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Demands and use of health services among immigrants from a metropolitan region in northeastern Brazil

Demandas e utilização de serviços de saúde entre imigrantes de uma região metropolitana do nordeste do Brasil

Demandas y uso de servicios de salud entre inmigrantes de una región metropolitana del noreste de Brasil

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Abstract

Objective: This study aimed to analyze the demands and use of health services by international migratory clusters in the metropolitan region of Aracaju, Sergipe. **Method:** A total of 186 immigrants were recruited, and divided into clusters according to the country of origin and continent. An epidemiological questionnaire on health conditions and care-related. **Results:** Low and low middle income country immigrants (LMI) are younger, with lower length of stay in Brazil, elementary education, working without a formal contract, with an income of up to 1 minimum wage (p<0.05). Latin America immigrants (LAI) are approximately twice as likely to have some Chronic noncommunicable disease (NCDs), compared to other country immigrants (OCI). Age and length of stay in Brazil influence self-rated health, search for health services and having some NCDs (p<0.05). The Unified Health System (*Sistema Único de Saúde*) was the most sought after both on arrival in Brazil and in the last 12 months, mainly by LMI and LAI (p<0.05). **Conclusion and implications for practice:** Differences were observed within immigrant subgroups, mainly in terms of their use patterns and the importance for cross-cultural competence in health care.

Keywords: Access to Health Services; Health Conditions; Cultural Competency; Chronic Noncommunicable Diseases; Immigration.

Resumo

Objetivo: analisar as demandas e a utilização dos serviços de saúde por imigrantes na Região Metropolitana de Aracaju, Sergipe. **Método:** recrutaram-se, pelo método bola de neve, 186 imigrantes, alocados em *clusters* relacionados à renda *per capita* do país de origem e países da América Latina ou não. Utilizou-se questionário auto aplicado sobre as condições e práticas de saúde. **Resultados:** imigrantes de países com renda baixa e média baixa (IMB) são mais jovens, com menor tempo de permanência no Brasil, possuem ensino fundamental/médio, exercem atividade laboral sem carteira de trabalho assinada e renda de até um salário mínimo (p<0,05). Imigrantes da América Latina (IAL) possuem aproximadamente duas vezes mais chances de ter alguma doença crônica não transmissível (DCNT), comparados aos imigrantes de outros países (IOP). A idade e o tempo de permanência no Brasil influenciam na autoavaliação da saúde, na busca por serviços de saúde e ter alguma DCNT (p<0,05). O Sistema Único de Saúde foi o mais buscado tanto na chegada ao Brasil quanto nos últimos 12 meses, principalmente pelos IMB e IAL (p<0,05). **Conclusão e implicações para a prática:** observaram-se diferenças dentro dos subgrupos de imigrantes, principalmente em termos de padrões de utilização, ressaltando a importância da competência transcultural na assistência.

Palavras-chave: Acesso aos Serviços de Saúde; Competência Transcultural; Condições de Saúde; Doenças Crônicas não Transmissíveis; Imigração.

Resumen

Objetivo: fueron analizadas las demandas y el uso de los servicios de salud por los inmigrantes en la Región Metropolitana de Aracaju, Sergipe. **Método:** fueron reclutados, mediante el método bola de nieve, 186 inmigrantes y se dividieron en agrupación es según la renta per cápita del país de origen y continente. Se utilizó un cuestionario auto aplicado sobre condiciones y prácticas de salud. **Resultados:** los inmigrantes de países de renta baja y media baja (IMB) son más jóvenes, han pasado menos tiempo en Brasil, tien en educación primaria/secundaria, trabajan sin contrato formal y tienen una renta de hasta 1 mínimo salario (p<0,05). Los inmigrantes de Latinoamérica (LAI) tienen aproximadamente el doble de probabilidades de tener una enfermedad crónica no transmisible (ENT) em comparación con inmigrantes de otros países (IOP). La edad y el tiempo de permanencia en Brasil influyen en la autoevaluación de la salud, la búsqueda de servicios de salud y el tener algunas ENT (p<0,05). El Sistema Único de Salud (*Sistema Único de Saúde*) fue el más buscado tanto a su llegada a Brasil como en los últimos 12 meses, principalmente por el IMB y la IAL (p<0,05). **Conclusión e implicaciones para la práctica:** se observaron diferencias dentro de los subgrupos de inmigrantes, principalmente en términos de sus patrones de uso, resaltando la importancia de la competencia intercultural em la asistencia.

