

The Mobility of Medical Specialists: a Socio-historical Case Study of Neurosurgery in Benin

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Introduction

The circulation of doctors represents a fascinating case study in the field of medical sciences. It is situated at the nexus of two key phenomena: the professionalization of managers and elites, and student mobility. Despite this, it remains a distinctive phenomenon, as it concerns a socio-professional class that is widely perceived as prestigious (Blain, Fortin and Alvarez, 2014). However, the effects of student mobility, particularly when it relates to professional specialisation and not just initial training, remain relatively unexplored. Consequently, the impact of student mobility is sometimes evaluated in terms of public policies designed to regulate migration (Makaremi et Kobelinsky, 2008), particularly by Western countries. Alternatively, it is considered in the context of the disruption to the migrant's personal life. However, the migration paradigm has undergone a significant shift in recent years, which has enabled it to incorporate the notion of mobility to a greater extent (Eyebiyi et Mendy, 2019). This shift has led to the emergence of new paradigms, such as the circulation of human flows, the circulation of knowledge and skills (Gaillard et Gaillard, 1999; Eyebiyi, 2011), and the circulation of models, reforms and even policies. These paradigms have become effective avenues for research into student and training mobility. The internationalisation of higher education and its commodification (Charle et Soulié, 2015), together with the consolidation of organised mobility policies such as ERASMUS (Papatsiba, 2003; Ballatore et Blöss, 2008; Erasmus, 2010), ESCALA (Nogueira et Ramos, 2014) and others, have led to an increase in student mobility. This phenomenon is occurring both through the movement of students and through their desire to gain access to knowledge in new geographical areas, without abandoning their original destinations. The tradition of medical training in West Africa is a product of the colonial era. The recent changes in higher education in the region have contributed to the evolution of existing dynamics, leading to the emergence of some countries as centres of excellence in medical training (Eyebiyi, 2020).

This article employs a socio-historical approach to examine the training of neurosurgeons in Benin. The aim is to ascertain the role and significance of student mobility in the emergence of new disciplines or specialities within the context of students' coun-

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tries of origin. The hypothesis put forth is that the emergence of new disciplinary fields is a positive consequence of student mobility, particularly when it concerns professionally trained individuals seeking to acquire specific, cutting-edge skills, such as doctors. The objective is to examine whether this specialty is a product of student mobility and to determine its establishment in the professional medical environment of the country of departure, in this case Benin. From a methodological standpoint, this research draws upon a corpus of data from a qualitative survey conducted between February and May 2015 as part of the MEDICALUS programme and documentary review. The survey was conducted with five of the six neurosurgeons then working in Benin. These individuals were identified using the snowball method, due to the relatively small number of neurosurgeons in the country. Biographical interviews were conducted through several meetings, with one of the respondents also interviewed via email¹, and leads to all verbatim quoted in this paper. The limited number of practising neurosurgeons permitted this approach. Each interview was based on a structured interview guide focusing on the biographical experiences and career paths of the respondents.

The advent and development of neurosurgery in Benin

The modern history of neurosurgery in Africa begins in 1951 in Egypt (Broalet, Diby, Dongo *et al.*, 2022). In West Africa, the first neurosurgery department was established in Nigeria in 1962 at the University Hospital Centre in Ibadan (Okon Udoh, 2013). The practice of neurosurgery began in Côte d'Ivoire in 1972, and in Benin, where the discipline is relatively new, the first neurosurgeon was registered in 2002: Dr. Isaac Hans Houinsou. He was trained in Europe and was joined in the same decade by five other colleagues. These pioneers, who arrived at the specialty through a variety of circumstances and with their own specific motivations, are custodians of the training they received in Africa and Europe. They utilized this training for their compatriots by returning to the public sector, for the most part, and secondarily to the private sector.

