric care: Participants described caring for older adults as medically and socially complex, requiring strong communication skills and interprofessional collaboration. 2) Structural and contextual challenges: Limited staffing, fragmented care pathways, and the emerging status of GM hindered effective care delivery, and 3) Uncertainties and unmet training needs: Key uncertainties included distinguishing ageing from disease, applying assessment tools, recognising red flags, and safe medication management. Participants emphasised the need for practical training during undergraduate studies, standardised interprofessional courses for non-specialists, and structural support (e.g., accessible programs and protected time for training).

Conclusion

Our focus group study outlines the limitations of current training and provides a framework for developing relevant and feasible training for HCPs working with older people. Structural support is needed for these initiatives to improve European geriatric care.

Key summary points

- Aim: to qualitatively understand the geriatric educational needs of HCPs across Europe in the context of current care practices, with a particular focus on countries where GM remains underdeveloped.

- Findings: Priority topics include medication management, treatment adaptation, comprehensive assessment, ageing physiology and recognition of red flags. Future training should include practical skills, case-based learning and didactic content. Strong national and institutional support is needed to ensure consistent, high quality and accessible training.
- Message: There are clear educational gaps for European healthcare professionals working with older people.

Introduction

Europe's ageing population generates a major challenge for health care systems and modern societies. Currently, 21.6% of the European population is aged > 65 years, a 2.9% increase from ten years earlier [1], with further increases likely in the coming decades. As chronic disease and disability prevalence rises, demand grows for complex older adult care, requiring revised policies, resources, infrastructure, and workforce planning [2]. Quality geriatric care demands a holistic, person-centred, and integrated approach, as exemplified by the World Health Organisation's (WHO) Integrated care for Older People (ICOPE) model and Geriatric Medicine (GM) principles [3]. GM specialises in the care for older people, especially those with complex health issues, through a holistic approach and multiprofessional team collaboration [4].

The development of GM as a specialty, discipline, and care model varies substantially across Europe [5, 6, 7]. At the midpoint of the current United Nations Decade of Healthy Ageing [8], and facing the challenge of workforce scarcity, pragmatic solutions are needed to ensure high-quality, equitable access to care for older adults across Europe and to reduce regional disparities. In addition to developing GM as a specialty, training all professionals who care for older adults is essential [9]. Education is a core pillar to optimise workforce capacity and performance in the WHO Health Workforce Framework 2030 [10].

Effectively and sustainably upskilling healthcare professionals (HCPs) to provide quality care for older people requires a concerted effort to integrate comprehensive geriatric content throughout the educational continuum [11, 12, 13, 14, 15, 16]. However, there is a lack of consensus regarding the optimal delivery of geriatric content [17] and these efforts need to be adapted to HCPs' educational needs and real-life practice context. Kern's Six-Step Curriculum Development Framework [18] proposes initial steps of problem identification and targeted needs assessment, of which empirical data collection is a key part.

PROMoting Geriatric Medicine in countries where it is still eMerging (PROGRAMMING) COST Action 21122 [19] is a European networking initiative aiming to propose education and training curricula on fundamental principles of GM destined for HCPs practising across various clinical settings, focusing on countries where GM is still under development [20]. To achieve this goal, the first stage of PROGRAMMING aimed to assess HCPs' GM education, training needs and gaps across multiple European countries, using mixed-methods, involving a web-based quantitative survey [21] and parallel qualitative methods.

The present study therefore aimed to qualitatively understand the geriatric educational needs of HCPs across Europe in the context of current care practices, with a particular focus on countries where GM remains underdeveloped, and to explore variations by country and professional profile.

Materials and Methods

Focus groups (FGs) were chosen due to their capacity to generate rich, in-depth discussions, allowing for the exploration of shared experiences, diverse perspectives, and the nuanced social dynamics within different healthcare contexts relevant to geriatric care and curricula [18, 22]. Fourteen FGs were conducted mainly within countries where GM is in development or emerging. These included single-country FGs in Greece, Romania, North Macedonia, Poland and Portugal, as well as multi-country focus groups focussed on specific professional types from the UK, Albania, Türkiye, Spain, North Macedonia, Croatia, Italy, Romania, Poland and Greece. This facilitated both cross-country and cross-professional comparisons of GM education needs. Participants were recruited through professional networks affiliated with the PROGRAMMING Action, using purposive sampling to ensure diversity in professional background and experience. FGs were carried out from April 2023 to January 2025.

The topic guide was initially developed by the Greek team (for the first FG) and subsequently refined with minor contextual adaptations for each group, while maintaining a consistent core structure across all countries and covering the broad topics outlined in Table 1. Each FG was facilitated by two researchers (see Table 2) with different professional backgrounds and expertise, who attended standardised qualitative methods training delivered by RF, YBM and CA as part of the PROGRAMMING Action. Most attendees did not know each other or the facilitators professionally. Ten FGs were carried out in person at Action meetings in the native language of the country; the four multi-country FGs were carried out online in English using Zoom with a high security level. All participants provided informed consent prior to participation, and ethical approval for the study was obtained in accordance with national guidelines and institutional requirements in each participating country (see Ethics statements).

