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Exploring Healthcare Providers' Experience of Communication Barriers with Official Language Non-Proficient Patients in Cameroon: Evidence from Multilingual Health Centers in the Far North of Cameroon

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Abstract

Communication barriers between health care providers and official language non-proficient patients (OLNPP)[1] in the Far North of Cameroon have disastrous consequences for the quality of health care provided to this underprivileged population. These barriers are due to the complete lack of communication skills of patients in the official languages, the high level of illiteracy in this part of the country, the training of health care providers that does not take into account the multilingual and multicultural complexity of the country (health care providers in the country have been trained exclusively in French and/or English, the exoglossic languages that have been adopted as the official languages of the country). Moreover, the lack of a governmental language policy in the health sector in general and for patients who are non-proficient in the official languages in particular contributes to some extent to maintaining or widening this communicative gap. From the perspective of health care providers, this paper therefore aims at investigating the significance (health care providers' estimated proportion and frequency) of patients' official language illiteracy in Far North Cameroon health centers, the current strategies used by health care providers in these health centers to overcome these barriers, make some suggestions to overcome communication barriers in Far North Cameroon health centers, investigate the consequences of communication barriers on health care provision in Far North Cameroon health centers and propose a language policy for Cameroon health centers. Data were collected through questionnaires completed by 487 health care providers selected by simple random sampling from 45 health centers (government and private) in the region. Quantitative analysis was carried out using the Statistical Package for the Social Sciences (SPSS), while qualitative analysis followed a thematic approach. The work is discussed from the perspective of the Cultural Competency Model

[1] Official language non-proficient patients are patients who lack complete communicative skills in official languages. In the context of Cameroon French and English are the two official languages. They have not had formal education and therefore have no communicative skills in the country's official languages (French and English), but can communicate orally in their mother tongues

(Brach and Fraser 2000). The results show that 98 per cent of health care providers in health centers in the Far North region face language barriers in their daily practice, and the situation is more common in rural than in urban health centers. Furthermore, the estimated proportion and frequency of health care providers encountering patients who are non-proficient in the official language is very significant. Despite the fact that some healthcare providers and OLNPP patients share some home languages in their verbal repertoire, the proportion of healthcare providers who communicate with patients through these home languages is very insignificant. Various strategies are proposed to improve the current linguistic practices used by healthcare providers to overcome communication barriers. The paper proposes an exo-endonormative approach to language policy in health centers in Cameroon.

Keywords: Communicative Barriers, Healthcare Provision, Official Language Illiterate Patients, Linguistic Policy

Introduction

The place of communication in healthcare provision is indispensable. In order to ensure quality healthcare, both healthcare providers and patients should make sure they can communicate effectively. Hence, effective communication between healthcare providers and patients is compromised if both parties do not share the same code and the consequences are very nefarious.

Cameroon, a multilingual and complex country, but officially bilingual according to its Constitution (cf. Part I, Section 3; 1996 Constitution), recognises English and French, two exoglossic languages, as its official languages. As official languages, these foreign languages are to be used in all areas of public life (economy, justice, education, administration, health, etc.). Health workers in Cameroon's health centers are therefore trained in English and/or French, with the exception of expatriate health workers (e.g. Médecins Sans Frontières) who come from various countries and may have received their training in languages other than English and French. However, a significant proportion of the population of Northern Cameroon, particularly the population of the Far North region of the country, is illiterate, as highlighted in the report of the Unesco Institute for Lifelong Learning (2014), “despite having a fairly high illiteracy rate, Cameroon has no national EFA or literacy policy. The proportion of the population that is illiterate varies significantly according to region, ranging from 44.3% in rural areas to 12.2% in towns. In the northern provinces and Adamawa, the rates are even higher (60% in Adamawa, 68% in the North Province and 76% in the Far North Province)”. So the rate of illiteracy in the Far-North region of Cameroon is estimated at 76 per cent and other sources concur this figure (cf. Republic of Cameroon & United Nations Development Programme (2002)[2],

[2] Republic of Cameroon & United Nations Development Programme (2002). Conditions de vie des ménages et profil de pauvreté à l'Extrême-Nord Cameroun en 2001. Yaoundé : République du Cameroun, Ministère des affaires économiques, de la programmation et de l'aménagement du territoire.

Commission Nationale pour l'UNESCO (2008)[3], Banque Africaine de Développement (2011)[4], Ministry of Basic Education (2015)[5].

As a result, this part of the population does not speak either of the two official languages (English and French), but speaks Fulfulde, the vehicular language of this region of the country, and/or other mother tongues (e.g. Mafa, Tupuri, Guiziga, Massa, Mundang, Moufou, etc.). Unable to communicate in either English or French, they face difficulties in health centers as they are unable to communicate with health providers who have been trained in a language that these underprivileged categories of people do not understand, and consequently face various challenges in receiving medical care.

It should be noted that "the right to health is a fundamental part of our human rights and our understanding of a life in dignity" (United Nations 2008, p. 1). As a signatory to the International Covenant on Economic, Social and Cultural Rights, the State of Cameroon is obliged to ensure that its citizens fully enjoy their right to health, as stipulated in Article 12 of the Covenant: "The States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health". (cf. International Covenant on Economic, Social and Cultural Rights (1976)[6]. The right to health is an inalienable right as stipulated in article 25 of the 1948 Universal Declaration of Human Rights as follows: "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control".

It should be noted that there is no language policy governing the health sector in Cameroon. Also, the State has not yet drawn up a policy which indicates how patients who are non-proficient in its official languages should be attended to in health centers. This legislative vacuum has left room for the development and use of various practices (linguistic and non-linguistic) to bridge the communication gap between official language

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[3] Commission Nationale pour l'UNESCO (2008) tendances récentes et situation actuelle de l'éducation et de la formation des adultes (EdFoA).) Rapport National de la République du Cameroun Par la Commission Nationale pour l'UNESCO. Document of the UNESCO National Commission.

[4] Banque Africaine de Développement (2011) Cameroun : projet de réduction de la pauvreté et actions en faveur des femmes dans l'Extrême Nord (prepafen). Document of the banque africaine de développement, Département de l'évaluation des opérations division de l'évaluation des projets et programmes (opev.1)

[5] Ministry of Basic Education (2015) Rapport d'analyse des données du recensement scolaire 2014-2015 du Ministère de l'Education de Base. Document of the Ministry of Basic Education.

[6] https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx

non-proficient patients and health care providers.

The present study therefore focuses on official language non-proficient patients but who, as mentioned above, can communicate orally in their mother tongue. The paper therefore examines the communicative barriers between health care providers and these patients in Far North Multilingual Cameroon and addresses the following questions: 1) How significant (healthcare providers' estimated proportion and frequency) is patients' official language illiteracy in Far-North Cameroon healthcare centers? 2)What are the consequences of communication barriers on healthcare provision in Far-North Cameroon healthcare centers? 3) What are the current strategies used by healthcare providers in these health centers to overcome these barriers? 4) What are some suggestions to overcome communicative barriers in Far-North Cameroon health care centers? 5)What language policy is required for Cameroon healthcare centers?

Literature Review

In the context of this study, communicative barriers refer to linguistic elements that hinder the transmission of information from healthcare providers to patients and vice versa. They result from the inability of healthcare providers to communicate verbal information to patients who lack full communicative competence in the official languages (French and English). These patients are referred to in the study as Official Language Non-Proficient Patients (OLNPP).

