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PERSPECTIVE

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Perspectives on professional health literacy in occupational, physio- and speech- and language therapy across four European countries

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Abstract

Health literacy (HL) is increasingly recognised as a determinant of health and a prerequisite for equitable healthcare. While professional health literacy (pHL) has been studied primarily among physicians and nurses, less is known about occupational therapy, physiotherapy, and speech and language therapy (OPSL) professions. This perspective paper, developed by an Interprofessional European Working Group from Austria, Germany, Italy, and Switzerland, explores the current state and educational integration of pHL in OPSL professions across these four countries. An analysis of national frameworks, initiatives, and educational practices related to pHL was conducted, drawing on policy documents, national surveys (e.g. HLS19, HLS-PROF), and expert experience within the working group. Findings reveal heterogeneous progress across countries. Austria demonstrates comprehensive HL strategies and curricular integration, while Germany and Switzerland have initiated policy and educational activities to foster pHL. In contrast, Italy shows limited systemic implementation. Across contexts, challenges for health professionals (HP) persist in digital HL, conveying information and knowledge, and patient involvement and shared decision-making. Given that OPSL professionals are likely to face similar challenges regarding pHL knowledge, skills, and attitudes, we advocate for a structured and practice-oriented approach to integrate pHL more strongly into OPSL education. This topic is the focus of our Interprofessional European Working Group.

Keywords Professional health literacy, Occupational therapy, Physiotherapy, Speech and language therapy, Education, Europe

1 Introduction

Health literacy (HL) has gained importance in the scientific discourse in recent years [1–3]. The World Health Organisation (WHO) and the Organisation for Economic Co-operation and Development (OECD) emphasise that at the European level, HL should be



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integrated into healthcare and communities [4, 5] as it is considered to be a public health priority.

While initially focused on reading and writing skills of individuals, HL has evolved into a multifaceted concept currently debated across various research areas, with efforts underway to establish a unified definition [6–8]. In the European context, the first definition of general HL (within a comprehensive model of understanding HL) was provided by Sørensen et al. [9]; M-POHL (WHO Action Network on Measuring Population and Organisational Health Literacy) recently provided a comprehensive umbrella HL definition: “*Health literacy (HL) refers to the extent to which people are able to access, understand, appraise, and apply information in all its forms, communicate about health concerns, and make appropriate use of services to improve their health and well-being, prevent and manage illness, and support others in these matters or make decisions on their behalf. HL is influenced by the social, cultural, and organizational contexts in which people grow up, learn, work, live, receive care and age. It results from the interaction between personal motivation, individual competencies and the accessibility, understandability, quality and user-friendliness of health-related information and services, and the support available to address health challenges*” [10]. This definition underlines the relational aspect of HL that not only concerns a person’s ability but is based on the conditions of the healthcare system and thus also locates an additional societal/political task to create HL [11]. Nutbeam and Lloyd argued that HL must be viewed within the educational context, highlighting the need to train HP to better communicate with patients and adapt to varying levels of HL [7]. While HL is traditionally understood as a personal ability, requiring people to navigate complex health systems and make informed decisions, recent approaches increasingly highlight the role of organisational structures [12]. The M-POHL network (<https://m-pohl.net/>), established to monitor and improve HL in the general population, highlights the need to address organisational HL in the European Region.

A person-centred approach emphasises an active role as patient, client or healthy citizen, where they are expected to make responsible decisions regarding their health [3]. Individuals with limited HL often experience difficulties in accessing and navigating the healthcare system, face greater communication barriers with healthcare professionals (HP), and generally have poorer health outcomes compared to those with adequate HL [3, 13, 14]. People with limited HL (in particular those with poor functional HL, which is known as a marker of socioeconomic disadvantage) may encounter discrimination and social injustices, resulting in limited autonomy. For this group, it is harder to navigate the healthcare system or to make sensitive and informed decisions regarding their health. This complex interplay of factors impairs their ability to exercise human rights [3, 15], and acknowledges that individuals with limited HL need supportive environments that reduce barriers and actively promote understanding, access, and participation. Therefore, the healthcare system must provide means to support patients with limited HL.