Palabras clave: Acceso a los Servicios de Salud; Competencia Intercultural; Condiciones de Salud; Enfermedades Crónicas No Transmisibles; Inmigración.

INTRODUCTION

Human immigration flows have shown an increasing global pace, making relevant the discussions on the public policies adopted for the access to health of immigrants. In the early 2000s, the relative optimism in economic growth in Latin America, combined with employment opportunities, improvements in social policies and the organization of major world events, made Brazil appear significantly on international routes.[1,2] This scenario reflected in the consolidation northeastern Brazilian as a space for the circulation of immigrants, including Sergipe,[3,4] despite the incipient local structure for social, legal and public policy reception.[5]

The acceleration of migration across borders, a typical case of human mobility in Southern Cone countries, has shown that transnational movements cross borders, generate new work fronts/opportunities, stimulate the construction of social networks and, at the same time, they expose immigrants to new and old vulnerabilities and health risks, as they are negatively affected by the migratory experience physically and psychologically.[6-9] Self-rated health has been shown to be an influential predictor of clinical outcome and mortality, not only determined by clinical, psychosocial and behavioral factors, in addition to being frequently used as a key indicator of health status in health policies and research.[10-12]

Although the scientific literature shows that immigrants enter the receiving country with better health conditions, including when comparing with the indigenous population,[9,13] at some point, there may be a need for health care, whether in the public or private sector, due to various illnesses, related or not to migration, and socioeconomic and administrative aspects experienced in the receiving country.

Public health care, provided by the Unified Health System (SUS - *Sistema Único de Saúde*),[14] is reinforced by the New Brazilian Migration Law (13.4452/2017),[15] through the doctrinal principles of universality, integrity and equity, at different levels of care complexities.[14] The main gateway and communication center with the other SUS networks is Primary Health Care (PHC), with the function of offering care, mainly through the Family Health Strategy (FHS), which offers multidisciplinary services through the Family Health Units.[16] Private services in Brazil work in a complementary way and, according to SUS guidelines, through the payment of health plans and insurance, or in hospitals, clinics, laboratories and offices.

One of the main challenges for the different receiving countries that seek to establish equity in their health policies and systems is to understand the different characteristics that generate possible inequalities in the use and access to health care, whether individual or those of the local health system (accessibility, perception and previous experiences), as well as current morbidity conditions and understanding of health-disease, including differing ethnicities and the receiving population.[17,18] It is noted that the migratory population cannot be investigated evenly regarding health aspects, but within the diversity of migratory clusters in the spaces that were established, in order to understand the forms of use and the search profile of health services through specific vulnerabilities.

Despite the growing increase in international migratory mobility in northeastern Brazil, there are still few studies that investigate the issue from the perspective of the health-immigration interface, especially in the current and contemporary context in territories with emerging migratory flow (medium/small migratory flow).[19] This study aimed to analyze the demands and use of health services by a cluster of international migratory countries in the Metropolitan Region of Aracaju, in northeastern Brazil.

METHODOLOGY

This is a cross-sectional, quantitative study on immigrants in the Metropolitan Region of Aracaju, capital of Sergipe, regarding their demands and the use of health services.

