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THE ELDERLY AND HEALTH LITERACY IN THE CONTEXT OF A SENIOR UNIVERSITY

A PESSOA IDOSA E A LITERACIA EM SAÚDE NO CONTEXTO DE UMA UNIVERSIDADE SÉNIOR

LOS ANCIANOS Y LA ALFABETIZACIÓN EN SALUD EN EL CONTEXTO DE UNA UNIVERSIDAD SENIOR

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Abstract

Introduction: In recent years, the concept of health literacy has evolved, becoming recognized as the ability to make informed decisions on a daily basis, with the aim of effectively using health services and care. In this context, the elderly population is considered a vulnerable group, often presenting high levels of *inadequate and/or problematic* health literacy. Therefore, given the growing number of older adults, health promotion and disease prevention are essential. Senior universities, by their very nature, can contribute to the promotion of health literacy. **Objective:** To characterize the level of health literacy among students at a senior university. **Methodology:** A simple descriptive, cross-sectional study using the European Health Literacy Survey (HLS-EU-PT) as the data collection instrument. This instrument was applied to 42 students from a senior university in the Alentejo region who freely, knowingly, and voluntarily agreed to participate in the study. **Results:** It was found that the majority of students attending the university exhibit a problematic or inadequate level of health literacy (69%). The "health promotion" domain presented the lowest average index, with a score of 29.9. **Conclusion:** After analyzing the results, we can state that they are consistent with findings from other published studies. The information gathered aimed to contribute to the development of a health situation diagnosis for this population, with the goal of designing a community intervention project supported by health planning methodology. The role of the Specialist Nurse in Community and Public Health Nursing is reinforced in promoting health literacy among more vulnerable populations.

Keywords: Aged; Community Health Nursing; Health Education; Health Literacy; Health Promotion.

Resumo

Introdução: Nos últimos anos o conceito de literacia em saúde evoluiu, assumindo-se como a aptidão de tomar decisões fundamentadas diariamente, com vista ao uso eficaz dos serviços e cuidados de saúde. Neste contexto, a população idosa é considerada como um grupo vulnerável, com valores elevados de literacia em saúde, *desadequada e/ou problemática*. Assim, atendendo ao aumento crescente da população mais idosa, a promoção da saúde e a prevenção da doença são fundamentais. As universidades seniores podem, pela sua natureza, contribuir para a promoção da literacia em saúde. **Objetivo:** Caraterizar o nível de literacia em saúde dos alunos de uma universidade sénior. **Metodologia:** Estudo descritivo, simples, de natureza transversal, com recurso ao instrumento de colheita de dados *European Health Literacy Survey* (HLS-EU-PT). Este instrumento foi aplicado a 42 alunos de uma universidade sénior do Alentejo que aceitaram de forma livre, esclarecida e informada participar no estudo. **Resultados:** Verificou-se que a maioria dos alunos que frequentam a universidade apresentam um nível de Literacia em Saúde problemático ou desadequado (69%). O domínio "promoção da saúde" apresenta o índice médio mais baixo com 29,9. **Conclusão:** Após a análise dos resultados podemos afirmar que estes são sobreponíveis a outros estudos já publicados. A informação recolhida pretendeu contribuir para a elaboração de um diagnóstico da situação de saúde, desta população, com vista à elaboração de um projeto de intervenção comunitária, suportado pela metodologia do planeamento em saúde. Reforça-se o papel do Enfermeiro Especialista em Enfermagem Comunitária e de Saúde Pública para a promoção da literacia em saúde, em populações mais vulneráveis.

Palavras-chave: Educação em Saúde; Enfermagem em Saúde Comunitária; Literacia em Saúde; Pessoa Idosa; Promoção da Saúde.