Regarding the promotion of patients’ HL, the concept of professional responsiveness is discussed [13]. This means that the role of HP is not only to educate and advise patients on health issues, but also to motivate them towards self-management and empowerment concerning their health [16]. This necessitates professional HL (pHL), which is defined by Messer as “*the skills/abilities, motivation, and knowledge of HP to access health-related information in a professional context and to communicate it to patients in a*

needs-based and understandable way. The goal is to support patients in making informed decisions about their health and to help them navigate the healthcare system more easily." [17] In this regard, the HLS-PROF Consortium [18] also highlights the abilities and opportunities of HP to support and encourage their patients' HL in daily practice, pointing to four areas of relevance: information and knowledge management, conveying information and knowledge, patient involvement and shared decision-making, and professional digital HL [18].

In this article, we orient ourselves towards Messer's definition of "professional HL (pHL)" [17], which encompasses a range of competencies, consisting of knowledge, skills, attitudes and practices necessary for promoting and strengthening HL of their clients, as previously described by Coleman et al. and underscored by the HLS-PROF Consortium [18, 19].

It is required that health organisations and HP create an environment that enhances the autonomy and agency of patients and addresses their needs more appropriately. The focus should particularly be on managing one's health and ways of dealing with health information. The current literature on pHL focuses mainly on physicians and nurses, emphasising that communication with patients and their relatives and the exchange of information must be further improved, which is due on the one hand to linguistic or communicative problems and on the other hand to time and structural difficulties [18, 20].

The HLS-PROF study [18] examined for the first time the pHL of selected HP (physicians, pharmacists, nurses, and physiotherapists) in the German-speaking D-A-CH region (Acronym for Deutschland/Germany, Austria/Österreich, Schweiz/Switzerland). The applied PROF-HL-Q instrument measures the subjectively assessed difficulties in coping with tasks that HP face in promoting the HL of patients. The tasks reflect the four areas of pHL as described above.

Most of the HP surveyed report having a good pHL, but there are country-specific differences and potential for improvement. The most significant challenges for all HP are judging the evidence, interpreting statistics, dealing with challenges in information transfer and dissemination, and supporting individuals/patients in finding and evaluating digital health information [18].

In addition to the HP examined in the HLS-PROF study, there are other HP groups, such as occupational therapists, and speech and language therapists, which are important reference persons for patients, clients and their relatives, but so far are less familiar with the concept of pHL and hardly integrated into the discourse on pHL [21]. To address this issue, an Interprofessional European Working Group (representing Austria, Germany, Italy, and Switzerland) consisting of occupational therapists, physiotherapists, and speech and language therapists (OPSL), in their role as educators and/or researchers, was formed in April 2024 at the instigation of Hanna Schwendemann. This collaboration offers mutual benefits, especially by enabling a comparative view of each country's strengths and challenges regarding OPSL preparation in terms of pHL. It fosters shared learning, resource exchange and continuous improvement of curricula for HL education across the involved professions.

Promoting patients' HL is particularly important in the care and treatment of complex and chronic diseases with various trajectories of illness, as they may accompany patients over long periods of their lives. OPSL, in particular situations and settings (and

depending on the health care needs of clients), have the advantage of having longer contact times (between 30 and 90 min) with patients and their relatives than, for example, general practitioners (about 7 min in Germany) [22, 23]. Compared to other HP, OPSL have more favourable conditions for promoting patients' self-management skills and contributing to a long-term improvement in quality of life, partly due to the structural nature of their work (e.g. longer contact times during therapy sessions and throughout the course of the illness). A well-founded pHL in these professions has not only the potential for improved individualised care and health outcomes but also for enhancing the efficiency of the healthcare system [24]. Simultaneously, as all HP, OPSL are multipliers of healthcare institutions acting on their behalf and contributing to organisational HL [25].

This article addresses the existing conditions for promoting pHL in OPSL professions in Austria, Germany, Italy and Switzerland. It aims to present our position/perspective as an Interprofessional European Working Group by highlighting key areas for action for integrating pHL into education.