About neurosurgery

The tradition of medical training in West Africa is a product of the colonial era. The recent changes in higher education in the region have contributed to the evolution of existing dynamics, leading to the emergence of some countries as centres of excellence in medical training. A detailed examination of these dynamics is provided in Eyebiye (2020), situating the foundation upon which more specialised training, conducted in various universities across the continent, will be built. Neurosurgery is a medical discipline that is sometimes considered a sub-discipline, specialising in the surgical treatment of the central and peripheral nervous systems. It has emerged in recent years in a particularly challenging environment. In Benin's medical landscape, the six specialists practising at the time of our fieldwork were trained abroad, and most of them work in public hospitals. Although neurosurgery does not enjoy a high profile, it remains indispensable in African areas due to the high frequency of road accidents and the civil insecurity that accompanies industrialisation (Okon Udoh, 2013). The recurrence and diversity of neurosurgical conditions necessitates the involvement of practising specialists. Neurological diseases arouse fears that tend to confine them to the sphere of the unspoken, or even the hidden, as far as possible. They are often the secret of their carriers. Consequently, the declaration that a child is afflicted with a brain disorder or

1 The authors would like to express their gratitude to all the neurosurgeons who participated in this study, as well as to the reviewers and editorial team of the journal *Africana Studia*.

is subject to malformations (such as a lack of closure of the neural groove, craniostenosis, hydrocephalus, etc.) still carries a somewhat negative anthropological connotation. The intrinsic relationship of this discipline to the life/death pairing fundamentally contributes to underscoring its importance for human life and legitimises patients' fears.

«If you're told that your child has hydrocephalus and could die quickly from it, and you can't afford to go abroad and someone here can look after him, you're happy, aren't you?».

«Can you have the courage to tell people that you have a malformed child?».

Neurological disorders are diseases that are not well understood locally, which contributes to a sense of fear among many patients. This fear is further compounded by the perception that their carers possess rare and important knowledge, or that they are special individuals capable of treating illnesses that are considered to be on the borderline of the normal. Furthermore, the treatment of neurological diseases generally requires a technical platform that did not exist in the early 2000s, as well as well-trained specialists. Beninese neurosurgery is a product of student mobility. Its existence is owed not only to the mobility of students but also to the efforts of those who bear the responsibility for its development. A historical review of the conditions under which it came into being sheds light on the careers and experiences of its specialists, with a view to questioning the structural products of student mobility.

Precursors and actors of the specialty

The inaugural steps towards neurosurgery in Benin were taken in the early 1990s by Dr Véronique Lawson, the first woman to hold the position of Minister of Health during the period of democratic renewal. In 1993, Véronique Lawson, a physician herself, engaged in a discussion with a surgeon at Kouandé hospital in northern Benin, about neurosurgery. Three years later, in 1996, she was responsible for promoting his case, making him subsequently undertake further training in Belgium and France, returning home as the first Beninese neurology graduate. Over the following decade, several doctors followed in his footsteps, further enhancing the human resources available in this speciality. They were initially trained on the African continent before moving to Europe, particularly France. The mobility pathway is that of graduates already in employment who then invest in a specialisation in a field under construction in which they will be pioneering figures. The point of convergence for the second wave and the first neurosurgeon remains the desire to return to Benin to put the knowledge they have acquired to use in the national health system. Of the seven neurosurgeons registered at the time of our surveys, six were active, resulting in a ratio of one neurosurgeon for over 1.6 million inhabitants. Consequently, the small number of pioneers still falls far short of the number required. On 10 January 2017, these pioneers established the Beninese Society of Neurosurgery (SBNC), which is based in the neurosurgery department of the Departmental University Hospital of Borgou and Alibori (CHDU-BA). The SBNC currently has around thirty members.

A decade of experience

Neurosurgery is practised daily in the few health centres and facilities where specialists in this discipline work. The discipline of neurosurgery was structured in Benin between 2003 and 2007 at the *Hôpital d'Instruction des Armées* (HIA) in Cotonou, with the creation of a specialist neurosurgery department. To enhance the reputation of neurosur-

gery in Benin, and with the support of the military hierarchy and the Ministry of Health, the specialist conducted operations in other regions of the country. During these early years, the neurosurgery core was located at the *Hôpital d'instruction des armées*, as were its personnel. In 2008, a second centre was established in Parakou in northern Benin. The two units will be reinforced as new neurosurgeons are integrated into the team.

