

# The Perspectives on Barriers and Facilitators in Communication by the Healthcare Professionals and Older Healthcare Users: The Role of Health Literacy

Areti Efthymiou<sup>1,\*</sup>, Michael Rovithis<sup>2</sup> and Argyroula Kalaitzaki<sup>1,3</sup>

<sup>1</sup>Quality of Life Lab, Social Work Department, Hellenic Mediterranean University, Heraklion, Crete, Greece

<sup>2</sup>Department of Nursing, Hellenic Mediterranean University, Heraklion, Crete, Greece

<sup>3</sup>Affiliated Researcher of the Research Centre 'Institute of Agri-Food and Life Sciences', Hellenic Mediterranean University, Heraklion, Crete, Greece

**Abstract:** *Introduction:* Older people are the basic users of health services. However, studies have shown that they have relatively low health literacy (HL) levels which results in many negative health outcomes. HL is a major challenge in public healthcare systems and an important determinant of optimised health outcomes and better quality of life for older people. On the other hand, professionals lack knowledge and skills to identify older people's HL level and therefore, the delivery of care may be insufficient.

The study aimed to report the perspectives on the barriers and facilitators in communication during the medical encounter by both the healthcare professionals and older healthcare users.

*Method:* A qualitative study design was applied. One group with seven healthcare professionals and another one with five people over 60 years old discussed about HL knowledge and their experiences (attitudes and behaviors, barriers, and facilitators) of the healthcare professional -patient interaction. The focus groups took place virtually and were coordinated by the senior author. The discussions were analysed using the content analysis method.

*Results:* Communication facilitators during the healthcare professional-patient interaction as reported by the healthcare professionals included: the need to trust and collaborate with the older people, patients' specific characteristics (high level of education, psychological resilience and good judgmental), carers' participation, the use of clear language and a person-centred approach. Communication barriers were considered the older people's rigid beliefs about their lifestyle, the age-related cognitive, psychological, and sensory deficits, the function, and the structure of the healthcare system (e.g., professionals' excessive workload). On the other hand, older people mentioned the importance of being prepared to ask questions during the medical encounter, being respected and included in the decision-making process.

*Conclusion:* Easy-to-use Health Literacy training tools adapted to healthcare professionals' everyday needs are considered necessary to improve the professionals-patients interaction, enhance their communication skills and promote the person-centred care within the framework of the Greek National Healthcare System. The integration of the tools as part of the training courses could prepare healthcare professionals with the enhanced the HL skills needed to improve the quality of care they provide and reduce the cost of care in general.

**Keywords:** Communication, Health services, Health providers, Qualitative, Older adults (excluding the words in the title).

## INTRODUCTION

In 2018, there were 101.1 million people over 65 years old in the EU-28 [1]. Greece has one of the highest percentages of people over 65 years old [1]. The increase of life expectancy has resulted in an increased need for long-term care, particularly for those who suffer from chronic diseases [2]. The healthcare professional-patient relationship is considered important in the management of older people's chronic diseases. The physician-patient relationship should be bidirectional and both satisfying; communication skills and health literacy are therefore important for a match

between what is delivered and what is comprehended [3]. Effective communication on health-related issues by healthcare professionals requires them to have the knowledge and skills to identify people with low health literacy levels.

Health Literacy (HL) is a multidimensional concept, which includes the motive, skills, and knowledge to access, appraise and apply health information [4]. More specifically, HL concerns the necessary skills one needs to comprehend the healthcare professional's instructions, therapeutic plan, and medication, to ask questions to the healthcare professionals, to understand a medical leaflet, to plan health screenings and understand warnings of unhealthy behaviours (smoking, diet, and low physical activity) [5]. The World Health Organization has suggested that HL is one of

\*Address correspondence to this author at the Quality of Life Lab, Social Work Department, Hellenic Mediterranean University, Heraklion, Crete, Greece; Tel: +306948409254; E-mail: aefthymiou@hmu.gr

the most important determinants of health and has invited countries worldwide to take actions to increase HL levels [5]. High HL and education levels have been associated with better decision making in older adults, better health and quality of life in later life, [6] and better cognitive functioning [7].

Recent reviews have shown that lower levels of HL are associated with older age [8]. A systematic review found that the advancement of age is associated with increased rates of low HL levels [9]. Low HL levels have been reported in 36% to 68% of older adults [10]. Studies have been conducted worldwide, and low HL has been found in older people, for example, in Iran [11], in US Latinos [12], in Ontario [13], and Taiwan [14]. According to the Health Literacy Survey – EU in 2012, 45% of the Greeks had inadequate HL levels, with people over 55 years having difficulty in accessing health information [15].

Low HL may have detrimental effects on various dimensions of older people's lives, such as poor quality of life, and the increased risk for chronic illnesses dementia, and mortality [8]. Older people with low HL level may forget to take their medications, miss a dose or discontinue medication [16]. In a systematic review of 25 studies, it was found that poor adherence was associated with higher health costs and worse health outcomes [17]. Older people hold rigid beliefs about healthcare professionals and the interaction with them. The physician is considered the expert and the patients, rather than participate, abstain from the decision-making process [18, 19]. The study by Oedekoven *et al.* [20] showed that healthcare professionals (GPs, medical specialists, pharmacists), followed by the internet, are the most important source of information by the older and chronically ill patients.

