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Health literacy and health behaviors of Guinean university students residing in Brazil

Letramento em saúde e comportamentos de saúde de universitários de origem guineense residentes no Brasil

Alfabetización en salud y conductas de salud de estudiantes universitarios de origen de Guinea residentes en Brasil

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ABSTRACT

Objective: To evaluate the health literacy and health behaviors of Guinean university students residing in Brazil.

Method: A cross-sectional, analytical study conducted with 51 Guinean university students residing in Brazil. A health behavior questionnaire and the Test of Functional Health Literacy in Adults – Short version were applied. Spearman correlation coefficient, U of Mann-Whitney and Kruskal-Wallis were calculated.

Results: Health literacy was adequate (median=79; IQR=24). Reading comprehension (median=70; IQR=16) of health information was better than numerical comprehension (median=14; IQR=14). Better health literacy performance was found in those with daily screen time of 3 to 5 hours (p=0.004) and who consumed fatty meat (p=0.002).

Conclusion: Adequate health literacy of Guinean university students was associated with mostly healthy behaviors, except for screen time and consumption of fatty meat.

Descriptors: Health literacy. Student health. Emigrants and immigrants.

RESUMO

Objetivo: Avaliar o letramento em saúde e os comportamentos de saúde de universitários de origem guineense residentes no Brasil.

Método: Estudo transversal, analítico, realizado com 51 universitários guineenses, residentes no Brasil. Aplicou-se questionário de comportamentos de saúde e o *Test of Functional Health Literacy in Adults – Short version*. Calculou-se coeficiente de correlação de Spearman, U de Mann-Whitney e Kruskal-Wallis.

Resultados: O letramento em saúde foi adequado (mediana=79; IIQ=24). A compreensão leitora (mediana=70; IIQ=16) das informações em saúde foi melhor do que a numérica (mediana=14; IIQ=14). Melhor desempenho de letramento em saúde foi encontrado naqueles com tempo diário de tela de 3 a 5 horas (p=0,004) e que consumiam carne gordurosa (p=0,002).

Conclusão: Adequado letramento em saúde dos universitários guineenses esteve associado a comportamentos, em sua maioria, saudáveis, exceto pelo tempo de tela e consumo de carne gordurosa.

Descritores: Letramento em saúde. Saúde do estudante. Emigrantes e imigrantes.

RESUMEN

Objetivo: Evaluar la alfabetización en salud y los comportamientos en salud de estudiantes universitarios de origen guineano residentes en Brasil.

Método: Estudio transversal, analítico, realizado con 51 estudiantes universitarios guineanos residentes en Brasil. Se aplicó un cuestionario de comportamiento en salud y el Test de Alfabetización Funcional en Salud en Adultos – Versión Corta. Se calcularon los coeficientes de correlación de Spearman, U de Mann-Whitney y Kruskal-Wallis.

Resultados: La alfabetización en salud fue adecuada (mediana=79; IIQ=24). La comprensión lectora (mediana=70; IIQ=16) de información de salud fue mejor que la comprensión numérica (mediana=14; IIQ=14). Se encontró un mejor desempeño en alfabetización en salud en aquellos con un tiempo de pantalla diario de 3 a 5 horas (p=0,004) y que consumían carne grasosa (p=0,002).

Conclusión: La alfabetización sanitaria adecuada de los estudiantes universitarios de Guinea se asoció con comportamientos que en su mayoría eran saludables, excepto el tiempo frente a la pantalla y el consumo de carne grasosa.

Descriptores: Alfabetización en salud. Salud del estudiante. Emigrantes e inmigrantes.

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INTRODUCTION

Literacy is a phenomenon that results from the process of learning to read and write; it is the state or condition that an individual or a social group acquires after having appropriated writing and its social practices. On the other hand, functional literacy is characterized by reading and writing knowledge and skills, which enable the individual to engage in specific activities within the required field[1].

Applying this concept to the field of health, health literacy (HL) is the cognitive ability to understand, interpret and apply written or spoken information about health. In practical terms, a person with a satisfactory level of literacy would have a better health condition than an individual with a limited level of literacy, who would be less aware of the importance of preventive measures, for example, or more difficult to understand instructions on medication[2].