Access to neurosurgical services remains a significant financial burden, particularly given the estimated cost of routine care, which ranges from 250,000 to 500,000 FCFA. In addition to these services, which are offered in a limited number of public hospitals, humanitarian missions are regularly organised by various NGOs, which may or may not be connected to international networks, to provide neurosurgical care to patients who generally lack access to urban centres where neurosurgical services are concentrated. In view of these considerations, in 2013, the military hierarchy of the *Hôpital d'Instruction des Armées* (Army Forces Training Hospital), in collaboration with the Ministry of Health, initiated the “Mobile Info Neuraxis Project².” While the primary objective is to facilitate access to neurosurgical care, this initiative has also contributed to enhancing the visibility and accessibility of neurosurgical activities to a broader public. Dr Hugues Gandaho is the principal investigator of this project, which involves the relocation of surgical missions within the country. The *Hôpital d'Instruction des Armées* has become the focal point for the dissemination of this activity. The six neurosurgeons practising in Benin now of our fieldwork were distributed between the Centre national hospitalier universitaire-Hubert Koutoucou Maga (CNHU-HKM) and the *Hôpital d'Instruction des Armées* (HIA) in Cotonou, the Centre Hospitalier Départemental Borgou-Alibori in Parakou and the Centre Hospitalier Départemental de l'Ouémé-Plateau in Porto-Novo. The concentration of these specialists in the main towns (Cotonou, Porto-Novo and Parakou) follows the health map of the departmental hospital centres. As practitioners, Beninese neurosurgeons apply their skills to the benefit of patients, while simultaneously engaging in a range of scientific activities, including the publication of articles in international journals and participation in international conferences and symposia.

Motivations, profiles, trainings and experiences

The reasons why medical students choose their destinations (Ionita, 2023; Ionita et Vlad, 2022) and their specialities (Tbatou *et al.*, 2021) in the medical field are essential parameters for understanding medical mobility in terms of training. Among the many reasons given by Beninese doctors for their attraction to neurosurgery are alleviating the suffering of the population and gaining access to a new discipline. As indicated by the experts we consulted, obtaining a specialisation grant is a common pathway to training in neurosurgery.

Choosing an unfamiliar speciality

The decision to pursue a specialty that is not one's primary area of expertise is influenced by a few factors. These include a desire to experience something new, a clear motivation to alleviate the suffering of one's fellow citizens, and a genuine interest in the field of study. These factors were among the reasons why general practitioners in Benin chose to specialise in neurosurgery. The pioneer of this specialty in Benin, for instance, cited the novelty of neurosurgery in the Beninese medical arena as the reason for his choice.

² The original name in French: *Névraxe Info Mobile*.

“There wasn’t a neurosurgeon (...). I was lucky. I met Mrs. Lawson, who was Minister of Health in the 90s, and she offered me the job. At the time, I was preparing for an internship exam in France, so I said why not? She offered it to me in 1993, and I didn’t start training until 96.”

For some, it’s a specific experience during their training in general medicine that sparks their interest in a specialty that wasn’t well-known at the time. This was the case for one of the three neurosurgeons who started their general medical studies in Togo.

“I was training at the time and that’s what got me the scholarship. In my cover letter, I told a story that I had experienced. I was in Lomé at a private clinic called Clinique St. Joseph. A neurosurgeon was on holiday and came to operate at this clinic. There was a lady, a shopkeeper from Azovè³, who had come to Lomé via the tracks. She had a herniated disc and was in a lot of pain. She was lying on a tarpaulin⁴. She came for an operation and left in the same conditions. For something so simple, I promised myself that, for my compatriots, it would never happen again. From that moment on, I decided that I would become a neurosurgeon or nothing.”

Another doctor was inspired to pursue a career in neurosurgery after meeting neurosurgeons during his training as a general practitioner. He was drawn to the field by its technical accessibility and the opportunity to contribute to the advancement of medical knowledge.

“Every time the missions came in and looked after the patients, I was given the responsibility of looking after them. That’s how my interest in this specialty was born.”