Resumen

Introducción: En los últimos años, el concepto de alfabetización en salud ha evolucionado para incluir la capacidad de tomar decisiones informadas diariamente con el fin de hacer un uso eficaz de los servicios y atención sanitaria. En este contexto, la población anciana se considera un grupo vulnerable, con altos niveles de alfabetización en salud *inadecuada y/o problemática*. Por lo tanto, dado el creciente número de ancianos, la promoción de la salud y la prevención de enfermedades son esenciales. Las universidades para ancianos pueden, por su naturaleza, contribuir a la promoción de la alfabetización en salud. **Objetivo:** Caracterizar el nivel de alfabetización en salud de los estudiantes de una universidad para ancianos. **Metodología:** Estudio descriptivo, simple, transversal, utilizando el instrumento de recogida de datos *European Health Literacy Survey* (HLS-EU-PT). Este instrumento se aplicó a 42 estudiantes de una universidad para ancianos del Alentejo que aceptaron participar en el estudio de forma libre e informada. **Resultados:** Se constató que la mayoría de los estudiantes universitarios tienen un nivel problemático o inadecuado de alfabetización en salud (69%). El dominio "promoción de la salud" tiene el índice medio más bajo, con 29,9. **Conclusión:** Después de analizar los resultados, podemos afirmar que son comparables a otros estudios publicados. La información recogida pretendía contribuir al diagnóstico de la situación de salud de esta población, con vistas a la elaboración de un proyecto de intervención comunitaria, apoyado en la metodología de planificación de la salud. Se refuerza el papel de la Enfermera Especialista en Enfermería Comunitaria y Salud Pública en la promoción de la alfabetización en salud en poblaciones vulnerables.

Descriptores: Alfabetización en Salud; Anciano; Educación en Salud; Enfermería en Salud Comunitaria; Promoción de la Salud.

Introduction

Population aging is an unquestionable reality and can even be considered one of the most important achievements of the 21st century in so-called developed societies. One in nine people in the world is sixty years old, or older, and various scenarios predict an increase to one in five by around 2050[1].

Portugal is no exception; the phenomenon of aging has increased in recent decades. According to data from PORDATA[2], the Aging Index in Portugal in 2021 was 182.7%, a value much higher than that recorded in 1961 (27.5%). In Alentejo, the Aging Index in 2021 was 219%, contrasting with 161.9% in 2001. Thus, Alentejo is one of the oldest regions in the country. Improvements in living, sanitary, socioeconomic and health conditions, among others, have contributed to increased longevity. In the 2022-2024 triennium, life expectancy at birth was estimated at 81.49 years old and life expectancy at 65 years old, in the period 2022-2024, was estimated at 20.02 years for the total population[3]. Another important variable in this context is the low birth rate; data from the OECD[4] indicate that the total birth rate in member countries decreased by more than half, between 1960 and 2022, with Portugal following the same trend.

However, it is still a contradiction because, although the population has acquired the conditions to live longer, the way in which these extra years are lived is worrying. The aforementioned report[4] indicates that the Portuguese present results below the OECD average, for example, in relation to satisfaction with general health and trust in the health system, that is, the Portuguese with chronic diseases report less well-being than the average for OECD countries. Indeed, health is a fundamental factor in increasing longevity, as the ability to perform daily tasks will be affected by a decline in physical and mental capacities, with a negative impact on the individual and society[5].

The 2030 Agenda for Sustainable Development, adopted by the United Nations Member States, includes priorities for 2030, embodied in 17 objectives, which cover specific areas that affect citizens' quality of life, highlighting the need to invest in improving health and education[6].

Thus, the OECD[4] reinforces the need to invest in initiatives and programs that promote active aging and the inclusion of older adults in society, providing them with the opportunity to actively participate in society and encouraging lifelong learning. In 2024, the Active Aging Action Plan 2023-2026[7] was approved, defining six strategic pillars essential for the active and healthy aging process, namely: Health and well-being; Autonomy and independent living; Lifelong development and learning; Healthy working life throughout the life cycle; Income and the economy of aging; and Participation in society. In this case, it is important to highlight Pillar III – Lifelong development and learning – with a special focus on digital empowerment and support for civil society programs such as Senior Universities.

Thus, health literacy is recognized as essential for the effective and efficient use of health services, with the resulting positive consequences for health promotion and disease prevention. Thus, the dissemination of knowledge and its use enable better health choices in people's daily lives. However, the possibility of this decline cannot be overlooked, as it is influenced by the context and relationships between the individual and the environment, the health system, and social and cultural factors[8].