Table 1
Topics covered in topic guide

• What geriatric care means and who should provide it • Clinical experiences working with older people, reflecting on real-life patients • Uncertainties experienced in recent clinical care, and what could help manage this • Sufficiency of current geriatric clinical knowledge, skills and training • Skills and knowledge that require further development • Impact of (in)sufficient knowledge/training on practice • How geriatrics education could be incorporated into previous training and current career/ setting Note: there were some minor differences in topic guide questions adapted for different countries and contexts.
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FGs were audio recorded and transcribed verbatim by team members. Reflexivity was encouraged throughout the research process. The analysis approach used principles of codebook thematic analysis [23], to take a partly inductive approach whilst ensuring consistency across coders and language. Each team of facilitators inductively coded transcripts in the original language, then constructed a codebook in English. RF aggregated all supplied codebooks into an overarching thematic framework intended to descriptively summarise the findings under key themes relevant to the research aim. The codebook was then reapplied by teams to the original transcripts using MS Excel and English summaries of each code were provided in a shared document. RF aggregated the data from different countries to provide overall themes and subthemes relating to the research question. An audit trail of coding decisions was maintained in shared documents to ensure dependability. Draft themes were reviewed by all co-authors, ensuring investigator triangulation, and a revised thematic structure was discussed and agreed, incorporating interpretive analysis of cross-cultural patterns. Supplementary File 1 summarises the descriptive codebook and subsequent analytical themes.

Results

Fourteen FGs across 11 countries were carried out with 5–13 participants per group (total N = 125 participants), including a range of professionals across a variety of acute and community settings (Table 2). FG participants were predominantly female (102/125, 82%) and varied in their level of expertise in care of older people. However, most FG participants described working clinically with older people as being a large part of their work. Three themes were identified: 1) Current experiences of providing geriatric care, 2) Structural and contextual challenges and 3) Uncertainties and unmet training needs.

Table 2
Summary of focus group composition

Country	Focus group (N)	Facilitators	Gender (F/M)	Working settings of participants	Profession of participants
Greece	FG1 (N = 10)	M Tampaki (physician) G Tsamasiotis (physiotherapist)	9/1	Primary, homecare, ambulatory	Nurses, physical therapists, occupational therapist, health visitor, cardiologist
	FG2 (N = 8)	E Mougakou (physician) E Moumtzi-Nakka (physician)	6/2	Rehabilitation centre, hospital	Physicians, oncologist, general practitioner (GP), physical therapist, nurse, speech therapist, occupational therapist
Romania	FG1 (N = 8)	AG Prada (Geriatrician in training) C Raluca Nuta (Geriatrician)	7/1	Ambulatory care	Other specialties (GP, oncology, endocrinology, cardiology, dermatology)
	FG2 (N = 8)	AM Herghelegiu (Geriatrician) OL Bajenaru (Geriatrician)	5/3	Long term care	Physiotherapists, nurses, clinical pharmacist, manager, psychologist, GP
North Macedonia	FG1 (n = 12)	P Milosavljevikj (neurologist) S Arsov (MD, professor and epidemiologist)	10/2	Specialised hospital for geriatric and palliative medicine / LTC, primary care (private GP offices)	Internal medicine, specialist psychiatrist, specialist neurologist, GP, social worker, psychologist
	FG2 (n = 12)	V Popov (nurse) M Terzieva (nurse)	11/1	Specialised hospital for geriatric and palliative medicine, nursing home	Nurses, physiotherapist, caregivers
Portugal	FG1 (N = 10)	A Viegas (Family Physician with Geriatric Competence) S Ganhão-Arranhado (Clinical Nutritionist, PhD in	9/1	Primary care	MD, physiotherapist, clinical nutritionist, psychologist, speech therapist, occupational therapist

Country	Focus group (N)	Facilitators	Gender (F/M)	Working settings of participants	Profession of participants
		Gerontology and Geriatrics)			
	FG2 (N = 13)	A Farinha (nephrologist with geriatric competence) J Fonseca (internist with geriatric competence)	10/3	Hospital	Clinical nutritionists, MD, oncologist, nurses, physiotherapist, operational assistant, social assistant
Poland	FG1 (N = 10)	H Lesz-Przybył (geriatrician) A Kasiukiewicz (internist, geriatrician)	8/2	Outpatient clinics, GP practices, hospitals	Physicians – specialists in geriatric medicine (GM), internal medicine, family medicine; GM trainee; nurses; physiotherapist; paramedic
	FG2 (N = 11)	R Kupis (public health specialist, trainee in internal medicine) M Małek (geriatrician, trainee in internal medicine)	8/3	Hospitals, outpatients clinics, emergency department	Residents of various non-GM medical specialties
Multi-country	FG1 (n = 6)	S Savas (internist with geriatric competence) ND Yilmaz (medical educator)	4/2	University hospital, primary care, outpatient geriatrics clinic, haemodialysis	GPs, internists
	FG2 (N = 6)	S Cotobal Rodeles (geriatrician) A Christakou (physiotherapist)	5/1	Acute care hospital for older patients, chronic disease hospital, medical hospital for older people	Geriatricians
	FG3 (N = 6)	T Yellon (Geriatric nurse practitioner) ND Yilmaz (medical educator)	5 / 1	Clinical nursing, nursing academy, nursing faculty	Nurses

