

# An Overview of the profession of Speech Therapy in Morocco

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## Abstract

The Speech therapy practice in Morocco faces many challenges related to the standardization of practice, quality training for the students, and accessibility for all citizens. This emerging profession has to deal with issues such as multilingualism (various Arabic dialects, Amazigh, French, English, and Spanish) and a lack of funds for research. However, some decisive changes are happening nowadays. The present study aims to provide an overview of the different characteristics of the profession of speech therapy in Morocco in the fields of training, teaching, sectors of practice, geographic distribution, languages, speech therapists' profiles, and practices. This report is based on two tools: a questionnaire that was distributed to 100 speech therapists and structured interviews with ten more speech therapists in Morocco. The results provide some preliminary description of speech therapy practice, the limitations it encounters, and directions for the future development of the profession.

**Keywords:** *Speech therapy, Morocco, speech therapy training and practice*

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## **Introduction**

Speech therapy is a health profession in the family of care professions (French National Federation of Speech Therapy, 2018). It involves the prevention, assessment, and management of oral and written language and communication disorders and oro-myofacial functions. It also includes supporting communication and swallowing functions in degenerative and neuro-degenerative pathologies and provides other non-verbal forms of communication to supplement verbal functions.

In Morocco, the profession of speech therapy emerged in the 1970s. Since then, it has experienced changes in various aspects linked to training (programs, training period, diplomas) and organization of the professional practice (status, laws, working conditions, organization, and regulation). These changes are not well documented by the official bodies that organize this profession such as the Ministry of Health, the Ministry of National Education, the National Agency of the Health insurance, and the Association of Speech Therapists in the Private Sector in Morocco<sup>2</sup>.

## **Education and training of speech therapists in Morocco**

Speech therapy is a recent profession in Morocco; it first appeared in the 1970s with a few foreign practitioners in Casablanca and in Rabat. The significant increase in the number of speech therapists began in the 1990s. Training programs, on the other hand, have been relatively rare until the 2000s.

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<sup>2</sup>Currently waiting for official recognition

The first major public training program was founded in Rabat and continued from 1984 to 1988. It trained nurses in the profession of speech therapy, however this program ceased to exist in 1998. Then, the IFCS (Institute of Training in Health Education) established a vocational training program in 1999.

The first private educational institutions offering speech therapy classes appeared in 2000. Since 2010, many private colleges and universities that provide speech therapy training programs have flourished in big cities like Casablanca, Rabat, Fes, Marrakech, and Tangier.

Since 2013, the vocational training has become a bachelor's degree program and has been available in the post-secondary stage. It has a duration of three years and ends with an end-of-studies project<sup>3</sup>. Upon graduation, it allows the speech therapist to have a certificate of competency in speech therapy. Although there are some variations from one university to another, the main content usually covers the following subjects: medical sciences (nervous system, psychology, E.N.T.), and introduction to speech therapy in the first year. Assessment and treatment of speech and language disorders are studied during the second year. The third year essentially focuses on methods of treatment in speech, voice, swallowing, communication, and language disorders.

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<sup>3</sup>Projet de fin d'études /P.F.E.

After 2013, the public institute IFCS became the ISPITS (the Higher Institutes of Nursing and Health Technologies) because the Ministry of Higher Education decided to transform vocational training into a license (bachelor) - master- Ph.D. (LMP) program. First, the license degree lasts three years (six semesters), followed by a master's degree that lasts two years. Ultimately, the Ph.D. degree lasts a variable amount of time.

Regarding the private education sector, it was only authorized to provide three years of vocational training, leading to a certificate of competence in speech therapy. However, since 2017, some private universities were accredited by the state and can give both a three-year bachelor's degree and a two-year master's degree. To be accredited, their programs must follow the educational standards developed according to the accreditation process and the LMP educational standards under the supervision of the Ministry of Higher Education. As of 2022, none of the private sector schools are authorized to provide Ph.D. degrees, and the only available Ph.D. program is in the public institute (ISPITS).

The recognition of the diploma by the State allows graduates to have access to public service and to obtain an equivalence of their diploma in certain foreign countries. Accreditation makes it possible to practice in Morocco in the private sector.

The public sector employs speech therapists whose quota is decided annually by the Ministry of Health. In Morocco, there are 162 regional and provincial hospitals. There are 847 health centers in urban regions, 1279 health centers, and 809 dispensaries

in rural regions. We also identified 13 CNSS polyclinics<sup>4</sup>( National Social Security Fund) and two semi-public foundations: Cheikh Zayed in Rabat and Cheikh Khalifa in Casablanca.