Communicative barriers have received considerable attention in previous studies. Two types of communicative barriers have been identified in the health communication literature, namely barriers in verbal communication and barriers in nonverbal communication (Li et al., 2017, p.104). Barriers in verbal communication may be influenced by historical and socio-political factors, which may negatively affect patients' trust in doctors and their communication with health professionals. For example, people who have experienced racial segregation may unconsciously have a sense of bias towards healthcare providers of a different race (Li et al., 2017, p.105). Cox and Li (2020) go on to suggest that verbal communication barriers are not an absolute concept, as they can exist on a continuum of degrees or intensities. They are defined by factors such as the intensity of the communicative barriers, i.e. the language proficiency or skills of the participants in the interaction, the communicative purpose (e.g. how specific/technical is the information sought by the doctor), contextual factors (e.g. stress, anxiety and time pressure), paraverbal (e.g. how words are said) and non-verbal communicative resources (e.g. posture, gestures and display of relevant artefacts). They go on to say that these factors not only lead to miscommunication but also reinforce language barriers (Cox & Li, 2020).

Barriers to verbal communication can occur without an interpreter (e.g. people

who choose to communicate with health care providers without the help of an interpreter may have difficulty being understood and may therefore be misdiagnosed) or with an interpreter (e.g. communication may be hampered if the interpreter does not speak the same dialect or variety of language or shares the same socio-cultural background as the health care provider). The perception of doctors in a hierarchical relationship also has an impact on the patient's communication with the doctor. For example, the fact that Chinese Americans' cultural view of doctors as "powerful others" deserving great respect may lead to inadequate communication with doctors (Li et al., 2017, pp.104-105)).

Communication barriers are manifested by both healthcare providers and patients not speaking a common language, whether willingly or unwillingly. It has been found that some healthcare providers willingly refuse to communicate with patients using a common language (Hunter-Adams & Rother, 2017, p. 17). It is the case of some nurses in South Africa who could speak English, but tended to communicate with some Zimbabwean immigrants in IsiXhona, even though these people could not understand this South African language. Because of this communication gap, some of these Zimbabwean immigrant patients who went for antenatal care reported being sterilised without their consent (Hunter-Adams & Rother, 2017, p. 17).

Barriers to non-verbal communication are influenced by culture. For example, it can be very challenging for healthcare providers to communicate with immigrants with whom they do not share the same culture, as immigrants may use different forms of non-verbal communication (proxemics, kinesics, paralanguage).

Previous studies have found that communication barriers are very counterproductive as they contribute to "poorer patient assessment, misdiagnosis and/or delayed treatment, incomplete understanding of the patient's condition and prescribed treatment, and reduced trust in the services received" (De Moissac & Bowen, 2019, p. 24). They also limit patients' access to health information and health services, prevent them from finding a regular health care provider, limit their participation in cancer screening and health promotion and prevention activities, limit their access to preventive care and almost any form of complementary or alternative health care, affect patients' experience of satisfaction with the work of health care providers, poorer patient assessment, misdiagnosis and/or delayed treatment, incomplete understanding of patient condition and prescribed treatment, and impaired confidence in services received (Bowen, 2015; Chow et al., 2008; Dubard et al., 2006; De Moissac & Bowen, 2019, p.24).

They cause "misunderstandings between patients and providers, barriers to high quality care, and negative clinical outcomes" (Chie & Chenwi 2021; CMC (Center for Medicare and Medicaid services, 2017, p.1); increased risk of medication errors and complications and adverse events, and negative impact on access to care, patient satisfaction and experience, and disparities in care between English (dominant language)

proficient patients and those with language barriers (Bowen, 2015); impairment of the administrative process leading to misdiagnosis or poor management decisions (Qanbar & Saqer, 2019, p.33). They put patient safety at risk, including routine care tasks (e.g. medication administration, pain management, fluid balance management, patient-physician interactions regarding diagnosis, risk communication and acute situations (Van Rosse et al., 2015). They also significantly limit access to care, cause problems with understanding and adherence, and reduce satisfaction and quality of care (Narayan, 2013, p.236). They threaten patient safety, including daily nursing tasks (e.g. medication administration, pain management, fluid balance management) and patient-physician interaction concerning diagnosis, risk communication and acute situation (Van Rosse et al., 2015). Overall, language barriers "can be life-threatening in the healthcare sector" (Meuter et al., 2015, p.1).

Various strategies have been developed to overcome communication barriers. These include both institutional and individual strategies (Li et al. 2017, p.106). Institutional strategies relate to legal instruments. These include the Civil Rights Acts of 1964 and Executive Order 13166 in the United States of America, which, among other things, prohibits any form of discrimination (the former) and provides access to services for people with limited English proficiency (the latter). Individual strategies are implemented at the individual level. They include raising patients' awareness of the verbal and non-verbal communication styles of healthcare providers, including specific proxemics, kinesics and paralanguage (non-verbal elements of communication used to express emotion or nuance in conversation. e.g. pitch, tone, volume, pacing).

Individual strategies also include health care providers developing a 'culturally competent communication repertoire', health care providers being aware of the socio-cultural components of illness, communicating with patients at a slow pace and using shot sentences, and selecting trained medical interpreters (Li et al., 2017, pp.106-108; Karliner et al., 2007, p.727; Langendijk-van den Berg 2014), the teaching of home languages in medical schools (e.g. in South Africa) (Matthews & Van Wyk, 2015, p.1); relying on Google Translate, ad hoc as well as untrained interpreters (De Moissac & Bowen, 2019); telephone interpreting services, asking family members to interpret (Center for Medicare and Medicaid services, 2017, p.1), having bilingual staff (language concordance) and using professional and non-professional interpreters to various creative solutions such as written translations and in-house grammar books (Röysky, 2015, p. i), creating language access services (American Institutes for Research, 2005); hiring multilingual health workers, providing language training to health providers, employing on-site translators or using telephone interpretation services need to be evaluated for their appropriateness to the context (Narayan, 2013, p.236). Internet-based initiatives, the proliferation of mobile phones and recent advances in machine translation also promise to contribute to the solution (Narayan, 2013, p. 236), as does the use of professional

interpreters (Ali & Watson, 2018).

Other strategies include making greater use of medical interpreters, using diagrams and illustrations, demonstrating procedures first where possible, using plain English and avoiding English idioms, giving Indigenous patients extra time to respond or tell their story in their own way, and looking for culturally meaningful analogies that make sense within the patient's lived experience and worldview (Amery, 2017, p. 23).

Most previous research on communication barriers and health care has focused on countries whose sociolinguistic, socioeconomic, and cultural realities differ significantly from Cameroon (cf. Canada (cf. Bowen, 2015; De Moissac & Bowen, 2019); England (Ali & Watson, 2018); United States (cf. Li et al., 2017), CMC (Center for Medicare and Medicaid services 2017); Australia (cf. Meuter et al., 2015); Russia and Finland (cf. Röysky, 2015); United Arab Emirates (cf. Qanbar & Saqer, 2019); South Africa (cf. Van 2016; Margaret & Van Wyk, 2016; Hunter-Adams, Rother 2017). Also, in the previous studies, health care providers dealt with patients who either had limited proficiency in a language used by health care providers, or who had gone through formal education and were therefore not completely illiterate. Also, it is important to point out that the response to communication barriers in healthcare varies on form context to another despite the fact there can be some commonalities.

