REVISTA DE LLENGUA I DRET
JOURNAL OF LANGUAGE AND LAW
#84
www.rld.cat

HEALTH PROVIDERS' PERCEPTIONS ON LANGUAGE BARRIERS IN CATALONIA'S PUBLIC HEALTHCARE SYSTEM*

Gema Rubio-Carbonero**

Anna Gil-Bardají***

Abstract

In this article, we present the results of an exploratory quantitative study on the situation of communication between healthcare staff in the Catalan public system and users with limited competence in the official languages of Catalonia. The study objective is to offer a comprehensive and empirically grounded overview of the current state of intercultural communication in the Catalan public health system, with and without the involvement of third-party mediation, as perceived by healthcare providers. Data were collected through a structured questionnaire administered to professionals engaged in direct patient care across public health centres in Catalonia, yielding a sample of 1 390 respondents. The findings underscore the high frequency and significant impact of language barriers in clinical encounters and highlight notable deficiencies in the resources currently available to address these challenges.

Keywords: communication; language barrier; public health; healthcare workers; questionnaires; intercultural mediation resources.

PERCEPCIONS DELS PROFESSIONALS SANITARIS SOBRE LES BARRERES LINGÜÍSTIQUES EN EL SISTEMA PÚBLIC DE SALUT A CATALUNYA

Resum

Aquest article presenta els resultats d'un estudi quantitatiu exploratori sobre la situació de la comunicació entre el personal sanitari del sistema públic català i els usuaris que tenen un coneixement limitat de les llengües oficials de Catalunya. L'objectiu de l'estudi és oferir una visió global i amb una base empírica de l'estat actual de la comunicació intercultural en el sistema públic de salut català –tant amb la mediació de tercers com sense– a partir de la percepció que en tenen els professionals sanitaris. Les dades es van recollir mitjançant un qüestionari estructurat administrat a professionals que treballen en l'atenció directa als pacients en centres públics de salut de Catalunya, que va permetre obtenir una mostra de 1.390 participants. Els resultats posen de manifest l'alta freqüència i el fort impacte de les barreres lingüístiques en les interaccions clíniques, així com mancances notables en els recursos disponibles actualment per afrontar aquests reptes.

Paraules clau: comunicació; barrera lingüística; salut pública; personal sanitari; qüestionaris; recursos per a la mediació intercultural.

---

* This study is part of the project "La comunicación intercultural mediada en el ámbito sanitario (CIMAS)", funded by the Spanish Ministry of Science, Innovation and Universities (PID2022-137113OB-I00).

** Gema Rubio-Carbonero, Department of Translation, Interpreting and East Asian Studies at Universitat Autònoma de Barcelona (UAB). Member of MIRAS research group. gema.rubio@uab.cat

*** Anna Gil-Bardají, Department of Translation, Interpreting and East Asian Studies at Universitat Autònoma de Barcelona (UAB). Member of MIRAS research group. Founder and director of the Master in Contemporary Arabic Studies (UAB). anna.gil.bardaji@uab.cat

Article received: 05.06.2025. Blind reviews: 08.07.2025 and 21.07.2025. Final version accepted: 18.09.2025.

Recommended citation: Rubio-Carbonero, Gema, & Gil-Bardají, Anna. (2025). Health providers' perceptions on language barriers in Catalonia's public healthcare system. *Revista de Llengua i Dret, Journal of Language and Law*, *84*, 33-54. https://doi.org/10.58992/rld.i84.2025.4479

Contents

1 Introduction

2 The state of the art of mediated intercultural communication in healthcare

3 Methodology

4 Analysis and results

4.1 Intercultural experience and training of healthcare providers

4.2 Frequency and impact of the language barrier in professional practice

4.3 Availability, use, and perceived effectiveness of resources to address the language barrier

4.4 Assessment of experience with professional intermediaries (intercultural mediation services and 061)

4.5 Emotional and cognitive responses in language barrier situations

4.6 Improvement proposals from healthcare providers

5 Conclusions

6 References

1 Introduction

The language barrier is one of the main problems of communication between healthcare staff and non-official language speakers in Spain. The foreign population in this country has been growing steadily since the migration boom of the 1990s, and two thirds come from countries where neither Spanish nor any of Spain's other official languages are spoken. According to the Statistical Institute of Catalonia (IDESCAT), on 1 January 2024, foreign-born residents accounted for 23.8 % of the total population of Catalonia,[1] as against 1.7 % in 1991. The efforts invested by health services and the public administration to tackle communication barriers over the last three decades have proved insufficient in the face of the constant flow of, not only immigrants and refugees, but also tourists visiting the region.

The aim of this study is to analyse and evaluate the impact of language barriers on communication between users with limited proficiency in the official languages of Catalonia and healthcare professionals within the Catalan public health system, from the perspective of the latter. Specifically, the study seeks to determine the level of intercultural training among healthcare staff; the perceived frequency and impact of language barriers in clinical practice; the availability, utilisation, and perceived effectiveness of existing resources designed to address such barriers; and healthcare professionals' evaluations of their experiences with formal language support services, including intercultural mediation and the 061 Salut Respon interpreting service. Additionally, the study explores the emotions and thoughts experienced by healthcare providers when confronted with language barriers, both in the presence and absence of professional mediation, as well as their suggestions for improving communication in multilingual healthcare contexts. To this end, data were drawn from the analysis of 1 390 questionnaire responses collected from health providers in the Catalan public health system.