Studies indicate that the older population has a high percentage of health literacy levels, *problematic* and *inadequate* (the lowest). The European Health Literacy Survey (HLS-EU), in 2011, demonstrated that problematic health literacy was a neglected inequality in public health in Europe. The results indicate that the most vulnerable groups were in a more fragile situation[9]. Between March and May 2014, the HLS-EU was again applied in Portugal by Pedro, Amaral and Escoval with a sample of 1004 Portuguese people. The results show that around 61% of the Portuguese surveyed have a *limited* level of General Health Literacy, with the average for the 9 countries being 47.6%.

Evidence has indicated that Health Literacy levels vary according to social and cultural context[12].

In 2016, the Health Literacy Survey, carried out in Portugal by Spain, Ávila and Mendes[13] shows that Portugal is the country with the lowest percentage of people with an *excellent* level of Health Literacy, with only 8.6% of respondents, while the European average is 16.5%. Regarding the percentage of respondents with a *sufficient* level, Portugal is in 2nd place with 42.4%, with the European average being 36%.

Positive relationships were identified between health literacy and various health behaviors, considering some specific contexts allied in this process, among them are Senior Universities[8].

The first University for the Elderly people was founded in 1973, in Toulouse, by Pierre Vellas. This aimed to promote access to humanity's cultural heritage, contribute to the prevention of psychosociological decline, encourage scientific research on aging, involve elderly people in voluntary activities and promote active aging[10].

The Senior University, where this study was conducted, provides non-formal education for people over 50 years old and is dedicated to promoting active aging through non-formal educational activities, with a view to combating isolation, loneliness, social exclusion and promoting the integration and social inclusion of older people.

The DGS[14] considers, in the Health Literacy Action Plan 2019-2021, that improving Health Literacy levels, people's critical capacity when making decisions about their health, as well as the tools to be used, are a challenge for Public Health in Portugal, but it is also an opportunity. How this challenge is addressed will make all the difference in decision-making about healthcare, with the resulting impact on quality of life throughout the life cycle. Thus, the action plan aims to continually, consciously and sustainably improve the level of Health Literacy of the Brazilian population, keeping the person at the center of the intervention.

Based on these premises, the objective of the present study was to characterize the level of health literacy among students at a senior university in Alentejo.

The information collected was intended to contribute to the preparation of a diagnosis of the health situation of this population, with a view to developing a community intervention project, within the scope of the Master's Degree in Nursing, of the first author.

Methods

This is a simple, cross-sectional, descriptive study, taking into account the variables measured by the data collection instrument. The data obtained were processed anonymously using SPSS, using descriptive statistics to characterize the students' sociodemographic characteristics, as well as their health literacy level. The inclusion criteria were students enrolled in the senior university, aged 65 or older, who agreed to participate in the study freely, with full knowledge and understanding. The target population consisted of the 100 enrolled students, of whom 42 agreed to participate. Despite being enrolled, some do not regularly attend university and do not always participate in these initiatives. Therefore, this is a convenient, non-probabilistic sample. All ethical procedures were followed, in accordance with the Helsinki Declaration on Ethics in Research Involving Human Subjects. Authorization was also requested from the heads of the Senior University involved, and a favorable opinion was obtained from the Health Ethics Committee of the ARS Alentejo (29/CE/2022).

For data collection, the HLS-EU-PT was chosen, consisting of 47 questions covering three domains (Table 1):

Table 1: Questionnaire domains HLS-EU-PT.

Healthcare	Disease Prevention	Health Promotion
Questions 1 to 16	Questions 17 to 32	Questions 33 to 47

It also addresses 4 modes of information processing which are:

- Access;
- Understanding;
- Assessment;
- Use.

Combining the three domains with the four modes creates a 12-cell matrix with 12 subdomains. The questions use a Likert scale, with the following options:

1 – Very easy;

2 – Easy;

3 – Difficult,

4 – Very difficult;

5 – Don't know/no answer.

To ensure accurate calculation of the indices and ensure comparison between them, the four calculated indices were standardized on a variable metric scale between 0 and 50. On this scale, 0 represents the minimum possible level of health literacy and 50 the maximum.