There are also bigger public institutions that employ speech therapists, such as the five University Hospital Centers (UHC): Ibn Rochd in Casablanca, UHC Ibn Sina of Rabat, UHC Mohammed VI in Oujda, UHC Mohammed VI of Marrakech, and UHC Hassan II of Fes. Finally, five military hospitals are available primarily for the members of the army and can also receive some civilians. These are located in Rabat, Marrakech, Meknes, Dakhla and Laayoune.

In 2021, 146 speech therapists were practicing in public facilities serving 36.9 million of Moroccan citizens: the ratio is 1 speech therapist for 252, 808 persons.

### **Challenges faced by speech therapists in Morocco**

Language is the goal and tool of a speech therapist. Moroccan practitioners face a double challenge: the multilingualism of their patients and their own languages. Morocco has two official languages: Arabic and Amazigh.

Morocco is a country with rich ethnical history, Amazigh, Moroccan Arabic dialect, and standard Arabic (which is used in media/ administration/ government) are the main languages used in the country. Note that for Amazigh, as an example, there are many dialects depending on the region (the Rif dialect is not the same as in the

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<sup>4</sup>CNSS : Caisse Nationale de Sécurité Sociale / National Social Security Fund

Atlas Mountains and in the region of Souss). In addition, there are many phonological variations in the same Moroccan Arabic dialect: in Fes, [q] of [qal] (“he said”), is absent, which results in [al] ; this same word is pronounced [gal] in Casablanca. Very few Jewish Moroccan citizens use Hebrew. French and Spanish were added to the social structure during the colonization period. The French protectorate lasted from 1912 to 1956 and French became the social elite’s privileged language. This happened to a lesser degree with Spanish in the North of Morocco. Lately, since the ’90s, globalization made English enter the daily life of some privileged children, and English schools proliferated. This rich linguistic situation creates some complicated situations, and in some areas of the country, speech therapists do not speak the language of some of the potential patients.

Moreover, language variation gives another challenge to speech therapists in Morocco, namely the adaptation of assessment and treatment tools. There is a lack of adapted tools in Moroccan Arabic and Amazigh languages. To give an example, a dyslexic child that needs language assessment will need it both in Arabic and French. Even though French competencies can be analyzed with French assessment tools, when it comes to testing Arabic language performance, there are no adapted assessments for Moroccan Arabic. The aim of this descriptive exploratory study is to help identify the characteristics that define the profession in terms of training, research, areas of activity and of expertise, and organization of this professional activity in Morocco.

## Methods

The data collected here are the result of a study conducted in 2021 with speech therapists, educational directors, and heads of speech therapy school programs. In addition, a questionnaire (see appendix 1) was administered in June 2021 to allow us to collect data on the daily practice of 100 speech therapists who answered voluntarily. The main goal of this questionnaire was to describe the practice of speech therapy in Morocco through questions about the demographics of the speech therapists, their locations of practice, number of years of experience, training, specialization, sessions' characteristics, and patients' health care. We added a qualitative structured interview (see appendix 2) with 12 speech therapists during the month of August 2022. It was necessary to add some questions to increase our understanding of the following aspects: the speech therapists' background, their other training and jobs (that might influence their practice), their knowledge of history of speech therapy in Morocco, and the legal status of the profession, their feeling about how their profession is perceived, the content of a speech therapy, the patients' different profiles, and research in speech therapy. Unfortunately, there is no national database concerning this profession. So, the actual number of speech therapists is unknown, just as the number of graduates. Moreover, the interviews included some questions that were asked during the questionnaire. We then grouped and compared the data relating to the questions common to the questionnaire and the interview. Although 100 questionnaires have

been received, speech-language therapists did not answer all the questions, so the total answers will be highlighted on the last line of comparative tables if necessary.

To validate the content of the structured interview, a first version was tested with Mrs. Stouli Agnès, a 30-year experienced speech therapist and a former head of the speech therapy training program of the private International University of Casablanca. She gave her advice about the redundancy or the absence of some questions and we changed the interview to a second more adapted version. Then, we passed the new interview to 11 other volunteer speech therapists. The questions were asked in person, by phone, or by online videoconference. The interview lasted between one hour and thirty minutes to two hours and thirty minutes, depending on the content of the participant's responses. The speech therapist found many questions relevant but depending on their experience and career, some found that some questions were either too detailed or limited, for example, most of them could not answer the questions about the legal status of speech therapy in Morocco.