This study is part of a larger project whose general objective is to examine and evaluate intercultural communication in the public health services in Catalonia, aiming to identify problems and offer specific solutions that may benefit migrant or foreign users of these services, as well as improve the efficiency of the health services themselves. The project focuses specifically on mediated intercultural communication (communication through an interpreter, intercultural mediator, health agent, family member, or other figures), taking into account the perspectives of all actors directly or indirectly involved in such mediation in hospitals and primary care centres in Catalonia.

Although intercultural communication in healthcare has been widely researched, both nationally and internationally, no project has yet addressed the situation in Catalonia, nor has any research yet been carried out following the difficult years of the economic and labour crisis and the COVID-19 healthcare crisis, all of which makes this project particularly necessary.

In the following section, we present the state of the art of mediated intercultural communication, highlighting the main contributions to the field. The methodological section describes the design of the questionnaire used to collect data and provide contextual information about the sample. In the fourth section, the analysis is organised into six key subsections, each exploring a specific research objective. Finally, we discuss the main findings of our analysis and their relation to the current literature on the topic.

2 The state of the art of mediated intercultural communication in healthcare

Schouten et al. (2023) identify three key challenges in intercultural communication in healthcare settings. First, patients with limited knowledge of the official languages of the host society are often vulnerable

1 See IDESCAT for data on population by place of birth.

because they tend to ask fewer questions, and this may result in insufficient understanding of their illness, incorrect adherence to prescribed treatment, or an increased risk of misdiagnosis (Flores et al., 2012). Second, health workers are often unaware of whether their perceptions of patients of foreign origin are biased. Finally, there is a lack of interprofessional dialogue, as well as insufficient financial resources for professional interpreters, which makes it difficult to overcome language barriers.

Priebe et al. (2011) studied the provision of healthcare to foreign-born users in 16 European countries (including Spain and, specifically, the city of Barcelona), identifying language barriers as the main problem faced by both users and providers of healthcare services. Another study carried out in Spain in the same year (Abril Martí & Martín, 2011) identified the same primary problem. Other studies conducted in Spain highlight the defective communication that exists in healthcare contexts among immigrant populations with insufficient mastery of the local languages (Valero Garcés & Lázaro Gutiérrez, 2008; Burdeus Domingo, 2015; Santana García, 2021).

There is broad consensus in the literature that language barriers in healthcare significantly hinder effective communication between healthcare professionals and patients (Peled, 2018). This communication gap has been shown to reduce patient satisfaction, compromise the quality of care, and pose risks to patient safety (Boylen et al., 2020). As Origlia Ikhilor et al. (2019) emphasises, effective communication is especially critical in cross-cultural medical encounters. In this regard, the use of professional interpreting services has been identified as a key factor in enhancing patient satisfaction, fostering trust in healthcare providers, and improving overall quality of care (Flores, 2005; Angelelli, 2008; Kale & Syed, 2010). Nevertheless, access to professional interpreting services remains limited in many healthcare settings and is often regarded as a privilege rather than a standard component of care (Foulquié-Rubio et al., 2018). Institutional barriers – such as insufficient availability of trained interpreters, as well as concerns regarding cost and time – continue to impede their widespread implementation (Boylen et al., 2020). As a consequence, both healthcare providers and patients may turn to alternative strategies, including telephone interpreting (Lázaro Gutiérrez, 2021; Pruskil, 2023); machine translation tools (Dew et al., 2018; Vieira et al., 2021; Genovese et al., 2024); or the use of ad hoc, non-professional intermediaries, such as family members (Zendedel et al., 2015; Pines et al., 2020) or minors (Antonini & Torresi, 2021; Iqbal & Crafter, 2022; Orozco-Jutorán & Vargas-Urpí, 2022; Rubio-Carbonero et al., 2022; Arumí & Rubio-Carbonero, 2023).

The heterogeneity of communication strategies employed to address language barriers in healthcare results in varying degrees of satisfaction and trust – or conversely, dissatisfaction and mistrust – among healthcare professionals. These affective responses, in turn, influence the quality of doctor–patient communication and the overall effectiveness of care delivery.

In recent years, the perceptions of healthcare professionals regarding intercultural communication – particularly when mediated by third parties – have garnered increasing attention within the scientific community. Research in this area has primarily focused on the use of both professional and non-professional intermediaries (Pöchhacker, 2000; Rosenberg et al., 2007, 2008; Gray et al., 2012), as well as on structural barriers that may impede access to professional interpreting services (MacFarlane et al., 2021; INTERCOMSALUD project, led by Carmen Pena of the University of Alcalá). Findings from studies such as those by Li et al. (2010) and Hilder et al. (2017) indicate that, particularly in primary care settings, healthcare professionals often find it more feasible to rely on family members or informal language intermediaries rather than professional interpreters. This preference is frequently attributed to the logistical challenges posed by unscheduled appointments, consultations occurring at multiple locations, and the absence of prior notice regarding language needs.

These limitations often lead to situations in which no linguistic mediation is provided during consultations, a phenomenon documented by MacFarlane et al. (2008), Roberts et al. (2004), and Moss and Roberts (2005). In such cases, both healthcare providers and patients are compelled to make additional communicative

efforts, resorting to the use of bridging languages (as English or French), non-verbal communication, and various other compensatory interactive strategies.