The following cutoff points were identified for the four levels:

Scores equal to or less than 25 points = Inadequate Health Literacy; Scores between 25 and 33 points = Problematic Health Literacy;

Scores between 33 and 42 = Sufficient Health Literacy;

Scores between 42 and 50 = Excellent Health Literacy[12].

The HLS-EU-PT data collection instrument was translated and validated for Portugal by Saboga-Nunes and Sorensen in 2013[15], and the shortened version was validated by Pedro in 2018[12].

Results

Of the total number of questionnaires provided, 42 were completed, of which 2 were eliminated due to a high percentage of "Don't Know/No Answer" responses. The sample consisted of 40 individuals.

Regarding sociodemographic characteristics, 72% of the participants were female (29 individuals), and the remainder were male. Regarding marital status, 57% were married, 23% were single, 13% were widowed, and the remaining 7% were divorced.

The highest level of education was higher education (45%), followed by secondary education (28%), higher education (18%), higher education (7%), and finally, lower education (2%). Of the sample, only 4 individuals were healthcare professionals or students in healthcare-related fields. Regarding employment status, the majority were retired (88%).

The financial situation of most households allows them to *always* meet their basic needs, including food (78%), housing (78%), healthcare (73%), and education (75%).

Regarding health literacy, for the majority it is *problematic* or *inadequate* (69%), for 23% it is *sufficient*, and for only 8% it is considered *excellent*, as shown in Table 2.

Table 2: Health Literacy Level of the sample.

		N	%
Health Literacy Level of the sample	Inadequate	7	17%
	Problematic	21	52%
	Sufficient	9	23%
	Excellent	3	8%
Total		40	100%

The average health literacy index is 31.2, with a maximum of 50 and a minimum of 14.

Regarding the domains of **healthcare**, **disease prevention**, and **health promotion**, the average health literacy index is 30.9, 32.6, and 29.9, respectively. The health promotion domain has the lowest average level, however, all domains present a *problematic* level of health literacy.

Literacy levels for the **healthcare** domain indicate that 50% of individuals have a *problematic* level, 23% have a *sufficient* level, 17% have an *inadequate* level, and the remaining 10% have an *excellent* level. Regarding the **disease prevention** domain, 42% of individuals have a *problematic* level, 33% have a *sufficient* level, 13% have an *excellent* level, and the remaining 12% have an *inadequate* level. Finally, in the **health promotion** domain, 42% of individuals scored at a *problematic* level, 33% at a *sufficient* level, 20% at an *inadequate* level, and the remaining 5% at an *excellent* level.

When analyzing the questions related to the **healthcare** domain, the main results stand out:

- When asked about "Finding information about symptoms of diseases that worry you?" – 45% of individuals report it is easy and 33% consider it difficult.
- "Have you found information about treatments for conditions that concern you?" – 53% of individuals consider it difficult and 35% report it is easy.
- "Have you learnt more about what to do in case of a medical emergency?" – 48% say it is difficult, while 38% say it is easy.
- "Have you learnt more about where to get expert help when you're sick?" – most individuals consider it easy (53%).
- "Do you understand what your doctor tells you?" – 50% of individuals consider it easy and for 38%, it is very easy.
- "Do you understand the leaflet that comes with the medicine?" – 53% find it easy and 29% very easy.
- "Do you understand what to do in a medical emergency?" – 54% report it is difficult.
- "Have you evaluated how your doctor's information applies to your case?" – 70% consider it easy.
- "Have you evaluated the advantages and disadvantages of different treatment options?" – 51% consider it easy and 38% consider it difficult.
- "Have you evaluated when you might need a second opinion from another doctor?" – 48% report it being easy, while 28% consider it difficult.
- "Do you assess whether the information about the disease in the media is reliable?" – 39% find it difficult and 39% find it easy.
- "Do you follow medication instructions?" and "Do you call an ambulance in case of an emergency?" – the majority consider it easy in both situations (60%).