The healthcare professionals, specifically physicians and nurses, tend to neglect older people's HL education due to negative stereotypes and communication difficulties [21, 22]. It has been found that they tend to overestimate the older people's HL level [23]. In the study by Goggins *et al.* [24], nurses tended to overestimate the HL level of male older people with lower education whereas other studies found that healthcare professionals may overestimate or underestimate the patients' HL level [25]. In a systematic review [26] of 30 studies on the healthcare providers and patients' HL perspectives, the healthcare professionals had inadequate knowledge about HL and were not able to define the concept. The factors used by the healthcare professionals to determine patients'

HL level included socioeconomic characteristics, age and educational level [26]. In the study by Kim and Oh [22], 16 nurses were interviewed about their perceptions on older people's HL level. Nurses reported that older people had age-related physical and cognitive deficits making it difficult for them to comprehend the teaching material, had rigid beliefs about their health and were reluctant in adopting new health behaviors; they were not interested in managing their health issues, and they accepted only advices and instructions compatible to their beliefs [22]. Chipidza *et al.* [27] identified three potential factors negatively influencing the healthcare professional-patient interaction: 1) a newly diagnosed patient and a poor prognosis, 2) the healthcare professionals' burnout, limited education, and work experience, 3) any cultural and language barriers and organizational restrictions (time and place restriction, healthcare professional's workload).

Other studies [23, 27] have shown that healthcare professionals considered several barriers in their communication with older people: health issues such as physical (sensory deficits) and cognitive impairments (frailty, memory deficits), living status (living alone), life expectancy, financial difficulties, low educational level, lack of extended social network, cultural and language difficulties, and lack of awareness of the available resources.

The study aimed to report the healthcare professionals' HL knowledge and the perspectives on the barriers and facilitators in communication during the medical encounter by both the healthcare professionals and older healthcare users living in Greece. There is a lack of qualitative data on HL and how communication skills may influence the healthcare professionals- older healthcare users' relationship in Greece.

Understanding the healthcare professionals-patients interaction (barriers and facilitators) could enable the development of tailored interventions for both, resulting in better health outcomes and medication adherence for the older people. Healthcare professionals HL training could improve their HL knowledge, their communication skills and therefore the patients' health outcomes [29].

## METHOD

A qualitative study design was selected with the use of focus group discussions. This methodology is appropriate when researchers study knowledge, perspectives, and attitudes. The observation of group

dynamics is considered valuable for data interpretation [30]. Due to the COVID-19 restrictions, the focus groups were conducted online. The consolidated criteria for reporting qualitative research (COREQ) were followed in this study [31].

## Sample

**Healthcare professionals.** A purposive sample selected seven healthcare professionals from the community health services. There were four women and three men, with an average age of 43.8 (SD=8.28) years and 14.3 (SD=5.98) years of working experience with older people (Table 1).

**Users.** A convenience sample was selected based on age (over 60 years old), internet accessibility, and digital skills. This sample was recruited from the University of Third Age, a not-for-profit organization aiming at providing lifelong training to people over 60 years old. Recruited from two online classes of 12

attendees, five people consented to participate, with an average age of 68.2 (SD=5.63) years (Table 1).

## Procedure

Two of the authors (AE, postdoctoral researcher and AK, Associate Professor in Clinical Psychology), experienced researchers in qualitative study design, moderated the online focus groups discussions (one moderator and one observer). Both researchers had no previous knowledge of the older healthcare users' group, whereas the observer knew a few of the healthcare professionals. All participants were informed of the process by phone and email, received the teleconference link, and returned a signed consent form. The discussions were video-recorded. The healthcare professionals' focus group lasted two hours and the older people's focus group one hour. The transcripts were not returned to the participants for comments. Demographics were collected before the

**Table 1: Demographics of Both Focus Groups Presented either as Frequencies and Percentages or Mean Scores and Standard Deviations**

Demographic Characteristics		Healthcare Professionals	Users
Gender	Male	3 (42.86%)	1 (20%)
	Female	4 (75.14%)	4 (80%)
Age		43.8 (8.28)	68.2 (5.63)
Education	Secondary	0	2 (40%)
	Tertiary	3 (42.86%)	3 (60%)
	Postgraduate	3 (42.86%)	
	Doctorate-Postdoctoral	1(14.28%)	
Profession	Psychologist	3 (42.86%)	
	Sociologist	1(14.28%)	
	Social Worker	1(14.28%)	
	Physician	1(14.28%)	
	Nurse	1(14.28%)	
Place of Work	Home Care	1(14.28%)	
	Day center for older people	1(14.28%)	
	Municipal centre for older people	2 (28.57%)	
	Community Centre	1(14.28%)	
	Hospital	1(14.28%)	
	Municipal service	1(14.28%)	
Health Status	Good		4 (80%)
	Very Good		1 (20%)
How often do you visit healthcare services	Monthly		1 (20%)
	sometimes per year		4 (80%)

focus groups with a google forms questionnaire. Two focus group guides with indicative questions were developed to facilitate discussions by the research team after a thorough literature review.

For the healthcare professionals, the guide included questions pertaining two sections: 1) their knowledge of the HL term, 2) their perspectives on barriers and facilitators in their communication with older people and 3) healthcare professionals' training needs in identifying the older people's HL level (seven questions).

For the older people, the discussion focused on their personal experiences (barriers and facilitators) and needs in their relationship/medical encounter with healthcare professionals (five questions).