The majority of the aforementioned studies examining healthcare professionals' perceptions of mediated intercultural communication have employed qualitative research methodologies. These typically include in-consultation observations followed by post-consultation interviews (e.g., INTERCOMSALUD; Hilder et al., 2017; Rosenberg et al., 2007, 2008; Roberts et al., 2004), focus groups (MacFarlane et al., 2021), documentary analysis (Gray et al., 2012), and literature reviews (Li et al., 2010). One notable exception is the work by Hilder et al. (2017), which employed a telephone survey involving a relatively small sample of 56 participants. The only study identified to date to have used a broader questionnaire-based methodology is Pöchhacker (2000), which gathered 508 responses from physicians, nurses, and therapists. In the Spanish context, to our knowledge, the sole example of a research using questionnaires to explore the perspectives of healthcare professionals is Sanz-Moreno (2018), conducted across three hospitals in the province of Valencia, with a final sample size of 67 informants.

Given this background, the present study distinguishes itself through both the methodology employed and the scale of the data collected. With 1 390 responses obtained from healthcare professionals across the Catalan public health system, the research represents, to the best of our knowledge, a pioneering contribution to the analysis of professional perceptions of mediated intercultural communication in Catalonia.

Scholarly interest in the communication that takes place between healthcare providers and immigrant patients in Catalonia can be traced back to the early 2000s. Much of this research has been conducted by healthcare professionals and published in specialist public health journals – to a lesser extent, related work has also appeared in the fields of intercultural mediation and translation studies. In addition, several large-scale studies have been undertaken or commissioned by public institutions, such as the Public Health Agency of Barcelona, the Catalan Secretariat for Public Health, or the Government of Catalonia Ministry of Health.

These institutional and academic studies have predominantly relied on qualitative methodologies, particularly semi-structured interviews and focus groups. It is noteworthy that the sample sizes in these investigations typically range between 32 and 93 informants. While most have concentrated on the views of healthcare professionals, only a limited number have also incorporated the perspectives of patients or language intermediaries. Crucially, no studies using questionnaires directed at such a large sample of healthcare professionals in Catalonia have been identified, revealing a notable methodological gap and underscoring the relevance of the present research.

The findings of these studies consistently highlight language barriers as the primary obstacle reported by healthcare professionals in their communication with non-official language speaker patients (Vázquez Navarrete et al., 2009, 2016; Antonín Martín, 2010; Terraza-Núñez et al., 2011; Bartoll, 2011; Vázquez et al., 2016; Ferrerós Pagès, 2020; Rubio Rico, 2022; Lurgain et al., 2024). Some research has documented the positive impact of professional linguistic mediation – whether through interpreters or intercultural mediators – on the quality of clinical interactions (Vázquez Navarrete et al., 2007, 2009; Antonín Martín, 2010; Burdeus-Domingo & Arumí-Ribas, 2011; Llosada, 2011; Lurgain et al., 2024). Conversely, other works have pointed to a lack of awareness among healthcare professionals regarding communication problems in interactions with foreign patients (Ferrerós Pagès, 2020), suggesting the need for improved training and support mechanisms in the detection and management of such barriers.

In summary, the existing body of literature has extensively documented the challenges posed by language barriers in healthcare settings, as well as the range of strategies – both formal and informal – employed to address them. However, most of this research has relied on qualitative methods and has been conducted on a relatively small scale, particularly within the Catalan context. The limited use of quantitative approaches and

the near absence of large-scale studies exploring healthcare professionals' perspectives through structured questionnaire instruments highlight a significant gap in the field. The present work seeks to address this gap by offering an exploratory comprehensive, data-driven analysis of the perceptions, experiences, and needs of healthcare providers regarding intercultural mediated communication in the Catalan public health system. While it does not provide statistical representativeness, our combination of quantitative and qualitative open-ended questions – along with the large number of responses collected from public health workers across Catalonia – allows us to build upon and complement the findings of previous qualitative research, as the reflections captured offer valuable insight into how linguistic barriers are managed in daily practice and how these challenges impact the delivery of care.

3 Methodology

The current study, exploratory in nature, employed a 48-item questionnaire consisting primarily of semi-open-ended questions aimed at gathering qualitative insights into perceptions of healthcare professionals within the Catalan public health system regarding their experiences of mediated intercultural communication in clinical practice. The estimated completion time for the questionnaire was approximately 15 minutes (mean response time: 16 minutes and 52 seconds). The survey was administered via the Microsoft Forms platform and was preceded by an informed consent statement, which participants accepted or declined by responding to the first question.[2]

The questionnaire was developed between February and May 2024 through a three-phase process. In the initial phase, eight researchers affiliated with the CIMAS project drafted a preliminary set of questions informed by prior literature, the project's specific objectives, and the accumulated expertise of the MIRAS research group.[3] During the second phase, the draft was circulated among the remaining project members, who suggested revisions and proposed additional items. In the final phase, five external collaborators from different units of the Government of Catalonia Ministry of Health contributed to the design, leading to several questions being refined and additional questions being incorporated. A pilot test was subsequently administered to a randomly selected sample of 18 healthcare professionals, whose feedback prompted adjustments to improve clarity of wording. The finalised version of the instrument was completed in July 2024 and disseminated through the Catalan Ministry of Health, which issued an official communication instructing its agencies and services to distribute the questionnaire among healthcare staff.

The questionnaire was potentially accessible to all the workers across the Catalan public health system. A total of 1 390 individuals responded. While the study does not aim to achieve statistical representativeness, its goal is to provide empirical data that contribute to a better understanding of the realities of communication between healthcare staff and patients with limited proficiency in Catalonia's official languages. The breadth and diversity of the responses allow for the identification of general patterns and emerging trends.

