Revista Contexto & Saúde
Editora Unijuí
Programa de Pós-Graduação em Atenção Integral à Saúde
ISSN 2176-7114 – v. 25, n. 50, 2025
http://dx.doi.org/10.21527/2176-7114.2025.50.15313
HOW TO CITE:
Cavalcanti E de O, Mariano EA, Barros W de O. Bezerra JD da R, Melo HD de A. Health literacy of nursing students. Rev. Contexto & Saúde. 2025;25(50):e15313.

ORIGINAL ARTICLE

HEALTH LITERACY OF NURSING STUDENTS

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Highlights:
(1) The relevance of HL for professional practice;
(2) Raising awareness of the importance of HL for nursing undergraduates;
(3) Improving health education and patient care.

ABSTRACT

Objective: To identify health literacy among nursing undergraduates in their final year of undergraduate studies. *Method:* This is a cross-sectional study with descriptive analysis and a quantitative approach, using the Health Literacy Questionnaire instrument with nursing undergraduates in the 9th and 10th semesters, between 18 and 60 years old, of both sexes, at a private educational institution in the Federal District. The sample included 67 participants who agreed to participate in the study. *Results:* The study indicates that more than half of nursing undergraduates are female, have not taken a technical course and are up to 40 years old. The ability to find good information about health and understand it stands out among the potentialities in health literacy, while poor time management for self-care stands out among the weaknesses. *Conclusion:* This study presents evidence about the health literacy conditions of undergraduates who will be a source of knowledge for different populations in the future due to their understanding and mastery of health literacy. This enables research into new interventions in the academic environment aiming at both professional and educational improvement. A more comprehensive health system with more qualified professionals is essential.

Keywords: health literacy; nursing students; health education.

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INTRODUCTION

According to the World Health Organization (WHO), health literacy (HL) represents the knowledge and personal skills accumulated through daily activities, social interactions and exchanges between generations. This knowledge and skills are mediated by organizational structures and the availability of resources which enable people to access, understand, evaluate and use information and services in order to promote and maintain health and well-being for both themselves and those around them. In terms of public health, these definitions refer to the way in which individuals use their HL skills to improve the health of society as a whole.[1]

Although the education and health concepts are often addressed independently, there is a correlation between these two basic civil rights, as an interdependence between them is necessary in the HL definition.[2]

Inadequate HL is a neglected public health problem which still negatively affects the clinical outcomes of individuals. Adequate HL is an essential condition for self-care and therapeutic effectiveness. It is recommended that health professionals stratify patients in the clinical context, identifying those who need more educational support in order to provide equitable care.[2]

HL is directly related to health promotion and disease prevention; according to an international study, when HL is insufficient, it contributes to the inadequate use of services and consequently generates negative health outcomes. Furthermore, insufficient HL is associated with high hospitalization rates, adverse effects during the transition of care, increased prevalence of chronic diseases, lower use of preventive methods and lower adherence to treatment procedures.[3-4]

This topic has previously been addressed in several countries, such as the United States and China, through studies which revealed an association between HL and quality of life. Research in the United States was conducted in a university clinic, while in China it was conducted in the Wang region. Both studies showed that the lower a person's HL, the lower their quality of life.[5]

Health education is a fundamental tool for incorporating HL, promoting outcomes that enhance health and develop essential skills for decision-making related to well-being. People become better able to adapt to new situations or circumstances preventively and proactively through health education, strengthening self-care and health management.[6]

It is believed that there is an urgent need for health professionals with health literacy (HL) skills in professional practice in order to identify and assess patients, including HL as part of a multidimensional assessment. From this perspective, it is important for professionals to consider the fact that some users do not have the same knowledge level as others and to ensure that everyone understands the information and guidance provided during care. To this end, it is essential to pay attention to training health professionals, as this not only represents an individual effort, but also a collective effort by health services to develop measures to promote health, well-being and self-care.[7]

In view of the above, this study is justified in addressing this topic, especially among those who will soon enter the job market, since it is essential to promote health literacy (HL) and highlight its importance in caring for one's own health and in understanding the health of clients, considering that one of the roles of nurses is to share knowledge with their patients.

In view of this justification, and in order to deepen and disseminate the topic, the question is: What is the potential and weakness of health literacy among nursing undergraduate students in the final year of graduation? In this context, the following general objective is: to identify the HL conditions of undergraduate nursing students. As a specific objective: to understand the sociodemographic profile of students and their perception of their own health.