## **Results**

### **Speech therapists' demographics**

Tables 1 and 2 below show the demographic data for participants. Table 1 shows that the majority of respondents' ages were between 20-40 years old, and the majority were female speech therapists (96.5% of the participants). Most of the participants were

either Moroccan citizens, or Moroccans with dual citizenship, with only 4 out of the respondents (n=112) not holding Moroccan citizenship (see Table 2).

**Table 1**

*The Age and Gender of the Participants in the Questionnaire (n=100) and the Interview (n=12)*

	Questionnaire	Interview
<b>Age</b>		
20 to 25 years old	33	0
25 to 30	23	2
30 to 40	32	7
40 to 50	4	2
More than 50	3	1
Total*	95	12
<b>Gender</b>		
Women	10	98
Men	2	2
Total	100	12

\*Some respondents did not complete this section about age

**Table 2**

*Nationalities of the Speech Therapists Responding to the Questionnaire and the Interview*

	Questionnaire	Interview
Moroccan	89	10
French	2	1
Belgian	0	0
French-Moroccan	1	0
Belgian-Moroccan	4	0
French-Algerian	0	1
Total	96	12

## Speech therapists' training and professional career

Table 3 shows the training programs where our respondents completed their speech certification. Most participants (73.2%) have received their initial training (vocational training or license (bachelor's degree) in private universities and institutes in Morocco. Fifteen respondents received their speech therapy degree from the Moroccan public institute ISPITS of Rabat. Finally, only 11.6% of the participants completed their training in a foreign country (mostly in Europe).

**Table 3**

*Initial Training of Speech Therapists Responding to the Questionnaire and the Interview.*

	Questionnaire	Interview
ISPITS (Moroccan public institute)	11	4
Moroccan private universities and institutes	77	5
Foreign public university	8	3
Foreign private university	2	0
Total	100	12

Table 4 shows that 50,9% of the speech therapists had less than five years of experience, 13,4% had 5 to ten years of experience and 30.3% had 10 to 20 years of experience. No more than 5.3% had from 20 to 30 years or more of practice.

**Table 4***The Number of Years of Experience of Speech Therapists Responding to the Questionnaire and the Interview*

	Questionnaire	Interview
Less than 5 years	55	2
From 5 to 10	13	2
From 10 to 20	28	6
From 20 to 30	2	1
More than 30 years	2	1
Total	100	12

Table 5 shows the geographical location of the speech therapists interviewed. The larger part of them (55.3%) work in the economic capital Casablanca and only 13.3 % work in Rabat. The number of speech therapists in other cities does not exceed six.

**Table 5***Cities Where Speech Therapists Practice from the Questionnaire and the Interviews.*

City	Questionnaire	Interview
Casablanca	55	7
Rabat	11	4
El Jadida	6	
Agadir	4	
Mohammedia/ Tanger /Fes /Oujda	3	
Tetouan	2	
Marrakech	2	1
Kénitra / Fnideq /Essaouira/ Guelmim/ Larache/Tiflet	1	

In table 6, the practice settings of the respondents are presented: 52.6% work in a private practice alone. Then 30 of them work in private nonprofit organizations.

Eleven speech therapists work in multidisciplinary offices with other paramedics, and eight work in a private practice shared with another speech therapist. The answers gave 135 different practice settings (as some can work in two or three different settings simultaneously). The speech therapists working in the private sector represent 89.6 % of the respondents. In the public sector, there are ten speech therapists in public hospitals and health centers; two work in University Hospital Centers and two are employed in the Moroccan public institute ISPITS.

**Table 6**

*Practice Settings of Speech Therapists Responding to the Questionnaire and the Interview*

Settings	Questionnaire	Interview
Private practice	53	6
Associates' private practice*	8	0
Multidisciplinary office**	10	1
Non-profit organizations	30	0
Clinics	1	2
Medical/ psychoeducational centers	3	0
Private homecare rehabilitation	7	0
Public health centers	2	0
Public hospitals	7	1
UHC (University Hospital Centers)	1	1
ISPITS ( Higher Institute of nursing and health technologies training )	1	1

\*Associates' private practice: an office shared by two or more speech therapists

\*\* A clinic where speech therapists, occupational therapists, psychologists, and neuropsychologists work together.