The sample includes participants from a wide range of age groups, with the highest proportion (29 %) between the ages of 51 and 60. In terms of gender distribution, 79 % of respondents identified as women, 19 % as men, and 1 % identified as non-binary, with another 1 % choosing not to disclose their gender identity. Regarding origin, 12 % were born outside of Spain, and 8 % were non-Spanish nationals.

Geographically, 63 % of the sample reported working in one of the three health districts of the city of Barcelona, with the largest concentration located in the Barcelona Metropolitan North district (30 %).

2 The questionnaire was approved by the Ethics Committee of Universitat Autònoma de Barcelona.

3 See MIRAS research group website.

The remainder of the sample was distributed across the regions of Girona (12 %), Catalunya Central (9 %), Camp de Tarragona (7 %), Lleida (4 %), Terres de l'Ebre (3 %), Alt Pirineu i Aran (2 %), and Penedès (2 %).

Professionally, the majority of respondents (approximately 80 %) worked in clinical care roles, including nurses, physicians, nursing assistants, physiotherapists, midwives, dentists, psychologists, and nutritionists. These professionals were primarily employed in specialised and acute hospital care (38 %), followed by primary and community care (20 %), mental health and addictions (13 %), and social health care (11 %). Smaller proportions worked in pharmaceutical and telephone-based care services. The number of respondents per professions is shown in Table 1.

Table 1

Profession of the respondents

Profession	*Number of respondents*
Nurse	388
Doctor	289
Administrative staff	176
Nursing care assistant (TCAI in Catalan)	133
Social worker	60
Clinical psychologist	50
Physiotherapist	34
Occupational therapist	21
Social educator	13
Non-clinical psychologist	13
Midwife	10
Dietitian-nutritionist (DN in Catalan)	9
Dentist	9
Pharmacist	7
Dental hygienist	7
Community emotional well-being officer	6
Orderly	5
Optician and optometrist	2
Pharmacologist	1
Social integrator	1
Others	54
(Blank)	102

Source. Own elaboration.

The questionnaire was organised into seven thematic blocks: (1) personal data (age, gender, country of birth and nationality); (2) professional data (health district, primary work centre, professional category, care setting, type of service, years of experience, professional experience abroad, professional experience in multicultural contexts, training in intercultural communication); (3) communication problems between health professionals and patients when there is a language barrier (frequency, types of incidents, coping strategies); (4) patient profile (gender, languages spoken); (5) knowledge and use of intercultural mediation resources (mediation and/or interpreting services available, awareness and access, frequency of use and perceived effectiveness); (6) cognitive and emotional responses to the language barrier (nature frequency, evaluation), and (7) opinions and proposals for improvements to the current state of mediated intercultural communication.

Quantitative data obtained from the closed-ended questions were processed using the built-in statistical output generated by Microsoft Forms. Responses to open-ended questions were analysed manually through thematic categorisation. Cross-tabulations of variables were conducted using the dynamic chart functions in Microsoft Excel.

4 Analysis and results

This section presents the findings derived from the analysis of responses to six key questions selected from across the seven thematic axes previously outlined. These core questions address the following areas: (1) intercultural experience and training of healthcare professionals; (2) frequency and perceived impact of language barriers in clinical practice; (3) availability, usage, and perceived effectiveness of resources for overcoming language barriers; (4) evaluation of experiences with professional language intermediaries (intercultural mediation services and 061 Salut Respon); (5) cognitive and emotional responses associated with language barrier situations, and (6) proposals for improvements suggested by healthcare professionals.

4.1 Intercultural experience and training of healthcare providers

To assess the preparedness of healthcare professionals for work in multicultural clinical environments, a set of eight questions was designed to explore their prior international or multicultural experience as well as their formal training in intercultural communication.

Only 15.9 % of our respondents reported having had professional experience abroad, most commonly through internships or short-term assignments lasting under a year. Despite the limited nature of international exposure, 69.8 % reported being capable of communicating – at least at a basic level – using bridging languages such as English or French and, to a lesser extent, German, Portuguese, or Italian.

Regarding formal training in intercultural communication, only 12 % of participants indicated having received any such training. A closer analysis of the 143 affirmative responses revealed that 15 referred specifically to the acquisition of linguistic competencies in bridging languages (e.g., English, French, or Italian), rather than training directly focused on intercultural communication. Among the remaining respondents, most had attended brief workshops or lectures, typically lasting two to ten hours, and usually offered by their healthcare institutions. Only a small proportion had undertaken more extensive training – such as postgraduate courses or structured programmes exceeding 20 hours – delivered by external organisations.

