Emigration of Brazilian doctors to the United States of America

Emigração de médicos brasileiros para os Estados Unidos da América

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Abstract

This article considers, initially, the mobility of doctors throughout the world from a bibliographic database collection and identifies the lack of information regarding Brazilian doctors. The aim is to analyze aspects that determine the emigration of Brazilian doctors to the United States of America. The methodology is based on bibliographic research using the keywords *brain drain, medical migration, physicians migration, data migration physicians;* identification of articles related to the emigration of doctors throughout the world; elaboration and validation of the questionnaire "Emigration Motives"; identification of doctors that emigrated, using the "snowball" technique; sending of the questionnaire by e-mail to the doctors that emigrated to the USA; tabulation of the forwarded answers; Skype interviews aiming at the validation and illustration of the results obtained in the questionnaire. Initially, the doctors choose to emigrate for personal motives (family, professional opportunities, and, in general, absence of language barriers); when established in the USA, they experience a new way of life that makes them stay (better work condition, quality of life, family and general opportunities); external motives become the cause for staying in the USA (insecurity, professional, political and economic scenarios). The conclusion is that an emigrational process of Brazilian doctors to the USA exists and, at first, the reason to emigrate is not well defined; salary is not mentioned as a primary reason; the presence of the family eases the stay in the country; the proficiency in the English language is fundamental and necessary to restart the professional life as a recently graduated in medicine since there isn't an university degree or medical specialty degree validation.

Keywords: Mobility; Migration; Physicians; Equity; Emigration and Immigration.

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Resumo

Este artigo aborda a mobilidade de médicos pelo mundo a partir de levantamento bibliográfico em base de dados e identifica a escassez de informações referentes aos médicos brasileiros. O objetivo é analisar aspectos que determinam a emigração de médicos brasileiros para os EUA. A metodologia baseia-se em pesquisa bibliográfica, utilizando as palavras-chave "brain drain", "medical migration", "physicians migration", "data migration physicians"; identificação de artigos relacionados à emigração de médicos pelo mundo; elaboração e validação do questionário "Motivos de Emigração"; identificação de médicos que emigraram utilizando a técnica "bola de neve" ; envio do questionário por e-mail aos médicos que emigraram para os EUA; tabulação das respostas encaminhadas; realização de entrevistas por Skype com a finalidade de corroborar e exemplificar os resultados obtidos nos questionários. Inicialmente, os médicos escolhem emigrar por motivos pessoais (família, oportunidades profissionais e, em geral, facilidade do idioma); ao se estabelecerem nos EUA vivenciam uma nova forma de vida, o que os faz permanecer (melhores condições de trabalho, qualidade de vida, família e oportunidades em geral); as causas do não retorno ao Brasil passam a ter motivos externos (insegurança, cenários profissional, político e econômico). Conclui-se que existe um processo emigratório de médicos brasileiros para os EUA e, a princípio, a motivação de emigrar não é bem determinada; o salário não é citado como questão primordial; a presença da família facilita a permanência no país; a fluência na língua inglesa é fundamental; e é necessário recomeçar a vida profissional como um recém-formado em medicina, pois não existe processo de validação de diploma ou de especialidades.

Palavras-chave: Mobilidade; Migração; Médicos; Equidade; Emigração e Imigração.

Introduction

The international migration of physicians and other health professionals is an old and well-studied phenomenon. In recent years, however, there is a growing concern about this process, given the aging of the general population and the consequent increase in chronic diseases, epidemics and emerging infectious diseases, which are increasingly requiring more health professionals to meet the new demands (Mota, Ribeiro, 2016).

According to the World Health Organization (WHO), the shortage of physicians is a barrier to meeting the millennium goals and improving health conditions in many countries and regions (WHO, 2010). In view of globalization, scarcity in various parts of the world, and concern for the mobility of health professionals from developing to developed countries, the WHO has developed a document to promote ethical recruitment. Published in May 2010 by the World Health Assembly, The Global Code of Practice on the International Recruitment of Health Personnel establishes voluntary principles and ethical practices in the international recruitment of these professionals (WHO, 2010).