According to the Observatory of International Migration of the Ministry of Justice of Brazil,[20] the retention rate of long-term immigrants in the country (staying time of more than one year) is 63.3%, of which 11.0% are children. Based on this information, the sample was calculated, starting from the total of 541 immigrants registered in the Metropolitan Region of Aracaju in 2018 (Federal Police in Sergipe, 2018), excluding children and temporary immigrants, reaching a population of approximately 306 individuals. The sample calculation was applied, with 95% confidence interval and sampling error of 5%, and the minimum sample of 152 immigrants was obtained. However, due to the interest of immigrants in participating in the research, the final sample totaled 186 resident immigrants interviewed.

Immigrants were divided into categories, according to the criteria of gross national income established by the World Bank by country of origin (birth):[20] "high-income" - US$13,205 or more (Chile, China, Denmark, Slovenia, Spain, France, England, Italy, Yugoslavia, Portugal, Sweden, Suriname and Uruguay); "upper-middle income" - US$4,256 to 13,205 (Argentina, Bulgaria, Colombia, Cuba, Ecuador, Gabon, Guatemala, Mexico, Paraguay, Peru, Serbia and Turkey); "lower and lower-middle income" - up to US$4,255 (Angola, Egypt, El Salvador, Guinea-Bissau, Iran, Mali, Morocco, Nicaragua, Pakistan, Senegal and Timor-Leste). However, due to the lack of information on Venezuela at the World Bank, this country was classified as "low-middle income", in view of the affirmative in response to CNN Brazil about the impact of COVID-19 on the Venezuelan economy, aggravating the economic recession in 2020.[21] To ensure statement confidentiality, high-income country immigrants were identified as HII, upper-middle-income country immigrant, as UMI, and lower-middle-income and low-income country immigrants, as LMI. By observing the growing increase in South-South human migrations to Brazil, including in northeastern Brazil, immigrants were also divided into the following groups for analysis: Latin American country immigrants (LAI) and other country immigrants (OCI).

The method used to recruit and interview immigrants was the "snowball."[22] Non-governmental organizations (NGOs), religious associations, community centers, public health services, and

immigrants' own networks were involved in the recruitment and identification process.

Data collection took place between March 2019 and April 2021, in the home environment or in NGOs and migrant associations. The interviews were carried out by two interviewers, duly trained, in compliance with biosafety standards and, depending on the need, with the help of an interpreter. The interviewed subjects were contacted by telephone or in person and invited to participate in the research.

The international immigrants included in the study were first generation, aged ≥18 years and who speak/have a good understanding of at least one of the languages of the study (Portuguese, Spanish or English). Immigrants who claimed being tourists (two individuals) were excluded from the study. We used a semi-structured interview script, with 22 questions, self-applied, prepared by the authors in a study related to the theme[17,23,24] and to the validated instrument from the Brazilian Institute of Geography and Statistics (IBGE (*InstitutoBrasileiro de Geografia e Estatística*), 2013) regarding the sociodemographic and migratory profile (situation in Brazil, sex, current age, length of stay (months), marital status, fluency in Portuguese (self-judged), education, employment status and monthly income). Health conditions were also investigated, considering the perception of health status (good, very good, neither good nor bad, bad and very bad) before and after migration, the clinical diagnosis of chronic non-communicable diseases (NCDs) and care practices of immigrants (services requested upon arrival in Brazil and search time, as well as the service used in the last 12 months, without the need to inform the time factor and reasons for use). The data collection instrument was submitted to the script's internal validation through application to 2.3% of immigrants, of different nationalities, who were not included in the sample, in order to avoid dubious interpretations, doubts and achieve the objective proposed.

Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS), version 25.0. The confidence interval used was standardized at 95% to show statistical significance ($p<0.05$). The Mann-Whitney test was used for non-parametric variables, while Student's t test was used for parametric variables. For the clustered numerical variables, those divided into groups, based on nationality or sex, or for the normality test, to verify the parametry, the Kolmogorov-Smirnoff test with Lilliefors correction was used. For variables with more than two groups, the Kruskal-Wallis nonparametric test was used.