Country	Focus group (N)	Facilitators	Gender (F/M)	Working settings of participants	Profession of participants
	FG4 (N = 5)	M Gugu (Pharmacist) M Ortner Hadziabdic (Pharmacist)	5/0	Clinical – hospital and community, academia	Pharmacists

Current experiences of providing geriatric care

Balancing Clinical Complexity with Person-Centred Goals

Across all focus groups and countries, geriatric care was seen as a substantial part of most healthcare specialties. Older adults were perceived to have complex medical and psychosocial needs, often interacting with ageing physiology and complicating daily life, diagnosis, treatment, and long-term care. These complex medical needs were further complicated by a wide range of non-medical needs (e.g. social, financial, transport, functional), which needed to be addressed.

"[name], a 96-year-old lady, is hospitalized, a social issue has no one who wants her... A lady who has a very great feeling of loneliness and has great support from nurses and therapists." (Portuguese FG1 Primary care professionals)

To address these multifaceted needs, a holistic and person-centred approach was seen as critical across all countries. Multidisciplinary working was vital to facilitate this:

"We need a multidisciplinary team in order to work together, in order to tailor all these needs." (Multi-country FG1, GPs and internists)

The most important geriatric care goals were seen as improving quality of life and optimising health and wellbeing, as well as preventing any decline from hospitalisation or over-treatment. Supporting healthy ageing and taking a preventative approach where possible were also considered important, focussing on maintaining or increasing autonomy, independence and a sense of purpose.

"I would like to find a way to help them [older patients] change their daily life for the better, for as long as it lasts" (Greek FG2, Rehabilitation centre and hospital professionals)

The importance of communication with patients and their caregivers

Participants described listening to and understanding the individual, their needs and preferences, as a key element of good geriatric care. Participants however reported variation in how respectful and empathetic communications could be, with instances of inappropriate interactions. Additionally, challenges such as older people's poor health literacy, cognitive problems, lack of family support or

being non-verbal required patience and additional time for clear and full explanations of treatments, a lack of which could limit shared decision making.

"From my experience as a family doctor, I noticed that communication with elderly patients requires more time and a diversification of methods. Many of them have multiple health conditions and may also lack adequate family support." (Romanian FG1, Ambulatory care professionals)

HCPs in Greek, Romanian and Portuguese FGs also acknowledged an emotional investment associated with watching decline, patient suffering, management difficulties and end of life care, particularly where relationships had been built.

"We don't want to see this ending ... we think about the good things and the rainbow, telling ourselves that it's OK to walk and go home." (Portuguese FG2, Hospital professionals)

Single country FG participants felt families played a crucial role in supporting older people, but caregiver involvement varied, posing challenges like inconsistent attendance, excessive control, decision-making strain, resistance to advice, and pressure for inappropriate care.

"I make a lot of home visits and I know that I will turn my back and everything I said will be called into question by the caregiver." (Portuguese FG1, Primary care professionals)

Caregivers therefore needed to be supported and communicated well with, but there was a perceived lack of information for caregivers across most countries. HCPs found it challenging to provide advice and support when they lacked geriatric knowledge themselves.

Structural and contextual challenges

Staffing and resource problems

Staffing problems, and therefore access to certain professional services and specialties (particularly allied HCPs such as physiotherapists or psychologists), was a challenge in many countries. This was compounded by the need for longer consultation times or home-based care for older people. There was a noticeable gap in specialised geriatric care, and lack of staff with experience, knowledge or expertise in working with older people.

"Initially, we only recruited people who had this Geriatrics course... but we reached a time when there were no people in the market." (Portuguese FG1, Primary care professionals)

This led to safety concerns and reduced confidence in multidisciplinary team (MDT) colleagues, as well as increased pressures on hospital-based care due to a lack of primary, community and home-based care services.

"Where do we channel all the people? To the hospital." (Portuguese FG2, Hospital professionals)

Geographic barriers and regional inequalities (e.g. islands, rural areas) also limited the availability and quality of care, which could be further compounded by financial difficulties and a lack of adequate patient transport.

"And here, work, in such an area [rural] we very often hit this wall, this transport wall." (Polish FG1, outpatient, primary care and hospital professionals)

In Polish FG1, teleconsultations were mentioned as a possible way to reach more older patients, but only for those with no hearing loss or cognitive impairment.

Fragmented healthcare systems

Although multidisciplinary working was considered critical for good care for older people, this was substantially hindered by fragmented care and poor communication across professionals and settings. While team meetings within settings improved care, communication across settings—such as between primary, secondary, and long-term care—was often insufficient:

"it's not common to contact the physicians in Serbia, so I couldn't contact her physician and tell my concerns. So I advised patient to go to her physician and to ask about it, but I was not sure if anything happened or changed." (Multi-country FG4, Pharmacists)

This lack of structured communication and care pathways led to confusion over treatment priorities, clinical responsibility of different professionals about medication review or expertise for decision-making, and generated additional requirements for multiple referrals and consultations.