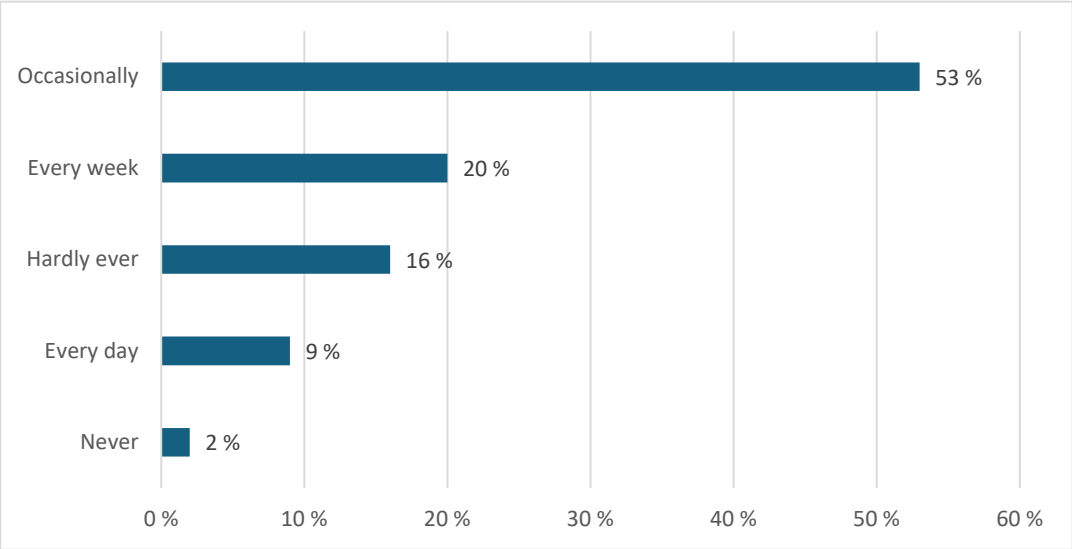
These findings highlight both the limitations and the existing resources in the current training landscape for healthcare professionals in multicultural settings, pointing to the need for more robust institutional strategies aimed at strengthening intercultural competencies across the sector.

4.2 Frequency and impact of the language barrier in professional practice

Respondents were asked how frequently they experienced difficulties in communicating effectively with patients with limited proficiency in any of Catalonia's official languages. As Figure 1 shows, slightly more than half of the sample (53 %) reported encountering such communication difficulties only occasionally. However, this figure must be considered alongside other relevant data: 20 % of respondents indicated that they face language barriers on a weekly basis, and a further 9 % reported experiencing such challenges daily.

Figure 1

How frequently do you experience difficulties communicating effectively with users who have limited or no proficiency in any of Catalonia's official languages?



Source. Own elaboration.

These data suggest that more than a quarter of healthcare professionals in our study sample experience language-related communication problems on a recurrent basis. In contrast, only 18 % of respondents stated that they never, or almost never, encountered such difficulties in their professional practice.

4.3 Availability, use, and perceived effectiveness of resources to address the language barrier

A key component of the study focused on understanding the availability, actual use, and perceived effectiveness of resources employed by healthcare professionals to manage language barriers in clinical practice.

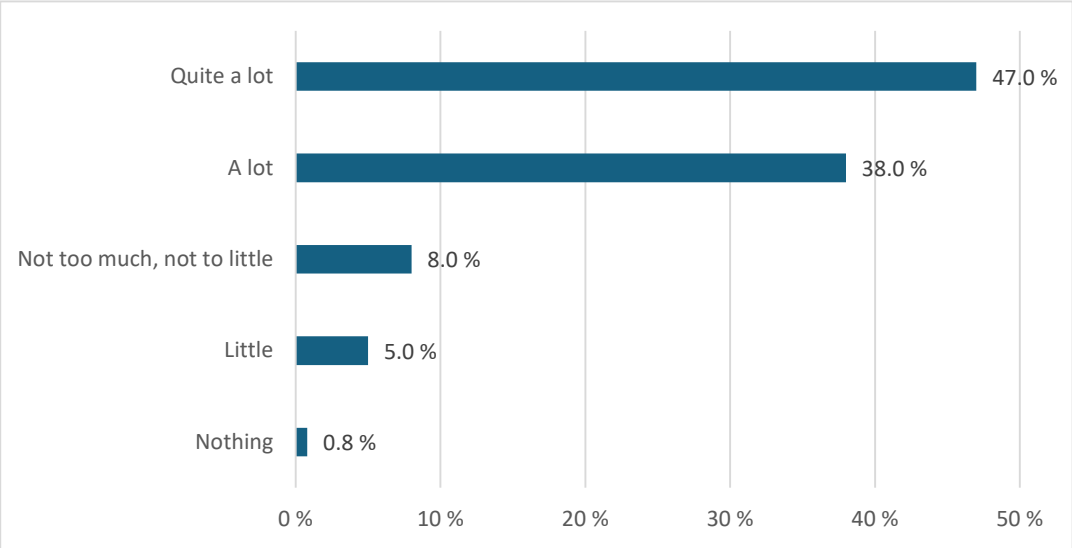
Only 21 % of respondents indicated that their workplace had access to an intercultural mediation service or a translation and interpreting service. However, cross-referencing these responses with regional data revealed that a majority (65 %) of these professionals work in the metropolitan area of Barcelona – comprising the Barcelona City, Barcelona Metropolitan North, and Barcelona Metropolitan South health districts – suggesting a geographical concentration of these services.[4] Conversely, 55 % of respondents reported that their health centre lacked such services, while 24 % stated that they were unaware of their existence.

As Figure 2 illustrates, in response to being asked to what extent language barriers interfered with their professional practice when caring for users with insufficient proficiency in any of Catalonia's official languages, 47 % of respondents indicated that the barrier interfered "quite a lot", while 38 % believed it interfered "a lot". These data suggest a significant impact on the quality of care delivery.

4 To the best of our knowledge, there is no unified official data available concerning the number and geographical distribution of these mediation services in Catalonia.

Figure 2

When attending to a user with limited proficiency in Catalonia's official languages, to what extent do you consider the language barrier to interfere with your professional practice?