### Data Analysis

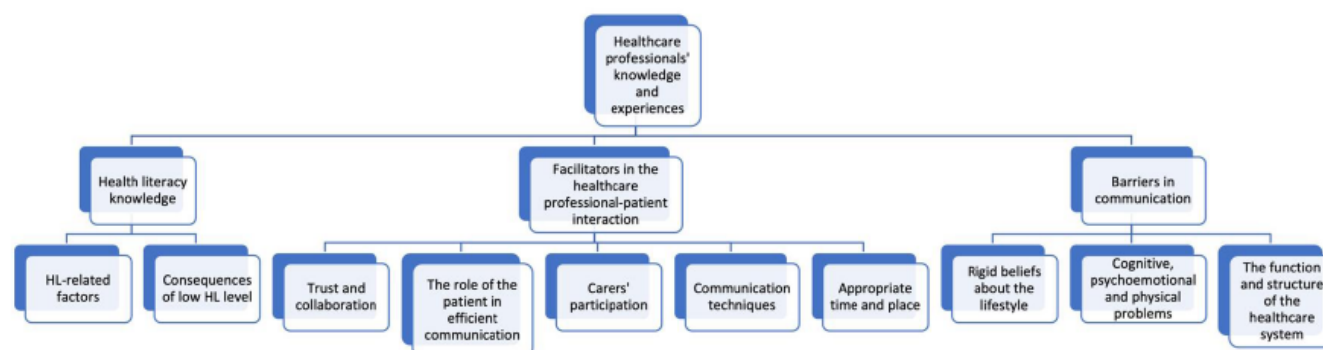
The discussions were transcribed and analyzed by two researchers (AE and AK), using conventional qualitative content analysis (meaning units, subcategories, categories and thematic) [32] (Table 2). Coding trees of the two focus groups are presented in Figure 1 and 2. Topics derived from the analysis as presented in the results. Participants did not provide feedback on the results. The research team discussed data saturation and considered that no further collection or analysis was necessary, as the findings were anticipated and in line with the literature.

### Ethical Considerations

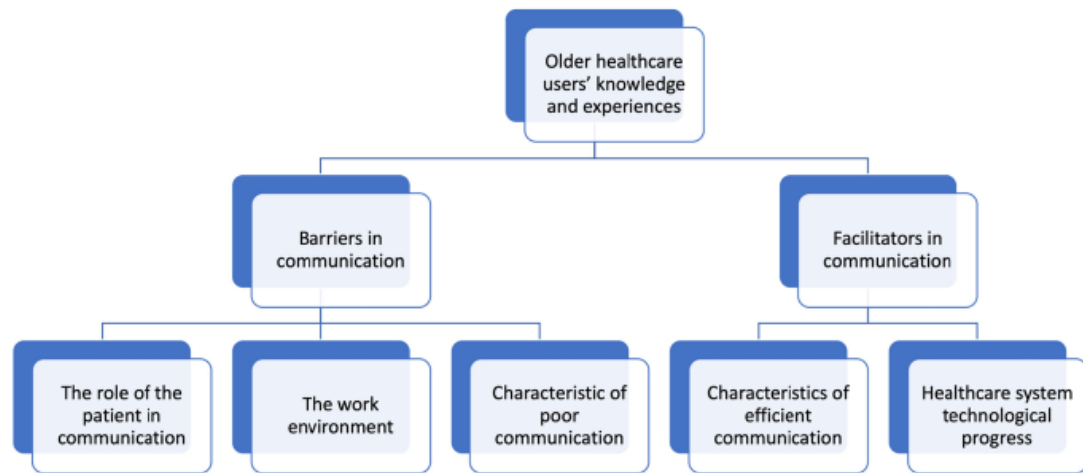
The study was approved by the Ethics Committee of the Hellenic Mediterranean University (63/HMU, 23/06/2021). An informed consent form was signed before participating in the study. It included the study aims, the contact details of the principal author, the

**Table 2: Coding Matrix**

Meaning Unit	Brief Meaning Unit	Subcategory	Category	Theme
People need motivation to seek information for a health-related problem. They search if they face a serious health issue or if they have learned as children to search by their families	Motivation to find health-related information, due to serious health issue or learning	Motivation or learning	Factors associated with HL	Healthcare professionals HL knowledge
A person with a high level of HL, means that he/she can manage a health problem. Many more factors may influence the older person's health outcomes, for example, if they understand medical jargon, if the doctor's instructions, or if they have cognitive deficits	Difficulty in understanding medical jargon, older adults with mild cognitive impairment have difficulties in understanding	Medical jargon, Mild cognitive impairment	Cognitive, psychoemotional, physical problems	Barriers when communicating with older people
We need to talk slowly or ask them to repeat the health-related information. We need to be sure that they comprehend what has been said and provide them written materials and instructions too.	Talk slowly, ask them to repeat, we need to ascertain their level of understanding, provide written instructions.	strategies for better communication with older people	Communication strategies	Facilitators when communicating with older people



**Figure 1:** Coding tree of healthcare professionals' knowledge and experiences.



**Figure 2:** Coding tree of older healthcare users' knowledge and experiences.

participants' rights (e.g., anonymity, confidentiality, voluntary participation, withdrawal at any time) and information about the data storage and analysis (protected with password and access only by the researchers).