Theoretical Framework

Given the multi-ethnic and multicultural context of Far North Cameroon, encounters between health care providers and patients should take into account the socio-cultural and ethnic backgrounds of the interactants. The paper is therefore discussed from the perspective of the Cultural Competency Model (Brach and Fraser 2000). According to the Cultural Competency Model developed by Brach and Fraser (2000), communication between health care providers and patients should take into account the different racial, ethnic and socioeconomic backgrounds of the participants involved and that enhancing the cultural competence of health care providers and providing culturally appropriate services can improve communication, access to health care and ultimately health outcomes. The cultural competency model suggests techniques to help reduce barriers to health care. Proponents of this model have identified the following key cultural competency techniques, some of which will be helpful in data analysis and discussion: interpreter services, recruitment and retention policies, training, coordination with traditional healers, use of community health workers, culturally competent health promotion, involvement of family/community members, immersion in another culture, and administrative and organisational accommodations.

Methodology

Research Sites

Prior to data collection, a research authorisation[7] was sought from the health authority of the Far-North Region. 487 heath care providers from 44 healthcare centers of the 6 divisions of the Far-North region (Cf. the map below) participated in the study.

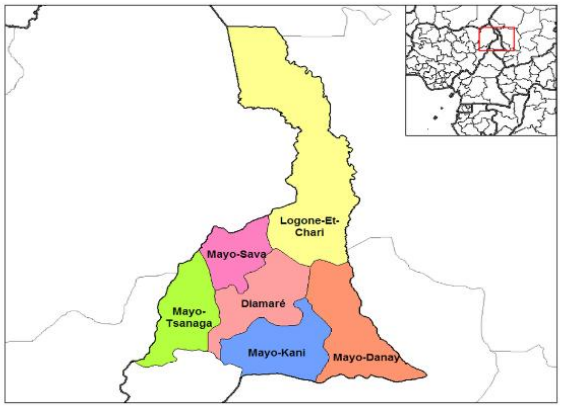

Figure 1: Map of the Far-North region of Cameroon[8]

The data was collected from June 22, 2023 to September 1, 2023.

[7] Research authorisation was granted by the Regional Delegate of Health for the Far-North Region Cameroon (Cf. №310/L/MINSANTE/SG/DRSPEN/SAG of June 22, 2023) and the heads of the various healthcare centers from which I will collect the data). This authorisation allowed me to have access to the various healthcare centers of the Far-North region for data collection.

[8] Source: Far North Cameroon Divisions - MapSof.net

Table 1: Healthcare centers involved in the study

Healthcare centers
HRA Mokolo, CSI Minawao, Intermediare, Clinique Ophtamologique de Mokong, Clinique du Sahel, CMS/CNPS, Clinique du Vivre-Ensemble, HD Makary, HR Guider, HR Yagoua, HD Guere, CSC Bangana, CSPC Gobo, HD Roua, CSI Roua, CSI Madakwa, Hopital de District de Pette, HR Maroua, Clinique Maroua Kaliao, SSD Mogode, SSD Maga, HD Hina, SSD Bourha, SSD Bourha, DS Koza, HD Bogo, HD Kolofata, CMA Logone Birni, Hôpital de Doukoula, HD Kaa-hay, HD Vele, HD Meri, HD Fotokol, SSD Mindif, HD Guidiguis, CSI Guidiguis, HD Mindif, HD Moutourwa, SSD Moutourwa, HD Kaele, CSI Kaele, HD Tokombere, Centre de Sante Djarengol Kodek, CMA Mozogo.

Research Population

The research population consisted exclusively of healthcare professionals (n=487). They include medical doctors, nurses, nursing assistants, midwives, laboratory technicians, x-ray technicians, psychosocial counsellors, kinesiotherapists, psychiatrists, pharmacists, psychomotor therapists, psychologists, physiotherapists and dieticians. The vast majority (91%) received their medical training in French, while 9% were trained in English. As the study focuses on communication barriers from the perspective of healthcare providers, it was not considered necessary to include data from patients who were illiterate in the official language.

Table 2: Distribution of proportion of informants per occupation

Occupations	Proportion (in percentage %)
care assistants	35
Nurses	34.8
medical doctors	9.4
midwives	8.3
medical and assistants	5.5
x-ray technicians	1.4
pharmacists	0.9
lab technicians	0.9
psychosocial counsellors	0.5
pyschiatists	0.2
psychomotor therapists	0.2
psychologists	0.2
physiotherapists	0.6
dieteticians	0.2

The most significant proportions of health care providers are care assistants (35 per cent), nurses (34.8 per cent), medical doctors (9.4 per cent), midwives (8.3 per cent) and medical and sanitary assistants (5.5 per cent) (see Figure 1 below). In terms of gender, 50.1 per cent of health professionals are male and 49.9 per cent are female. In terms of religious affiliation, 25 per cent are Muslim, 74.8 per cent are Christian and 0.2 per cent are animists. Their age ranges from 20 to 50+ years (see Figure 2 below).

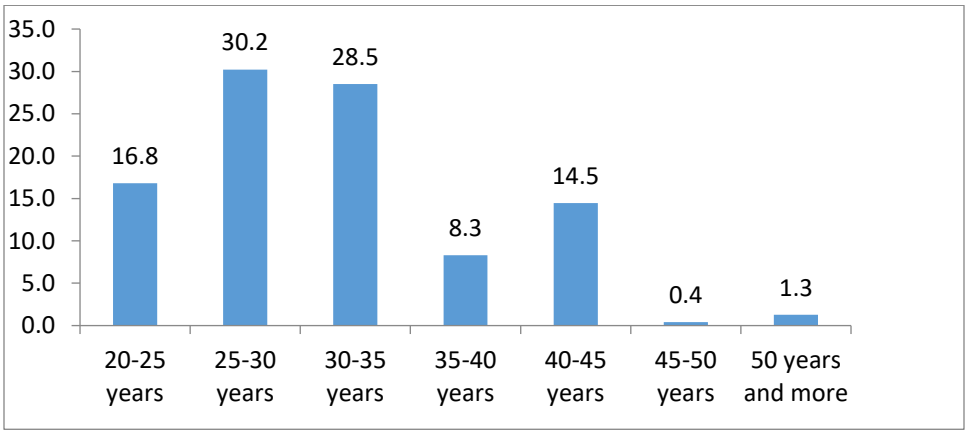

Figure 2: Age range of healthcare providers

The largest proportions of healthcare providers are aged 25-30 years (30.2 per cent), 30-35 years (28.5 per cent), 20-25 years (16.8 per cent) and 40-45 years (14.5 per

cent). Those aged 50 and over make up less than 2 per cent of the healthcare provider research population. So the majority are relatively young.

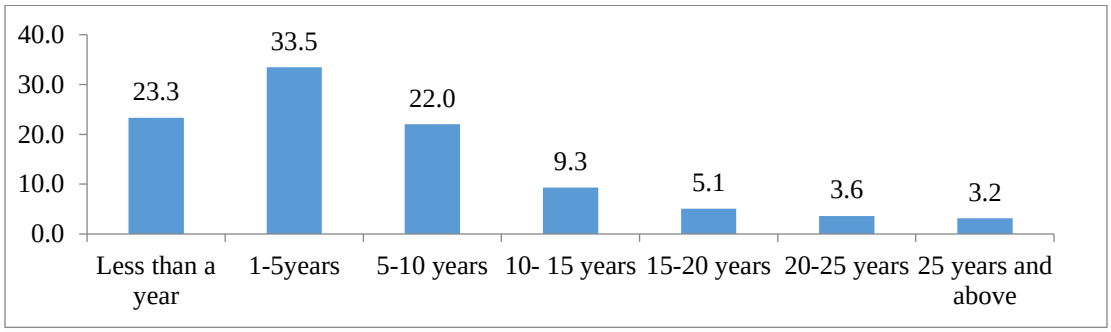

Figure 3: Length of time of informants in healthcare

Their length of service ranges from less than one year to 25 years. The length of service of the largest proportion is 1-5 years (33%), 5-10 years (22%) and less than one year (23.3%) (see Figure 3 below) while that of the smallest proportion (3.2 per cent) is 25 years and more. Their length of service in the Far North region is shown in the figure below (cf. fig. 4).