In another initiative, of 2015, targeting developed nations, the Organization for Economic Cooperation and Development (OECD), which aims to promote economic growth and the social well-being of people around the world, has defined policies and analyzed trends of participating countries in relation to the supply and demand of health professionals (OECD, 2013, 2015). Among them are: the need to train new doctors to replace those who are retiring; consideration to the *numerus clausus* of each country for the establishment of annual quotas of students admitted to the faculties; development of advanced education programs aimed at nursing professionals that can replace general practitioners in simpler care; reduction of dependence on trained professionals abroad; use of technology to meet the health needs of populations living in marginal regions, far from major centers; and promotion of more efficient use of health professionals' skills in relation to workplaces, avoiding over- or under-qualification (OECD, 2013).

Given this scenario, this work aims to understand the process of emigration of Brazilian physicians to the United States from an exploratory quali-quantitative research.

Justification

It is observed, over time, the existence of a global mobility of physicians who, trained in their countries of origin, move to other countries in order to practice their profession (Chanda, 2002; Marchal, Kegels 2003, OECD, 2007, Păunică; Pitulice, Ștefănescu, 2017, Siyan, Dal Poz, 2014, Vujicic et al., 2004). In the case of Brazilians, this movement presents the sense of going, permanence for a period of time destined to training in services and learning new techniques, and returning, allowing the application of the acquired knowledge and thus contributing to the improvement of national medicine (Zarrilli, 2002).

Over the years, this movement came to be done in one direction only, characterized as an emigration process, a real "brain drain". Despite not being quantitatively significant, we became increasingly aware of physicians and their families who moved to another country with the intention of not returning to Brazil (Berlinck and Sant'anna, 1972).

When we think about this, we usually associate medical mobility around the world with situations of war and misery. But what leads Brazilians to emigrate and change their lives, even though they can practice medicine in Brazil and have a good income as compared to other professional categories?

In Brazil, from the *Mais Médicos* Program, instituted by Law nº 12.871 of October 22, 2013, another aspect that could influence emigration or permanence of these professionals (Brazil, 2013) came into the picture. Based on three axes, the program projects (1) reordering the offer of medical and medical residency degrees in the country, with the opening of new courses; (2) establishment of new parameters for medical training through new curricular guidelines and requirements for entry into medical residency programs; and (3) teaching-service integration in priority areas, through the More Doctors Project for Brazil (*Mais Médicos para o Brasil*, PMMB) (Brazil, 2013).

In theory, the creation of new medical courses and new places of residency aimed at the training of general practitioners and family doctors to serve historically underserved areas (Brazil, 2015) can help to settle physicians in national territory. But, how will the program be in practice? Will the attractiveness of a good salary, better working conditions and infrastructure be sufficient to retain these physicians? What aspirations can make young medical professionals settle in regions that need them? If this new generation cannot find attractions and good reasons for exercising their profession in the country where they graduated, we will probably have a numerically significant escape to other places in this globalized world.

What do we need to know about emigrated doctors' thinking that can help Brazil retain graduating professionals? Retention does not simply mean "not letting go". Besides improvement, emigration should be understood as a process of coming and going, of exchange, of growth.

Aim

To analyze aspects that determine the emigration of Brazilian physicians to the United States.

Methodology

This is an exploratory survey based on bibliographical and documentary research in general, followed by a quali-quantitative approach based on interviews with Brazilian physicians who emigrated to the United States. The following steps were taken to make this survey feasible:

1. Development and validation of an "Emigration Reasons" questionnaire, considering the Brazilian and North American scenarios, containing closed and open questions about the reasons that led the doctors to emigrate: why they went, why they stayed, why they would return and why would not they return to Brazil.
2. Identification of physicians who emigrated, using the snowball sampling technique.

3. E-mailing the questionnaire to physicians who emigrated to the United States.
4. Tabulation of forwarded responses.
5. Skype interviews that corroborated and exemplified the results obtained in the questionnaires.

The survey was approved by the Ethics Committee of the School of Public Health of the University of São Paulo on October 27, 2016.