The motivation for two others is the love of the discipline. One of these individuals recognised his interest in neurosurgery during his second year of general medical training, when he encountered a specialist in neuroanatomy. It is notable that half of Benin’s neurosurgery specialists began their general medical training in neighbouring Togo. Senegal, France and Morocco are the next flagship countries for Beninese neurosurgery. All the specialists were trained in these countries, apart from Benin’s inaugural neurosurgeon. In Senegal, Cheikh Anta Diop University of Dakar (UCAD) is home to four of the five Beninese specialists trained in Africa, who are undertaking further theoretical training in France through practical placements. Of the four specialists trained in Africa, three elected to pursue a career in neurosurgery after observing the challenges encountered by their compatriots in accessing treatment during regular missions to Togo by German neurosurgeons.

In the Beninese context, the reasons for pursuing a career in neurosurgery are multifaceted. These include opportunities, a desire for self-fulfilment, or a vocation that emerged during general medical studies; the applicant’s financial capacity; and a desire to help a specific type of patient. These factors reflect the diversity and complexity of the motivations behind student mobility, while at the same time considering the specific nature of the choice of training sites located in geographical proximity (Africa) or in the colonial training tradition (the former metropolis, for example).

Cross-profiles of neurosurgeons

The profiles of Beninese neurosurgeons demonstrate a diverse range of backgrounds, even though they are the product of student mobility to the highest degree. A general

³ It’s a town in the commune of Aplahoué in the department of Couffo, in south-west Benin.

⁴ The vehicle used to transport goods.

surgeon practising at the hospital in Kouandé, was proposed for specialisation in neurosurgery in 1993. He commenced this in 1996 in Belgium at the Université Libre de Bruxelles and the Hôpital Erasme, then in France at the Hôpital Neurologique de Lyon, Université Claude Bernard. In October 2002, upon completion of his training, he returned to Benin and began practising at the CNHU-HKM. The second profile is that of a doctor who obtained his BG baccalaureate (with major in biology and geology) in 1988. At the time, Benin was experiencing a general crisis, one of the epithets of which was the “white years”. The newly qualified doctor then opted for Togo, where he enrolled at the Faculty of Medicine in Lomé to commence his studies. He was awarded a state doctorate in September 1998 and subsequently relocated to Senegal, where he obtained a basic diploma in neurosurgery at the Université Cheikh Anta Diop. Three years later, he relocated to France, where he spent three years studying at the University of Clermont-Ferrand, obtaining a specialist training certificate. He subsequently returned to Benin and was recruited in 2007 at the Centre National Hospitalier du Borgou-Alibori, where he was employed at the time of our research. He financed his studies independently. This journey is fundamentally part of a process of mobility. The initial step of this process, enrolment in general medicine in Togo, was driven by social and political factors. In this case, the “white year” that was then taking place in Benin provided the impetus for this decision.

The third profile concerns a medical practitioner who obtained two scientific baccalaureates, C in 1992 and D in 1994. The D-series baccalaureate, specialized in natural sciences, enabled him to apply to the Faculty of Health Sciences, where he commenced his medical studies in 1995 and completed them in 2002. He subsequently obtained a scholarship from the World Federation of Neurosurgery, facilitated by Beninese neurosurgery pioneer. This scholarship enabled him to travel to Morocco to study neurosurgery for five years, before spending a further two years in France, from 2003 to 2005, using his own funds. Upon his return to Benin in 2010, this specialist commenced private practice. Obtaining grants from various institutions provides an incentive for individuals who are unable to finance their studies from their own funds to undertake specialist training. Similarly, having access to peers who have followed a similar pathway and are now able to recommend courses enables some of them to join possible networks for funding their studies, and therefore indirectly for student mobility in specialties.

The fourth profile is that of a neurosurgeon trained in the continent. After obtaining his baccalaureate in 1995, he studied general medicine in Lomé until 2003, using his own resources, and obtained his doctorate in 2004. A stay in Dakar, Senegal, enabled him to complete the first two years of his specialisation in neurosurgery. A scholarship from the Beninese government then enabled him to complete his training, including the last two years of specialisation, fulfilling his ambition to become a neurosurgeon. He then went to Strasbourg for two years of further training before returning home. Recruited by the CNHU-HKM, he was assigned to the emergency department. This physician undertook his initial medical studies in Lomé, having previously obtained a baccalaureate in Cotonou. He subsequently returned to work as a general practitioner in the paediatric department of a private hospital before obtaining a grant from the Belgian Technical Cooperation (BTC), which enabled him to relocate to Senegal in 2007. He spent four years in Dakar before relocating to Clermont-Ferrand for his fourth year of specialisation in neurosurgery, during which time he broadened his knowledge. He completed his fifth year in Clermont-Ferrand in 2010. In 2011, he returned to Benin with the Certificate of Specialised Studies (CES) in hand, where he practised successively at the CNHU-HKM and then as an assistant at the Oueme County Hospital Centre (Centre hospitalier départemental de l’Oueme — CHDO) from 2015. The other neurosurgeon we encountered in Benin was a military doctor who had received his training in Senegal