**Table 7***Pathologies Supported by Speech Therapists Responding to the Questionnaire and the Interview*

	Questionnaire	Interview
No specialization	36	0
Some pathologies	34	2
Voice disorders	3	1
Hearing rehabilitation	4	6
Oral language	6	5
Written language	8	5
Neurology	2	2
Other disabilities	3	1
Stuttering	2	1
Cleft lip and palate	2	1
Feeding disorder	3	1
Autism	4	1

Table 7 shows the distribution of areas of specialty in speech therapy for the participants. It shows that 36 respondents have no specialization, 36 others work on many different pathologies. Only 8.9% have specialized in hearing rehabilitation, 9.8% work on oral language issues, and 11% practice with written language disorders. The other pathologies and disabilities are handled by 3 to 5 ST responding.

**Table 8***Sessions' Rates of Speech Therapists Responding to the Questionnaire and the Interview*

Session rate	Questionnaire	Interview
public sector rate: 3,7 dollars (40 MAD, Moroccan dirhams)	5	2
9 to 14 dollars (100 to 150 MAD)	17	0
14 to 18 dollars ( 150 to 200 MAD)	18	0
18 to 23 dollars (200 to 250 MAD)	31	2
23 to 28 dollars ( 250 to 300 MAD)	29	8

Table 8 shows the distribution of the speech therapy session fees. These amounts are for a 30 minutes' session. 31% of the 100 respondents on the questionnaire charge \$18 to \$23 US dollars (200 to 250 MAD, Moroccan Dirham) per session. 29% charge \$23 to \$28 (250 to 300 MAD), and 18% charge \$14 to \$18 (150 to 200 MAD) per session. Globally, among the ST responding in the questionnaire and interview, only 6,25% charge the public sector's rate of \$3,7 dollars (40 MAD) while 29,4 % of the ST charge \$18 to \$23 US dollars (200 to 250 MAD). The main part of the 112 ST answering, representing 33%, charge \$23 to \$28 per session (250 to 300 MAD). In the interview, 67% of the respondents charge this amount.

## **Discussion**

### **Speech therapists' demographics**

There are two different waves of development of the vocational training offered in speech therapy. The first is that of speech therapists aged between 35 to 40 years old who received their diplomas mainly in Tunisia and in other foreign countries in the 1990s and 2000s, before returning to settle in Morocco. Many of them also trained the next generation who graduated from IFCS (public institute opened in 1999) and ISPKO (Higher Paramedic Institute of Physiotherapy and Speech Therapy), which was the first private institute to open in 2001. These speech therapists are aged 30 to 35, and received their certificate of speech therapy in Morocco. In 2007, access to speech therapy programs widened considerably and this is undoubtedly the cause of the large number of participants in the questionnaire aged 20 to 25 years old.

The Majority of speech therapists are Moroccans, and the rest are dual citizen Moroccans with one French Algerian speech therapist. According to Moroccan law, to practice speech therapy in Morocco, one must be of Moroccan nationality (Moroccan Ministry of Health, 2019). Consequently, it may happen that certain speech therapists of foreign nationality practice without authorization. This practice cannot be announced, since it is illegal, but it is noted by some of the speech therapists interviewed.

### **Initial speech therapy training**

It seems that in 2021, there are seven times more speech therapists who graduated from the private education system than from the Moroccan public institute. This disparity perhaps results from the fact that the public speech therapy training is limited to a small number of candidates each year. Following an in-depth survey, we calculated that in total, 450 speech therapists graduated from ISPITS from 1999 to 2022. The reduced number of students and training are symptomatic of a systemic problem: speech therapy comes after many others priority health professions.

### **Continuing education**

The 12 interviewed speech therapists voluntarily pursue continuing training in Morocco or abroad, and for most of the time it is self-funded. Currently, in Morocco, continuous training is often carried out by French-speaking professionals from abroad.

These trainings are typically proposed by professional associations or independent speech therapists.

Generally, the speech therapists interviewed are not satisfied with the quality of the services offered, the remarks issued most frequently are that training is not adapted to the Moroccan linguistic and cultural context, or it often remains theoretical and offers little concrete practice, or that it is a training based on obsolete theories that have not been updated to be in line with the latest scientific discoveries.