## RESULTS

### 1. Healthcare Professionals' Knowledge and Experiences

#### 1.1. Health Literacy (HL) Knowledge

The healthcare professionals were not aware of the HL term. They first heard about this term as part of this focus group.

**HL-related factors.** They reported many factors influencing the HL level: level of education by the healthcare users, place of residence (urban or rural), gender, personality (passive, shy, avoidant) and motivation to solve a health problem (feel threat).

*"People with a low educational level, living in rural areas, consider physicians as the expert" (participant #07)*

*"Many people that come into my office, mostly men from Crete, tell me – do not tell me anything, please tell everything to my wife- or they say there is no need to explain to me, I trust you" (participant #06)*

**Consequences of low HL level.** They identified the consequences of the older people's low HL level when they navigate the healthcare system or they need to take action to promote health behaviours (e.g., arranging screening tests, asking for a second opinion, or changing the medication that they take for several

years).

*"They (healthcare users) take a second and even a third opinion by another physician, and they change their medication- it is a mess, they take the same tests again and again and they cannot find a solution to their health problem" (participant #04)*

*"We try to train older people to protect themselves from COVID-19, to follow preventive measures such as wash their hands -particularly the very old people" (participant 03).*

#### 1.2. Facilitators in the Healthcare Professional-Patient Interaction

**Trust and collaboration.** All participants reported trust and collaboration as essential elements of the physician-patient interaction. Older people adhere to the physician's instructions whom they trust, regardless of the physician's specialization. Being sincere and available were also considered important healthcare professionals' characteristics.

*"I believe and I am convinced that patients adhere to the treatment instructions/ guidelines only if they trust you. Trust is not necessarily related to the specialization of the healthcare professional. An old person may trust the pharmacist and follow their advice rather than those of the physician's" (participant #05).*

**The role of the patient in efficient communication.** The patient's personality plays a role in their communication with the healthcare professionals. Patients' judgment ability/abstract thinking skills, high educational level, and psychological resilience were considered important. Older people

were not considered a homogenous group.

*"On the other hand, it depends on whom you are talking to, their cognitive functions (memory, mental skills), their education, their psychological resilience, how the patients can cope with the truth" (participant #01)*

In the case of people with dementia, specific communication rules/guidelines need to be applied.

*"When we talk to a person with dementia, we need to follow clear communication rules (slow speech, use of non-verbal elements, short sentences, repetition and focus on the most important messages)" (participant #04)*

**Carers' participation.** The family of older people plays an important role in the communication with the healthcare professionals. When cognitive decline is present, the healthcare professionals advise the patient to come with a family member, although frequently this is also decided by the patient.

*"Many patients in the community service for older people tell us - I will bring my child with me-, because they do not trust their cognitive functioning" (participant #01)*

**Communication techniques.** Use of non-medical jargon, short sentences, selecting one to two main points to discuss, repetition (teach back method) and slow speech were considered valuable ways of communicating with older people. Written health-related material could facilitate communication if it is targeted to the patient's needs.

*"I frequently ask the older patient to call the family member into the room and repeat to them what we have discussed" (participant #01)*

*"We need to provide information to these patients, slowly and ask a summary of what was said to them. Written material can be helpful" (participant 01)*

A healthcare professional needs to be direct, simplify the messages and feel confident about their knowledge.

*"We need to speak clearly, to build trust - this takes time. We need to be formal and fully knowledgeable of what we say to the patient. We should not be too informal but neither too distant" (participant #03)*

The interaction with the patients can be facilitated if

the healthcare professionals adjust the treatment plan to their needs. The use of aids, such as medication boxes could increase the proper medication use.

*"We adjust, we try to educate older people, when this is possible. For example, we ask the medical history, provide information for the medications, monitor, and intervene if the older person cannot adhere with the treatment. We ask if the person follows the treatment plan and if not, we will help. We provide medication boxes to assist the older person, we search for ways to assist them" (participant #4)*

**Appropriate time and place.** The older people need time to understand and "consume" new knowledge and information.

*"Time and place are important for communication. The place should be quiet with the minimum of stimuli, without people coming in and out or doors open and close. Noises distract the patient" (participant #06)*

The healthcare professionals brought into the discussion the issue of how to deliver health-related information. In cases of disclosing bad news, empathy and compassion are necessary communication characteristics.

*"Healthcare professionals behave in the usual way if they need to provide simple information, such as suggesting the patient to take a test or when prescribing medication, but differently when they need to disclose the diagnosis with a poor prognosis. Empathy, understanding, and care could facilitate the communication process in this case" (participant #01)*

Healthcare professionals need to monitor how the patient adheres to the treatment plan. Two or three questions could assist healthcare professionals to identify the health literacy level.

*"I have found two things of benefit to me. A helpful question could be: Do you know what your health problem is? Why are you here or why do you take this medicine?" (participant #06).*

### 1.3. Barriers in Communication

**Rigid beliefs about the lifestyle.** Healthcare professionals brought into the discussion the older people's difficulty to accept changes in their lifestyle. Older people may take the same medication for several years, being extremely reluctant to change it. In some cases, they prefer to take a new medication instead of adopting a health behaviour (e.g., quitting smoking).

*"I have faced difficulty in prescribing new medications; for example, if a physician suggests a new medication for hypertension, older people do not easily accept this change" (participant #04)*

**Cognitive, psychoemotional, and physical problems.** Communication difficulties were frequently related to older people's mental disorders, emotional difficulties, and sensory problems (hearing and vision deficits or loss).