Although HL is important to be considered in any context of care, in some situations, due to the vulnerability, its evaluation is essential to ensure that the health information is really understood. For example, the migration process, resulting from cooperation between countries, although it constitutes a social issue, brings challenges related to the different responsibilities of the country that receives these people. One of those responsibilities is health care. One of the aspects that can influence the provision of health care to immigrants and decision-making about their health is the understanding of health information in another language and included in health programs different from those in the country of origin. However, the scientific literature[3] points out that the necessary resources and information do not always reach immigrants, usually due to economic, language and social barriers.

In this context, this research was conducted with young immigrants from Guinea-Bissau (a country in Africa), who are students at a Brazilian public university. The starting point was to understand the need of immigrants to be assisted by health care professionals, access to health care services and use Brazilian health products during their years of residence in the country.

Considering that they are university students, they need to be competent in reading and communication in order to work in the academic environment. Individuals with adequate literacy are able to understand and act in the university setting, an environment that generally produces a lot of knowledge[3]. Regarding Guinean students, who left their country of origin to attend higher education in Brazil, our understanding is that the education level and the Portuguese language, having the status of official language and the only language of teaching in Guinea-Bissau, contribute, regardless of the course of the students, for a satisfactory HL, which allows them to understand the language when communicating about health issues.

Furthermore, HL can influence health behaviors of people overall. However, the study of this association among university students was not found in national scientific publications. In the Brazilian context, a publication was found from research with the elderly people[4]. At the international level, a research with Guinean participants, about HL or health behaviors mainly addressed the identification of diseases[3].

In this regard, besides the HL, the need to study health behaviors is emphasized to determine the health pattern and morbidity and mortality of the population[5]. Therefore, for this research, besides assessing the level of HL of Guinean university students, a survey of health behaviors was conducted to learn about their lifestyle. Thus, the importance of health care for immigrants is emphasized, regardless of the reason for their entry into the country, to ensure their right to health.

However, it is important that the literacy level can also contribute to the understanding of health information, which are essential for professional care and self-care in health. Therefore, this study is justified as a possibility to assess the degree of HL of immigrants, so that health actions (individual and collective) can be put into practice in the future by health professionals such as nurses. It is part of the general competencies of this professional to plan care, considering people's HL.

The present study considered the residence, in Brazil, for few years, of students of another nationality who chose to attend higher education in Brazil. Therefore, this research may open up horizons for new studies and in health actions to understand, evaluate and apply adequate care to the migrant population, which should also be the target of health care. Discussing HL for immigrants encourages more efficient responses from systems to meet the health care needs of immigrants[3]. It is known that for people to be able to better manage their health, it is important to evaluate their HL in different contexts[6]. The research question was outlined as follows: are the health behaviors of immigrant university students influenced by their HL? To answer this question, this study was developed with the aim of evaluating the HL and the health behaviors of Guinean university students residing in Brazil.

METHOD

Cross-sectional, analytical study, complied with the guidelines of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE). The scenario was a Brazilian public university, with campuses located in Ceará and Bahia. The institution is open to students from Brazil and other countries on the South-South axis, which have Portuguese as their official language. Thus, international cooperation includes five countries in Africa – Mozambique, Angola, São Tomé and Príncipe, Cape Verde, Guinea-Bissau – and one country in Asia – Timor-Leste.

One of the authors of this research is from Guinea-Bissau, reason why data from respondents from Guinea-Bissau were selected, so that the results could be properly discussed by those who know the reality of Guinean immigrants who leave their country of origin to attend higher education in Brazil.

Inclusion criteria in the research were to be an undergraduate student at the institution that was the research setting, to have an active registration (on-site or remote course) during the data collection period, and to be 18 years old or older. As this is a research from a larger study, only those of Guinean origin were selected from the respondents in the matrix study.

Students whose data collection instruments had at least one unanswered question in the section for measuring the level of HL were excluded. This exclusion criterion was created due to the infeasibility of obtaining the result for this variable which is the sum of the answers of objective questions.

The study from which this research originated was entitled "Health Literacy and Health Behaviors of University Students". It included 214 respondents of six countries. Thus, the sample of this research corresponds to 24% of the participants of the matrix study. The sample size of the original study was determined by calculating the sample size for a population, based on the formula for cross-sectional studies. The population considered was 1,070 immigrant students (of six nationalities), the proportion used was 50.0%, with a margin of error of 6% and a confidence level of 95%. The statistical power considered was 80%.

During the data collection period, from the 1,070 immigrant students, the institution had 660 Guinean students enrolled in undergraduate courses (493 in Ceará and 167 in Bahia). All were invited to participate in the research but accepted by 51 students of that nationality who met the eligibility criteria, thus constituting the study sample (8% of Guinean students).