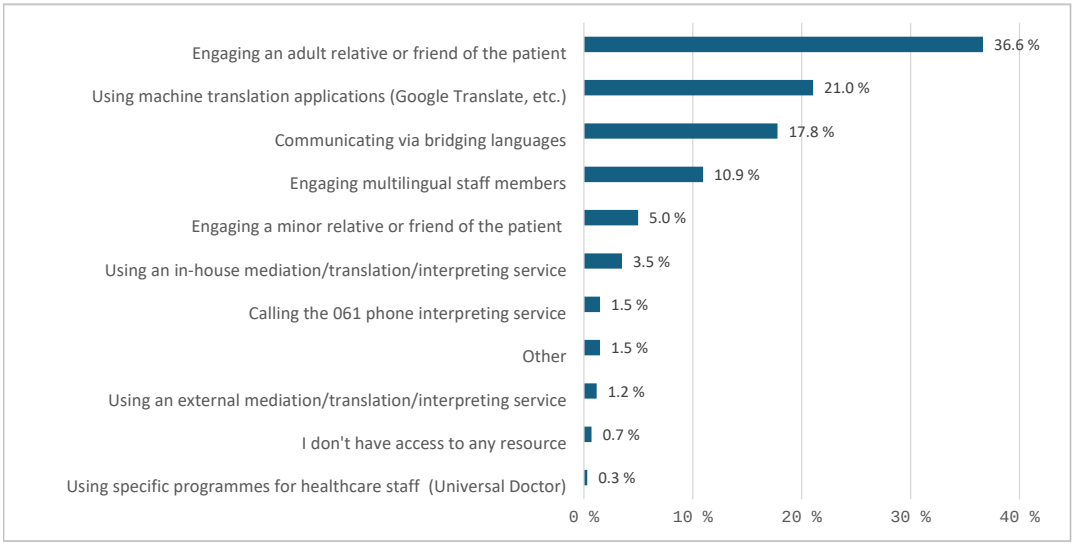


Source. Own elaboration.

Regarding strategies employed to mitigate communication difficulties, respondents were asked to select multiple options from a predefined list and to rank them according to the frequency with which they employed each strategy. The most frequently cited strategies were: (1) engaging an adult relative or friend of the patient as an informal interpreter; (2) using machine translation tools (e.g., Google Translate); (3) communicating via bridging languages (e.g., English or French). These were followed by engaging multilingual staff members or, in some cases, involving a minor relative (child language broker) or friend of the patient to serve as an intermediary. Notably, calls to the 061 Salut Respon telephone interpreting service ranked only seventh in terms of frequency of use, and resorting to internal or external professional interpreting services were chosen, respectively, in sixth and ninth position, as seen in Figure 3.

Figure 3

Which of the above options do you use most frequently?



Source. Own elaboration.

In terms of perceived effectiveness, language mediation by a family member or adult acquaintance was rated as the most effective, followed by the use of machine translation applications and bridging languages. Once again, professional interpreting services – both the 061 line and in-house or external services – were rated among the least effective. In open-ended responses, several participants also cited the use of non-verbal communication strategies, including gestures, drawings, and pictograms, as additional resources to facilitate understanding.

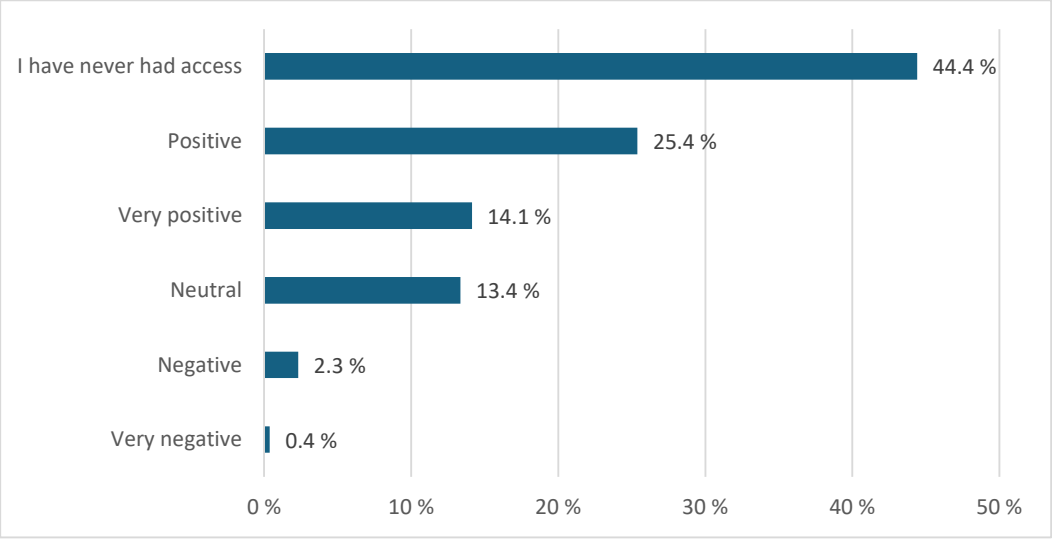
4.4 Assessment of experience with professional intermediaries (intercultural mediation services and 061)

The limited effectiveness attributed to the 061 Salut Respon service and institutional intercultural mediation services appears closely tied to the issue of limited access or insufficient awareness. Specifically, 73.4 % of respondents reported never having accessed the 061 interpreting service – a 24/7 health telephone helpline that aims to ensure accessibility through professional interpreting. Healthcare professionals can connect with interpreters in over 90 languages within minutes, enabling communication with patients who have limited or no proficiency in any of Catalonia's official languages.