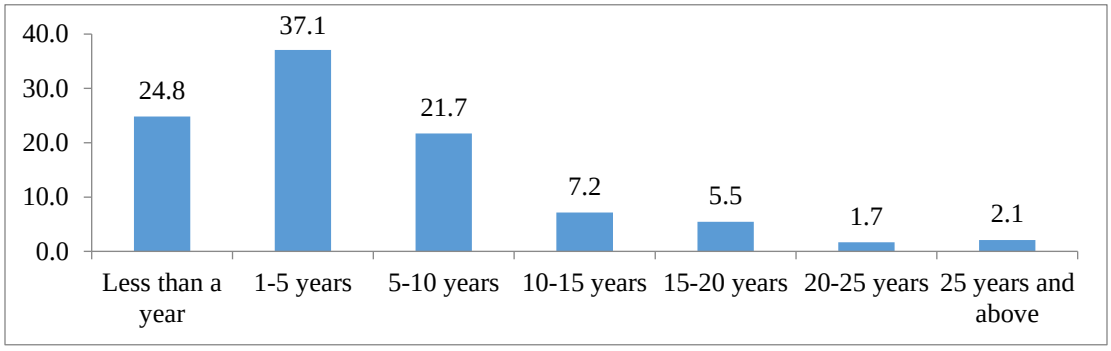

Figure 4: Healthcare providers' length of service in the Far-North Region of Cameroon

As shown in Fig 4, the largest proportions have been in the region for 1-5 years (37.1 per cent), 5-10 years (21.7 per cent) and less than one year (24.8 per cent). The least significant proportions are those who have been working in the region for 20-25 years (1.7 per cent) and 25 years and over (2.1 per cent). A look at Figs. 3 and 4 shows some correspondence between the longevity of health workers in the Far North Region of Cameroon and their length of service.

Research Instrument

Data were collected using a structured questionnaire. The questionnaire consists of three parts, namely part I: demographic information, part II: communication with patients and part III: assessment of communication strategies. Part I elicits demographic information from healthcare providers such as health district, health center, gender, age group, religion, profession/rank/function and longevity in the profession. Part II asks about the first official language of the health care providers, their language of training, the languages they speak, the local languages of the Far North Region they speak, if any, their length of service in the Far North Region, whether or not they are familiar with patients who are illiterate in the official language, their estimated frequency of seeing such patients, the verbal repertoire of patients who are illiterate in the official language, insights into their verbal repertoire regarding the languages of the Far North Region, and the strategies they use to overcome linguistic barriers. The information collected in Part III is related to the current strategies (means/techniques) used to overcome communication barriers, the suggestions (proposals) to overcome these language barriers, the consequences of language barriers, the (in)existence of a language policy in the health sector in Cameroon, the existence or not of professional interpreters in health centers, whether or not the teaching of native languages in medical schools could limit language barriers, cultural barriers and the current and proposed strategies used to overcome them in the Far North Multilingual and Multicultural Cameroon.

Administration of Questionnaire

Questionnaires were distributed to each health center on the basis of the number of health professionals in the hospital. Information about the number of healthcare providers staff of each healthcare center was provided by the head of the healthcare center and based on the size of the staff, I gave the corresponding number of questionnaires. An explanation of the purpose and content of the questionnaire was given to each health center manager and also to some health care providers. I obtained the participants' informed consent to process their responses and to publish the results in a research paper. Packets of questionnaires were made available in each health center and a deadline was set for their collection. They were completed by the health care providers and returned to the official designated by the head of the health center. From time to time, I contacted the official to get information about the progress of filling in the questionnaires. When the deadline was reached, the completed questionnaires were collected. In total, 520 of the 600 questionnaires distributed in all the health centers were collected.

Data Processing

Checking and validating, entering the information from the questionnaire and editing the entered information were the three stages of data processing.

Step 1. Checking and validating the completed questionnaires

I collected 520 completed questionnaires from my informants and proceeded to check the information. I left aside questionnaires that were less than half completed. At the end of the checking process, I kept 487 questionnaires for the study.

Step 2. Keying-in of information from the questionnaire

After checking the completed questionnaires, I entered the information from the questionnaires into a template designed using Google Forms software. Google Forms is a survey management software. In this study, this software helped in data collection (only for 2 informants) and processing. Considering the socio-economic context of the Far North region and the problems of internet connection, almost all questionnaires were filled in manually by the informants. I entered the information from the questionnaires into a google form template to keep the data in electronic form for easy manipulation. The data from the google form template was processed using SPSS 18.0 (Statistical Package for the Social Sciences) and Excel was used to create graphs used for quantitative analysis.

Step 3. Editing and encoding the information entered

Once the information was entered into the Google Form template, I edited it to remove any language or typographical errors. Once the data had been edited, I coded it so that the necessary information could be easily generated from the database for data presentation and analysis. The coding of the data was done in three steps. The first step was to extract the data from the database and read through it; the second step was to group the information provided and give it labels; the third step was to assign codes to each label. I then used the code to annotate the items in the database.

The Significance of Patients' Lack of Official Language Skills in Far North Cameroon Health Centers

This subsection focuses on the study of the significance of the phenomenon of official language non-proficiency in Far North Cameroon health centers. This significance includes the health providers' estimated proportion of the phenomenon as well as the frequency with which they encounter patients who are not proficient in official languages in their practice.

- Healthcare providers' estimated proportion (%) of official language non-proficient patients

Have you ever attended to patients who do not speak any of the official languages?

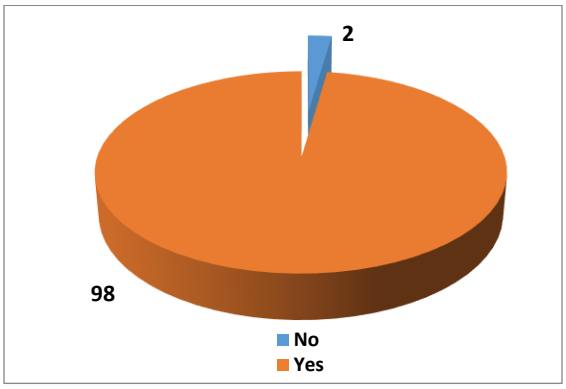

Figure 5: Estimated proportion of healthcare providers' encounter with official language non-proficient patients

As Figure 5 shows, almost all healthcare providers who took part in the study had encountered a patient who could not communicate in one of the official languages of the country. Specifically, 98 ٪ of healthcare providers said they had dealt with patients who were not proficient in the official languages, while 2 ٪ said they had never dealt with such patients. These statistics is consistent with the frequency with which healthcare providers encounter these patients, as shown in Figure 6.

■Healthcare providers' frequency of encounter with patients who are not proficient in their official language

How often (%) do you encounter such patients?