and France. Upon joining the Armed Forces Training Hospital (Hôpital d'Instructions des Armées), he was appointed to oversee the neurosurgery department.

A cross-analysis of these professional biographies reveals that the mobility process may commence as soon as the baccalaureate is obtained for general medical studies, or subsequently for the specialty. In all cases, the neurosurgical specialty was studied on the African continent, with years of practice generally in Europe. Once the requisite skills had been acquired, candidates returned to their country of origin, where they were integrated into the health system, either as contract staff in the public service or as private practitioners. The paucity of human resources in this field is the reason why these graduates are not unemployed.

Training and experiences

The neurosurgery professionals we interviewed expressed their satisfaction with the training they received in the various countries they visited. A neurosurgeon fully trained in Europe, highlighted the importance of professional organisation as a source of motivation at work. Neurosurgeons trained in Africa demonstrated a strong determination to gain this knowledge, to the extent of investing their own funds in it, initially for studies in general medicine and then for specialisation. This is also the case for other medical specialities. The training in general medicine is typically financed by the family. In Dakar, some were impressed by the effective supervision provided by the limited number of students, which provided them with a “very good foundation”, as well as the friendly atmosphere in which their studies were conducted.

“It was great. First of all, the Senegalese are really open and honest (...). The supervision was really good, and every year we had two exams, so we had great supervision right through to graduation.”

In France, the practical dimension is highlighted as one of the advantages of training doctors. On the Moroccan side, the same observations underline the accessibility of the teaching staff, and the Moroccan system, which “ensures that during training there is no difference in the learning experience of a first-year beginner compared to a fifth-year student”, asserts one of the neurosurgeons we met. Similarly, the dynamism of scientific research, which forms an integral part of the residents’ activities, is a decisive criterion.

“The deal in Morocco was that you had to pass their ‘residanat’ exam again before you could start the specialisation. I did that. I was one of the first two Africans to take that exam to get into the speciality.”

The first and only Beninese neurosurgeon to be trained in Morocco at the time spoke of his success in the residency examination, which was essential for him to receive specialist training. Furthermore, a comparison can be made with France, which remains a kind of reference in terms of training, as an extension of the colonial imagination.

“In Morocco, to do the specialty, you had to take a competitive exam, which was taken by those who were selected. They have a quota each year. The year I took the neurosurgery exam, there must have been around forty posts for all the surgical specialities. You pass and then you’re asked to choose your specialty, exactly as happens in France for the internship competition, but it wasn’t open to foreigners. It wasn’t easy for foreigners to take the exam. The year before, a Malian passed, and I was the second to do so.”

The experience of life abroad is perceived differently by individuals. Those who had studied general medicine in Togo did not mention any problems related to integration, feeling rather at home, given the cultural and geographical proximity between Togo and Benin. Apart from the *numerus clausus*⁵ situation mentioned by one of them and the significant difference in tuition fees, the Togolese experience also left some positive memories. The dynamism of the networks of acquaintances and even associations such as the *Amicale des étudiants béninois* (Beninese students' association) was a facilitating factor in the migration experience. The role of the *Amicale* was mentioned for the fact that it organised tutorials useful to its members' educational project. All in all, the experience was positive for the future specialists, two of whom will be returning to Togo to work temporarily before being recruited in Benin. In Dakar, however, there were some difficulties.