"because many specialties are involved for a patient, we find it difficult at times to agree with each other on the treatment to be administered" (Greek FG2, Rehabilitation centre and hospital professionals)

Greater access to allied HCPs such as psychologists, occupational therapists, dietitians, and having a clear care team leader were suggested to tackle this. At an institutional level, standardised care protocols, guidelines, documents, referral criteria and care pathways were recommended, using shared language to facilitate communication.

"Given the absence of formal training, establishing a common language among staff should be the fundamental starting point. Without it, the ability to mobilise an institution towards a unified approach is severely compromised." (Romanian FG2, Long term care professionals)

The emerging nature of geriatric care

Multi-country FG geriatricians felt there was systemic under-recognition of GM within the broader medical community, contributing to interprofessional tensions and undermining patient outcomes.

"They are not even aware that geriatric medicine can improve the quality of life of an older person. They are not aware of the fact that we can treat illnesses in the geriatric approach" (Multi-country FG2,

Geriatrics professionals)

In many countries GM was not recognised as a specialty:

"In Albania, there is still not a subspecialization in geriatric medicine. At least in North Macedonia, they have developed it this year." (Multi-country FG1, GPs and internists)

Participants felt other HCPs did not always recognise a need for this, or that it reflected a societal lack of attention to older people. Even in those countries where geriatrics was a specialty, such as Poland, a lack of geriatricians or difficulties accessing them was reported. Participants considered that geriatrics as a profession was a work in progress, needing wider promotion and structural changes such as formal recognition as a medical (sub)specialty, creation of specific wards or academic posts, integration into medical curricula, and raising awareness with professional colleagues. These actions were considered particularly important given the demographic changes underway.

"We've witnessed the shifts in our age demographics and understand the implications. Therefore, failing to act now will have consequences for our children in the years to come." (Romanian FG2, Long term care professionals)

Portuguese and Romanian FGs emphasised the need for urgent policy changes, including raising awareness and providing essential services for older people. In Greek FGs participants recommended a policy focus on improving home and primary care, through initiatives such as mobile units.

Uncertainties and unmet training needs

Gaps in existing training

Participants generally rated their geriatric knowledge and skills as 'insufficient' or 'basic,' with no consistent pattern across setting, country or professional. They primarily relied on clinical experience and peer collaboration rather than formal training.

"My knowledge [on geriatrics] is only derived from lived experience, not scientific training, it's incredible!" (Greek FG2, Rehabilitation centre and hospital professionals)

Undergraduate geriatric education was widely viewed as limited, lacking sufficient depth and practical experience, especially by participants from countries where relevant modules are optional rather than mandatory, such as Greece and Portugal

"And I asked myself: Is there no geriatrics course in basic education of doctors? Ehm,no. It is optional..." (Greek FG1 Primary, home care and ambulatory care professionals)

Mandatory geriatrics modules were viewed as a positive next step by professionals from multiple countries. Participants who had received undergraduate geriatric modules considered them beneficial for their clinical practice, but still noted room for improvement.

"In college it was these classes and I think the most important topics were covered. Only later, however, one forgets, forgets some of these things. So as far as I remember [...] most of the group had just such a positive experience." (Polish FG2, hospital, outpatient and emergency department professionals)

Post-qualification training opportunities were inconsistent; while some specialty programs had emerged in Portugal, Poland and Greece, many courses were criticized for theoretical emphasis over practical skills. Some training was available to specific HCPs (e.g., geriatric-specific skills for physiotherapists and a nursing specialty in Greece), but other professions lacked clear clinical training (e.g. no geriatric training in Portuguese medical residency programmes or for Polish paramedics). International internships were valued.

"this year I also had the pleasure of being on such an internship in Japan concerning long-term care for older adults, in 24-hour care centers. I could see how it works there." (Polish FG1, outpatient, primary care and hospital professionals)

The lack of institutional and financial support for geriatric training meant individuals often had to self-fund limited, expensive, or low-quality courses, sometimes requiring long-distance travel to access better options.

"I would like to take the nursing specialty in gerontology but...I can't because I'm a single parent and I can't leave my job and go, let's say, to Patras or...(pause) come to Athens" (Greek FG1 Primary, home care and ambulatory care professionals)

Furthermore, in North Macedonian, Portuguese, Greek and multi-country nursing FGs training was not always formally recognised or beneficial to pay or career advancement, or in one Polish FG could lead to greater clinical responsibility for older patients.

"for Albania, for example. If you are a specialized nurse in geriatrics, this is something that is not recognized. Also, can be translated after with economic gain" (Multi-country FG3, Nurses)

Some gained knowledge mainly through professional association activities, but this could be problematic if an association did not exist (e.g. in Albania). These training gaps contributed to staff shortages and perpetuated HCP GM misconceptions—e.g., viewing geriatric deficits as untreatable or holistic care as unnecessary.