For categorical variables, with the condition of groups about access to health and health conditions, Pearson's chi-square test and Fisher's exact test were used. The Odds Ratio was used to assess the probability between the groups. The Kappa index was also used in order to assess the strength of agreement between immigrants' reflection on their own health before and after migration, following the scale of interpretation of the Kappa value.[25]

The study was approved by the Research Ethics Committee, under Opinion 3.022.267 and CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 96051318.5.0000.5371.

RESULTS

Of the 214 immigrants found, due to refusal or return to the country of origin, there was a loss (20/9.7% men and 9/4.6% women), ending a population sample of 186 interviewed immigrants of different nationalities.

The data presented were based on the hypothesis of independence (without statistical differences) between per capita income in the country of origin and other variables. In sociodemographic conditions (Table 1), it was possible to observe dependence between groups of countries. It is observed that the LMI group stands out for being younger individuals, with less time of permanence in Brazil, who have elementary education, work without a formal contract and have an income of up to one minimum wage, contrasting with the other groups, mainly the HII group ($p<0.05$). Although other variables do not show significance between groups, LMI also have a greater limitation regarding the Portuguese language, with a predominance of fluency between medium and low, including non-speakers, in addition to many being unemployed.

Regarding diagnosis of NCDs, independence was observed between groups of countries both by income ($p=0.433$) and by location ($p=0.071$). However, of those who confirmed there was, it differed significantly ($p=0.004$) for middle-income country immigrants (MIR) with gastrointestinal comorbidities (34.8%/8) in relation to LMI (4.5%/1) and HII (4.3%/1). Moreover, LAI are approximately twice as likely to have any diagnosed disease as I (Odds Ratio = 1.891). There was no significance in NCDs between the LAI and OCI groups, but the most cited was hypertension (27.5%/37.5%, respectively). Independence was observed between groups of countries by income and location regarding limitation of usual activities ($p=0.685$; $p=0.574$, respectively) and family history for NCDs ($p=0.298$; $p=0.427$, respectively).

The self-assessment of pre-migration health status differed ($p=0.003$) between groups of countries of origin, with emphasis on the "good/very good" alternative for UMI (87.3%) and HII (82.7%), in contrast to LMI (65.1%), and "neither good/nor bad" to LMI (14.3%), differing from UMI (0.0%) and HII (3.8%). The post-migration health status highlighted the "good/very good" for LMI (77.8%) as opposed to UMI (72.2%) and HII (67.3%), followed by "neither good/nor bad"for HII (26.9%) and UMI (23.6%), differing from the LMI group (12.7%), not differing between groups ($p=0.272$).

It was noted that there is moderate and significant agreement (Kappa>0.3; $p=0.001$) in pre-migratory and current health perceptions, distributed by per capita income in the country of origin. UMI claimed "good/very good" health status in the pre-migration period (87.3%). In the post-migration period, there was a reduction of 21.6% for the same claim and an approximate increase of 10% for "bad/very bad" (from 12.6% to 22.5%), (Kappa 0.41; $p=0.001$). Most HII (77.7%) claimed to have health status, in the pre-migration period, as "good/very good". However,

Table 1. Distribution of sociodemographic characteristics, among per capita income groups in the countries of origin, of the immigrants in the study. 2019-2021, Sergipe.