Distance from family and integration problems did not, however, prevent good memories. Neurosurgery teachers (and elders) are described as "very simple, very human bosses", with whom good relations are established and maintained. In France, where they did their practical training, Beninese neurosurgeons had different experiences of the quality of their stay. The difficulties mentioned in the Senegalese experience were sometimes compounded by racist acts and attitudes. These experiences were perceived differently. Most respondents distinguished between their professional and private and social lives. The European experience is often regarded as a pivotal point in their professional development and an improvement in their financial circumstances. However, their social lives may not have benefited to the same extent. It is paradoxical that relations with the Beninese community in the various host countries were mixed. There were few activities that brought together members of the diaspora, and when they did exist, few attended them. In Morocco, however, the situation was different for the only Beninese neurosurgeon who trained there. Fully integrated and Arabic-speaking, he admits that he did not experience any anti-black racism during his stay.

Furthermore, relations with the Beninese community were also very good, with members already knowing each other in Benin. The existence of links or networks of acquaintances before the start of the mobility programme facilitates integration at the destination and has a strong influence on experiences and feelings. In the context of internal migration in China, Roulleau-Berger (2004) has emphasised the extent to which the existence of family networks, individual mutual aid and inter-acquaintance facilitate geographical mobilities that produce strong and weak ties (Granovetter, 1994), thereby favouring access to segmented labour markets for low-skilled migrant populations in Chinese cities. His observation appears to be equally applicable to a rather privileged socio-professional category, which is generally overqualified and endowed with strong symbolic capital.

The experiences of Beninese doctors specialising in neurosurgery vary according to a few factors, including cultural and personal considerations. These experiences are shaped by the host country, as well as specific situations related to the circumstances of departure and arrival, personal habits, and the possibilities for integration in the host country. Student mobility is characterised by a sense of otherness, which is a constant feature of this phenomenon. The motivation to leave one's country of origin in order to learn and gain more knowledge, particularly knowledge that is scarce or absent in the country of departure, is a driving force behind certain forms of privileged student mobility.

5 According to the interested party, the exam will be a single session in the first year, with the percentage of foreigners passing not exceeding 5 % of nationals (Togolese), a sort of *numerus clausus* for foreigners.

(Re) integration, constraints and challenges

Return and socio-professional integration

The decision to return was a common one among the neurosurgeons we encountered during our research. There are several reasons for this choice, including, above all, the desire to share their knowledge with the local population. This altruistic choice is thus presented in their discourse. A neurosurgeon departed on a political decision to train in Belgium and referred to patriotism to support his return to Benin at the end of his six-year training period.

"I thought I should go home because I felt it was more important to serve my country." Despite of holding a French nationality, another specialist relinquished a four-year contract at a French hospital to pursue employment in Benin.
"I had this contract, but I wanted to come back because I wanted to do a speciality. We didn't have one back home. I had more to contribute here than there."

The aspiration of pursuing a university career represents another motivating factor for returning. Similarly, the example of the Senegalese neurosurgeons who returned to their country to develop the field has also influenced some professional decisions, as well as the simple absence of plans to stay abroad.

"In Senegal, all our managers were trained abroad, in Canada, Switzerland and the USA, and they've all come back to develop the department. They're setting an example for us and telling us to go home and develop neurosurgery."

The return of medical specialists to their home countries is not without its difficulties. Chief among these is the challenge of socio-professional integration. One newly qualified neurosurgeon was obliged to work in Benin for five years after completing his studies but was unable to be recruited by the Ministry of Health and had to "stay at home for six months". Another had no choice but to start work in Togo, before being recruited by his home country.

Constraints and challenges

The majority of neurosurgeons in developing countries receive their training in countries of the North. Consequently, they are unable to practise effectively when they return home due to the lack of appropriate facilities and resources. This situation inhibits and paralyses their ability to perform their duties effectively (Decham-benoit, 2002:3). The development of neurosurgery in African countries is significantly hindered by a lack of financial and technical resources, despite the clear necessity for comprehensive teams specialising in this field (Okon Udoh, 2013). Fifteen years on, the same situation persists in Benin, where neurosurgery is still in its infancy.