Uncertainties to address in future training courses

Geriatrics was viewed as a field with inherent professional uncertainties. Key uncertainties across groups included distinguishing ageing from pathology, knowing when further testing or treatment may do more harm than good, identifying red flags for acute events, and managing medications safely. These uncertainties were particularly problematic in emergency situations where medical history and time for assessment was limited, or in recurrent cases. Important medication uncertainties included when

medications should be stopped, drug interactions, and whether age should be accounted for in medication choice/dose.

"We know when we see a lot of medications, we are alert already. But the thing is, what do we actually do with that and the interactions? And when do we stop something and when do we not?" (Multi-country FG1, GPs and internists)

There was a lack of clarity for Greek rehabilitation professionals and multi-country GPs about their own scope of practice for older people, and when to refer. Some professionals in Greek, Polish and Portuguese and multi-country GPs FGs also wanted further training on dealing with social complexity, such as managing social or financial issues, awareness of local services and providing health education.

"we, as healthcare collaborators, also need education where we prefer the social component." (North Macedonian FG1, Geriatric specialist care hospital and primary care professionals)

Further areas identified by fewer FGs included nutrition; cognitive assessment; frailty; delirium; dementia care; falls prevention; multiple chronic disease management; mental health support; pain management; swallowing; speech and occupational therapy; adapting physical activity for older people; ethical dilemmas; and end of life care for older people.

Lack of an evidence base and guidelines

The limited guidance and research available for geriatric care meant that clinicians relied mainly on clinical judgement and experience for complex situations and therapeutic dilemmas.

"we do not have clear guidelines, therefore, for these age groups and we are in therapeutic dilemmas" (Greek FG1 Primary, home care and ambulatory care professionals)

In Poland, guidelines were mentioned but considered inaccessible and out of date. This lack of standardised care protocols, documents and language led to difficulties in treatment decision making, inconsistent care practices and lack of clarity for new staff.

"There are staff members who don't know what they're supposed to do." (North Macedonian FG2, Specialised geriatric and palliative medicine hospital and nursing home professionals)

Participants felt this was partly due to a lack of evidence base to inform guidance and training:

"We love clinical guidelines, but we do not have randomised clinical trials in elderly people to decide what is the best medicine for this patient." (Multi-country FG1, GPs and internists)

A lack of guidance on social issues was present in some countries, for example elder abuse in Greece, or home-based functional support in North Macedonia.

“the manual is literally the algorithm of how I will process the patient in the system. But that patient returns home alone, cannot cook, lives alone, so we enter the social component of the patient.” (North Macedonian FG1 Geriatric specialist care hospital and primary care professionals)

Recommendations for a framework to promote geriatric education

There was strong support across FGs for geriatrics to be a mandatory part of undergraduate HCP training, including theoretical learning (modules) and practical clinical experience (rotations, placements). Simulations of ageing were also mentioned in Polish FGs as a popular way to develop empathy with older people.

“Simulations are very supportive, because if we experience for ourselves what it looks like, we also change our approach and perspective of this older person. (Polish FG1, outpatient, primary care and hospital professionals)

This would normalise caring for older people, ensure core competencies and could be a requirement for professional license. Further post-qualification training suggestions included formal specialisation across disciplines. However, it was recognised that not all HCPs needed full specialisation, but would benefit from short courses or greater geriatrics content in other courses to improve their geriatric knowledge and skills, with standardised basic and advanced competency levels. These courses needed to be broadly targeted, flexible and accessible, e.g. on-site seminars and conferences.

“within other specialities, for example, oncological surgery, do one panel where you just have a geriatrician standing up and in bullet points talking as if to a child about what is new. (Polish FG2, hospital, outpatient and emergency department professionals)

An interdisciplinary and possibly international approach was favoured in some FGs to build shared care protocols and increase multidisciplinary working. There was consensus that training courses should include case-based discussions, practical demonstrations, simulations and role playing, with the option for refresher courses.

“Hands-on work is what really leaves a lasting impression.” (North Macedonian FG2, Specialised geriatric and palliative medicine hospital and nursing home professionals)

Certain skills were recognised by most participants as transversal and critical for inclusion in further training for all interdisciplinary healthcare professionals, including good communication with older patients and their families, and mastering of standardised, practical assessment tools to enable a basic geriatric assessment in busy daily clinical practice.

“If we could all, from our own fields, perform the proper geriatric assessment.” (Greek FG2, Rehabilitation and hospital professionals)

Other practical skills discussed by North Macedonian nursing and care professionals included wound care, first aid, safe patient transfer, emergency response, and bedside care.

With regards to training providers, some FGs considered this the responsibility of professional geriatrics associations (not present in all countries), whilst others felt it should be the healthcare institution or individual companies. There was some support for making short geriatrics courses a mandatory part of professional development (especially in countries where continuing education was non-mandatory), as leaving it up to individual choice risked variable quality care. At the very least, it needed to be strongly encouraged by workplaces.