To develop our perspective regarding pHL, we address the following questions:

1. What national conditions exist in the context of HL and pHL, and what is the status of pHL in OPSL professions.
2. What practical and educational measures are currently being implemented in the four countries of the Interprofessional European Working Group to strengthen the pHL of OPSLs (learners/students, lecturers/educators and practice supervisors) and enhance their professional capacity to act?

2 Insights into professional health literacy from four countries

The following section provides insights into the efforts undertaken to promote (p)HL in the countries represented within the Interprofessional European Working Group: Austria, Germany, Italy, and Switzerland.

To gain insights, we applied three (analytical) steps:

- i. An initial analysis was carried out by each member/team of the working group for their respective institution and country by completing a table ("Bedarfs- und Relevanzanalyse") whose structure had been agreed upon in advance. The table reflects the profile of each partner institution, indicating its current status regarding pHL (curriculum analysis), its potential for pHL, as well as the objectives each of the partner institutions would like to achieve with pHL; potential future partners and stakeholders; and an assessment of the structural preconditions towards pHL in each country.
- ii. The findings of step 1 were presented and discussed in an online team meeting; the team also defined the structure for presenting the findings in the manuscript (see the six topics described beneath, from a–e).
- iii. The initial findings/insights were refined, and the respective group members drafted a text for each country.

The subsequent presentation of each country's insights follows this structure: (a) national data on population HL (findings from the M-POHL HLS19 study), (b) presence and brief description of national aims and programmes, (c) presence and brief description of national networks/platforms/competence centres, (d) data on pHL, where

Table 1 Country-specific HL differences in the general population

Country	Proportion of persons with limited HL in the general population
Austria	47% (11% inadequate HL; 36% problematic HL)
Germany	64.2% (19.7% inadequate HL; 44.5% problematic HL)
Italy	58% (23% inadequate HL; 35% problematic HL)
Switzerland	49% (11% inadequate HL; 38% problematic HL)

(Source: <https://m-pohl.net/HLS19Results> (accessed: 13.10.2025))

The HL levels (excellent, sufficient, problematic, inadequate) describe the differences between personal competences and the demands/conditions of the information and service environment

Limited HL = inadequate and problematic levels

The country-specific surveys used different data collection methods (also due to the COVID-19 pandemic); therefore, direct comparisons between countries are limited

available (HLS-PROF study and/or other). It is also outlined, (e) whether relevant educational activities/initiatives for developing/fostering students' or trainers' pHL exist in the respective institutions and countries (where these data were available).

2.1 Austria

HL has become a political goal in Austria and has received significantly more attention in recent years, also due to available survey data of the general population (HLS19). General HL in Austria is at a good level, 53% of the population has a sufficient to excellent level of HL but 47% of the people still have difficulties (Table 1) [26]. These represent slight improvements since the 2011 survey. The first HL survey established strengthening HL as one of the ten national health goals and was later incorporated into the current health reform [22, 27]. At the end of 2014, the Austrian Health Literacy Alliance (ÖPGK) [28] was founded to coordinate and develop measures to promote HL. The ÖPGK was originally operated by the Austrian Health Promotion Fund (FGÖ) and is now run by the Competence Centre for Health Promotion and Health System of the Austrian National Public Health Institute (GÖG). The ÖPGK annually awards an HL prize and disseminates information and practical projects on HL for different target groups.

The results of the HLS-PROF survey in 2022 [29], which included physicians, nurses and physiotherapists, showed that HP rated their pHL, i.e. their abilities and opportunities to promote their patients' HL in their day-to-day work, quite positively. However, the results also clearly highlight the areas where challenges remain and where there is potential for improvement (e.g. dealing with misinformation or false information from patients, assessing the extent to which cultural differences make mutual understanding more difficult and ensuring that patients take away the most important things from the conversation) [18, 29]. Physiotherapists have a good pHL compared to physicians, and their training/education seems to prepare them well, especially in the transfer of knowledge. However, physiotherapists seem to have difficulties when challenges arise in conveying information. The HP perceived their "professional digital HL" as the most challenging of the four areas surveyed, in particular, to judge the credibility of the digital health information, as well as to support patients in finding relevant health information [29]. In this regard, the M-POHL HLS19 findings for Austria call to address specific areas of HL, like digital HL and navigational skills in the health system, as well as insufficient information on therapies and treatments [22].