### **Years of experience**

Speech therapy is one of the health professions where practical experience is an essential tool for improvement. If we examine the 112 speech therapist respondents, there are 50,9% who have less than 5 years of experience. The second major group is represented by 30,3% who have between 10 to 20 years of experience. So, speech therapists of less than 5 years of experience were higher in number because first, the training programs have increased recently; and this profession is progressively more known to the general public, which attracts more young graduates to join it.

### **Geographical location**

Speech therapy being an expensive health service in the private system led to speech therapists opening their practices in large cities where there is a demand for their services. Unsurprisingly, more than half of the participants were located in Casablanca. The interviews further revealed that several speech therapists were

previously located in smaller cities and had to leave their cities of origin to settle in Casablanca.

### **Practice Settings**

Speech therapists in Morocco work in various educational and clinical work settings, which shows the increasing demand for speech therapy services in many Moroccan cities. A speech therapist can work in different workplaces. He/she can be an employee and earn monthly wages in nonprofit organizations or public hospitals and UHC or they can start their own practice or work in the private sector. The data collected concur that the majority of speech therapists practice in the private sector. A possible explanation is the reduced number of speech therapy job offers in the public health system

Working in the public system requires having a state diploma and completing an application file and it involves passing a recruitment competition. There are two different competitions for the UHC: opening of internal posts by human resources managers of the UHC (according to the needs of the heads of service) and for the other public structures (hospitals, health centers and dispensaries: annual quota decided by the Ministry of Health).

The advantages of practicing in the public sector are employment security, benefits, guaranteed retirement, and fixed schedules. The disadvantages are a low salary, little motivation, a certain monotony, and a lack of therapy material.

Practicing in a private office requires renting a workspace and administrative authorization. Among the advantages of this type of practice is the freedom to choose the schedule and patients' profiles. Being independent seems more motivating and fulfilling. The monthly income varies a lot, but it is generally more interesting than the monthly income made in the public sector. The drawbacks are: constant financial instability, the absence of social security and retirement, fixed charges, taxes, and other aspects of securing work logistics. One of the speech therapists underlined the fact that following the pandemic of Covid 19 and the lockdown from March to June 2020, several speech therapists were forced to close down.

### **Areas of expertise or specialty**

The acts that the Moroccan speech therapist is authorized to do are listed in the general nomenclature of professional acts (Ministry of Health, 2006). Specialization means that the speech therapist targets a specific area of speech therapy practice (e.g., language disorders, fluency disorders, or swallowing disorders) and voluntarily increases his experience, and professional and academic training to improve his practice in this area of specialty.

The questionnaire showed that many speech therapists have no area of expertise because they are mostly new graduates. The results showed that the vast majority of speech therapists manage several disorders, and exclude some disorders. In fact, the majority of respondents admitted that it was impossible to develop solid expertise in the management of all pathologies rehabilitated by speech therapy.

## **Teaching speech therapy**

Eleven speech therapists interviewed already had one or more teaching positions in the speech therapy training programs in Morocco. They generally teach courses that are within their field of expertise. To prepare the content of the courses, teachers rely on the resources accessible on the Internet or scientific literature as well as their own practical experience or previous training. The difficulties they may encounter in teaching are as follows: insufficient time allocated for teaching the modules, language difficulties encountered by students, a long preparation for teaching, and lack of frequent course updates.

All the speech therapists interviewed have supervised student end-of-studies projects (P.F.E.), whose topics are linked to their professional areas of interest. The P.F.E.s is a good opportunity to introduce students to research, research methodology, and scientific communication. The difficulties encountered by the teaching speech therapists of P.F.E. are as follows: a significant lack of autonomy of supervised students, difficulties in writing in French, difficulties in going beyond the theoretical framework, a lack of comprehensive vision of the subject addressed, and gaps in the analysis of collected data.

When we interviewed them about the skills necessary to be a good teacher in speech therapy, eight estimated that the two most essential qualities are to have a minimum practical experience of 3 to 5 years as well as a sense of pedagogy.

They consider that only a minority of the students were serious, invested and motivated in their studies. Unfortunately, most of the young students do this training because they could not attend medical school, and are mostly motivated by profit, because there is an assumption that speech therapists are very well-paid.

Regarding the acceptance of trainees, it is compulsory in public services (lasting 6 to 8 weeks) in certain private structures it has variable duration, and it is optional in private offices (variable duration).