Results

The sample obtained in this study consists of 19 physicians, more than half men (57.8%), whites (89.4%), married (84.2%), with an average of 1.2 children and mean time of emigration of 9.5 years. Considering the spouse's nationality, 31.5% are Americans and 36.8% are Brazilians. Ten of them graduated from public Brazilian colleges in eight states, while 15 did medical residency, five had a master's degree, and three a PhD degree (complete or in progress). As regards registration in the Federal Medical Council (CFM), 10 physicians requested its cancellation and 3 keep it active; for 6 physicians, lack of information precluded the identification of their licensing status.[1]

Women accounted for 42.2% of the studied sample, consistent with the phenomenon of feminization of medicine in Brazil. The mean age was 42 years. Regarding the age at which they emigrated to the US, the mean was 34 years, ranging from 24 to 43 years.

The time of residence in the United States ranges, following the migratory process, from 1 to 28 years, with a mean of 7 years. In relation to two physicians who had been for one year in the US at the time of the survey, in the process of adaptation, one was accompanying her husband and the other was using real estate income from Brazil.

Participants finished their studies in a diversity of medical schools, with predominance of the South and Southeast regions (São Paulo, Rio de Janeiro, Paraná and Rio Grande do Sul). Regarding the nature of the institutions from which they graduated, 52.6% are public and 47.3% private.

Almost all participants (18) practiced medicine in Brazil in public service (21.1%), private practice (31.5%), or both (42.1%) before moving to the US. Therefore, when they left the country, all the doctors in the sample were practicing medicine, but only 31.6% of those who emigrated were not working as physicians during the time of the survey. Regarding medical residency, 21.1% did not do it and the remaining 78.9% had more than one complete residency.

For the foreign professional to practice medicine in the United States, it is necessary to submit to the United States Medical Licensing Examination (USMLE) and be fluent in English (proficiency is measured in the second stage of this examination). Professional clinical practice, however, is only authorized upon completion of a specialization. The USMLE is also applied to physicians trained in US institutions. It is important to emphasize that it is not necessary for the foreigner to pass the exam to work in the area of teaching and research (Ribeiro, 2015).

The USMLE consists of four steps:

- *Step 1*: Theoretical test on basic sciences.
- *Step 2 CK* (*clinical knowledge*): theoretical test of clinical knowledge with emphasis on diagnosis and prevention.
- *Step 2 CS* (*clinical skills*): practical test of clinical skill.
- *tep 3*: theoretical test of clinical knowledge with an emphasis on treatment.

We can say that these physicians, when moving to the US, had to resume their training as recently graduated doctors, often redoing a residency already completed in Brazil. Of the 19 respondents, 13 had already taken the USMLE (68.4%), of whom 10 (52.6% of respondents, 76.9% of those who took it) passed.

As regards the professional activity practiced in the US, 45.5% worked as medical assistants, while 3 of the 19 participants also worked as professors. Of the total self-reported occupations, 22.7% were

1 CFM - CONSELHO FEDERAL DE MEDICINA. *Busca de médicos*. Brasília, DF, 2017. Disponível em: <https://bit.ly/2OlAOSf>. Acesso em: 14 set. 2017.