Regarding pHL education/training, there are many initiatives and certified training programmes in Austria focusing mainly on patient-centred communication (see Austrian Health Literacy Alliance (ÖPGK) [28]. For example, at the University of Applied

Sciences Hochschule Campus Wien, communication skills training takes an essential part of the curriculum of HP (Occupational Therapists, Physiotherapists, Speech and Language Therapists, Dieticians) since 2021. While the first HP graduated at Bachelor degree level in 2008, the introduction of an Intensive Communication Course with Simulation Patients represented a meaningful step in deepening communication skills training and advancing pHL among students. The introduction followed a train-the-trainer programme according to the Austrian Health Literacy Alliance and the tEACH standard to guarantee adequate qualification of teachers to deliver effective training programs [30]. The course is based on the Calgary-Cambridge Guide and the Agenda Led Outcome Based Analysis (ALOA) framework [30, 31]. An accompanying evaluation showed that communication training with Simulation Patients achieved a greater competence growth and supports better integration of theoretical knowledge into practice. Specific skills, such as effective information gathering in a person-centred manner and using situational questioning techniques, benefited most from simulated training. The study recommends integrating longitudinal simulation-based communication training into teaching throughout all semesters [32, 33].

2.2 Germany

The German Health Literacy Survey, which was conducted as part of HLS19, shows that six out of ten citizens have difficulties in dealing with health information (64,2% have limited HL; of these, 19,7% have inadequate HL and 44,4% have problematic HL) (Table 1) [34]. The results are more negative compared to 2014, where the proportion of people with limited HL was 54.3% [35].

Since 2018, the National Health Literacy Action Plan has aimed to strengthen the HL of the population and, since 2023, also that of Health Professionals [36]. The German Network for Health Literacy (Deutsches Netzwerk Gesundheitskompetenz [DNGK]) has taken responsibility for the implementation and management of the NAP. Within the field of Health Professionals, the focus is on pHL [37]. Their objectives and areas of action include raising awareness of general HL and particularly in the training of HP [21, 38, 39].

The first measurement of pHL with HLS-PROF [20] showed that the involved HP ($n = 300$ physicians and 600 nurses) generally felt well equipped to handle the tasks regarding promoting patients' HL. Similar to Austria, the HP perceived their "professional digital HL" as the most challenging of the four areas surveyed, in particular, to judge the credibility of the digital health information, as well as to support patients in finding relevant health information. The second most challenging task identified was "dealing with challenges in information transfer". Both HP reported difficulties in managing patients who are misinformed, incorrectly informed or overinformed. Furthermore, the findings showed that communication techniques aimed at promoting HL are not widely known among physicians and nurses.

Integrating HL into the training and education of OPSL professions has so far been neither comprehensive nor systematic. Wirner et al. analysed physiotherapy curricula and concluded that HL is not explicitly addressed [40, 41]. The German Association of Occupational Therapy (Deutscher Verband Ergotherapie [DVE]) identifies HL within the competence profile of occupational therapy under the domain of "advocacy" and considers HL as a professional responsibility of occupational therapists [42].

For practical implementation, a training programme for healthcare and social professions is available as a monograph [43–45]. Overall, there is a recognised lack of knowledge about HL in OPSL professions, and action is needed to integrate it into curricula and training programmes [8, 21, 39, 46].

2.3 Italy

In the representative Italian sample of the HLS19 survey, 58% of respondents had limited HL. Specifically, 23% had inadequate, 35% had problematic, 34% had adequate, and 9% had excellent general HL (Table 1) [47]. In an earlier study by Palumbo, more than half of the respondents stated that their ability to obtain, understand, process and use health information was limited [48]. These results have so far received little attention from both policymakers and HP, as the authors emphasise.