Despite the establishment of two neurosurgical centres in Cotonou at the Hôpital d'instruction des armées (HIA) and at the Centre hospitalier départemental du Borgou/Alibori in the northern part of Benin, neurosurgery remained absent from the organisational chart of the Centre national hospitalier universitaire-Hubert Koutoucou Maga (CNHU-HKM), Benin's referral hospital until the mid-2000s. While there were some human resources available at the time, including half a dozen specialist doctors capable of treating a range of neurosurgical conditions and providing the necessary care, the technical platform remained the main obstacle. This is a "deplor-

able and unacceptable” paradox for those involved in the discipline, who are calling for a strong political will to rectify the situation at a time when demand for neurosurgery is constantly growing, with a ratio of one neurosurgeon for every 1.5 million inhabitants. Furthermore, the dearth of suitable equipment for neurosurgery is exerting a deleterious influence on the discipline, which is already contending with another challenge: young doctors are not flocking to enter the field, both for reasons of professional integration and because of the actual conditions under which the specialty is practised.

“Some of them are in training, but I’m not sure if they want to. I know there are others Beninese in training, maybe five or six of them. I don’t know if they’ll want to come back.”

In such a context, mobility paradoxically remains the beginning of a solution, but this time in the North-South direction. Indeed, while North-South flows enable the identification of expatriate missions in Southern countries, which contribute to the development of various disciplines or sectors, these flows also include a contribution of knowledge. This is fundamental to the North-South circulation of knowledge, even if skills are not systematically transferred. Specialists from countries in the North can then call on those from the South for short periods. Furthermore, the participation of those from the South in symposia, conferences and other visits to countries in the North enables those from the South to maintain their level of practice and keep abreast of technological and scientific developments in their profession.

Student mobility as opportunity for originated country?

The term “brain drain” was first coined in the 1950s, and it is often associated with the idea of loss for the countries of origin. However, the phenomenon of brain drain is not a recent one. Without the departure of Greek thinkers and artists to the West following the decline of Byzantium, the Renaissance would probably never have seen the light of day. In the contemporary world of knowledge, although one-way travel remains the norm, globalisation has made temporary labour flows a near-ubiquitous phenomenon. The exchange of skills and brains enables both sending and receiving countries to benefit from the specialised experience acquired by expatriate professionals, and not just from their remittances, which are undoubtedly important (Fall, 2010).

A microscopic analysis of student mobility for specialisation, based on the case of neurosurgery in Benin, reveals that mobility is not invariably synonymous with brain drain. The founders of this specialty in Benin are, in fact, the result of south-south and south-north student mobility. Furthermore, their mobility pathways have generated positive effects for the community in the country of departure. Neurosurgery is still relatively unknown in Benin, with only a small number of practitioners. In the same continuum, its precursors lack significant autonomy in relation to the national medical field. Furthermore, the efficacy of the efforts of the returnees is contingent upon the existence of a genuine demand from the countries of origin and a robust political will to address the inherent challenges associated with these returns (Gaillard et Gaillard, 1999: 176).

The circumstances surrounding the emergence of this discipline illustrate the profound structural dimensions that professional mobility can have. Such developments are likely to result in alterations to the existing professional systems. The circumstances under which this discipline was established demonstrate the structural

implications of professional mobility. These are likely to result in alterations to the professional systems themselves.

Conclusion

The fruit of Benin's political will in the early 1990s to strengthen the health system, neurosurgery is also, and above all, the result of the peregrinations of its pioneers. As they travelled around as part of their training, they were able to acquire new knowledge that they decided to put to good use. These specialists were encouraged by their trainers or motivated solely by their desire to serve their country of origin to return home and were then integrated into the health system. Their mobility, aimed at acquiring specific skills, favoured the advent of their professional speciality in Benin. Nevertheless, neurosurgery has encountered significant challenges during its nascent years. These challenges include a lack of human resources, political will, and the absence of a suitable technical platform. The institutional absence of this medical specialty from the organisational chart of the only public referral hospital in its early days is indicative of its emergence from below, as a product of the student and training mobility which innervated its bearers.

The importation of neurosurgery into Benin appears to be the result of South-South and South-North student mobility. These combined mobilities, which punctuate the biographical itinerary of the neurosurgery specialists studied, are coupled with a circulation of knowledge acquired in the North and transferred in the form of skills to the South. The mobility of training is the driving force behind the acquisition and transfer of specific knowledge acquired during the migration project. The case of neurosurgery serves to illustrate the positive effects of the circulation of knowledge and the possibility for certain mobile students to capture all or part of this knowledge.

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