	Origin country income			p-value
	Low- and lower-middle (LMI)	Upper-middle (UMI)	High-income (HII)	
	n (%)	n (%)	n (%)	
Situation in Brazil				
Regular	60 (95.2)	68 (94.4)	52 (100)	0.379[Q]
Irregular	0 (0)	1 (1.4)	0 (0)	
Refugee	3 (4.8)	3 (4.2)	0 (0)	
Sex				
Male	39 (61.9)	45 (62.5)	37 (71.2)	0.537 [Q]
Female	24 (38.1)	27 (37.5)	15 (28.8)	
Current age Median in years (IQR)	31 (25-45.5)	41 (33.5-50)	45 (32.5-59)	0.002 [k]
Length of stay Median in months (IQR)	30(24-36)	64 (26.5-162)	108 (74-145.5)	0.001 [k]
Marital status				
Single	26 (41.3)	18 (25)	15 (28.8)	0.399 [Q]
Married	27 (42.9)	32 (44.4)	24 (46.2)	
Stable union	7 (11.1)	16 (22.2)	10 (19.2)	
Divorced	3 (4.8)	6 (8.3)	3 (5.8)	
Fluency in Portuguese				
High	10 (15.9)	21 (29.2)	21 (40.4)	0.089 [Q]
Low	13 (20.6)	11 (15.3)	6 (11.5)	
Average	37 (58.7)	38 (52.8)	25 (48.1)	
Non-speaker	3 (4.8)	2 (2.8)	0 (0)	
Education				
Not literate and only literate	0 (0.0)	6 (8.3)	4 (7.7)	0.021 [Q]
Elementary and high school	43 (68.3)	31 (43.1)	26 (50.0)	
Higher education (undergraduate and graduate)	20 (31.7)	35 (48.6)	22 (42.3)	
Regarding work				
Currently working	37 (59.7)	51 (70.8)	35 (67.3)	0.330 [Q]
Unemployed	10 (16.1)	7 (9.7)	3 (5.8)	
Does not work for other reasons*	12 (19.4)	11 (15.3)	8 (15.4)	
Retired	3 (4.8)	3 (4.2)	6 (11.5)	
Employment status				
Formal	12 (32.4)	14 (27.5)	10 (28.6)	0.005 [Q]
Informal	10 (27.0)	6 (11.8)	1 (2.9)	
Self-employed	14 (37.8)	27 (52.9)	15 (42.9)	
Employer	1 (2.7)	4 (7.8)	9 (25.7)	
Monthly income				
Up to 1 minimum wage	19 (33.9)	11 (17.5)	3 (6.3)	0.005 [Q]
> 1 to 3 minimum wages	24 (42.9)	19 (30.2)	18 (37.5)	
> 3 minimum wages	5 (8.9)	17 (27.0)	14 (29.1)	
Preferred not to declare	8 (14.3)	16 (25.4)	13 (27.1)	
No income*	10 (17.2)	11 (19.0)	6(14.6)	

Caption: n – absolute frequency; % – percentage relative frequency; IQR – interquartile range; Q – Pearson's chi-square test; K – Kruskal-Wallis test.

there was a reduction in the post-migration period of 12.6% in "good/very good" and an increase of 8% for the claim of "bad/very bad" (from 8% to 20.6%) (Kappa 0, 34; p=0.001). LMI, in the pre-migration period, claimed to be in "good/very good" health status (82.6%), with a reduction in the post-migration period of 8%, but with an increase of 13.6% for "bad/very bad" (from 13.4% to 27.0%) (Kappa 0.34; p=0.001).

When relating the post-migration self-assessment with age, it is observed that there is a significant difference (p=0.004) for those who claimed having a "good/very good" health status, median of 36.5 years (IQR: 29-48 years old), with those who claimed "bad/very bad", median age of 53 years (IQR: 38-66 years). As for length of stay in Brazil, the statistical difference (p=0.005) is between those who claimed to have a "good/very good" health status, median of 44 months (IQR: 24-114 months), with those who claimed "neither good/nor bad", median of 120 months (IQR: 54-312 months). It is noted that the higher the age and the longer the length of stay, the worse their self-assessment of physical and mental health. Furthermore, all immigrants who claimed, in their self-assessment, "bad/very bad", post-migration, used the health service in the last 12 months (p=0.045).