In Italy, there are currently no specific national plans/strategies on HL, neither for the population nor for the promotion/further development of pHL in the HP. However, the national prevention plan (2020–2025) mentioned for the first time that HL is important for health maintenance and health management of citizens. The Ministry of Health emphasises that actions aimed at strengthening the ability of individuals to care for their own health and that of the community (empowerment), as well as improving the interaction with the health system (engagement), should be important elements of health care planning [49]. The ‘HeLiLab’ competence centre, based at the University of Florence, functions as a research partner for the ISS (Istituto Superiore di Sanità), Italy’s main centre for research, monitoring and technical-scientific advice on public health. It has recently developed a training programme/specialisation course for professionals to enable them to apply HL concepts and tools in various contexts: healthcare, communication, education, research, etc.

In Italy, all HP have been academically trained at Bachelor’s degree level since the end of the 1990s. While aspects of pHL, such as communication, patient education, and evidence-based practice are included in the curricula, specific HL modules are lacking. Currently, no data relating to the knowledge, role and HL practices of HP and educators are available concerning pHL.

2.4 Switzerland

Nearly half of the Swiss population struggles with health information (11% have an inadequate-, 38% problematic general HL) (Table 1). Regarding specific HL, 72% struggle with digital health information and navigating the healthcare system. Additionally, 66% of those with chronic illnesses have low self-management skills [50]. Internationally, Switzerland ranks slightly below the European average in HL.

HL is a part of the “Health2030” strategy by the Federal Office of Public Health (FOPH). A primary goal of this strategy is to enhance the public’s HL. The FOPH actively supports this process through various programmes, such as promoting self-management skills for chronic diseases and providing easily accessible and understandable health information. The focus is particularly on disadvantaged groups to reduce health inequalities and facilitate access to essential health information [51].

The Swiss Academy of Medical Sciences (SAMW) position paper from 2015 emphasises the importance of HL for a sustainable healthcare system and calls for increased collaboration to promote HL and reduce social inequalities [52]. To this end, Health

Promotion Switzerland supports the “Self-check Health Competent Organisation” project, which aims to strengthen organisational HL in primary healthcare. It uses a self-assessment tool to systematically review and improve HL [53].

The Careum Competence Centre for Health Literacy conducted and coordinated the HLS-PROF survey in Switzerland, involving a total of 1,613 physicians, nurses, physiotherapists, and pharmacists participated [18]. These HP report that they have few problems with aspects of pHL. However, some issues cause more difficulties than others. The most significant challenge perceived in the domain of knowledge and information management was the interpretation of statistical results, followed by the critical appraisal of scientific evidence in health information. In the domain of information and knowledge transfer, three of the four HP identified the assessment of how cultural differences hinder mutual understanding as the most significant challenge. For pharmacists, the main difficulty lies in dealing with misinformed or uninformed patients. Regarding patient-centred communication, participants reported difficulties in jointly defining objectives with patients and in making shared decisions about further treatment options. Physicians, however, found it more difficult to listen to patients without interrupting them. Like in Austria and Germany, the field of digital HL was rated by all professionals as the most difficult one, such as assessing the reliability of digital health information, or for nurses, it was searching for digital health information. In general, the concept of HL and specific communication tools and techniques (e.g. “Ask me 3”) are not widely known. Nevertheless, participants noted that their education had prepared them well for the tasks of information and knowledge management, information and knowledge transfer, and communication [18].

Initial teaching and learning experiences on the basics of HL in HP are available, e.g., in the field of interprofessional education at the Department of Health at the University of Applied Sciences, ZHAW, Winterthur. Bachelor students from five health professions (Occupational Therapy, Physiotherapy, Nursing, Midwifery, and Health Promotion and Prevention) engage with the topic of HL through an e-learning sequence through self-study and apply their learning process to internship experiences in clinical settings, such as hospitals, private practices and rehabilitation. In small interprofessional groups, students learn through their own projects how to assess existing health information from their fields of action and how, based on insights into the foundations of HL, they can improve it to competently support and empower patients and their relatives in health-related questions and decisions.