*"If a patient has a cognitive deficit, things are different. If the patient is depressed, he will not participate in the discussion. Older people have hearing difficulties. The healthcare professional gets too tired to repeat the same information over and over again" (participant 06)*

**The function and structure of the healthcare system.** The professionals' workload influences the quality of communication. Healthcare professionals do not have the time to communicate adequately.

*"We all have a fast pace, both healthcare professionals and patients. There is no time for proper communication" (participant #01).*

Healthcare professionals said that they were interested in participating in training courses focusing on health literacy, enhancing their communication skills, and advancing their knowledge on aging and dementia. Networking meetings with other healthcare professionals would be important for experience exchange. Healthcare professionals admitted that they need easy-to-use instruments for screening the HL level of the older people.

## **2. Older Healthcare users' Knowledge and Experiences**

### **2.1. Barriers in Communication**

**The role of the patient in communication.** Older people admitted that repeatedly asking the physician meaningless questions overly burden them.

*"We may ask too many irrelevant questions" (participant# 01-2)*

**The work environment.** Due to time and space restrictions, shortage of personnel, and excessive workload, communication fails within a hospital setting. Within a private setting, physicians devote more time to the patient, but the patients have to pay for this.

*"Physicians in public healthcare services don't have enough time; they need to examine many patients. The*

*patient's medical file is like an encyclopedia. The physician doesn't have the time to read the file in the presence of the patient" (participant #02-2)*

**Characteristics of poor communication.** As reported by the healthcare users, professionals (the physicians in particular) are rude, disrespectful, indiscreet, and use medical jargon. They might be tired and arrogant.

*"My impression is that because of our age, they (healthcare professionals) do not pay any attention to us. They think that we will soon die. If a young person visits the same physician, the physician will pay attention to him/her. Healthcare professionals should take care of all people irrespective of their age" (participant #03-2)*

### **2.2. Facilitators in Communication**

**Characteristics of efficient communication.** Participants reported features of the appropriate healthcare professional-patient interaction on behalf of the healthcare professionals: simplification of medical jargon, clarification, guidance, patience, equity, and a humanistic approach (compassion and empathy). The healthcare professionals' personality characteristics (being optimistic, not getting bored, not being distant, being passionate of their work) and continuous professional education on current trends and skills were also considered important. On their behalf, being able to ask questions, know the diagnosis, and participate in the decision-making process were considered important facilitators.

*"I would like him not to be distant; for example, if I had a health problem, I would like to understand what the problem is. The healthcare professional needs to actively listen to me, showing respect and being knowledgeable about the problem. I need to be the first person to know what the problem is and then it would be me to tell my family" Participant #01-2).*

**Healthcare system technological progress.** Participants discussed the changes that have occurred in the healthcare system over the years, acknowledging that technology and the electronic health records have facilitated the access and use of the healthcare services by older people.

*"I have a very good physician; he keeps everything in my file. Any healthcare professional can access my file; this is a significant improvement. You cannot fool the physician; he keeps track of the exams through the Electronic Health Record" (participant #05-2)*

### 2.3. Perception of the Healthcare Professional-Patient Relationship

Since patients have no specialized knowledge and expertise, they should not interfere with the healthcare professionals' work. Younger healthcare professionals may be more approachable and show more respect to older people than the older ones.

*"Young healthcare professionals are just starting their career; they are full of enthusiasm and patience in comparison with physicians who are tired since they have the same job for over 40 years; they may have the experience but not the patience" (participant #01-2)*

### 2.4. Factors Influencing Written Communication

Written health-related material could support communication if it is simplified and targeted to the patients' needs.

*"I have read leaflets. My endocrinologist gave me a few about nutrition, but I also read leaflets when visiting a physician's office. For example, if I find information about breast examination, I will read it. Many of them are written with medical terms, and we cannot understand them (participants #05-2).*

## DISCUSSION

Both groups had several similar views and perspectives about their interaction. Clear and slow speech with short sentences without the use of medical jargon, open questions to identify the level of HL, repetition of the instructions (teach-back method), use of HL screening tools and follow-up of the treatment plan by the healthcare professionals were proposed as communication techniques to identify and enhance the HL of older people. This is in line with other studies. For example, Sadeghi *et al* [27] interviewed 20 healthcare professionals and 12 patients of a pulmonary rehabilitation unit, who proposed repetition, plain language, non-verbal cues, use of pictures and demonstration (e.g., how to take a medication) as facilitators in their interaction. However, the use of simple communication techniques by the healthcare professionals rather than medical jargon is not always easy to accomplish. Physicians may use medical jargon because they misidentify the level of patient's HL, want to sound experts or are used to communicate this way with other colleagues [32].

The healthcare professionals described the teach-back method through examples from everyday clinical practice. A study has shown that the teach-back method and the use of plain language are techniques

reported to facilitate pharmacists' communication with people with low-level HL [34]. Another recent study found positive effects of the teach-back method in enhancing the HL level of 127 older people in a nursing home [35]. However, this technique needs to be cautiously used, as it may result in stigma; if the healthcare professionals are not properly trained and repeatedly ask questions to check comprehensibility (e.g., do you understand?) could entail stigmatization of the patient [36].