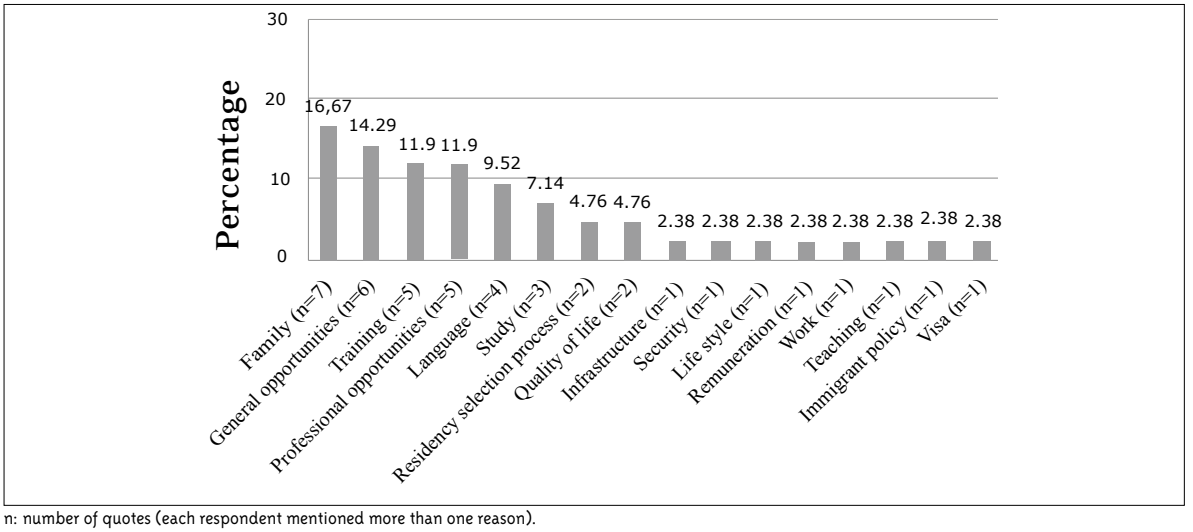
professors and 13.6% were researchers; 9.1% were studying to take the USMLE; 1 volunteered in the health area and 1 did not practice medicine, but was preparing for medical residency.

It is observed that 61.9% had the salary itself as the main source of income; 19%, the spouse's salary, having as main source or as a complement to the salary some Brazilian income or private reserve. Only 1 had a medical residency scholarship (4.8%).

Chart 1 shows the reasons why these physicians chose the US to emigrate, with highlights for "family" (16.7%), "general opportunities" (14.3%), "professional opportunities" and "training" (11.9% each). Ease of language is in fourth place, with 9.5% of the total motivations mentioned.

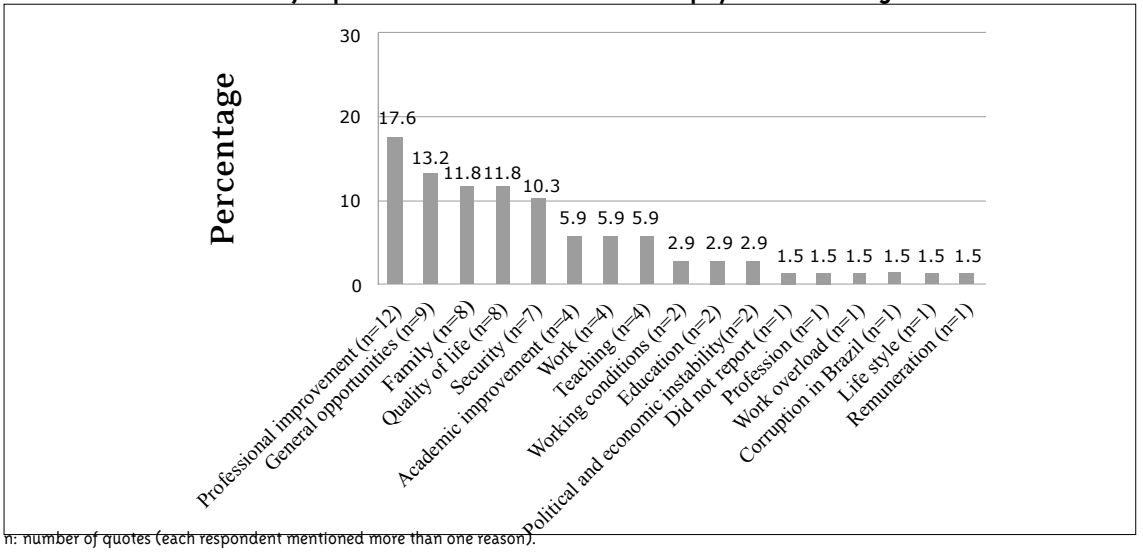
Chart 2 shows the self-reported reasons that led physicians to emigrate to the US, where "professional development" is mentioned at 17.6%, followed by "general opportunities" (13.2%), "quality of life" and "family" (11.8% each) and "security" (10.3%). The reasons mentioned in this question are similar to those related to the choice of country.