Nevertheless, for those respondents who had used this service, the evaluation was largely positive. The majority expressed satisfaction with the effectiveness of both on-site mediation services and the telephone interpreting service, as shown in Figures 4 and 5.

Figure 4

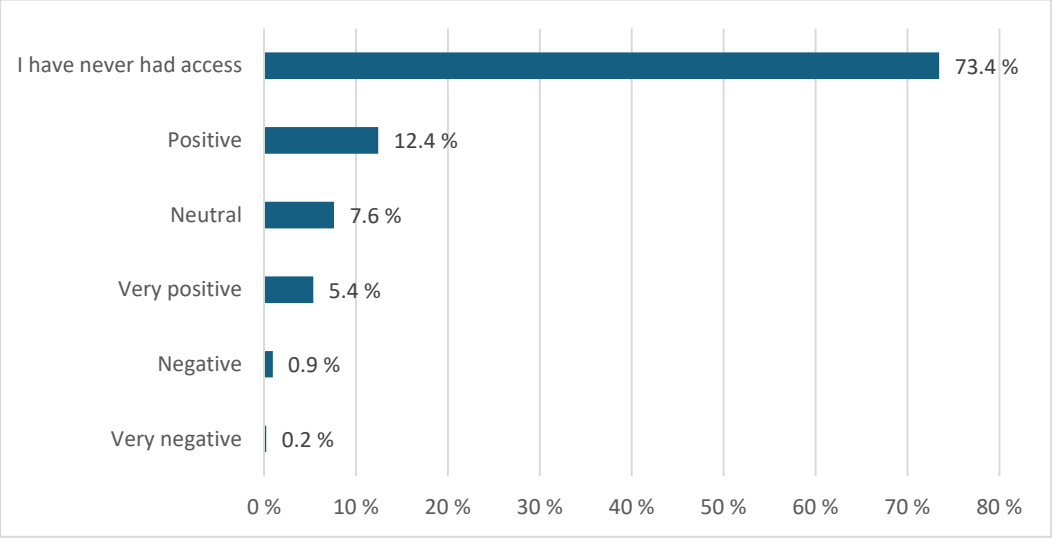
How would you rate the effectiveness of mediation or interpretating services when you have had access to them?



Source. Own elaboration.

Figure 5

How would you rate the effectiveness of the 061 telephone interpreting service when you have had access to it?



Source. Own elaboration.

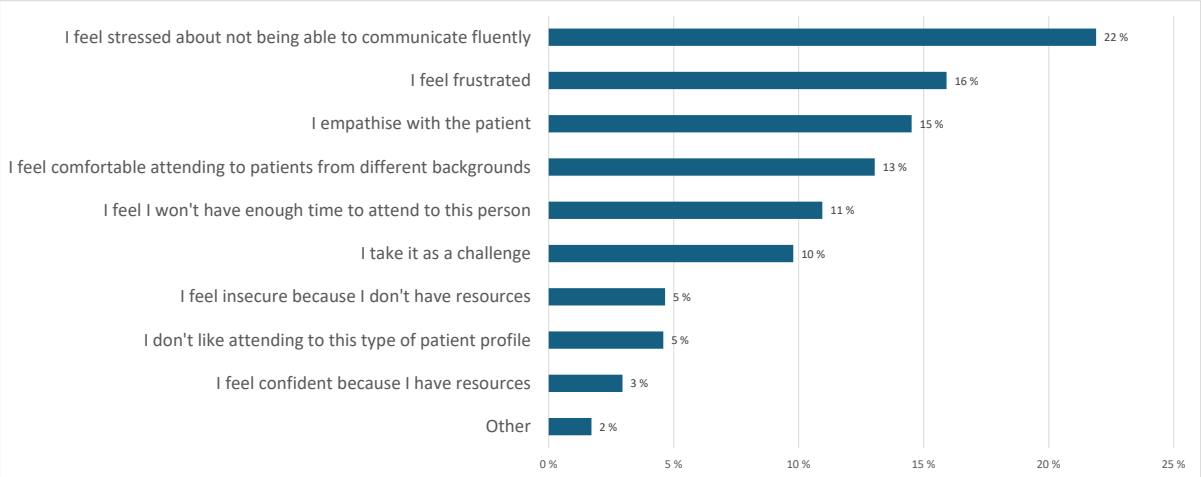
4.5 Emotional and cognitive responses in language barrier situations

Two specific questions were asked to assess the affective dimensions of language-barrier related encounters and the emotional responses of healthcare staff when caring for people with limited proficiency in one of Catalonia's official languages. Respondents were asked to identify the emotions they experienced (1) in situations characterised by the presence of language barriers while carrying out their work, and (2) when health care was delivered with the support of an interpreter or a professional mediator.

For both questions, a list of predefined emotions was presented, from which respondents could select multiple options, as well as add other emotions of their own using an open field. This made it possible to capture more completely the diversity of emotional experiences lived by professionals in mediated and unmediated intercultural communication contexts. The following graph shows the frequencies with which the different responses were selected as the first option.

Figure 6

What do you think or feel when attending to a user who is unable to speak any of Catalonia's official languages?



Source. Own elaboration.

As shown in Figure 6, the emotions most frequently selected by healthcare staff in care delivery situations involving non-official language speakers are mostly associated with negative experiences. Stress was cited by 22 % of respondents as their primary emotional response, followed by frustration (16 %). Analysis of the combined responses reveals a strong co-occurrence between these two emotions: in most cases where stress was mentioned, frustration was also reported, and vice versa. This association is often accompanied by a third feeling: insecurity. These data reflect a considerable emotional burden in contexts where language barriers shape clinical interactions.