The healthcare professionals in the present study reported empathy and compassion, trust, sincerity, collaboration, formality as facilitators in their interaction with the patients, whereas people aged over 60 years reported respect and equality as the most important ones. Empathy has been considered a fundamental concept of the person-centered and compassionate care of older people [37]. Similar results have been found in a qualitative study of 233 semi-structured interviews in 8 European countries (Austria, Croatia, Germany, Hungary, the Netherlands, Norway, Spain, UK). The factors impacting the care delivery to older people by the healthcare professionals included healthcare professionals' holistic approach, trust, the quality of the healthcare professionals' network communication, timely service provision aligned with older patients' needs, a caring relationship with the patients, involvement of the patient in the treatment plan and decision-making process [38]. Healthcare professionals-older people quality of their interaction is influenced by the patients' low HL level (feeling ashamed to clarify and discuss about their health issues and treatment options, difficulty in following instructions) [14]. Since older people's involvement in the decision-making process increases their sense of control on their health [3], healthcare professionals play crucial role in supporting patients with low HL level and include them in the decision-making process [14].

The older healthcare users reported barriers in their communication with the healthcare professionals, such as the private versus the public healthcare services and, the personal and organisational resources healthcare professionals (excessive workload, shortage of personnel). On the other hand, the healthcare professionals identified specific patients' characteristics impacting negatively on their communication, such as having cognitive deficits, being male, less educated, living in rural areas, and being non-assertive. They also emphasized older people's cognitive, sensory, and mental problems as barriers to medication adherence and their reluctance in changing their lifestyle and health beliefs. These findings are in line with those on



the nurses' perspectives of older people health education and health literacy level reported by Kim and Oh [23]. In another qualitative study, several barriers were reported: time limitation, use of medical jargon, lack of trust, lack of combination of visual and written material, cultural and language differences, providers' lack of knowledge on the existing health services, old age and patients' cognitive impairments, healthcare services' structure and the patients' reluctance to express themselves [28].

The healthcare professionals reported that providing tailored information, support, and aids (e.g., medicine boxes), and involving the carers, can increase medication adherence. Medication adherence is an essential factor for the older people's treatment plan and is associated with better health outcomes, disease management and less healthcare expenses. Healthcare professionals need to assess older people's HL level before providing medication instructions [16]. In a recent systematic review, high HL was associated with medication adherence, but not educational level [17].

Another interesting point that was raised by both the healthcare professionals and the older healthcare users concerned the carers' participation in the medical encounters. The participation of a carer may be a facilitator for the healthcare professionals, but not for the older healthcare users. Older healthcare users reported that carers' involvement in the medical encounter may influence their interaction with the healthcare professionals and the disclosure of the diagnosis in a negative way. This may be a result of the healthcare professionals' preference to inform the family instead of the older person due to their ageing stereotypes and the difficulty to communicate with older people [28]. In a relevant study, carers' involvement was considered by the healthcare professionals both a facilitator in the case of language differences and a barrier when carers misunderstood their instructions to protect patient's feelings in the case of bad news [28].

This study had limitations that need to be taken into consideration when interpreting the results. The focus groups were organised online due to the pandemic restrictions. The online delivery of the focus groups made interaction somehow difficult and impossible for the researchers to interpret nonverbal cues.

## CONCLUSIONS

Since HL impacts on various indicators of the life of older people, effective intervention efforts to promote

HL in older people is an emergency need [11]. Interventions and training programs to advance the digital skills of the older people are necessary to increase HL and eHL levels and have shown promising results [38]. The results of the focus groups provided valuable insights on the HL knowledge and experiences of the healthcare professionals – older people interaction during the medical encounter. At this point, the lack of screening tools for older people with good psychometric properties needs to be mentioned; scarce evidence exists for the Health Literacy Questionnaire (HLQ) [40]. Because healthcare professionals may overestimate or underestimate patients' HL skills [25] the need to apply well-validated HL screening tool is crucial [4]. The development of appropriate screening tools and training courses to identify older people' HL levels can facilitate healthcare professionals in their everyday practice, improve their relationship with the patients and have a positive impact on the health outcomes and healthcare costs. Training courses could enhance professionals' HL knowledge and communication skills using a person-centred approach. In Greece, relevant courses for the healthcare professional addressing their needs have timidly started to appear during the two last years of the COVID-19 pandemic as part of vocational training courses and academic research ([www.elily2.eu](http://www.elily2.eu), [www.healthliteracy.hmu.gr](http://www.healthliteracy.hmu.gr), [www.givmed.org](http://www.givmed.org)); they are still far away from becoming a priority of the healthcare system and policies. In other European countries, awareness campaigns on the importance of identifying and supporting patients with low HL level have started for more than five years now [41, 42] and for over 15 years in the United States of America [43]. Furthermore, European calls and funding opportunities are available aiming at increasing HL level of the European citizens. It is essential that policy makers of the Southeastern European countries (incl. Greece) be aware of the recent progress and support the HL strategies in Europe with active participation.

## REFERENCES

- [1] EUROSTAT. Ageing Europe. Looking at the lives of older people in the EU (2019 edition) [Internet]. Luxembourg: Publications Office of the European Union; 2019. Available from: [https://ec.europa.eu/eurostat/documents/3217494/10166544/KS-02-19\\_681-EN-N.pdf/c701972f-6b4e-b432-57d2-91898ca94893](https://ec.europa.eu/eurostat/documents/3217494/10166544/KS-02-19_681-EN-N.pdf/c701972f-6b4e-b432-57d2-91898ca94893)
- [2] Global burden of disease study 2013 collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990 - 2013: a systematic analysis for the Global burden of disease stud. *Lancet* (London, England). 2015; 386(9995): 743-800.