Data collection was conducted between March and May 2021. The dissemination, recruitment of participants and data collection was made online, until the total sample was reached (non-probabilistic sampling), through an invitation sent by email, linked to the mailbox of the university's academic system. Online recruitment was chosen to allow participation of students from Bahia and Ceará in the same sample.

The data collection instrument was completed using an electronic questionnaire by Google (Google Forms), divided into three sections: 1) questions about sociodemographic and academic characteristics (gender, age, income, family structure, marital status, graduation course, number of semesters completed); 2) HL assessment – Test of Functional Health Literacy in Adults – Short version (S-TOFHLA), adapted for filling out online; and 3) health behaviors (smoking, alcohol consumption, physical activity and eating habits).

The S-TOFHLA is intended to assess patients' ability to read and understand health-related terms. It consists of two parts: the first analyzes reading comprehension, with 36 questions, each correct question worth 2 points, resulting in a maximum score of 72 points; the second analyzes the understanding in relation to numerical items, with four questions, each correct item worth 7 points, totaling a maximum score of 28 points. Depending on the performance achieved in the test, the individual can be classified as inadequate HL (0 to 53 points), marginal (54 to 66 points) or adequate (67 to 100 points)[7]. The results of dimensions and total of S-TOFHLA were considered outcome variables.

The questions about health behaviors were extracted from another study[5]. There are eleven questions with objective answers that investigated daily use of medication, smoking, alcohol consumption, weekly practice of physical activity in leisure time, daily exposure to television, weekly intake of raw greens and vegetables, fruits, sweet foods, soda or artificial juice, fish and fatty meat. The responses to questions about each health behavior, as well as sociodemographic and academic characteristics were considered predictive variables.

The data for filling out the online questionnaire were made available by Google in a spreadsheet in Microsoft Office Excel, prepared in association with the Google Forms file. This worksheet was imported into the statistical package IBM SPSS Statistics version 25 for Mac, to conduct the descriptive and inferential analysis.

From all variables originating from the questions in sections 1 and 3 of the data collection instrument, absolute and relative frequencies were calculated. From the questions in section 2, the medians, and interquartile ranges (IQR) were calculated for the sum of questions of reading comprehension, numerical comprehension and S-TOFHLA.

To search associations between the variables of these two sections and the variables of the S-TOFHLA instrument, non-parametric statistical tests were used: Spearman correlation coefficient, Mann-Whitney U and Kruskal-Wallis. The set of results of the sum of the dimensions and the total of the S-TOFHLA were submitted to the evaluation of the normality of distribution, using the Kolmogorov-Smirnov test. For all tests applied, p-values lower than 0.05 were considered statistically significant.

The study was approved by the Research Ethics Committee of the *Universidade da Integração Internacional da Lusofonia Afro-Brasileira* (CAAE No. 68429117,7,0000,5393 and opinion 4,601,520), in compliance with the requirements of Resolution No. 466/2012 of the National Health Council[8] and Circular Letter No. 2/2021 of the National Research Ethics Council[9].

RESULTS

The results in Table 1 were obtained from the data from the questionnaires of the 51 Guinean undergraduates. They had a mean age of 25.4±4.6 years and were mostly men (27; 52.9%), without a partner (49; 96.1%), without children (43; 84.3%), did not work, but had a scholarship (30; 58.8%).

Regarding the enrolled course, students from all academic units participated, but the most frequent ones were from the humanities area (Humanities, Pedagogy; Sociology; History and Anthropology) (14; 27.5%) and from the health area (Nursing and Pharmacy) (12; 23.5%) and those who were enrolled at the end of the undergraduate course (20; 39.2%).

The median of the HL assessment instrument (S-TOFHLA) was 79 (IQR=24), corresponding to an adequate level. According to the instrument classification, 39 (76.5%) had adequate health literacy, 4 (7.8%) marginal and 8 (15.7%) inadequate. Respondents performed better in the reading dimension (median=70; IQR=16) than in the numerical dimension (median=14; IQR=14).

Better performances in the S-TOFHLA (reading, numerical and total) were associated with younger people (rs=-0.326; p=0.019), students enrolled in courses at the institutes of engineering and sustainable development, humanities and modern languages (p=0.005) and those who were at the beginning of undergraduate course (p=0.009) (Table 1).