Older immigrants were the ones who most used health services in the last 12 months, with a median of 41 years (IQR: 18-80 years), while those who did not have a median of 34 years (IQR: 18-70 years) (p=0.005). This occurs in the same way for those with a longer length of stay (p=0.016), with a median of 72 months (IQR: 6-564 months), for those who used the health service, with a median of 36 months (IQR: 6 -528 months) and for those who did not use it. Moreover, older immigrants in age showed significance (p=0.005) for the diagnosis of systemic arterial hypertension, with a median age of 55 years (IQR: 27-74), while for those without this NCD, the median was aged 45 (IQR: 21-79), regardless of country income groups.

Table 2 shows that the Brazilian SUS was the most used by immigrants when they arrived in Brazil (p=0.001), with emphasis on LMI (91.5%). LMI showed to seek the health service earlier,

Table 2. Distribution of immigrants' responses on the use of health services, according to per capita income in the country of origin, 2019-2021, Sergipe.

Variables	Country income			p-value
	Low- and Lower-middle (OCI)	Upper-middle (MII)	High-income (HII)	
	n (%)	n (%)	n (%)	
Health system used for the first time in Brazil				
Public	54 (91.5)	44 (67.7)	28 (57.1)	<0.001 [Q]
Private	5 (8.5)	21 (32.3)	21 (42.9)	
Time to search for the first access to the health service				
Median in months (IQR)	3 (0-72)	12 (0-240)	12 (0-240)	<0.001[k]
Health service used in the last 12 months				
Public	38 (80.9)	33 (60.0)	24 (57.1)	0.031 [Q]
Private	17 (36.2)	28 (50.9)	28 (66.7)	0.016 [Q]
Reasons for using the services in the last 12 months				
Follow-up or routine consultation	35 (74.5)	40 (72.7)	30 (71.4)	0.940 [Q]
Complementary diagnostic tests	30 (65.2)	30 (55.6)	28 (66.7)	0.463[Q]
Child health consultation and vaccination	7 (15.2)	5 (9.3)	5 (11.9)	0.658 [Q]
Emergency	14 (30.4)	17 (31.5)	12 (28.6)	0.953 [Q]
Others*	9 (19.6)	9 (16.4)	10 (23.8)	0.658 [Q]
Health services sought by immigrants (without time factor)				
Pharmacy	23 (36.5)	35 (48.6)	27 (51.9)	0.205 [Q]
Basic Health Unit	39 (61.9)	36 (50)	13 (25)	<0.001 [Q]
Private practice or private clinic	16 (25.4)	29 (40.3)	31 (59.6)	0.002 [Q]
Emergency room or private hospital emergency	5 (7.9)	14 (19.4)	9 (17.3)	0.150 [Q]
Emergency room or public hospital emergency	17 (27)	13 (18.1)	12 (23.1)	0.467 [Q]
Other service***	6 (9.5)	5 (6.9)	4 (7.7)	0.893 [Q]

*Others: outpatient clinic, dental office, physiotherapy, surgery; **some immigrants used both health services; ***others: outpatient clinic; IQR – interquartile range.

a median of 3 months, while the other groups had a median of 12 months to seek some type of service. As for use in the last 12 months, SUS was also the most used by LMI (p=0.031), while most of UMI and HII groups used the private service (p=0.016). The reasons for use did not differ between groups, being the main reason follow-up or routine consultation. Regarding the types of health services frequently used, since their arrival in the state of Sergipe, some variables showed dependence between countries, as Basic Health Unit (BHU) (p=0.001), with emphasis on LMI and private office or clinic (p=0.002), mainly for HII (Table 2).

Knowing how to find the BHU in the neighborhood showed a statistical difference between groups (p=0.014), highlighting LMI (85.7%) and UMI (86.1%). It is worth noting that 14 immigrants said they had not used any health system, and there was no dependence on the situation in Brazil (p=0.137). However, it is noted that there is dependence on the non-use of traditional health systems and visits to the pharmacy (p=0.001).