Regarding issues in the **disease prevention** domain, the following stands out:

- "Have you found information to manage behaviors that affect your health, such as smoking, lack of physical activity, and excessive alcohol consumption?" – most individuals consider it easy (62%).
- "Have you found information to manage mental health problems such as stress or depression?" – In this case, opinions are divided, with 43% considering it easy and 40%, difficult.
- "Do you understand health warnings regarding behaviors such as smoking, lack of physical activity, and excessive alcohol consumption?" – most individuals consider it easy (53%) and 30% very easy.
- Most individuals report it as easy (48%) and very easy (48%) – "Do you understand why you need vaccinations?" and "Do you understand why you need screenings?".
- "Do you assess the reliability of health warnings regarding smoking, lack of physical activity, and excessive alcohol consumption?" – most individuals respond as easy (55%) and 28% as very easy.
- Most individuals (58%) consider it easy to "Do you assess when you need to go to the doctor for a checkup or general health exam?".

- "Do you assess which vaccinations you might need?" and "Do you assess which medical exams you should have?" – in both questions, most individuals (66%) consider it easy or very easy to assess.
- Regarding the question "Do you assess whether information in the media about health risks is trustworthy?" – 38% of individuals say it is easy and 38% difficult.
- Most individuals (63%) consider it easy to "Decide whether to get the flu vaccine?" and 55% consider it easy to "Decide how to protect yourself from the disease based on advice from family and friends?"
- "Do you decide how to protect yourself from the disease based on information in the media?" – regarding this question, 30% say it is difficult and 43% consider it easy.
- The majority of individuals (58%) consider it easy – "Finding information about healthy activities, such as physical activity, healthy eating and nutrition?" and 25% consider it very easy.

Finally, in relation to issues in the **health promotion** domain, it should be noted that:

- "Learn more about activities that are good for your mental well-being?" – the majority (55%) say it is easy.
- Regarding the question "Have you found information on how your residential area can be more health-friendly?" – 50% report it being easy and 33% difficult.
- In the question "Have you learnt more about policy changes that may affect your health?" – 38% report it being difficult and 43% say it is easy.
- "Have you learned more about ways to promote your health at work?" – 28% find it difficult and 44% find it easy.
- "Do you understand health advice from family or friends?" and "Understanding the Information on Food Packaging?" – in both questions 56% of individuals consider it easy.
- Regarding the question "Do you understand information in the media on how to stay healthier?" – the majority (73%) consider it easy.
- "Do you understand the information on how to maintain a healthy mind?" – the majority (65%) consider it easy.
- "Have you evaluated how where you live can affect your health and well-being?" – 25% consider it difficult and the majority say it is easy (53%).
- Regarding the question "have you participated in activities that improve health and well-being in your community?" – the majority (54%) consider it easy and 31% difficult.

Discussion

In recent decades, we have seen a growing interest in the topic of Health Literacy as an essential idea for a more active role on the part of individuals, particularly the elderly people, in matters of health and healthcare. A good Health Literacy index is associated with better health status, lower costs, greater knowledge, shorter hospital stays, as well as a reduction in the frequent and inappropriate use of health services[12]. In the research carried out, it was not possible to find evidence to support the idea that senior universities are places that promote health literacy.

We know that aging is a triumph of development; we live longer due to improvements in nutrition, sanitary conditions, advances in medicine, education, economic well-being, and health care. It is also mentioned by several authors that globally women make up the majority of elderly people. Currently, for every 100 women over 60 years old, there are 84 men[1]. The study population is also mostly female (72%), which is in agreement with the studies found.

The authors[16] recognized elderly people and individuals with low levels of education as vulnerable groups in the Brazilian population. The study sample is composed of individuals aged 65 and over, of which 45% have completed higher education, the rest have lower qualifications. When analyzing the dimensions of literacy and level of education, we observed that the data are in line with what was previously shown, that is, the level of literacy increases as a function of academic level.

Several authors show that financial deprivation influences the level of health literacy[16]. In the sample studied this was not observed.