METHOD

This is a descriptive cross-sectional study with a quantitative approach conducted at the Euro-American University Center of the Federal District, in both locations. The total sample consisted of 83 undergraduates, but there were 16 losses, leaving 67 questionnaires for analysis. The questionnaires (sociodemographic and HLQ) were made available remotely through Google Forms. The Strobe checklist was used for the quantitative research.

Study scenario and sample

The study was conducted at a University Center in the Federal District composed of two higher education units which offer courses in the health area, including Nursing. The sample consisted of nursing undergraduates from the 9th and 10th semesters in the period from March to April 2023. The participants were selected through non-probabilistic convenience sampling.

Inclusion criteria

Students enrolled in the Nursing course, aged between 18 and 60 years old, in the 9th and 10th semesters, who agreed to participate in the study and agreed to sign the Informed Consent Form, following the rules of the University's Research Ethics Committee (CEP).

Exclusion criteria

Students on special regime, with maternity leave, inactive enrollment or under 18 or over 60 years of age.

Instruments used for data collection

Two instruments were used for data collection: a sociodemographic questionnaire, consisting of questions about age, sex, semester, unit of study, participation in student grant programs, housing situation (if they live alone) and possession of a technical course in Nursing; and the Health Literacy Questionnaire-Br (HLQ), validated for use in Brazil, used to identify the specific strengths and weaknesses in health literacy of individuals and communities.

The HLQ-Br assesses nine areas of HL and offers the potential for professionals, organizations and governments to identify and understand the HL profiles of individuals and/or populations as a basis for developing interventions. It is suitable for use in different cultural contexts and is available in several languages. The instrument consists of 44 items, distributed across nine scales, as in the original:[8]

- Scale 1 – Feeling understood and supported by health-care providers (four items);
- Scale 2 – Having sufficient information to manage my health (four items);
- Scale 3 – Actively managing health (five items);
- Scale 4 – Social support for health (five items);
- Scale 5 – Appraisal of health information (five items);
- Scale 6 – Ability to actively engage with healthcare providers (five items);
- Scale 7 – Navigating the healthcare system (six items);
- Scale 8 – Ability to find good health information (five items);
- Scale 9 – Understanding health information well enough to know what to do (five items).

The HLQ-Br is divided into two parts. Part 1 includes five scales and asks the participant to indicate how much they agree or disagree with each of the statements. Responses are distributed on a Likert-

type scale scored from 1 to 4: “strongly disagree” = 1, “disagree” = 2, “agree” = 3, “strongly agree” = 4. Part 2 consists of four scales and asks the participant to indicate how easy or difficult it is to perform the proposed activities. Responses also follow a Likert-type scale, scored from 1 to 5: “can’t do it” or “always difficult” = 1, “usually difficult” = 2, “sometimes difficult” = 3, “usually easy” = 4, “always easy”= 5.[9]

Data analysis

Quantitative data were subjected to descriptive statistics. The mean and standard deviation were presented for continuous variables, and the absolute and relative frequency for categorical variables.

The factors associated with the health literacy level were calculated through analysis with the Mann-Whitney and the Kruskal-Wallis tests as association measures, considering a 95% confidence interval and significant values with $p < 0.05$.

The HLQ-Br is a multidimensional instrument and does not provide an overall score for the questionnaire, evaluating the scores of each of the nine scales separately. The scores were calculated by adding the items of each scale, and this value was then divided by the number of items on the scale, with the final value being presented as the mean score.

Ethical aspects

The study was only conducted after meeting the ethical requirements and approval by the Research Ethics Committee (CEP), in accordance with Resolution 466/2012 of the National Health Council of the Ministry of Health, which regulates research involving human beings. It was registered under the opinion number: 5,971,123 and CAAE: 68137523.7.0000.5056. The HQL-Br was used after authorization from Swinburne University of Technology, through contact by email.

RESULTS

The sociodemographic profile survey of the study sample revealed that 82.09% of the students are female, and the predominant age group is 18 to 40 years old. In addition, 83.58% of the participants live with other people. Only 4.48% claim to have a technical course in Nursing, as observed in Table 1.