- [3] Kyle S, Shaw D. Doctor-patient communication, patient knowledge and health literacy: How difficult can it all be? *Ann E Coll Surg Engl (Suppl)*. 2014; 96: e9-13. <https://doi.org/10.1308/rcsbull.2014.96.6.e9>
- [4] Sørensen K, van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, et al. Health literacy and public health: A systematic review and integration of definitions and models. *BMC public health [Internet]*. 2012; 12(8): 80. <https://doi.org/10.1186/1471-2458-12-80>
- [5] World Health Organization. Health literacy: The solid facts [Internet]. Denmark: World Health Organisation Regional Office for Europe; 2013. 86. Available from: <https://apps.who.int/iris/bitstream/handle/10665/128703/e96854.pdf>
- [6] James BD, Boyle PA, Bennett JS, Bennett DA. The impact of health and financial literacy on decision making in community-based older adults. *Gerontology*. 2012; 58(6): 531-9. <https://doi.org/10.1159/000339094>
- [7] Oliveira D, Bosco A, di Lorito C. Is poor health literacy a risk factor for dementia in older adults? Systematic literature review of prospective cohort studies. *Maturitas*. 2019; 124: 8-14. <https://doi.org/10.1016/j.maturitas.2019.03.010>
- [8] Chesser AK, Keene Woods N, Smothers K, Rogers N. Health literacy and older adults. *Gerontol Geriatr Med*. 2016; 2: 233372141663049. <https://doi.org/10.1177/2333721416630492>
- [9] Zamora H, Clingerman EM. Health literacy among older adults: A systematic literature review. *J Gerontol Nurs*. 2011; 37(10): 41-51. <https://doi.org/10.3928/00989134-20110503-02>
- [10] van Ruth Koops TJ, Hoeks JCJ, Jansen CJM, de Winter AF, Reijneveld SA. Comprehensibility of health-related documents for older adults with different levels of health literacy: A systematic review. *J Health Commun*. 2016; 21: 159-77. <https://doi.org/10.1080/10810730.2015.1049306>
- [11] Mirmohammadkhani M, Ziari A, Momeni M. Systematic review and meta-analysis of health literacy in Iranian older adults. *Iranian Journal of Ageing*. 2020; 15: 2-13. <https://doi.org/10.32598/sija.2020.3.210>
- [12] Delgado JM, Ruppert TM. Health literacy in older latinos with heart failure: A systematic review. *J Cardiovasc Nurs*. 2017; 32: 125-34. <https://doi.org/10.1097/JCN.0000000000000314>
- [13] Agarwal G, Habing K, Pirrie M, Angeles R, Marzanek F, Parascandalo J. Assessing health literacy among older adults living in subsidized housing: a cross-sectional study. *Can J Public Health*. 2018; 109(3): 401-9. <https://doi.org/10.17269/s41997-018-0048-3>
- [14] Liang CY, Wang KY, Hwang SJ, Lin KC, Pan HH. Factors affecting the physician-patient relationship of older veterans with inadequate health literacy: An observational study. *Br J Gen Pract*. 2013; 63(610). <https://doi.org/10.3399/bjgp13X667222>
- [15] Kondilis BK, Agrafiotis D, Ph D. The European health literacy survey - case of Greece. 2012.
- [16] Mayo-Gamble TL, Mouton C. Examining the association between health literacy and medication adherence among older adults. *Health Commun*. 2018; 33(9): 1124-30. <https://doi.org/10.1080/10410236.2017.1331311>
- [17] Smaje A, Weston-Clark M, Raj R, Orlu M, Davis D, Rawle M. Factors associated with medication adherence in older patients: A systematic review. *Ageing Med*. 2018; 1(3): 254-66. <https://doi.org/10.1002/agm2.12045>
- [18] Harbishettar V, Krishna K, Srinivasa P, Gowda M. The enigma of doctor-patient relationship. *Indian J Psychiatry*. 2019; 61(4): S776-81.
- [19] Foucault M. The birth of the clinic. Routledge. 2003. <https://doi.org/10.4324/9780203406373>
- [20] Oedekoven M, Herrmann WJ, Ernsting C, Schnitzer S, Kanzler M, Kuhlmeier A, et al. Patients' health literacy in relation to the preference for a general practitioner as the source of health information. *BMC Fam Pract*. 2019; 20(1). <https://doi.org/10.1186/s12875-019-0975-y>
- [21] Lamont RA, Swift HJ, Abrams D. A review and meta-analysis of age-based stereotype threat: Negative stereotypes, not facts, do the damage. *Psychology and Aging*. 2015; 30(1): 180-93. <https://doi.org/10.1037/a0038586>
- [22] Kim MY, Oh S. Nurses' perspectives on health education and health literacy of older patients. *Int J Environ Res and Public Health*. 2020; 17(6466). <https://doi.org/10.3390/ijerph17186455>
- [23] Dickens C, Lambert BL, Cromwell T, Piano MR. Nurse overestimation of patients' health literacy. *J Health Commun*. 2013; 18(SUPPL. 1): 62-9. <https://doi.org/10.1080/10810730.2013.825670>
- [24] Goggins K, Wallston KA, Mion L, Cawthon C, Kripalani S. What patient characteristics influence nurses' assessment of health literacy? *J Health Commun*. 2016; 21: 105-8. <https://doi.org/10.1080/10810730.2016.1193919>
- [25] Storms H, Aertgeerts B, Vandenabeele F, Claes N. General practitioners' predictions of their own patients' health literacy: A cross-sectional study in Belgium. *BMJ Open*. 2019; 9(9). <https://doi.org/10.1136/bmjopen-2019-029357>
- [26] Rajah R, Azmi M, Hassali A, Jou LC, Murugiah MK. The perspective of healthcare providers and patients on health literacy: a systematic review of the quantitative and qualitative studies. *Perspect Public Health*. 2018; 138(2): 122-32. <https://doi.org/10.1177/1757913917733775>
- [27] Chipidza FE, Wallwork RS, Stern TA. Impact of the doctor-patient relationship. *Prim Care Companion J Clin Psychiatry*. 2015; 17(5): 360. <https://doi.org/10.4088/PCC.15f01840>
- [28] Sadeghi S, Brooks D, Goldstein RS. Patients' and providers' perceptions of the impact of health literacy on communication in pulmonary rehabilitation. *Chron Respir Dis*. 2013; 10(2): 65-76. <https://doi.org/10.1177/1479972312471548>
- [29] MacAbasco-O'Connell A, Fry-Bowers EK. Knowledge and perceptions of health literacy among nursing professionals. *J Health Commun*. 2011; 16(SUPPL. 3): 295-307. <https://doi.org/10.1080/10810730.2011.604389>
- [30] O.Nyumba T, Wilson K, Derrick CJ, Mukherjee N. The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods Ecol and Evol*. 2018; 9(1): 20-32. <https://doi.org/10.1111/2041-210X.12860>
- [31] Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007; 19(6): 349-57. <https://doi.org/10.1093/intqhc/mzm042>
- [32] Vaismoradi M, Turunen H, Bondas T. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. Vol. 15, *Nursing and Health Sciences*. 2013. p. 398-405. <https://doi.org/10.1111/nhs.12048>
- [33] Pitt MB, Hendrickson MA. Eradicating jargon-oblivion-A proposed classification system of medical jargon. *J Gen Intern Med*. 2020; 35(6): 1861-4. <https://doi.org/10.1007/s11606-019-05526-1>
- [34] Koster ES, Philbert D, Blom L, Bouvy ML. "These patients look lost" - Community pharmacy staff's identification and support of patients with limited health literacy. *Int J Pharm Pract*. 2016; 24(6): 403-10. <https://doi.org/10.1111/ijpp.12272>