The results on health behaviors are shown in Table 2. It was observed that most students did not use medication (46; 90.2%), did not smoke (47; 92.2%) or consume alcoholic beverages (33; 64.7%), practiced light or moderate physical activity of 150 minutes or more per week (15; 29.4%) and watched television up to 2 hours a day (40; 78.4%).

The eating habits analyzed indicated a higher frequency of respondents who consumed little raw greens and vegetables (30; 58.8%) and fruits (27; 52.9%). A few times a week they consumed sweets (44; 86.3%) and sodas and artificial juices (43; 84.3%) and had the habit of consuming fish every week (34; 66.7%), but not fatty meat (30; 58.8%).

The HL was classified as adequate, regardless of the health behavior analyzed (Table 2), but there were significant associations with better performance in the S-TOFHLA for those with screen time (TV) of 3 to 5 hours daily (p=0.004) and who consumed fatty meat (p=0.002).

DISCUSSION

The sociodemographic characteristics were similar to those found in other studies with university students in Brazil[10], except for the older age, which, when dealing with Brazilian university students, studies point out to an age range of up to 22 years as the majority. This can be explained by the predominance of participants at the end of undergraduate course, the age of entry into higher education by Guineans and the longer time to complete graduation compared to Brazilian students overall.

Portuguese language, although it is the official language of Guinea-Bissau, is not the mother tongue of most people. They have as mother tongue (or first) one of the ethnic languages or Guinean, learned when they were still children, in the family environment. In other words, these are the languages of first contact, of daily living, of greater communication, of affective relationships and which mark the identity of the Guinean people. Guinean students learn Portuguese at different ages, often already in adolescence or adulthood, at an age later than that indicated by some experts in language and neuroscience as more appropriate[11]. It is inferred that this may influence the subsequent enrollment in higher education, especially in a country other than the one of origin, and a longer time than recommended to complete the undergraduate course. This condition also contributes to the understanding of the results found on HL.

Table 1 – Sociodemographic, academic and health literacy characteristics of the research participants (n=51). Redenção, Ceará; São Francisco do Conde, Bahia, Brazil, 2021

Variables	f (%) / mean (SD)	S-TOFHLA reading comprehension	p-value	S-TOFHLA numerical comprehension	p-value	S-TOFHLA Total	p-value
		Median (IQR)		Median (IQR)		Median (IQR)	
Age	25.4 (± 4.6) years	70 (16)	0.014‡	14 (14)	0.039‡	79 (24)	0.019‡
Gender							
Male	27 (52.9%)	70 (8)	0.170§	14 (14)	0.170§	84 (20)	0.389§
Female	24 (47.1%)	68 (24)		14 (14)		78 (37)	
Marital status							
With partner	2 (3.9%)	71 (–)	0.427§	17.5 (–)	0.453§	88.5 (–)	0.353§
Without partner	49 (96.1%)	70 (19)		14 (14)		79 (28)	
Children							
No	43 (84.3%)	70 (22)	0.338§	14 (14)	0.675§	79 (31)	1.000§
Yes	8 (15.7%)	71 (4)		10.5 (12)		79 (15)	
Work							
No and does not have a scholarship	20 (39.2%)	70 (24)	0.271*	10.5 (14)	0.239*	78 (35)	0.281*
No, but has a scholarship	30 (58.8%)	70 (9)		14 (14)		80.5 (21)	
Yes	1 (2.0%)	6 (–)		-		6 (–)	
Current semester							
Beginning of the course	17 (33.3%)	70 (6)	0.047*	7 (7)	0.038*	86 (25)	0.009*
Half of the course	14 (27.5%)	49 (6)		14 (14)		58.5 (63)	
End of the course	20 (39.2%)	70 (6)		17.5 (14)		84 (16)	

Source: Research data, 2021.
SD = standard deviation; IQR = interquartile range; S-TOFHLA = Test of Functional Health Literacy in Adults – Short version.
‡Spearman correlation coefficient.
§Mann-Whitney test.
*Kruskal-Wallis test.