LAI sought health services after about six months of stay in Aracaju, while OCI waited up to one year (p=0.005). Regarding the use in the last 12 months, LAI used SUS more (72.2%, p=0.038), while OCI used private services (66%, p=0.013). LAI were twice as likely to use SUS (Odds Ratio=2.281) compared to OCI. When observing the places of access to health since their arrival in Sergipe, there was a statistical difference for LAI in relation to BHU (p=0.038), and, for OCI, private clinic (p=0.013), while in the other types of services, the groups proved to be independent. OCI were twice as likely to use private clinics (Odds Ratio=2.635) and private hospital emergency (Odds Ratio=1.553), while LAI were three times more likely to use BHU (Odds Ratio=3.182) and approximately twice as likely to use public hospital emergency (Odds Ratio=1.583).

DISCUSSION

The migratory phenomenon is an independent determinant of health that interacts with other socioeconomic and cultural factors.[23,24] Systematic reviews point out that the relationship between sociodemographic conditions and health is more pronounced for migrants than for the native population,[26,27] since precarious life and work situations, limitation in the language of the receiving country, ethnicity, education and lack of familiarization with the health system, as they are newcomers, can generate limitations and differences in the use of health care services, contributing to increase the deleterious effects on immigrants' physical and mental health status,[28-30] which reinforces the look at the health risks of the LMI group.

Regarding NCDs, they did not differ between country groups by per capita income, except for gastrointestinal, but LAI are approximately twice as likely to have some NCD, the most cited being hypertension, as well as for the older individuals in the study, regardless of the group of countries. Findings of this study also indicate that changes in perception regarding post-migration health conditions are associated with age and length of stay, corroborating other studies,[12,22,30] including the emergence of chronic diseases.[31,32]

Immigrants enter the receiving country with better health conditions than the nonimmigrant population, the so-called "healthy immigrant effect".[12,30,33] However, over the years in the receiving country, the health of immigrants deteriorates and can become similar to that of the receiving population, due to the reflection of the acculturation process and negative behavioral habits and socioeconomic factors.[32] A study carried out in Australia on the prevalence of risk factors for cardiovascular diseases, such as overweight/obesity and smoking, showed that Asian immigrants were less susceptible to such comorbidities, but there was an interconnection with the acculturation gap.[34] In a Brazilian scenario, in the city of São Paulo, living and working conditions of Bolivian immigrants determined the profile of specific and chronic diseases, such as respiratory, dermatological and gastrointestinal disorders.[35] It is noted that, in addition to the genetic combination for chronic conditions, its development is added to life habits and environmental factors during the acculturation process, which can lead to possible physical limitations and demand for Brazilian health services.

It was observed that, in the pre-migratory period, the group of immigrants LMI, in Sergipe, had a lower perception of the health condition "good/very good", compared to the other groups, but there was an improvement in the perception of health in the post-migration period. Some individuals continued in the same state of reflection, when comparing their health between the periods. However, others changed their opinion to "bad/very bad," significantly, a fact that can be explained by their age and length of stay in the receiving country.

The LAI group is made up of 70% of immigrants from Venezuela, whose country has been facing a deep humanitarian crisis, resulting in the mass exodus of Venezuelans to border countries, such as Brazil, in order to escape the socio-economic, political problems and the absence of health care,[36] which aggravated during the COVID-19 pandemic,[37] impacting on their pre-migration self-assessment.

Although the SUS is the main gateway to PHC, through the Family Health Units, for the migratory population in Brazilian territory,[38] aspect also highlighted in the present study, the public system faces difficulties in the equity of access in the socioeconomic, organizational dimension and in the professional-patient relationship.[15,39] In the various countries that constitutionally guarantee access to health care for immigrants, historically, this does not reflect quality and barrier-free health care,[17] which may have repercussions in the search for complementary/alternative assistance, for not having their expectations met,[40] in addition to weaknesses in the care provided to immigrants, especially those from low- and low-middle-income countries, in view of a greater use of public services, due to their social vulnerability, pointed out in the present study.