3 Discussion and key action areas

Overall, it is evident that various approaches and strategies are in place to address the topic of HL in the four countries observed by the Interprofessional European Working Group (representing Austria, Germany, Italy, and Switzerland). These range from political action plans and the formation of project group collaborations to widely implemented networking platforms. It is noteworthy that some countries—such as Italy—have not yet systematically invested in fostering general HL or pHL, while others are already doing so or are in the process of implementing such efforts. Austria appears to be making the most comprehensive efforts to improve population HL, addressing the issue from multiple levels and perspectives, including an educational standpoint.

In the D-A-CH region, the first survey of the HLS-PROF Consortium investigated health professionals' perception regarding their skills and competencies to deal with patients' HL. The results highlight areas with the lowest perceived difficulty, such as patient-centred communication, and domains with the highest difficulty, such as dealing with digital HL. Also, tasks regarding knowledge management (understanding statistics, finding and appraising evidence-based clinical information), but also to deal with challenges in knowledge transfer, especially dealing with misinformed or ill-informed/misguided patients, are a fairly significant issue. Letting patients participate in decisions is not always perceived as an easy task in clinical work, either. The survey highlights the need to embed pHL into educational programmes and curricula of HP. The study also emphasises that better conditions at the organisational level are needed, especially in inpatient settings, to promote patients' HL, for example, during patient conversations. Additionally, easily understandable and accessible health information is demanded to contribute to strengthening patients' HL [18, 24, 54]. These are important findings which might be valid for all HP. However, OPSL professionals would benefit from inclusion in the next HLS-PROF survey; this would allow for specific and profession-targeted results.

As mentioned in the insights section, there are various single initiatives/activities in the four countries to promote pHL in education. Also, HELPE (Health Literacy in Physiotherapy Education), a European project for training HL in physiotherapy (<https://helpe.eu.com/>), aimed to integrate pHL into education. Schwendemann and Thieme show in their review that HL training interventions for OPSL professionals are effective [21]. Such efforts often have project character or are adopted by single organisations only, lacking a more system-wide approach. Overall, there are no systematic and interprofessional approaches that integrate HL into the education of OPSL.

Another important aspect concerns the motivation that HP need to communicate health-related information in a personalised and engaging manner. Although this issue was not addressed in the HLS-PROF survey, we consider it highly relevant, as it requires additional skills and competencies, such as motivational interviewing, that HP can acquire and develop through training. Understanding and responding to patients' different personalities/psychological states is crucial when conveying important information about lifestyle or health behaviours, or when addressing patients' misconceptions, misinformation, or information overload. These efforts are essential to strengthen patients' self-efficacy and self-management [55–57]. This would be beneficial also regarding some of the outcomes of the HLS-PROF survey, where HP do not always feel prepared enough to deal with challenges in information and knowledge transfer/communication with patients.

Advancing pHL in OPSL professions as part of education, training, and professional development necessitates a combination of approaches to optimally prepare these professionals for future challenges. To achieve this, from our perspective, the following areas of action require attention and improvement.

3.1 Assessing and identifying HL needs in patients and clients

A critical aspect for addressing patients' HL is assessing and understanding their HL level. Currently, practitioners hardly apply any HL assessment tool or technique in a structured way for understanding patients' individual needs regarding their HL. A critical aspect of promoting pHL is the systematic approach to implementation in practice.

In addition, the competencies and assessment skills of OPSL should be strengthened to effectively promote patients' HL. The use of assessment tools, recognising “red flags” in patients/clients has to be trained already within theoretical and practical education of OPSL [21, 50, 58, 59].

3.2 Finding and appraising (evidence-based) digital health information

To deal with patients' digital HL is perceived by HP as the most difficult one [18]. This refers especially to supporting patients in finding relevant digital health information and checking its trustworthiness. Especially due to the flood of information on the World Wide Web and social media, patients can be overwhelmed or misinformed. As professionals, OPSL should be able to critically evaluate health information and apply it in a client-centred manner during therapy sessions. They should identify appropriate sources, debunk misinformation, and assist patients in navigating digital health offerings [57]. Therefore, OPSL need special skills to encourage clients/patients (especially those with limited HL) to reflect on and question their misconceptions /ill-information about their health.