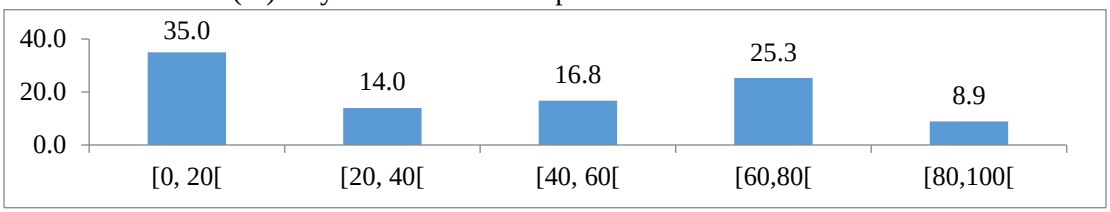

Figure 6: Healthcare providers' estimated frequency of encounter with official language non-proficient patients

As shown in Figure 6, 49 ٪ of health care providers put the frequency of their encounters with OLNPP between [0.40[٪ while 51 ٪ put this frequency between [40, 100[٪. These figures indicate that the phenomenon of OLNPP patients is very common in the Far North region of Cameroon. As mentioned above, it is worth noting that these patients communicate in their mother tongue, despite the fact that they lack full

communicative competence in French and English.

■ Language repertoire of patients who are not proficient in the official language

This subsection provides information on these patients. More specifically, it provides the list of home languages that, according to health care providers, are most commonly spoken by OLNPP during medical encounters.

Do these official language illiterate patients speak any other home languages)? If yes, which ones? List the languages

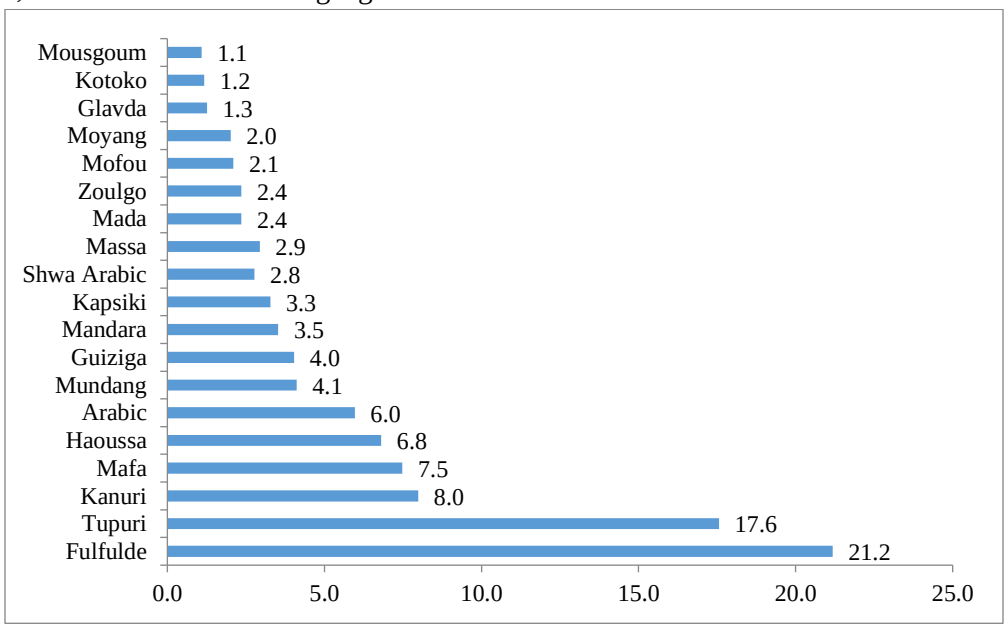

Figure 7: Mostly spoken home languages by OLNPP according to healthcare providers during medical encounters in the Far-North region

As shown in Figure 7, the most commonly spoken mother tongues of the non-official language speakers are Fulfulde (21.2%), Tupuri (17.6 %), Kanuri (8.0 %), Mafa (7.5 %), Haoussa (6.8 %), Arabic (6 %), Mundang (4.1 %), Guiziga (4.0 %), Mandara (3.5 %), Kapsiki (3.3 %), Shwa Arabic (2.8 %), Massa (2.9 %), Mada (2.4 %), Zoulgo (2.4 %), Mofou (2.1 %), Moyang (2 %), Glavda (1.3 %), Kotoko (1.2 %), Mousgoum (1.1 %). Among health care providers, 55.3 % said they understood some of the home languages spoken by patients, while 44.7 per cent said they did not understand any of these patients' home languages (see Figure 8).

Do you understand any of the home language(s) spoken by these OLNPP patients?

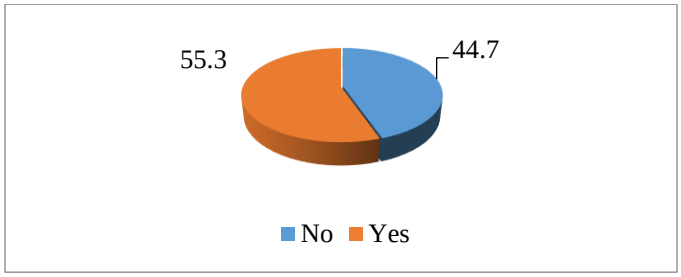

Figure 8: Proportion of healthcare providers who understand some of the home languages

As shown in Fig. 8, the proportion of healthcare providers who understand these patients' home languages is estimated at 55.3 ٪, compared to 44.7 ٪ who do not understand these home languages and therefore cannot use them for communication. The data also showed that despite the fact that 55.3 ٪ of healthcare providers say they understand some of the patients' home languages, only 13. 4 ٪ report that they communicate with these patients using these home languages.

Consequences of Communication Barriers for Health Care

The study of health care providers' experiences with communication barriers in the Far North of Cameroon has highlighted their pernicious effects: lack of information about patients, wrong diagnosis, inappropriate and poor treatment; poor or no care for patients (e.g. patients refusing medical prescriptions from health care providers); patient dissatisfaction and lack of trust, leading to frustration and confusion; patient complaints; low attendance at health centers; poor patient follow-up; deterioration of patient health; additional health care costs. dissatisfaction and lack of trust, leading to frustration and confusion; patient complaints; low attendance at health centers; poor follow-up of patients; deterioration of patients' health; additional and unnecessary costs; delays in patient care; conflicts between patients and health care providers; disclosure of medical secrets due to the need for an interpreter. It is worth noting that most of the consequences listed above are consistent with those found in previous studies (see section 3 above).

One aspect that I did not find in previous literature, and which is found in this study, is the fact that communication barriers in the Far North region of Cameroon lead to a decrease in patient attendance at health centers. Many health care providers point out that many patients who are non-proficient in official language tend to shy away from

health centers where there are no health care providers who can communicate with them in the local language (for example, in Fulfulde). These barriers also lead to discrimination against health care providers by the OLNPP. In fact, many of these patients prefer to be treated by providers with whom they can communicate in their mother tongue. It has also been observed that many pregnant women shy away from health centers where the maternity ward is staffed by male health providers for antenatal care and delivery.

Current Strategies/Techniques Used to Overcome Communication Barriers

In order to overcome communication barriers between health care providers and OLNPPs, different strategies are used by health care providers, as illustrated in the diagram below (see Figure 9).