### **Speech therapy sessions rates**

The fees speech therapist charges for their services vary in Morocco. In the public service, a 30-minute session costs \$3.7 (40 MAD, Moroccan dirhams). The speech therapists employed in public saw their initial monthly salary rise from \$350 (3800 MAD) in 2008 to \$580 (6300 MAD) in 2022. This salary increases according to the level of the speech therapist, who initially starts at level 10. Grade 11 is reached after 5 years of work when the salary increases to \$902 (9800 MAD). The maximum salary in the public sector is \$ 1380 (14,500 MAD) per month.

With regard to the private sector, only public healthcare reimbursement organizations such as the CNSS (National Social Security Fund) and the CNOPS (National Fund of Social Welfare Bodies) have established tariff ceilings and reimbursement percentages. Currently, they reimburse 25% of the total amount of the session, and the commonly accepted ceiling of the session rate is capped at \$ 18.7.

Therefore, this maximum amount is not in line with the tariff practices of speech therapists working in the private sector. The minimum rate identified is \$ 9 per session of 30 or 45 minutes, and the maximum can exceed \$ 28 per session. This great heterogeneity of the fees can be explained by geographical location, which includes variations in real estate prices in the event of purchase or rental of the premises according to the area, the district and the city where the practice is located.

During the interview, we asked the speech therapists working in the private sector about the minimum and maximum income they earn: this fluctuated between \$460 (5000 MAD) minimum per month to \$2300 (25,000 MAD) maximum. Regarding salaried professionals, it was noted that the legal monthly salary for a full-time speech therapist, which is \$248 dollars (2698 MAD), is respected. However, each nonprofit organization or private center which employs speech therapists decide their own salary scheme, depending on whether the person is full time or part -time, or temporary (paid on presentation of invoices), and depending on whether the employee has social benefits (health and retirement coverage).

### **How speech therapists manage the therapy process**

To start speech therapy, a referral by a medical doctor is needed. All the speech therapists interviewed receive patients referred by doctors, but 7 of them also accept requests for therapy without a prescription. The number of sessions is typically prescribed in the first referral from the doctor, often from 15 to 30 sessions in the private sector and ten sessions in the public. This initial prescription can be renewed.

The speech therapists interviewed often have the same mode of operation. First, it begins by an initial interview with the patient and/or his family. Secondly, the speech therapist completes an assessment, which can be done during one to several sessions (depending on the disorder) using standardized assessments or informal assessment tools, which are based on observation of different communication and language levels; or both. Speech therapists use more informal clinical assessments than standardized ones because there is a lack of Moroccan-adapted standardized material.

Treatment sessions follow the assessment and their content varies according to the therapeutic goals. The speech therapists interviewed use very diverse tools: educational games, books, and games specialized in speech therapy, wooden toys, musical instruments, games, and free or paid software on the Internet. When we asked them about the language they use most in rehabilitation, the majority responded French and Moroccan Arabic. Five of them also practice in English, and only two in Spanish. None of the speech therapists interviewed masters Amazigh, the second main language of Morocco.

Finally, we asked the speech therapists whether they used telepractice. This practice has been developed much internationally during the restrictions imposed following the pandemic of Covid 19 from March 2020. However, only one speech therapist has employed this modality during the pandemic. Discharge from speech therapy varies depending on whether it is decided by the therapist, the patient and his family, or based on consultation between the two. The type of population served by

speech therapists varies a lot depending on the speech therapist's place of practice, his experience, the main language of the patient, and his financial and logistic resources. In public or semi-public hospitals, patients are most often children with deafness, various ENT disorders, autism, Down's syndrome or adults with laryngectomy, or neurologic disorders such as aphasia. Most of them have few means and are covered by RAMED (medical assistance regime). Others have access to the CNSS (National Social Security Fund) or the CNOPS (National Fund of Social Welfare Bodies). The patients are mainly Arabic -speakers.

In private speech therapy clinics, patients are either French speakers or Arabic speakers (very few are English or Spanish speakers). They consult for specific disorders of oral language, written language, neurodevelopmental disorders, disabilities, stuttering, autism,..etc. These are either patients belonging to a wealthy social class or the middle class. Most of these patients have health coverage: CNSS, CNOPS or private health insurance.