Chart 1 – Self-reported reasons that led Brazilian physicians to choose the US and not another country



n: number of quotes (each respondent mentioned more than one reason).

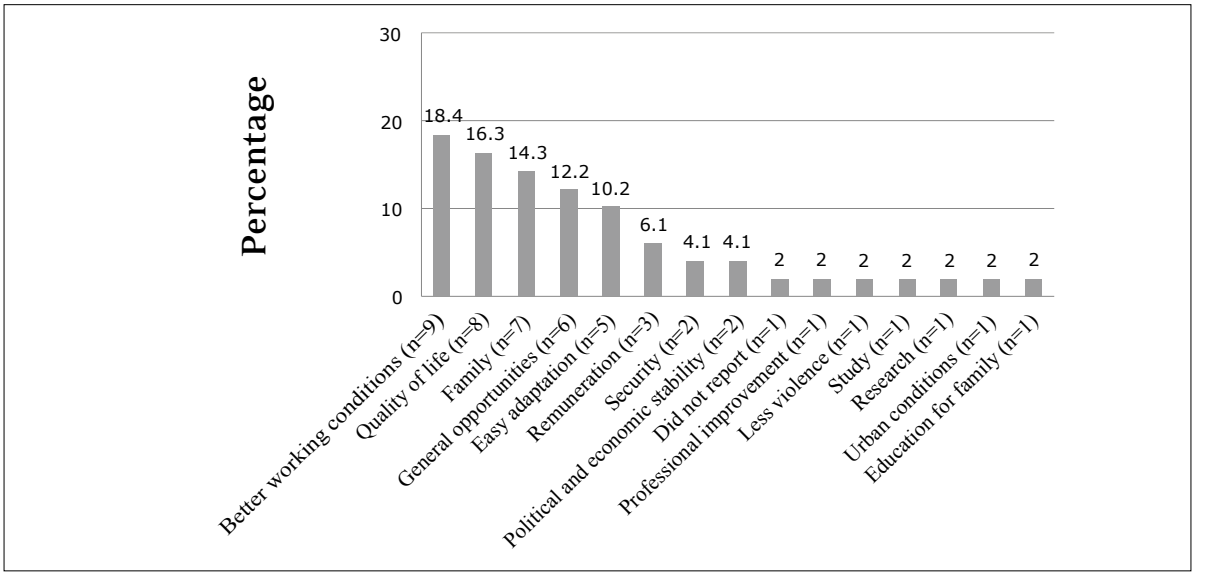
Chart 2 – Self-reported reasons that led Brazilian physicians to emigrate to the US



n: number of quotes (each respondent mentioned more than one reason).

In Chart 3, on the reasons for physicians' permanence in the USA, "better working conditions" (18.4%), "quality of life" (16.3%), "family" (14.3%), "general opportunities" (12.2%) and "easy adaptation" (10.2%). "Remuneration" appears for the first time as a reason (6.1%).

Chart 3 - Self-reported reasons that led Brazilian physicians to stay in the USA

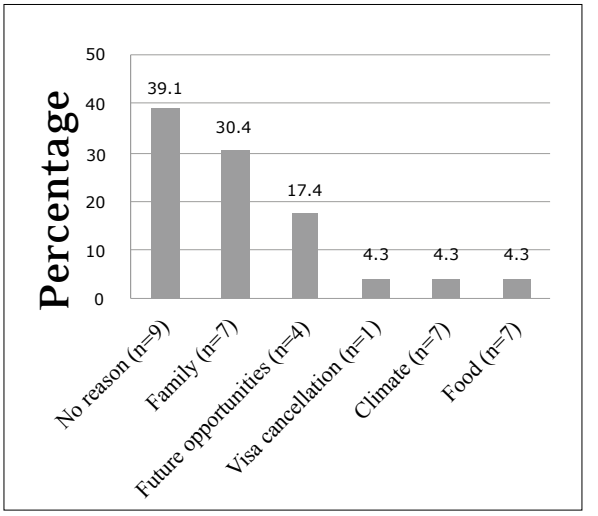


n: number of quotes (each respondent mentioned more than one reason).