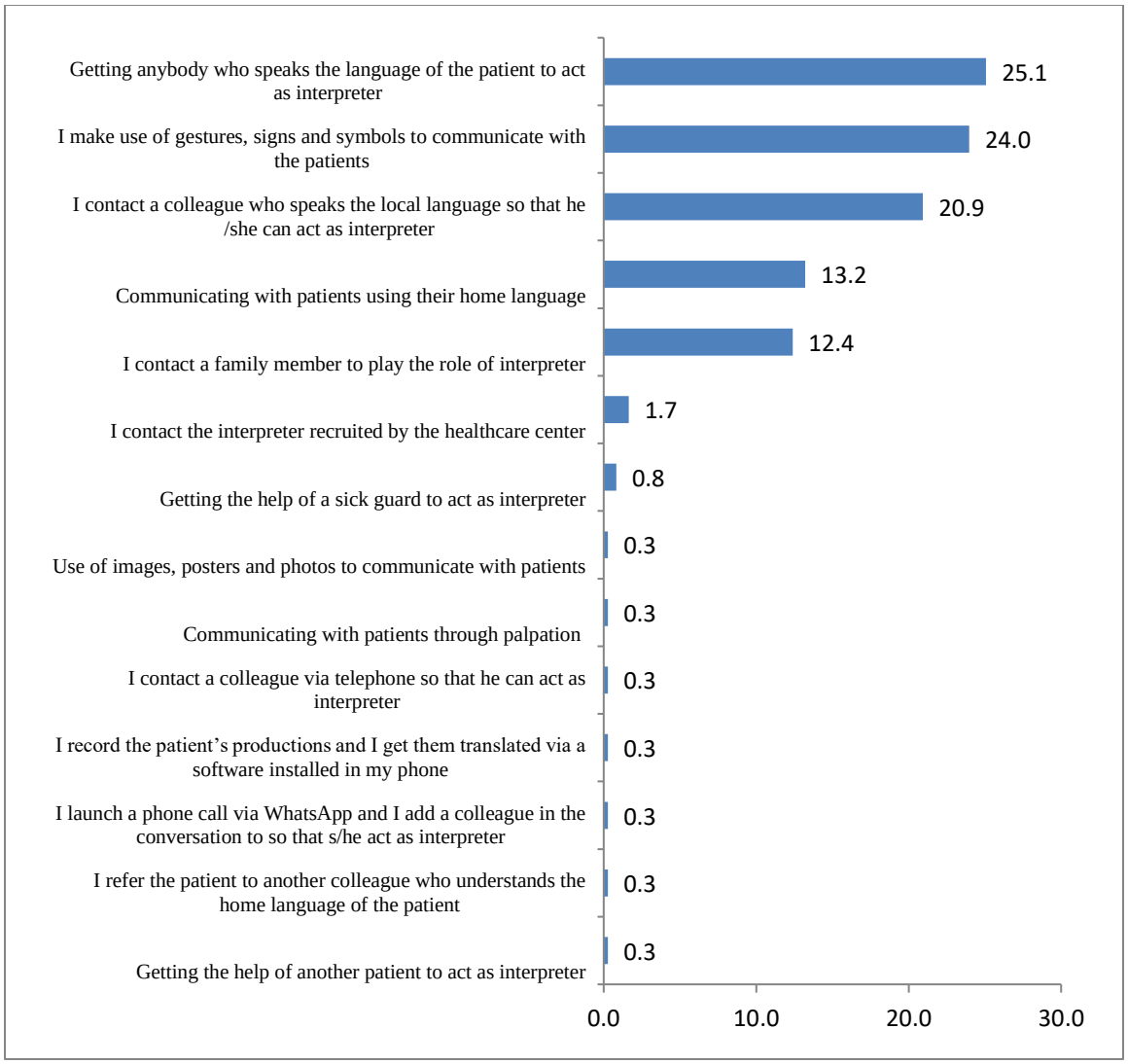

Figure 9: Current strategies used to overcome communicative barriers

As shown in Figure 8, the most commonly used strategies to overcome communication barriers are: asking someone who speaks the patient's language to interpret (25.4%), using gestures, signs and symbols (24.3%), asking colleagues who speak the patient's language (21.2%), communicating with patients in their native language (13.4%), and asking family members to interpret (12.6%). The least used strategies are communicating with patients by palpation (0.3%), using pictures, posters and photographs (0.3%), asking a patient's guardian to interpret (0.8%) and contacting the interpreter recruited by the health center (1.7%). It should also be noted that the use of technology (telephone interpreting and translation software) is rarely used by healthcare

providers in this context (less than 0.2 %). Furthermore, the graph above shows that among these strategies, interpreting is the most used (61.7 percent) and is almost always done by ad hoc interpreters and bi/multilingual staff (asking anyone who speaks the patient's language to act as an interpreter (25.4 %), contacting colleagues who speak the patient's language (21. 2 %), contacting family members to play the role of interpreter (12.6 %), enlisting the help of a patient's guard to interpret (0.8 %), and community relay workers recruited to act as health care interpreters in their own language (e.g. in Bogo District Hospital) (1.7 %) in these health centers.

The statistics above also show that gestures, signs and symbols are the second most commonly used strategy to overcome language barriers. However, it will be very difficult for healthcare providers to explain some abstract issues to patients and vice versa using gestures, signs and symbols. For example, it will be very difficult for healthcare providers to use gestures, signs and symbols to ask patients what kind of pain they are experiencing. The same applies to the use of pictures, posters and photographs to overcome language barriers, which are very limited for asking patients very subtle and abstract questions about their health situation. Communication by palpation can be effective during the physical examination of patients, as the information needed by healthcare providers can be obtained by touching parts of the patient's body to feel something or see their reaction. For example, to locate pain in a patient's body, palpation can be effective in getting information from the patient. The diagram shows that technology is rarely used to overcome language barriers in multilingual Far North Cameroon.

Suggestions for Overcoming Communication Barriers in Health Centers in the Far North of Cameroon

With regard to the challenges faced by health care providers in overcoming language barriers, the following suggestions were made (see Figure 10 below).

These suggestions can be divided into two categories, namely verbal strategies to overcome language barriers (training and recruiting health care interpreters in the mother tongue, using ad hoc interpreters, communicating with patients in the mother tongue, recruiting health care providers who can communicate in the mother tongue, setting up language training centers), developing and using translation and interpretation software applications, setting up telephone call centers to interpret patients' discourse) and non-verbal strategies to overcome linguistic barriers (using decentralisation in the recruitment of health care providers, using signs, pictures, photos, gestures to communicate, diversifying the recruitment of health care providers in health centers).