3.3 Empowering and enabling patients and clients

Developing and strengthening self-management skills, particularly among chronically ill patients, is a key responsibility of all HP. Especially this patient group often faces challenges such as the need to change habits and lifestyle to manage symptoms, prevent complications and influence the overall course of their illness—ultimately helping them to better cope with their situation. As the HLS-PROF survey has shown, organisational conditions and the competencies of HP need to be improved to enable them to communicate health information in a way that patients can understand, accept, and manage their illness.

According to Cesar et al., training that focuses on clear and effective communication of targeted/specific health information is essential [13]. This requires that health information be prepared and tailored to the different needs, disease trajectories, and life circumstances of patients. This is necessary for empowering and enabling patients for shared goal setting and decision-making, which is perceived as a challenging task by HP [18].

OPSL should possess mediation and communication skills, a variety of techniques and approaches for motivating, translating and transmitting (digital) health information appropriately (i.e. HL-sensitive and in a creative manner). A sound knowledge of the healthcare system also allows HP to help patients navigate it successfully [46].

3.4 Transferring and applying learning situations to a practical context

As described above, OPSL need special knowledge, tools, competencies and motivation to address patients' HL. To further develop and strengthen these skills, practical acquisition—ideally in a clinical context- is particularly important. Interactive training approaches such as group work and simulation-based methods promote thinking and problem-solving skills, boosting HL [60, 61]. Involving real patients or community members in training has proven effective, as it has been shown to enhance communication skills in a practical/clinical context [62]. The example from Austria shows that it also

makes sense to prepare trainers/educators as well as possible, to pass on HL skills to students in the best and most effective way.

4 Strengths and limitations

This article presents the perspective of our European Working Group regarding pHL in OPSL professions. The analysis and descriptions of the current situation in the four countries draw on our professional experience as educators and researchers, an assessment of national conditions, and, where available, national data.

The strength of this inquiry lies in its interprofessional nature, bringing together experts from different countries and enabling a deeper understanding of others' strengths and weaknesses. However, the work also has some limitations, particularly regarding the analysis of the educational landscape of OPSL professions. Since academic and vocational training structures can vary from institution to institution, a comprehensive, data-driven analysis was not feasible (and not our aim). Consequently, our insights in this respect are limited to our own institutions.

While this was restrictive on one hand, it proved advantageous on the other, as it allowed us to review curricula across degree programmes to identify pHL-related content. This process revealed potential opportunities for integrating future pHL modules into our institutions. Nevertheless, it would be valuable to investigate pHL content and initiatives in OPSL education on a nationwide scale across the countries represented in the working group.

Another limitation is the lack of data on how OPSL professionals perceive their own pHL competencies (except physiotherapists in one country). We therefore recommend that OPSL professionals be included in the next HLS-PROF-study.

5 Conclusion

Professional health literacy skills and competencies are essential for preparing future HP to effectively address both societal and technological/digital challenges, factors that significantly influence individuals' health conditions and their ability to manage their own health. Given that OPSL professionals are likely to face similar challenges regarding pHL knowledge, skills, and attitudes, as highlighted in the HLS-PROF survey, we advocate for a structured and practice-oriented approach to integrate pHL more strongly into OPSL education. This topic is the focus of our Interprofessional European Working Group.

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Author contributions

HS is the initiator of the Interprofessional European Working Group and conceptualised the original draft. HW and WT, as first authors, contributed equally and wrote the final version. HS, HW, WT, AG, FH, CL, BM, SR and JR reviewed and edited the final draft. All authors read and accepted the final version for publication.

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No datasets were generated or analysed during the current study.

Declarations

Ethical approval and consent to participate

Ethical approval was not required for this study. This study did not involve human participants and therefore no consent to participate was required.

Consent for publication

Not applicable. This study did not include any individual person's data in any form and therefore consent to publish was not required.

Competing interests

The authors declare no competing interests.

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