Table 2 – Health behaviors according to the health literacy of the research participants (n=51). Redenção, Ceará; São Francisco do Conde, Bahia, Brazil, 2021

Variables	f (%)	S-TOFHLA Total	p-value
		Median (IIQ)	
Daily use of medication(s)			
No	46 (90.2%)	79 (32)	0.914§
Yes	5 (9.8%)	79 (20)	
Smoking			
No, but lives with a smoker	1 (2.0%)	-	0.384§
No, never smoked	47 (92.2%)	79 (24)	
No, stopped smoking some time ago	2 (3.9%)	86 (14)	
Yes	1 (2.0%)	-	
Alcoholism			
No	33 (64.7%)	77 (35)	0.196§
3x or more per week	1 (2.0%)	-	
1x or more per month	17 (33.3%)	84 (14)	
Weekly practice of physical activity in leisure time			
No	7 (13.7%)	82 (37)	0.188§
Yes, 150 min or more of light/moderate activity	15 (29.4%)	86 (23)	
Yes, 75 min or more of heavy activity	12 (23.5%)	76 (35)	
Yes, less than 150 min of light/moderate activity	12 (23.5%)	81.5 (27)	
Yes, less than 75 min of heavy activity	5 (9.8%)	67 (26)	
Daily TV exposure			
Up to 2 hours	40 (78.4%)	79 (27)	0.004§
3 – 5 hours	6 (11.8%)	97 (7)	
6 – 8 hours	2 (3.9%)	80.5 (–)	
9 hours or more	3 (5.9%)	60 (73)	

Table 2 – Cont.

Variables	f (%)	S-TOFHLA Total	p-value
		Median (IIQ)	
Weekly intake of greens and raw vegetables			
5 times or more	21 (41.2%)	79 (25)	0.552‡
Less than 5 times	30 (58.8%)	80.5 (26)	
Weekly intake of fruits			
5 times or more	24 (47.1%)	76 (33)	0.055‡
Less than 5 times	27 (52.9%)	84 (22)	
Weekly intake of sweet foods			
5 times or more	7 (13.7%)	86 (94)	0.493‡
Less than 5 times	44 (86.3%)	79 (24)	
Weekly intake of soda or artificial juice			
5 times or more	7 (13.7%)	84 (25)	0.186‡
Less than 5 times	43 (84.3%)	79 (24)	
Weekly fish consumption			
No	17 (33.3%)	79 (43)	0.749‡
Yes	34 (66.7%)	79 (23)	
Consumption of fatty meat			
No	30 (58.8%)	73 (33)	0.002‡
Yes	21 (41.2%)	89 (19)	

Source: Research data, 2021.
TV = television; IQR = interquartile range; S-TOFHLA = Test of Functional Health Literacy in Adults – Short version.
‡Mann-Whitney test.
§Kruskal-Wallis test.

Although most participants had adequate HL, the reading comprehension of health information was better than the numerical one. It is noticed that, although the language used in contact with health care services and products is Portuguese (Brazilian), the origin of the participants seems to influence the HL, because there are significant cultural and language differences, in addition to the expected differences between the systems of health in the countries[12]. Thus, the numerical part may not be consistent with the reality that respondents were used to in Guinea-Bissau. In addition, it seems to be a reflection of the background to which quantitative health information is relegated, which is generally understood to be the responsibility of health care professionals/services and little addressed with the target audience of care.

Therefore, the lower performance in the numerical part, by many participants, cannot be attributed only to the lack of knowledge of Guinean university students about the interpretation of numerical information, but to the differences in the social and linguistic context that exist between the two countries, although both have the Portuguese language as official. The very difference between the health care systems of these countries (universal, in Brazil, and consisting of programs oriented to specific diseases, in Guinea-Bissau) [13], implies access (contact) to services, professionals and health products and different shapes. This reinforces that what is important is not just knowing whether the individual is good at reading and writing, but understanding that the level of HL is also a reflection of other variables, such as the frequency of attendance at health care services and social and health inequalities[14].

However, it is opportune to discuss the results that show education level as a component of the HL[1], because, even living in a country with a different mother tongue, Guinean university students, who are graduating in courses that favor numerical knowledge, such as Engineering, and in courses dedicated to the use of the Portuguese language, such as Modern Languages, they performed better when answering the S-TOFHLA.

Regarding health behaviors, the outcomes of this research differ from other studies conducted with Brazilian university students, in which it was found that students were considered population groups at risk, with an unhealthy lifestyle and other actions that make them vulnerable to illness. It is explained that entry into higher education triggers changes and life challenges due to increased autonomy and freedom in their actions. Furthermore, one must consider the independence that comes with reaching adulthood and living away from family[10,15].

Most Guinean university students demonstrated healthy behaviors regarding all the lifestyle components that were analyzed (smoking, alcoholism, sedentary lifestyle, physical activity and diet). Such results seem to reflect cultural aspects of Guineans related to self-care. The exception was diet: little consumption of raw greens and vegetables, although most of the other foods listed were adequate.