In Chart 4, which shows the reasons why emigrant physicians would return to Brazil, 39.1% reported that there is no reason to do so, 30.4% would return to the country for some family-related reason, and 17.4% if they had future opportunities, mainly professional ones. Among those who reported that there was no reason to return to Brazil, insecurity regarding professional and family future seemed to play a strong role.

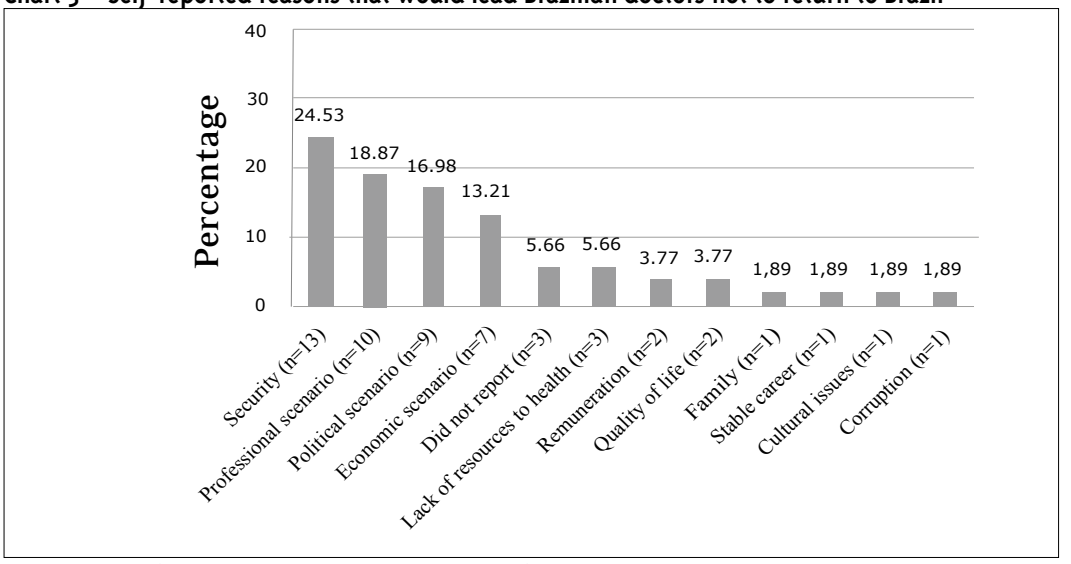
Chart 5 summarizes the reasons why the participant would not return to Brazil. Highlights are the issue of "insecurity" (24.53%), followed by "professional scenario" (18.87%), "political scenario" (16.98%) and "economic scenario"(13.21%). In the open questions, it is clear that doctors, even though they have already settled in the US, follow the Brazilian situation, whether regarding the economic and political crisis, denunciations of corruption and impunity, or in terms of crime, violence, public services of poor quality, and lack of research encouragement. It is observed in the interviewees' statements that the concept of "security" is also related to situations of comfort and maintenance of the *status quo* reached in the USA.

Chart 4 – Self-reported reasons that would lead medical emigrants to return to Brazil



n: number of quotes (each respondent mentioned more than one reason).

Chart 5 – Self-reported reasons that would lead Brazilian doctors not to return to Brazil



n: number of quotes (each respondent mentioned more than one reason).

Discussion

Renner and Patarra (1980) use the 1973 UN concept that migration results from the interaction and balance between factors of expulsion from the area of origin and attraction of the destination area. By analyzing the results of this survey, we see that the reasons that led physicians to choose the US and encouraged them to change their lives can be considered as attraction factors. On the other hand, the reasons for staying in that country and those of refusal to return to Brazil are in line with what the authors name as expulsion factors, since they originally encouraged these professionals to leave Brazil. From this perspective, it can be affirmed that the migratory flow occurs from the imbalance of these factors, sometimes hanging to one side, sometimes to the other, sometimes considering the personal issues, sometimes the external ones.