Table 1 – Distribution of sociodemographic characteristics of nursing undergraduates (9th and 10th semesters), N= (67). Brasília-DF, 2023

Characteristics	Number	Percentage (%)
Sex		
Female	55	82.09%
Male	12	17.91%
Age		
18-40	66	98.51%
41-53	1	1.49%
What semester are you in?		
10th	17	25.37%
9th	50	74,63%
Which Unieuro unit are you enrolled in?		
Águas Claras	28	41.79%
Asa Sul	39	58.21%

Are you a participant in any student scholarship program?		
Fies	5	7.46%
Prouni	38	56.72%
Fies and Prouni	20	29.85%
Other	4	5.97%
Do you live alone?		
Yes, I live alone	11	16.42%
No, I live with others	56	83.58%
Do you have a technical nursing course?		
Yes	3	4.48%
No	64	95.52%
In which education network did you complete your elementary education?		
Private	11	16.42%
Public	56	83.58%
Total	67	100%

Source: Study data, 2023

The means of the nine HLQ scales are compared in Table 2, with a variation between 2.27 and 3.84.

Table 2 – Distribution of averages according to the responses obtained from applying the HLQ-Br questionnaire. N= (67). Brasília-DF, 2023

HLQ scales and questions	Mean (SD)
Part 1 (Scores 1-4)	
1 – Feeling understood and supported by health-care providers	2.36 (0.70)
Q. 2. I have at least one healthcare professional who knows me well	2.28 (0.92)
Q. 22. I can count on at least one healthcare professional	2.47(0.84)
2. Having sufficient information to manage my health	2.52 (0.58)
Q.14. I have all the information I need to take good care of my health	2.42 (0.76)
Q.1. In my opinion, I have good information about health	2.63 (0.79)
3. Actively managing health	2.67 (0.50)
Q.6. I spend a lot of time focusing on my health	2.28 (0.86)
Q.21. There are things I do regularly to make myself healthier	2.84 (0.74)
4. Social support for health	2.79 (0.57)
Q.11. If I need help, I have many people I can count on	2.67 (0.82)
Q.19. I have strong support from family or friends	2.9 (0.83)
5. Appraisal of health information	2.82 (0.50)
Q.16. I check whether the health information I receive is correct or not	2.66 (0.76)
Q.7. I check whether new health information is true or not	3.06 (0.74)
Part 2 (Scores 1-5)	
6. Ability to actively engage with healthcare providers	3.38 (0.86)
Q.2. Health professionals understand their problems correctly	3.1 (1.16)
Q.20. They ask health professionals questions to get the information they need	3.62 (1.14)

7. Navigating the healthcare system	2.98 (0.84)
Q.1. Finding the right healthcare service	2.54 (1.12)
Q.19. Deciding which healthcare service is best for you	3.24 (1.14)
8. Ability to find good health information	3.32 (0.76)
Q.18. Getting health information on your own	3.17 (1.16)
Q.14. Getting health information in language you understand	3.44 (1.17)
9. Understanding health information well enough to know what to do	3.73 (0.66)
Q.17. Read and understand all information on medication labels	3.26 (1.29)
Q.5. Correctly fill out forms with information about your health	4.08 (0.95)

Source: Study data, 2023.

The weakest point of health literacy (HL) was identified in Scale 3 – Active healthcare, while the strongest point was observed in Scale 9 – Understanding health information and knowing what to do.

DISCUSSION

The use of the HLQ-Br can help incorporate HL into health practices in Brazil. The reliability of the instrument enabled us to observe the weaknesses and strengths identified by university students when responding to the items on the nine scales, as well as in relation to their sociodemographic profile, with emphasis on the number of women and the age group, whose average is 27 years for both sexes. Although women obtained higher scores than men, this difference is not significant enough to affirm that gender interferes with the health literacy level of students.[10]

As an example of the results, the ability to actively interact with health professionals was verified, in which age correlated with HL scores. It has been reported that older people are at greater risk of developing insufficient HL, while younger people interact more effectively with professionals.[11] In this context, improving health literacy is an important issue for university students transitioning into adulthood, in addition to being fundamental for establishing a healthy lifestyle in the future.[12]

Therefore, students in the health field not only need to understand HL to the point of developing prevention and health promotion skills, avoiding inappropriate practices and ensuring adherence to self-care as future professionals, but also as users. Having insufficient HL skills affects decision-making, adequate navigation in health systems, quality of life, among other factors.[13]

Although implementing HL in the curriculum of nursing courses improves literacy among nurses, few universities currently include HL components in nursing education programs, which makes it difficult to identify deficits in students' literacy levels. Although it is necessary to assess these students, the problem of HL levels below expectations and their negative impacts on their professional careers is rarely addressed.[11]

Therefore, the use of communication strategies between professionals and the population in relation to HL can benefit public health education in all areas of society in the short and long-term, especially in the process of training health professionals. It is essential to promote HL among individuals, communities and educational institutions.[14]