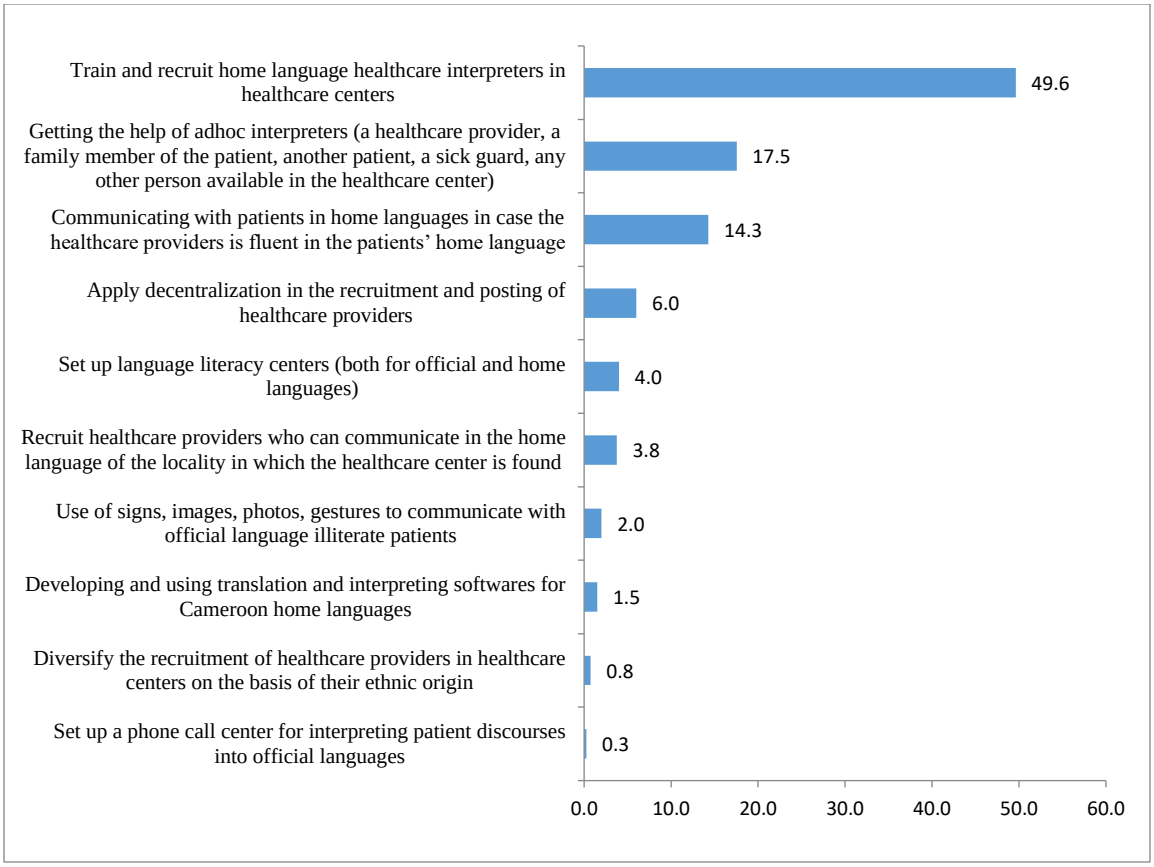

Figure 10: Suggested healthcare providers' strategies to overcome linguistic barriers

a) Training and recruitment of mother-tongue health interpreters in health centers

The training and recruitment of mother-tongue health interpreters to overcome language barriers is the main suggestion made by health providers in the Far North region of Cameroon. As one provider suggested, 'we would like to have well-trained interpreters in the health centers to communicate successfully with patients' (Mokolo 23, CSI Minawao, Care Assistant). It is important to note that although there are many schools in Cameroon (ASTI: Advanced School of Translation and Interpreting), ISTIC: Institut Supérieure De Traduction, Interprétation Et Communication and professional masters in interpreting in some universities (University of Yaoundé I, University of Maroua, University of Dschang), students are essentially trained in translation and/or interpretation from and into foreign languages (French, English, Spanish, German, Chinese, Arabic). Although there are some courses in translation and interpretation into African languages, the emphasis is not on training interpreters from English/French into

their mother tongue and vice versa. There are also no training programmes for medical interpreters in this multilingual country. It is therefore of the utmost importance that the university authorities offer training programmes for medical interpreters from English/French into the Cameroonian mother tongues. Given the multiplicity of mother tongues in Cameroon, the training can initially cover the official languages and some of the vehicular mother tongues of the country (e.g. Fulfulde (lingua franca in the North, Far North and Adamawa regions), Ewondo and Bulu (spoken in the Centre and South regions) and gradually include other mother tongues of wider communication.

b) Implementing decentralisation in the recruitment and deployment of health workers

Decentralisation" is the legal, institutional and financial means by which regional and local authorities act to promote local development with the active participation of the population (Cheka, 2010). Applying decentralisation to the recruitment and deployment of health workers means involving regional and local governments in this process. The application of decentralisation policies in the recruitment and deployment of health workers should be carried out in such a way that local people, who therefore speak the language of the place, are recruited and, where possible, trained and deployed in the health centers of their various regions of origin, as explicitly stated below:

"Implement decentralisation in the assignment of health care providers to health centers in Cameroon by assigning them on the basis of their area of origin and the native language they can speak (CSKD 5, Maroua 3, AS).

This could be an effective way of overcoming language barriers, as the health providers will be working in the region of origin and will have a better chance of communicating in a dominant native language of the region or locality.

c) Recruit health care providers who can communicate in the home languages of the locality/region

In order to limit language barriers between health care providers and patients who do not speak the official language, one of the health care providers' suggestions is that the ability to communicate in the local mother tongue should be one of the criteria for recruiting health care providers to health centers in the region. This is explicitly stated below: "Recruit health care providers from the community so that they can easily communicate with patients in their mother tongue" (Mokolo 49, HRA Mokolo). This will therefore imply that some mother tongue tests will be carried out during the recruitment of some health care providers to the health centers.

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d) Diversifying the recruitment of Health care providers in health centers

Linguistic diversification in the recruitment of health care providers consists of ensuring that people of the various ethnic groups found in the community are represented in the staff of health care providers in the hospital. As one health care provider pointed out: "In our hospital we have organised ourselves so that each ethnic group is represented in the different wards of the hospital (Mindif, HD Mindif 1, Care Assistant). In this way, the likelihood of having staff who are fluent in one of the mother tongues of the patients living in the area is very high. This can be applied in other health centers facing similar problems. The representation of different ethnic groups in the staff of health care providers will imply a representation based on the native languages of the locality. This linguistic diversity of health care providers will provide a human resource for French/English mother tongue interpretation. However, while recognising the effectiveness of this proposal, it may be that some ethnic groups in the community do not have indigenous people with medical training.

e) Use of ad hoc interpreters and bi/multilingual health professionals

The use of ad hoc interpreters and bi/multilingual health professionals is very common in healthcare settings as a means of bridging communication gaps. This is a very practical, less costly and short-term solution to overcome language barriers. Ad hoc interpreters can be either another patient, a patient's family member or a patient's relative. It is also very common for healthcare providers who are fluent in both the official and local languages of these health centres to act as interpreters. One solution to this problem is therefore to "recruit health care providers from the community so that they can easily communicate with patients in their mother tongue" (Mokolo 49, HRA Mokolo, nurse). It should be noted, however, that interpreting can be counterproductive when done by non-professionals. Nevertheless, it is a short-term solution to overcome language barriers. It is therefore necessary that any patient who does not speak the official language be accompanied to the health centers by someone who can act as an interpreter from French/English into their mother tongue.

f) Development and use of translation and interpretation software applications

The development of telemedicine or telehealth has led to an increasing use of technology in healthcare. Various internet and applications (e.g. xprompt-multilingual assistance (cf. Albrecht et al., 2013), Canopy Medical Translator, Universal Doctor Speaker and Vocre Translate (cf. Khander et al., 2018)) are used for translation and interpretation, especially in multilingual complex countries. The study conducted by Panayiotou (2019) shows that in Australia, a country with approximately 300 languages coexisting, the use of translation apps in healthcare settings has been very productive. Previous studies have highlighted the success of using translation and interpretation applications to overcome language barriers in different parts of the world (cf. Kaliyadan & Gopinathan, 2010; Albrecht, 2013; Beh & Canty, 2015; Nguyen-Lu et al., 2010; Patil & Davies, 2014 with positive results). The use of translation and interpretation applications may be useful to overcome language barriers in health centers in the multilingual Far North of Cameroon. Health authorities and providers in Cameroon should explore the possibility of developing multilingual health translation/interpretation software applications for areas of the country where the official language illiteracy rate is very high, as is the case in the North region of the country. These translation and interpretation applications are not yet available in the various mother tongues of the Far North region. Given that Fulfulde is the vernacular language in the three northern regions (Adamawa, North, Far North), the development of a French/English-Fulfulde translation or interpretation app can be a possible solution to reduce language barriers between healthcare providers and these linguistically disadvantaged patients.

g) Establishing telephone call centres or telephone interpreting services to interpret patients' native language into official languages.