Compared with South Africa, whose loss of doctors to developed countries is around 50%, the process of emigration of Brazilians to the United States is not significant because of the number of medical professionals in training and activity in Brazil. Qualitatively, however, the emigration of these doctors to a developed country does mean a loss of intellectual capital (or brain drain*).* They are professionals already graduated and with residency, many with Masters' degree, who propose to restart their career by submitting to a very rigorous selection process (USMLE), requirement for application in a medical residency that only then gives access to the exercise of medicine that they already practiced in Brazil. These professionals represent an intellectual cream that could greatly contribute to the scientific advance of the national medical field (Mota, 2018).

Still considering the UN's definition, migration is a form of spatial mobility between geographical units, with permanent change of residence, while permanent immigrants are considered as those who intend to stay for more than a year in the destination country (Santos, Levy, Szmrecsanyi, 1980). It is understood that the process of Brazilian physicians moving to the US with the intention of remaining there is a phenomenon of migration rather than a temporary change process for academic and professional improvement.

Regarding the phenomenon of countries whose medical schools offer export education, such as Cuba, Ireland and Australia, Brazil still does not fall into this category. However, given the growth in the number of Brazilian physicians, twice as high as the population growth (Scheffer, 2015), and the

new vacancies for medical graduation, it is possible to project an increase of these professionals in the labor market, which suggests that the emigration process may occur in the same proportion in the very near future.

The original objective of the creation of new medical courses, within the scope of PMMB, was to fill the historical deficit of physicians and fix them in the more remote regions of the countryside and in those of greater vulnerability, such as the indigenous districts and the peripheries of the great Brazilian urban centers (Brazil, 2013). If this fixation does not occur, it is likely that the contingent of recent graduates will seek more central regions of Brazil, where there is a greater supply of health resources, while the more qualified professionals will have the opportunity to emigrate in search of better conditions to exercise the profession (Mota, 2018).

Two points deserve to be highlighted about medical emigration. The first is that the United States, along with the United Kingdom, is the most coveted destination in the world by health professionals. According to the OECD, in 2013 there were about 200,000 foreign physicians in the United States, trained in countries such as India, the Philippines and Pakistan, representing about 25% of the total number of working professionals (on British soil in 2014, they were 48,000, mainly trained in India and other European Union nations) (OECD, 2015). Second, in the specific case of Brazil, medical schools follow the American academic line; textbooks are written mostly in English; and the best-known authors are in the USA. This search for the "origins", the "masters" and the schools that were created by them is relevant, yet not always verbalized, in academic and professional choices. This can be summed up in the idea of being able to live where their masters lived and studied (Mota, 2018).

The physicians participating in this survey stated that the initial motivations for moving to the United States were family and the pursuit of new opportunities, general or professional. After living for a while in the United States, the permanence was justified for the same reasons that led them to emigrate: better working conditions, quality of life, family and general opportunities. "Quality of life" appears second in the quotes, indicating the valuation of a concept that was not very clear initially, but which then turned out to be an increasingly evident necessity.

"Family" was an ever-present motive, indicated as important in the decision to emigrate, in the choice of country and in the reasons for staying. At the same time, the family relationship appeared as a decisive factor for an eventual return to the country of origin. As DeBiaggi (2004) observes, in Brazilian culture, unlike in the Anglo-American, family relations are highly valued. According to the author, for Brazilian emigrants, generally and not specifically physicians, the economic project of migration often involves the family and affective project (DeBiaggi, 2004). The physicians participating in this survey corroborated that a success factor in the emigration process was the family nucleus, both the one already constituted in Brazil and the one constituted in the US. Thus, family support in daily life is part of successful emigration (Mota, 2018).

The movement to adapt to the new life and the new country is more evident as we analyze the reasons that would lead these professionals to return. Almost half the doctors reported there were no reasons to return to Brazil; others mentioned the importance of the family in the decision to return, provided that future opportunities in general are guaranteed.