"Training should be a bit more organized and at an administrative level in our workplaces. That is, to be encouraged and enforced." (Greek FG2, Rehabilitation centre and hospital professionals)

Ongoing support and mentorship were mentioned in Greek, Polish, North Macedonian and multi-country GP and internist FGs, in the form of regular supervision or team involvement from geriatricians, peer support for case-based discussions, or through working groups in scientific societies. However, a key concern across multiple countries regarding future training was the lack of skilled and qualified professionals available to deliver high quality courses.

"Of course, I've been wondering all this time about all this training, who's going to undertake it. I mean, personally, I only know one geriatrician" (Greek FG2, Rehabilitation centre and hospital professionals)

Discussion

This multi-country FG study, involving 125 diverse HCPs, provides compelling evidence of a gap between the clinical demands of effective geriatric care and the training currently provided. Current care is significantly compromised by systemic resource deficiencies, fragmented care pathways, and the evolving nature of GM as a specialisation. Crucially, the key educational uncertainties that must be addressed in future training include distinguishing physiological ageing from pathology, appropriate assessment tool utilisation, recognising limits of intervention, identifying critical red flags, and comprehensive medication management. This could be delivered through mandatory geriatrics theoretical and practical content in undergraduate courses and options for specialisation. For non-specialists, basic and advanced competency courses were recommended, with interdisciplinary, practical, case-based content.

This qualitative research provided insightful details into the geriatrics educational needs in non-GM specialist HCPs, which is one of the main objectives of the PROGRAMMING project. The holistic and multidisciplinary nature of GM [4], with a strong emphasis on communication with patients and caregivers, was intuitively identified from participants' practical experience working with older patients. The emotionally demanding but rewarding nature of geriatrics, with its emphasis on relationships and long-term care, could be reframed as a positive asset to increase HCP engagement with training.

Our study found multiple structural barriers to good geriatric care and training including lack of resources, fragmented care and limited development of GM. Fragmented care can be overcome by paying attention to the team structure, social processes, formal processes and team attitudes, along with good information systems, governance and organisational culture [24]. GM has developed into an accepted specialty in 23 European countries [7], but there is considerable heterogeneity in official recognition and integration into the healthcare system [25], subsequently impacting on HCPs' awareness on geriatric principles and potentially the quality of care of older people [26]. Whilst geriatric nursing roles are making good progress in Italy and other countries, there is a notable lack of formal recognition in countries such as Russia [27]. These barriers suggest the need for national and institutional reform to develop standards and drive change [20]. Engaging with the wide range of relevant stakeholders in European geriatric medicine may help to engender this change [28].

The educational GM gaps identified in the present study concur with previous similar studies. The prevalence, amount and mandatory nature of geriatrics content in global undergraduate geriatric medical curricula varies substantially [17], as well as within countries [29], likely reflecting the lack of consensus regarding optimal delivery of undergraduate geriatric content [30]. Existing undergraduate medical curricula currently lack sufficient depth on age-related pathophysiology, multimorbidity, and older adults' social determinants of health [11], whilst gerontological nurse specialists expressed a need for more in-depth training regarding core professional knowledge and clinical skills [12]. HCPs across a range of disciplines expressed interest in further training in our study, reinforcing this gap. European societies have now defined a common core GM speciality curriculum with a list of minimum training requirements and topic areas [7, 31], however, leadership also needs to be a particular focus within GM [32] to overcome the training and mentorship gaps for non-geriatric professionals. There is also a need to identify interprofessional competencies relevant to all HCPs providing care for older people, as well as profession- or setting-specific competencies. Studies on these topics are currently ongoing as part of the PROGRAMMING COST Action.

Our results indicated that an effective training framework to upskill non-GM HCPs in care of older people needs to involve both theoretical and practical learning, with a strong clinical focus and basic and advanced levels. Previous studies have also indicated a need to integrate comprehensive geriatric content throughout the educational continuum, from undergraduate exposures to specialised postgraduate training [11, 12, 13, 14, 15, 16]. For post-qualification training, our results demonstrate the value of an interdisciplinary educational approach, that would reflect the multidisciplinary care central to GM and may promote teamwork and reduce fragmentation [33]. However, the best way to deliver this in geriatrics short courses needs further exploration. Although face-to-face approaches were advocated within our FGs, use of online approaches may mitigate the concerns raised regarding distance, timing, quality assurance and accessibility of courses. Case-based GM e-learning courses have previously been delivered successfully [11]. The most suitable modes of delivery remain an area for future exploration and evaluation.

Strengths and limitations

This study has elicited HCPs' views across various European settings on contemporary geriatric care education, highlighting not only significant educational and clinical care gaps, but systemic and ethical tensions punctuating everyday practice. We drew on HCPs' lived experiences and used a consistent approach to data collection across multiple countries and settings. Group dynamics seemed to have a limited effect upon data collection, with reflexivity enhanced through keeping detailed notes on procedures. Most single country FG facilitators reported participants having an equal chance to speak and few hierarchical issues. Shared professional identities within most single-profession multi-country FGs established rapport and trust (although may have assumed shared knowledge), but the different backgrounds in the GP-internist multi-country FG made uncovering shared needs more challenging. We could not reflect on differences in online and face-to-face dynamics as facilitators were different.