### **Research in speech therapy**

Speech therapy in Morocco lacks screening, evaluation, and therapy tools in the language of the country of practice. These tools must be based on tangible data and theories verified by researchers specializing in speech therapy and in other associated areas. In Morocco, there is no public or independent institution of research in speech therapy. The people interviewed affirmed the need for Morocco to establish a research institute in speech therapy. Six of the participants have already started or completed

scientific research projects leading to the development of an assessment or treatment tool adapted to Moroccan patients. Most often, this was done in the framework of end-of-studies projects. During these projects, these therapists encountered many difficulties such as a lack of time; limited human/logistics and financial resources; students' ability to work independently, or mastery of French or Arabic language; small samples to establish a reference; and absence of standardized tests.

According to them, a research institute in speech therapy in Morocco should group public and private sector stakeholders, have certification and follow international standards, and be non-profit. Ideally, it should be managed by experienced speech therapists that have training in research methodology. For the research institute's activities, they would employ linguists, phoneticians, specialized doctors, phoniatics, audiologists, statisticians, pedagogues, teachers, psychologists, and jurists. Also, it should have a library and functional premises. The goals of such an institute would be to finance and supervise research useful for Moroccan speech therapy practice, while collaborating with foreign research institutes, and supervising student researchers.

### **Speech therapists' awareness of the legal status of speech therapy in Morocco**

The majority of interviewees do not know that there is a legal status for speech therapy in Moroccan. Law 45-13 was voted in August 2019, however, six speech therapists out of the 12 interviewed were not aware of the existence of this law. According to all the speech therapists interviewed, a professional association of speech therapists must be

created (for now, such a professional body doesn't exist officially). To create a speech therapists' national association, two criteria seem fundamental: first, speech therapy services should be accessible in public and private sectors without distinction; and second, regional commissions should be created to handle the difficulties and demands of speech therapists directly in their regions.

In addition, stakeholders of the association should be experienced speech therapists, who will be supported by lawyers, accountants, and other professionals to guide the speech therapists when needed. They also have to be dynamic and motivated to invest in the common good of the profession. The association must be for non-profit and ruled by a charter with statutes and a code of ethics set up by speech therapists and other professionals, which will then be voted on by member speech therapists during a general meeting.

The main objectives set by some interviewed speech therapists for this professional association are to limit bad practices (illegal rapid training / abusive increase or drop in prices / false professionals without speech therapy diploma), defend the profession and its image in Morocco, and establish a national fee structure. Many speech therapists are not aware that law 45.13 governs their profession and requires them to be members of a professional association in order to meet the legal requirements of practicing speech therapy in Morocco.

## **New perspectives and prospects**

This preliminary survey is the first step in exploring the characteristics of speech therapy in Morocco. It can be deepened by developing a database of the number of speech therapists per sector. We can also do interviews with other stakeholders related to this profession to identify their perceptions and expectations, such as potential recruiters of speech therapists in the public and private sectors. Even parents of patients can be added to the study.

On the other hand, the results of this preliminary survey lead us to propose recommendations for improving the practice of speech therapy in Morocco such as creating a professional association of speech therapists and establishing specific standards for initial and continuous training.

There is still a lot of legislative work to be done, but the reform of the national health system inspired by His Royal Majesty the King Mohammed VI is the first step of these fundamental changes. With the support of the Ministry of Education and the Ministry of Health, and the active involvement of some STs' organizations, the future of speech therapy in Morocco harbors good perspectives.

## **Conclusion**

Our research has provided some demographic information about speech therapists practicing in Morocco and their clinical settings. It showed that most of them are concentrated in large cities and practicing in the private sector generally in offices or

nonprofit organizations. A few of these speech therapists have expertise in speech therapy in the areas of hearing rehabilitation or spoken and written language. This study highlighted the need to create organizations whose mission is to set up an annual continuing training program for speech therapists in Morocco. There is also a lack of awareness among speech therapists of the laws regulating and organizing the profession in Morocco. Finally, research in speech therapy in Morocco is almost nonexistent, and research in speech therapy will benefit from the creation of master's degrees and Ph.D. training to help train future researchers in Morocco.

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## Appendix 1: Questionnaire (this is a translation of the original in French)

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Number of answerers: 100

Date of answers: from the 01/06/2021 to 09/06/2021

This questionnaire has been made in the context of a study to describe the actual practice of speech therapy in Morocco. All the answers will remain anonymous. Thank you in advance for your answers.

1) Where do you work?