If the motives that mobilized the change of country and life have been more concerned with personal issues (family, career, opportunities in general and quality of life), there is a shift in focus when these doctors explain the reasons why they would not return to Brazil. Initially, 39% of them had no reason to return. Regarding the motivations that would justify this option, they first mentioned lack of security, followed by professional, political and economic scenarios.

What has changed in the lives of these people in the time they spent in the United States? It is hypothesized that the time of stay outside Brazil was sufficient to assimilate a new way of life, with the situations of discomfort experienced in Brazil seen from a new perspective. In it, insecurity and national

political-economic instability become determinants of non-return. It is worth remembering that in the 2015-2016 period, Brazil was experiencing a serious economic and political crisis.

Regarding insecurity – the most cited reason for non-return –, it is observed that the interviewees' perception is based on a study carried out by the Economist Intelligence Unit (EIU), research and analysis area of the controlling group of *The Economist* magazine, in which Brazil ranked 81st among 138 countries. The Brazilian homicide rate is 26.5 per 100,000 inhabitants, while in the US it is 4.9. In relation to the number of deaths in traffic, the Brazilian rate was 23 deaths/100 thousand inhabitants in 2015, while in the US in the same period it was 10.6 – less than half the national rate (Tavares, 2017).

Regarding health investments, while Brazil applies 6.8% of GDP in the sector, in the US this percentage is 21.3% (Mota, 2018). However, there are factors that go beyond public underfunding for health and poor remuneration for the medical services provided by the Unified Health System. There is a need for improvement in such factors as the effectiveness of basic care; the distribution of doctors in the country; continuing training and support for the professional at the top of the system; the use of technologies and intelligence for health information, such as electronic medical records in basic care, predictive models of epidemics and outbreaks of infectious diseases; and cost-effectiveness analysis (Saldiva, Veras, 2018).

Concerning the perception of workload, the study "Medical Demography in Brazil" reports that almost a third of Brazilian professionals (31.7%) feel "overloaded", a percentage that increases to 38.6% when they work concurrently in the public and private sectors (Scheffer, 2015). These data corroborate one of the reasons that led the participating physicians to emigrate to the United States: the quality of life category.

Conclusion

There is indeed an emigration process of Brazilian physicians to the United States. Although not quantitatively significant in relation to the number of annual graduates in the country, this is a qualitatively important process.

The most important motivations for choosing the US instead of another country include family, quality of life, general and professional opportunities and ease of language. In addition, these doctors emigrated to that country in search of professional improvement and general opportunities, quality of life and family.

Participants chose to stay in North America motivated by better working conditions, quality of life, family and general opportunities. On the other hand, family and future opportunities in general would be reasons to return to Brazil, while the decision not to return to the country concerns perceptions of insecurity and professional, political and economic scenarios.

Fluency in the English language is a necessary and crucial condition for the medical residency process, without which it is not possible to practice medicine in the USA. There is no validation process for a diploma or specialties, and it is necessary to start over as a medical graduate.

The reasons that justify Brazilian doctors' emigration are at first much more of a personal character, in search of improvement of life standards. However, the non-return to Brazil concerns aspects external to individuals (security and political, economic and professional scenarios).

The will to emigrate is not always clear from the beginning; salary is not a prime issue in the decision of emigrating. The presence of the family facilitates staying and overcoming any difficulties that may have occurred outside the country of origin.

If salary is not a paramount issue, however, the working conditions are. There needs to be a professional management of health services where doctors can practice their profession without having to worry about solving basic administrative issues. An example of what would be an improvement in management is the implementation of a comprehensive patient information system, one that includes the scheduling of consultations, unified and computerized medical records, the request of necessary examinations for diagnosis and results obtained in a timely manner to perform the treatment, the possibility of referring the

patient to a specialist, and other services in the health network. Also, a referral and counter-referral service between basic units, specialty outpatient clinic, hospitals and rehabilitation services, among others. In short, to enable physicians to exercise their profession, to which they devoted so much time of study and energy, in a dignified and ethical way, ensuring respect for the professional and the patient.

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Authors' contribution

Mota conceived the survey, collected, analyzed and interpreted data, and prepared the manuscript. Ribeiro supervised the research.

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