The FG methodology and purposive sampling used limits the generalisability of findings to all healthcare professionals across diverse European contexts. Although it is likely that those taking part in the focus groups were more interested in GM and geriatrics training, they identified a comprehensive range of needs that were relatively consistent across the different groups. The study is likely to be somewhat transferable to other settings where geriatrics is emerging, but different challenges may arise within the unique landscape of other care structures, educational programmes and regulatory contexts. Participant recruitment was diverse but not exhaustive, and future research could benefit from even broader geographical and professional representation to capture additional nuances in educational needs. Finally, the lack of Action budget for translation gave rise to challenges in cross-language analysis, potentially leading to some loss of nuance.

Conclusion

Despite the anticipated demographic changes of an ageing Europe, there remains a clear educational gap for healthcare professionals working with older people. The management of the healthcare needs of the older population is very complex and it requires not only clinical guidelines, standardised pathways of care and protocols but also professionals with specialised training and soft skills. Our focus group study highlighted a clear need for innovative training models for HCPs to meet these challenges of uncertainty and complexity, covering key areas such as medication management, treatment adaptations and avoiding overtreatment, geriatric assessment, physiological mechanisms of ageing and recognising red flags for critical health events. These need to be accessible and provide practical skills, case-based discussions and didactic content. Furthermore, there is a need for structural change to support this at national and institutional levels to ensure adequate quality, consistency and availability of training.

Declarations

Competing interests

The authors have no competing interests to declare that are relevant to the content of this article.

Data availability statement

Anonymised focus group transcripts can be made available to those joining or who are members of the Action for any further analyses. Transcripts and permissions to use should be sought in writing from the data owners.

Ethics statements

Greece: Research Ethics Committee, University of West Attica, Athens, Greece: 37149 (05/04/2023).

Israel: Jerusalem College of technology ethical committee approval: 014_23 (covered approval for all multi-country focus groups)

Poland: Ethics Committee of Jagiellonian University Medical College: 118.0043 (01/07/2025)

Portugal: In light of prior ethical approvals obtained in other participating countries, separate ethical approval was not deemed necessary.

Romania: Ethics was not needed.

North Macedonia: Ethics Committee of the PHI Specialized Hospital for Geriatric and Palliative Care 13th November, Skopje: 03-339/1 (06/02/2024)

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Author contribution statement:

All authors contributed to study design and coordination at local or international level. MK is the Action lead. RF, CA and YBM delivered qualitative training to standardise the approach. Focus groups were facilitated by AV, TGK, MG, EMoug, RK, SGA, AF, AMH, OLB, CRN, JF, SS, NDY, HLP, AGP, MT, MOH, EMoum, AC, VP, SCR, TY, SA and PM. Transcription was undertaken by AV, TGK, EMoug, SGA, AF, OLB, CRN, JF, AR, SS, NDY, HLP, MT and VP. RF coordinated the cross-country analysis, whilst coding and analysis of transcripts was undertaken by AV, TGK, MG, EMoug, RK, KP, SGA, AF, AMH, OLB, JF, AR, VS, SS, NDY,

EMoum, TY and VP. Quotes were translated by AV, TGK, EMoug, SGA, AF, AMH, OLB, CRN, JF, VS and VP. Draft themes were reviewed by AV, TGK, MG, EMoug, RK, KP, SGA, AMH, OLB, CRN, JF, AR, VS, SS, NDY, AGP, MT, LPB, YBM, CA, EMoum, AC, SCR, VP, EK, TY and MK. TY, SGA, RF, AF, MOH, EK and MK developed the literature review. RF drafted the first manuscript draft; all authors reviewed the draft paper versions and provided feedback.

References

1. Eurostat. Population structure and ageing. 2025 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Population_structure_and_ageing (19 June 2025, date last accessed).
2. Jane Osareme, Ogugua, Muridzo Muonde, Chinedu Paschal Maduka, Tolulope O Olorunsogo, Olufunke Omotayo. Demographic shifts and healthcare: A review of aging populations and systemic challenges. *Int J Sci Res Arch* 2024; 11: 383–395.
3. World Health Organisation. Integrated care for older people (ICOPE): guidance for person-centred assessment and pathways in primary care, second edition. Geneva: World Health Organisation, 2024.
4. British Geriatrics Society. Our Purpose. 2025 <https://www.bgs.org.uk/our-purpose> (2 June 2025, date last accessed).
5. Kotsani M, Ellul J, Bahat G *et al*. Start low, go slow, but look far: the case of geriatric medicine in Balkan countries. *Eur Geriatr Med* 2020; 11: 869–878.
6. Soulis G, Kotovskaya Y, Bahat G *et al*. Geriatric care in European countries where geriatric medicine is still emerging. *Eur Geriatr Med* 2020; 12: 205–211.
7. Stuck AE, Masud T. Health care for older adults in Europe: how has it evolved and what are the challenges? *Age and Ageing* 2022; 51: afac287.
8. United Nations. UN decade of Healthy Ageing: Plan of Action 2021-2030. United Nations, 2020.
9. Wozneak KA, Jindal SK, Munro S *et al*. Lessons from the Department of Veterans Affairs: A continuum of age-friendly care for older adults. *J American Geriatrics Society* 2025; 73: 358–366.
10. World Health Organization. Global strategy on human resources for health: workforce 2030. Geneva: World Health Organization, 2016.
11. Masud T, Ogliari G, Lunt E *et al*. A scoping review of the changing landscape of geriatric medicine in undergraduate medical education: curricula, topics and teaching methods. *Eur Geriatr Med* 2022; 13: 513–528.
12. Chen H, Pu L, He S *et al*. Status and associated factors of gerontological nurse specialists' core competency: a national cross-sectional study. *BMC Geriatr* 2023; 23: 450.
13. Segal-Gidan F, Resnik C, Reilly JM, Stevens GD. Enhancing Geriatric Workforce Competency: Impact of 3 Distinct Geriatric Interprofessional Education Programs. *Health, Interprofessional Practice and Education* 2022; 4: 2233.