It is known that adequate HL generates positive results in relation to interaction with health services, healthcare for the population, and mainly self-care. These factors seem to be connected to personal experience; therefore, it is necessary to encourage students to reflect on their interactions as users of health services.[12]

Thus, it can be stated that academics and health professionals are the people most involved in this process and that they need more attention when it comes to teaching and learning HL, as improvements in the results with the population are achieved through them. Based on the results, it is understood that the greatest limitations of academics are not in understanding HL itself, but in applying it to their own health and in the time dedicated to self-care.[10]

While the nursing training process emphasizes empathy and equity which guide behavior and highlight the importance of the other in the nursing relationship, the lack of approach to the personal role that each individual plays for themselves and for their own health can be seen as a limiting factor for HL.[12]

It can be inferred from the results that the scales with themes related to the individual's own capacity or autonomy presented higher averages (scales 5, 6, 7, 8 and 9). Scale 9 - Understanding health information and knowing what to do, covers question 5 and scored the highest, revealing a clear association between self-assessment of health and health literacy. As health literacy evolves, so does the capacity for self-assessment of health.[15]

On the other hand, scales 1, 2, 3 and 4 obtained the lowest averages in the instrument, which varied between 2.52 and 2.97, compared to scales 5, 6, 7, 8 and 9. Scale 1 - Understanding and support from health professionals, which obtained the lowest average, stands out in this regard. In this context, the level of understanding and support from health professionals during the care was deficient, which suggests that there may be a lack of trust when establishing a bond with the professional and/or difficulties in communication between the two. It is observed that students do not have the health professionals they need, nor can they trust a professional who knows them well.

The lowest average (2.52) identified among the scales was for scale 1: Understanding and support from health professionals, indicating that there is a relationship of involvement and trust with health professionals who help individuals to better understand health-related care. Moreover, an average of 2.97 was identified on scale 2: Sufficient information to take care of your health, suggesting a relationship between health knowledge and better decision-making. Next, an average of 2.7 was identified on scale 3: Active healthcare, evidencing a relationship of care and responsibility over one's own life with the objective of promoting better health. An average of 2.9 was identified on scale 4: Social support for health, indicating a relationship between the availability of social support and self-care.[15]

An average of 3.07 was identified on scale 5: Assessment of health information, indicating a relationship with reliable sources of information for problem-solving. In turn, an average of 3.61 was identified on scale 6: Ability to interact actively with health professionals, evidencing a relationship between the search for information and advice from health professionals for better decision-making. Then, an average of 3.55 was identified on scale 7: Navigating the health system, suggesting a relationship with the awareness that there are systems and support available to meet one's needs.

An average of 3.85 was identified on scale 8: Ability to find good health information, indicating a relationship with numerous sources to seek information about one's health. Finally, an average of 3.97 was identified on scale 9: Understanding health information and knowing what to do, evidencing a relationship between knowledge and understanding of words, numbers, systems, health information, and the ability to write to fill out documents when necessary, in addition to decision-making. This scale had the highest overall average.[15]

In summary, a change in the educational curriculum of courses involving the health area with a focus on HL as the objective is recommended, and an emphasis on reliable sources. In addition, it is important to encourage students to take responsibility for taking care of their own health, which will facilitate transmitting information to patients.[16]

CONCLUSION

This study is one of the first in Brazil to investigate the health literacy of undergraduate students in the health field using the multidimensional HLQ-Br instrument and offers an analysis of the health literacy conditions of these students. The results may contribute to forming an essential knowledge base for the population in the future.

It was found that the students have adequate knowledge in relation to the health literacy domain, especially in the item Ability to find good information about health. However, their weaknesses are not related to theoretical understanding of health literacy, but rather to its practical application and time management for self-care.

The study also highlights the importance of health literacy as a fundamental factor for developing effective educational policies in the area. This literacy not only guides students in the self-knowledge process, but also enables them to make informed decisions, thus contributing to construct a healthier and more conscious society.

In addition, health literacy provides professionals with essential skills to perform their functions in occupational practice. By adopting a holistic approach, this work proves to be an effective methodology in generating ideas and solving problems, and is therefore of great relevance for advancing the educational and health fields.

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Submitted: October 31, 2023
Accepted: November 17, 2024
Published: June 2, 2025

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All authors approved the final version of the text.	
Conflict of interest:	There is no conflict of interest.
Financing:	No financing.
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