Like translation and interpretation software, telephone interpreting is part of the use of technology in healthcare. Telephone interpreting in healthcare involves the presence of a remote interpreter who translates patients' oral productions into a language that can be understood by the healthcare provider. It is worth noting that telephone interpreting as a means of overcoming language barriers has produced good results in other contexts (see Jaiteh et al., 2022). As Jaiteh et al. (2022) point out, "telephone interpreting services enable improved communication and understanding between allophone migrant patients and doctors. However, the interpreter may sometimes need to physically see the patient to better guide the doctor. For this purpose, videoconferencing interpreting services deserve further development". Telephone interpreting services, if well organised, can be an alternative and efficient way of reducing official barriers between official-language non-proficient patients and healthcare providers in areas of

Cameroon where official-language illiteracy is very high.

h) Establishment of literacy centres

The northern regions of Cameroon (Adamawa, North, Far North) have the highest illiteracy rates in the country. More specifically, "the proportion of the population that is illiterate varies considerably from one region to another, ranging from 44.3% in rural areas to 12.2% in urban areas. As one informant pointed out, "there is a need to develop literacy programmes for the local population so that all children can become literate and in the long run this kind of problem should no longer exist" (Guidiguis 29, nurse). In the northern provinces and Adamawa, the rates are even higher (60% in Adamawa, 68% in North Province and 76% in Far North Province (Unesco Institute for Lifelong Learning 2014). It should be noted that the Far North is the region with the highest illiteracy rate in Cameroon. As the illiteracy rate is very high, so is the rate of illiteracy in the official languages. As a result, it is common for health centres to encounter patients who cannot communicate in any of the official languages. Therefore, the establishment of literacy centres can be a good initiative to improve the literacy rate in the region, especially the adult literacy rate, and thus reduce the official language barriers, be it in the health care setting or in other contexts of public life.

i) Use of signs, pictures, photographs, gestures

As with ad hoc interpreting, the use of gestures, signs, pictures and photographs is a very common strategy used in healthcare settings to overcome communication barriers. Their use is usually limited to the physical examination of patients. It will be very difficult to use them to explain abstract concepts to either the healthcare provider or the patient.

Which Policy for the Cameroonian Health Sector in General and for the Provision of Health Care to Official Language Non-Proficient Patients in Particular?

As mentioned above, communication barriers between health care providers and patients who do not speak the official language are a serious problem in health centres in the Far North Region. Despite the measures currently being taken by health care providers to overcome this problem, the results are far from satisfactory. In addition to the various proposals that have been made to improve this communication problem, it is important that language policy makers reduce the communication gap between health care providers and the OLNPP. Given the fact that the country has adopted French and

English (exoglossic languages) as its common official languages, and taking into account the multilingual and multicultural nature of Cameroon, I propose an exo-endonormative language policy for the health sector, as well as language planning activities to implement this policy (cf. Meutem Kamtchueng 2026, forthcoming) . By exo-endonormative language policy, I mean a policy that, while recognising the importance of French and English in Cameroon's health system, empowers mother tongues in this domain. It is proposed that applied linguists develop this policy in collaboration with all stakeholders in the health sector. The implementation of such a policy should follow a top-down approach, involving the stakeholders in the health sector (Minister of Health, regional delegates, health center directors and health care providers).

As the State of Cameroon has made the teaching of Cameroonian languages and cultures a compulsory subject in Cameroonian secondary schools, it is important to encourage such initiatives in the health sector. For example, opportunities should be provided for health care providers to have a working knowledge of the dominant mother tongue of the communities in which they work, in order to reduce communication barriers. In addition, health literacy in the mother tongue should be promoted in both printed and digital formats. These suggestions are in line with Kayum Fokoue (2013), Akumbu and Di Carlo (20-21) and Good (2017), who found that the restriction on the use of official languages (French and English) in the health sector in Cameroon severely limits the population's access to health information. This is even more critical during health crises, such as epidemic (e.g. cholera) and pandemic (Covid-19) outbreaks.

Discussion of the Findings

The above study has provided some insights into the study of communication barriers in the multilingual and multicultural Far North of Cameroon. The findings show that the phenomenon is very common in this region of Cameroon, as almost all health care providers have experienced it (see Figure 5). In the health communication literature, in the majority of contexts where providers have experienced this problem, it is with patients who have had formal education and at least the ability to read and/or write in a language. In the present study, the situation is quite different, as the patients do not have literacy skills in any language. The language skills they do have are listening and speaking in their mother tongue. In the health communication literature, strategies to overcome language barriers are divided into two categories: institutional and individual strategies. Institutional strategies refer to measures taken at the state level to reduce language barriers in various areas of public life. These include the Civil Rights Act of 1964 and Executive Order 13166 in the United States, which, among other things, prohibit any form of discrimination (the former) and provide access to services for people with limited English proficiency (the latter). Individual strategies include initiatives by

health care providers to overcome language barriers. It should be noted that in Cameroonian health centers, overcoming language barriers is generally the sole responsibility of health care providers. No institutional measures are taken to overcome this problem, as there is no language policy in the health sector.

However, it should be noted that the different strategies used by health care providers to overcome language barriers in health centers in the Far North of Cameroon in the present study are also attested in previous literature: use of ad hoc interpreters (family members, relatives, other patients), bi/multilingual staff, contact with an interpreter recruited by the health center, use of gestures, images, photos and communication by palpation. In addition to these strategies, multilingual staff who are fluent in the patients' mother tongue communicate with these patients in their mother tongue, although they are confronted with some lexical limitations in terms of medical terminology and lack of linguistic resources to explain some abstract concepts. While it is true that healthcare providers in different parts of the world are using technology to bridge communication gaps, it is also true that technology is rarely used in this context. In addition, professional mother-tongue health interpreters are not found in these health centres. As a result, in many cases the interpretation provided by these non-professional interpreters is not always reliable. As one health worker pointed out, 'I have noticed that very often the interpretation provided by the hired community interpreter working with me does not match the patient's reactions to my questions and statements. I told the hospital director that I no longer wanted to work with this interpreter [my translation]" (health care provider, Bogo District Hospital Maroua).

It will therefore be of paramount importance for the Cameroonian government to provide French/English health interpreter training programmes in the different regions of the country in order to train a cohort of interpreters who can help improve the quality of interpretation in health centers. The findings on suggestions for overcoming language barriers show that, according to health care providers in the Far North of Cameroon, the solution lies more in the hands of the political and health authorities than in their own. In fact, it is up to the political and health authorities to train and recruit health care interpreters in the mother tongue (49.6%), to apply decentralisation in the recruitment and posting of health care providers (6%), to set up language training centres (4%), to recruit health care providers who can communicate in the mother tongue(s) of the community (3.8%), to diversify the recruitment of health care providers in health centres (0.8%). These authorities can also provide resources and facilities for the development and use of translation and interpretation software for health centres (1.5%), set up language call centres to interpret patients' discourse into official languages (0.3%).

Conclusion

The study has shown that communication barriers are a serious problem in the health sector in the multilingual Far North of Cameroon. Despite the current strategies used by health care providers to overcome this problem, much remains to be done to stem the tide. A number of suggestions have been made to both health policy makers and health care providers to reduce these barriers. These include training and recruiting mother-tongue health interpreters in health centres, communicating with patients in their mother tongue, applying decentralisation in the recruitment and posting of health providers, setting up language competence centres, recruiting health providers who can communicate in their mother tongue, developing and using translation and interpretation software, diversifying the recruitment of health care providers in health centres, establishing language access services in health centres, informing, educating, communicating and counselling, making health care providers aware of the cultural and religious practices and beliefs of people in the community, recruiting health care providers from the community, developing a language policy for the health sector in Cameroon. Such suggestions may be useful in other multilingual contexts.

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