This result was found in a previous study[3], which explains that, even if eating habits are healthy, they often change after entering higher education. This does not mean that these types of foods are no longer consumed, but that the quantity is not always adequate. This change in eating patterns can be attributed to skipping meals and consuming nutrient-poor foods due to the limited time available for daily academic activities, which leads students to have meals outside the home, where the offer of these foods does not always exist.

It is also important to rescue the influence of economic power on eating habits, as almost all participants did not work and more than half of them relied on scholarships (aid to staying in Brazil), which can limit the possibility of buying vegetables, even though some meals were taken at the university restaurant. These foods are generally consumed by people of better social status[16].

Despite the scientific literature pointing out a high prevalence of food insecurity in Guinea-Bissau, when analyzing other responses about eating habits of Guinean university students residing in Brazil, it was found that most make good food choices. Likewise, behaviors overall reflect positive self-care attitudes towards health, with consequent beneficial effects on the students' quality of life. However, no association was found between HL and most of the analyzed health behaviors. This result is not what the scientific literature points out: the relationship between better HL and responsible health attitudes and behaviors[3,14].

What can be observed in the analysis of these migratory flows, is that migrants generally have a good level of health on arrival in the host country and that they often have better results in various indicators, comparing them with the overall population, but this advantage tends to be reversed. The main factors related to these disparities in health include socioeconomic fragility, low income levels, poor housing, lack of social and family support networks, risk of social exclusion, as well as changes in lifestyles and adoption of risky behaviors[17].

In this study, this explanation converges with the results on health behaviors related to longer screen time (3-5 hours a day) and consumption of fatty meat, which, although these are not behaviors of most Guinean university students, they were reported by those with better HL. This shows the incorporation of unhealthy habits, even in those with adequate ability to understand health information[18].

This result points out to the need to discuss the impacts of migration on self-care in health, even if it is for a few years, to attend higher education in another country. Thus, it makes clear the importance of health care professionals, notably those focused on disease prevention, such as primary care, to seek strategies for welcoming and bonding with the migrant population, which, in this study, is about of Guinean university students.

Another issue to be considered is the need and importance of analyzing migration and its relationships with social determinants of health, reflecting on the social position in which the migrant finds themselves. This condition reallocates people in social structures and should be considered when analyzing the relationship between migration and health[19]. There is also an urgent need for nurses to become aware

of the values, beliefs and customs of migrants, as they may be different from the demographic and health context for which they were trained. The adaptation of health care to this new scenario demands preparation by nurses to offer care with cultural pertinence[20].

The results of this study were discussed considering its limitations. The main one was the measurement bias. Although the application of the S-TOFHLA online has been implemented in a previous study[18], data collection by the internet allowed respondents to read the HL assessment instrument as many times as they wanted and for a time that could not be standardized (greater than if the application had been in person, for example), which may have influenced the HL results. Online recruitment, although intended to allow students from both states to participate in the research, may have limited the diversity of participants of Guinean origin, favoring the participation of those who usually access e-mails and, therefore, were more likely to view the invitation to the study.

Furthermore, as this is a cross-sectional study, it was not possible to infer whether the reported health behaviors were acquired upon arrival in Brazil or whether they came from habits practiced in the country of origin. In addition, the study design does not allow establishing a causal relationship between HL and the health behaviors found.

These results contribute to nursing care and health research by providing the understanding of the health characteristics of migrants, who are generally included in the health care program of the educational institution and the city in which they reside, although not always considering their particularities (culture, health care system in the country of origin, social relations established upon arrival in Brazil), as there is no record of them being investigated until now.

CONCLUSION

The HL of Guinean university students was adequate for most participants, however the performance in the reading dimension was better than in the numerical dimension. This suggests that, although Portuguese is a language known to them, there is difficulty in understanding health information involving numbers, such as time to take medication, period of return to consultations or medication dosages.

Although it is not possible to establish a causal relationship in this study, between the HL and the health behaviors assessed, it was found that Guinean students had difficulty in maintaining some healthy eating habits. Nevertheless, overall health behaviors were satisfactory, but some habits require attention. Behaviors such as increased daily screen time and consumption of fatty meat appeared among the respondents, even with adequate HL. This indicates that these are habits maintained by the participants even though they are aware of the deleterious impact on health.

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