Studies[12] indicate that when the HLS-EU-PT questionnaire was applied in Portugal, 61% presented a *problematic* or *inadequate* level of general literacy. In turn, other studies[8] report that according to the results of the Health Literacy Survey in Portugal in 2016 (HLS-PT), compared with the countries participating in the Health Literacy Survey EU of 2014 (HLS-EU), Portugal is the country with the lowest percentage of people with an *excellent* level of Health Literacy (8.6%), with the European average being 16.5%. It is in 2nd place in terms of the percentage of people with a *sufficient* level of Health Literacy (42.4%), while the European average is 36%. Another investigation[17] in which the HLS-EU-PT was used at a senior university found that health literacy levels were 55% *problematic*, 21% *inadequate*, 18% *sufficient* and 6% *excellent*. That said, when analyzing the results achieved with the application of the HLS-EU-PT, we concluded that they were in line with scientific evidence, with 52% of individuals having a *problematic* literacy level, 23% having a *sufficient* level, 17% having an *inadequate* level and 8% having an *excellent* level.

Regarding the healthcare dimension[7], they report that in Portugal only 44.2% present a *sufficient* or *excellent* level, being the dimension with the worst results. In another study[9], an average index of 30.6 was found, that is, a *problematic* level of health literacy. In the sample studied, the average index is 30.9, which is in line with the values of the previously cited study. Regarding the values of literacy levels related to the health care domain, 50% of individuals have a *problematic* level, 23% a *sufficient* level, 17% an *inadequate* level and the rest an *excellent* level, these values being less optimistic than those presented in other studies[12] in relation to the health care domain.

Regarding the disease prevention domain, after applying the HLS-EU-PT[12], it was shown that only 45% of the individuals surveyed had a *sufficient* or *excellent* level of health literacy, when compared with other European countries, where it is 54.5%. In turn, other researchers[17], when applying the questionnaire, showed that in the disease prevention domain they obtained an average level of 29.1%, that is, the *problematic* literacy level prevailed. These results overlap with those found in our sample, with the health literacy rate for the disease prevention domain being 32.6%. The most common level was *problematic* with 42%, followed by *sufficient* with 33%, *excellent* with 13% and finally *inadequate* with 12%.

Finally, with regard to the health promotion domain, 60.2% of individuals present a *problematic* or *inadequate* level, compared to the European average of 52.1%[12]. In turn, in another study[17] the average domain index was 28.6. After analyzing the data, we found that the values obtained for the average index of the health promotion domain was 29.9, with 42% of individuals at a *problematic* level, 33% at a *sufficient* level, 20% at an *inadequate* level and only 5% at an *excellent* level. The data found are in agreement with the results obtained in the studies consulted and already mentioned.

Conclusion

In short, after analyzing the results obtained, we can state that they are consistent with those found in other studies consulted. Thus, this characterization helped in developing a diagnosis of this population's situation.

Population aging depends on a fundamental factor: health. Health literacy is identified as essential for health promotion, disease prevention, and the effective and efficient use of health services. It enables the dissemination of knowledge and its use, leading to informed health choices in the population's daily lives, aiming to improve their health and quality of life, which has increased in recent decades.

Health literacy is a determinant of health that depends on factors such as individual characteristics, the health system, and sociocultural factors. Since its promotion does not occur in isolation from the context, it is important to conduct studies that correlate other factors. We also know that some specific contexts should be considered as allies for increasing health literacy in the elderly population, among them, senior universities. As previously mentioned, health literacy has been recognized as the path to improving healthcare and health standards in Portugal. In recent years, we have witnessed increased concern about this issue through the development of intervention plans aimed at empowering individuals to make decisions throughout their life cycle, among other efforts and initiatives. However, we continue to experience quite worrying levels that call for the urgent adoption of policies to promote it.

Health promotion is not the sole responsibility of the health sector, as achieving well-being requires adopting healthy lifestyles. Through health promotion, we can reduce the existing health inequalities.

Therefore, the importance of conducting a situational assessment for the development and implementation of a community intervention project based on the health planning methodology is indisputable, strengthening the skills of the Nurse Specialist in Community Nursing and Public Health.

Therefore, we believe that promoting health literacy at senior universities can contribute to the empowerment of students and staff, as it takes into account the real needs of this population, facilitating the application of health information in everyday decisions. This will ultimately help maintain or improve the quality of life of the students attending.

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AF: Study coordination, data collection, storage, analysis, and review and discussion of results.
RL: Data analysis, review and discussion of results.
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GT: Data analysis, review and discussion of results.
LG: Study design, data analysis, review and discussion of results.
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