14. Shen S, Liu Q, Huang Z *et al.* A Survey of Knowledge Tracing: Models, Variants, and Applications. *IEEE Trans Learning Technol* 2024; 17: 1858–1879.
15. Alex D, Kumari Y, Kadirvelu A. An Experiential Aged Care Module for First-Year Undergraduate Medical Students. *Education Sciences* 2021; 11: 565.
16. Michel J-P, Leonardi M, Martin M, Prina M. WHO's report for the decade of healthy ageing 2021–30 sets the stage for globally comparable data on healthy ageing. *The Lancet Healthy Longevity* 2021; 2: e121–e122.
17. Pearson GME, Ben-Shlomo Y, Henderson EJ. A narrative overview of undergraduate geriatric medicine education worldwide. *Eur Geriatr Med* 2024; 15: 1533–1540.
18. Thomas PA, Kern DE, Hughes MT. *Curriculum Development for Medical Education: A Six-Step Approach*. 4th ed. Johns Hopkins University Press, 2022.
19. PROGRAMMING - PROMoting Geriatric Medicine in countries where it is still eMerging. PROGRAMMING COST Action 21122. 2025 <https://cost-programming.eu/> (2 June 2025, date last accessed).
20. Duque S, Piotrowicz K, Masud T *et al.* Building a pan-European network to bridge gaps in geriatric medicine education: the PROGRAMMING COST Action 21,122—a call for endorsement. *Eur Geriatr Med* 2025; 16: 411–423.
21. Ogliari G, Masud T, Herghelegiu AM *et al.* Educational Needs in Geriatric Medicine Among Health Care Professionals and Medical Students in COST Action 21122 PROGRAMMING: Mixed-Methods Survey Protocol. *JMIR Res Protoc* 2025; 14: e64985.
22. Kitzinger J. Qualitative Research: Introducing focus groups. *British Medical Journal* 1995; 311.
23. Braun V, Clarke V. One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology* 2021; 18: 328–352.
24. Mulvale G, Embrett M, Razavi SD. 'Gearing Up' to improve interprofessional collaboration in primary care: a systematic review and conceptual framework. *BMC Fam Pract* 2016; 17: 83.
25. Romero-Ortuno R, Stuck AE, Masud T. The giants of education in geriatric medicine and gerontology. *Age and Ageing* 2022; 51: afac004.
26. Kotsani M, Kravvariti E, Avgerinou C *et al.* The Relevance and Added Value of Geriatric Medicine (GM): Introducing GM to Non-Geriatricians. *JCM* 2021; 10: 3018.
27. Tsutsunava MR, Aristidova SN. Geriatric nurse in Russia today: Is the role determined? *Sestrinska vizija* 2023; 7: 20–23.
28. Savas S, Demiral Yilmaz N, Kotsani M, Piotrowicz K, Duque S. Which stakeholders should be addressed to promote Geriatric Medicine among healthcare professionals, educationalists and policy-makers in European countries? – the PROGRAMMING COST 21,122 action experience. *Aging Clin Exp Res* 2024; 36: 194.
29. Kupis R, Perera I, Targowski T, Gąsowski J, Piotrowicz K. Is geriatric medicine teaching homogeneous? The analysis of geriatric medicine courses at Polish undergraduate medical

- programmes. *Eur Geriatr Med* 2024; 15: 1523–1532.
30. Pearson GM, Dowling S, Ben-Shlomo Y, Henderson EJ. Inspiring tomorrow's geriatricians: a qualitative exploration of the facilitators and barriers to medical students choosing geriatric medicine. *Gerontology & Geriatrics Education* 2025; 1–15.
 31. Roller-Wirnsberger R, Masud T, Vassallo M *et al*. European postgraduate curriculum in geriatric medicine developed using an international modified Delphi technique. *Age and Ageing* 2019; 48: 291–299.
 32. Pelleg AR, Schiller G, Goldhirsch SL, Fernandez HM, Lindenberger EC. Geriatrics and palliative medicine leadership is needed now more than ever: What are the training gaps? *J American Geriatrics Society* 2021; 69: 1063–1070.
 33. World Health Organisation. Framework for Action on Interprofessional Education & Collaborative Practice. Geneva: World Health Organization, 2010.