- Your private office
- Associates office
- Multidisciplinary office
- Patients' homes
- Public Health Center
- Public Hospital
- Educational Health center
- As an employee in an association
- As a volunteer in an association
- Other

2) How many years of experience do you have?

- Less than 5 years
- 5 to 10 years
- 10 to 20 years
- 20 to 30 years
- More than 30 years

3) When did you graduate?

4) What year did you begin to practice?

- 5) In which city do you work currently?
- 6) Did you work in another city? Which one?
- 7) Where have you been trained?
  - ISPITS Rabat (Moroccan public institute)
  - A private Moroccan school
  - A foreign public school
  - A foreign private school
  - Other
- 8) Are you specialized in one or many pathologies?
- 9) Do you have a master degree in speech therapy?
  - Yes
  - No
  - Ongoing
- 10) How long does a session last in your practice?
  - 30 minutes
  - 45 minutes
  - 1 hour
  - Other
- 11) What is a session rate?
  - 100 to 150 dirhams
  - 150 to 200 dirhams
  - 200 to 250 dirhams
  - 250 to 300 dirhams
  - Other
- 12) Do your patients have a healthcare insurance?
  - Very few of them

- Few of them
- Half of them
- More than half of the patients
- Other

13) Are you :

- A man
- A woman

14) What is your nationality?

15) How old are you?

16) Do you think that the number of speech therapists practicing in your city is :

- Low
- Between 10 to 20
- Between 20 to 50
- Between 50 to 80
- More than 80

17) If you are an employee, what is your monthly salary?

## Appendix 2: Structured Interview

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09/08/2022

Interviewed population: speech therapists practicing currently in Morocco, in the public and private sectors.

### I. Research's Population characteristics

- Age
- Sex
- Nationality
- Number of years of professional experience
- Practice sector
- Practice locations
- Expertise / Specialty
- Average monthly income
- Degrees / location and date of obtention
- Initial training
- Continuing education
- Other trainings
- Other jobs related to speech therapy
- Creation of speech therapy materials / Publications

### II- Initial and continuing trainings:

1. Did you encounter any problem to have access to the initial training for speech therapy?
2. Is the continuing training available and of quality in Morocco?

3. Did you give classes in speech therapy classes, or as a trainer in continuous training?
4. What are the necessary skills to train in the speech therapy domain in Morocco?
5. What are the theoretical or practical classes you teach?
6. Can you describe me the profiles of the students or interns you met in your teaching career?
7. What are the resources, difficulties and skills you used to teach in the initial or continuing trainings (methods, logistical resources, descriptions, objectives, skills to develop, prerequisites)?
8. Have you experienced difficulties with the educational team or administrative team of the schools you taught in?

### III- Speech therapist's status in Morocco

1. Is the speech therapy profession a regulated one in Morocco?
2. Is there a status of the speech therapist in Morocco?
3. Do you know the laws, bylaws and government decrees that organize the profession of speech therapist in Morocco?
4. Who represent speech therapists of Morocco on a national and/or international level?
5. A professional speech therapy institution should be based on what criteria?

### IV- Practice of speech therapy in Morocco

1. What are the different sectors to practice speech therapy?
2. How can a speech therapist find a job as employee? What are the advantages and disadvantages of this domain of practice?
3. How can a speech therapist open his own private office? What are the advantages and disadvantages of this domain of practice?
4. How can a speech therapist practice in the public health sector? What are the advantages and disadvantages of this domain of practice?

5. How long does a therapy last? What drives you or the patient to stop a speech therapy?
6. What are the limits you encountered in your practice?
7. Do you work alone or in a multidisciplinary team / in contact with other professionals?
8. Do you admit interns? For which duration? Are the interns sent from schools or voluntary interns?
9. What language(s) do you and your patients speak?
10. What kind of equipment do you use?
11. What is a session's duration? What are your rates?
12. Do you need a medical prescription?
13. Do you do assessments at the beginning of a speech therapy? How long does it take?  
What are your sessions' rates?
14. Do you choose the number of sessions?
15. Have you tried to practice distance speech therapy during and after the pandemic?

V- Patients:

1. What type of patients do you receive mostly?
2. Do they have a health insurance?
3. What kind of relationship do you have with your patients, and their parents/ guardians?

VI- Research:

1. Did you do some research in the speech therapy field in Morocco?
2. What are your research goals?

Should a Moroccan research institute be created? According to what