- [35] Liu YB, Li YF, Liu L, Chen YL. Effectiveness of the teach-back method for improving the health literacy of senior citizens in nursing homes. *Jpn J Nurs Sci*. 2018; 15(3): 195-202.  
<https://doi.org/10.1111/jjns.12192>
- [36] Shersher V, Haines TP, Sturgiss L, Weller C, Williams C. Definitions and use of the teach-back method in healthcare consultations with patients: A systematic review and thematic synthesis. *Patient Educ Couns*. 2021; 104(1): 118-29.  
<https://doi.org/10.1016/j.pec.2020.07.026>
- [37] Teófilo TJS, Veras RFS, Silva VA, Cunha NM, Oliveira J dos S, Vasconcelos SC. Empathy in the nurse-patient relationship in geriatric care: An integrative review. *Nurs Ethics*. 2018; 26(6): 1585-600.  
<https://doi.org/10.1177/0969733018787228>
- [38] Czypionka T, Kraus M, Reiss M, Baltaxe E, Roca J, Ruths S, et al. The patient at the centre: evidence from 17 European integrated care programmes for persons with complex needs. *BMC Health Serv Res*. 2020; 20(1).  
<https://doi.org/10.1186/s12913-020-05917-9>
- [39] Manafo E, Wong S. Health literacy programs for older adults: A systematic literature review. *Health Educ Res*. 2012; 27: 947-60.  
<https://doi.org/10.1093/her/cys067>
- [40] Slatyer S, Teye C, Burton E, Jacinto AF, Hill KD. Measurement properties of self-report instruments to assess health literacy in older adults: a systematic review. *Disability and Rehabilitation*. Taylor and Francis Ltd.; 2020.  
<https://doi.org/10.1080/09638288.2020.1836044>
- [41] Toronto CE, Weatherford B. Health literacy education in health professions schools: An integrative review. *J Nurs Educ*. 2015; 54(12): 669-76.  
<https://doi.org/10.3928/01484834-20151110-02>
- [42] IMPACCT Erasmus+. Working with Patients with Limited Health Literacy [Internet]. Future Learn. 2017 [cited 2021 Feb 20]. Available from: <https://www.futurelearn.com/courses/working-health-literacy>
- [43] Kripalani S, Jacobson KL, Brown S, Manning K, Rask KJ, Jacobson TA. Development and implementation of a health literacy training program for medical residents. *Med Educ Online*. 2006; 11(1): 4612.  
<https://doi.org/10.3402/meo.v11i.4612>

Received on 15-12-2021

Accepted on 10-01-2022

Published on 01-02-2022

DOI: <https://doi.org/10.12974/2313-1047.2022.09.1>© 2022 Efthymiou *et al.*; Licensee Savvy Science Publisher.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.