Authors point out that the patterns of use of health services in the receiving country can be influenced by the country of origin, as health beliefs, previous illness experience and health care vary according to different origins, which may explain the patterns of choice of health servicesby groups of countries, mainly high-

income, of this study.[24] Bengali immigrants living in Paraná/Brazil demonstrate access to PHC services much more by their ability to adapt than by workers' ability to offer assistance, according to their needs.[41] A Spanish study points out that immigrants with higher income tend to choose to use private services, because they offer greater comfort and faster access.[42] Such discussions that justify the search for alternative/complementary services for health care, especially high-income country immigrants.

When dealing with the emergency service, this was appointed as the second location sought in a study with Haitian immigrants in Brazil,[23] supporting the present study. A European systematic review study showed that, although immigrants make less use of specialized care and greater use of emergency care, this does not necessarily reflect on an unhealthy population that needs emergency care, but rather that there may be barriers to accessing more adequate health services in receiving countries.[43]

A growing body of scientific literature points out that immigrants face individual, socio-cultural, economic, administrative and political barriers when using health services, that limit the ability to receive care.[16,17,28,29,39,41] This fact may justify a significant trip to the pharmacy of the 14 immigrants in the Sergipe study who did not use the health services since their arrival. A study with Latin American immigrants in Florida (USA) found a trait of cultural continuity arising from the country of origin for self-medication added to lack of access to the formal health system, contributing to the high prevalence of self-medication.[44] In countries that have a health system with structural needs, going to the pharmacy represents the first option sought to solve health problems. However, it becomes harmful, when masking diagnoses in the initial phase of the disease, in addition to non-compliance with medical and health guidelines.[45]

It is necessary to emphasize that there were important limitations in this study, due to the difficulties faced in relation to immigrants, mainly due to the weaknesses of migratory communities established in the state and the lack of completeness of information about the immigrant patient through the main health information systems of the SUS, such as the Hospital Information System (HIS-SUS) and the Outpatient Clinic Information System (OCIS). In addition to this, it is noted that such investigation is relevant for the country, since it aims to outline the profile of the use of services by this population, in addition to being able to be used for the process of interdisciplinary knowledge of strategies and improvements of public policies for welcoming immigrant patients and local care for health protection and promotion, when considering the vulnerabilities imposed by the migratory situation.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

The present study sought to know the profile of use of health services and the associated factors, among migratory clusters, through primary data. Based on the results, significant differences were noted within the subgroups of immigrants, mainly in terms of their patterns of use. The SUS was the most sought service, especially for low- and low-middle-income country immigrants, precisely because it is the group with the greatest social vulnerability, consequently presenting a greater dependence on this service. There are changes in the search for alternative service, private sector, linked to socioeconomic status (income) and country of origin, highlighting high-income country immigrants. The present facts reiterate that, in addition to culture, socioeconomic status shapes immigrants' strategies to conduct health services in the receiving country.

The health sector pharmacy was identified as the main for seeking care by those who did not use the health service in Brazil. Regarding NCDs, it was observed that immigrants of Latin origin are more likely to develop them, while MII have significant gastrointestinal comorbidities, which may be linked not only to the genetic factor, but to the acculturation process. As expected, the immigrant's age and length of stay in Brazil lead to a higher proportion of health service use and chronic morbidity.

From the results, it was possible to extract some implications for practice. First, it refers to the valuation and need for cross-cultural competence in care assistance by health professionals and managers, before the insertion of diversity of beliefs, values and practices that can interfere in the health-disease process. In this regard, emphasizing the need for health professionals to create effective strategies, such as sharing experiences related to health care, aiming at mitigating doubts and limitations in access to health services by immigrant patients, highlighting the SUS, it aims to ensure that the right to health is effective and guaranteed.

As this is a pioneering study in the state of Sergipe, a range of other inquiries and investigations is opened on possible barriers and determinants in the access to health care by immigrant patients, especially in primary care in northeastern Brazil, in order to enable the improvement of public health policies and even the creation of strategies that direct assistance to this population group.

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