A significant proportion (11 %) of professionals reported feeling that they lack adequate time to provide quality care under these conditions. Thus, the pressure of care delivery and the limited time available to devote to each patient – both inherent to the structural constraints of the health system – could aggravate the negative emotional experience in contexts affected by language barriers.

In contrast, only 13 % of health workers reported feeling comfortable caring for people from different backgrounds. However, a closer analysis of the combined responses reveals significant nuances in the emotional configuration of this perception. Of the 168 people who selected "comfort" as their main emotion, only 36 (approximately 21 % of this subgroup) identified comfort as their only response. On the other hand, 21 people (12.5 %) combined it with other positive emotions, such as security or empathy. Nevertheless, the vast majority – 110 people, equivalent to 65.5 % of those who reported feeling comfortable – experienced this feeling in combination with negative emotions, such as stress or frustration. This allows us to question the apparent positivity of the feeling of comfort, since – even with an open and receptive attitude on the part of the healthcare worker – this feeling coexists with negative emotional tension.

Empathy, also associated with a positive disposition on the part of healthcare staff, was selected as the main emotion by 15 % of the participants, suggesting the existence of a significant affective engagement by some professionals, despite communicative obstacles. Yet, feelings of security – interpreted as the confidence to manage such interactions effectively – were reported by only 3 % of participants. The low proportion points to a possible structural lack of training, communication, mediation, or institutional tools to support staff in such scenarios.

Other feelings such as insecurity and rejection were each reported by 5 % of participants. The response indicating a dislike of "attending to this type of patient profile" was selected alone or in combination with other emotions a total of 44 times, indicating a relatively low, though not negligible, incidence of more reactive or defensive responses.

Finally, it is worth noting that 10 % of participants described these situations as a challenge, which can be interpreted as a proactive attitude in the face of difficulties, associated with a focus on learning and personal or professional growth.

In the second scenario, among participants with experience using professional intermediaries, responses shifted toward a more positive emotional tone: 35 % reported feeling both comfortable and confident that the presence of the mediator would facilitate communication with the patient. Disaggregated, 33 % said they felt comfortable, while 24 % said they felt confident. In contrast, only 8 % of respondents reported experiencing feelings of discomfort or insecurity during the mediated interaction. This shows that the presence of trained professionals who specialise in linguistic and cultural mediation is generally associated with a positive emotional experience by healthcare workers.

This perception of safety and comfort suggests that these resources not only facilitate mutual understanding but also contribute to reducing the negative emotional burden previously observed in contexts without communicative support. Consequently, our findings indicate that language barriers can adversely affect the quality of healthcare in Catalonia by generating stress, frustration, and insecurity among healthcare

professionals – factors that may reduce the time and attention devoted to patients and increase the likelihood of errors or miscommunication. Such emotional strain may further compromise the therapeutic relationship by weakening empathy and diminishing mutual trust between providers and patients and may also affect providers' mental health, contributing to professional burnout and potentially resulting in higher rates of sick leaves. Conversely, the involvement of interpreters or cultural mediators facilitates clearer communication while fostering reassurance and confidence among healthcare staff. This, in turn, contributes to more accurate diagnoses, safer clinical practices, and higher levels of patient satisfaction. Accordingly, investment in linguistic mediation constitutes a direct strategy to strengthen professional performance and to promote the overall quality and equity of healthcare delivery.

4.6 Improvement proposals from healthcare providers

In the final open-ended question, respondents were invited to share their proposals for improving communication with users with limited proficiency in any of Catalonia's official languages. Given its open and qualitative nature, the responses collected varied in content and formulation. However, their analysis allows us to identify a series of recurrent proposals that reflect the main concerns and priorities of the group surveyed.

Firstly, a significant proportion of responses alluded to the need for an effective mediation, interpreting, or translation service that is available on-site and can be accessed quickly whenever required. The demand for immediately accessible professional interpreters or mediators was widely regarded as a priority to improve mutual understanding and reduce the tensions generated by the language barrier.

Secondly, a substantial number of respondents stressed the importance of encouraging – and, in some cases, even requiring – patients to learn Catalan or another of the official languages as a long-term solution to facilitate integration and reduce reliance on interpreting services.

Another set of proposals highlighted the potential of digital technologies, with specific mention of translation applications that can offer immediate, effective, and reliable solutions in clinical settings. This suggestion reflects the increasing familiarity of healthcare staff with technological tools and their willingness to integrate them as a support in daily practice.

Finally, several respondents emphasised the importance of training, in both intercultural communication and bridging languages (such as English or French) for healthcare staff. It was also proposed that users should receive training in the official languages as part of sustainable language inclusion strategies.

Overall, responses reflect both a widespread critical awareness among healthcare providers of current limitations in intercultural communication and an active, constructive attitude toward identifying actionable solutions.

5 Conclusions

The aim of the research was to analyse and evaluate the impact of language barriers on communication between users with limited proficiency in any of Catalonia's official languages and staff of the Catalan public health system, from the perspective of the latter. While we are aware of the limitation that the sample is not representative of the entire situation of intercultural communication across the healthcare sector in Catalonia, the study nonetheless offers the most extensive exploratory account to date of the experiences of 1 390 healthcare workers. Their reflections provide valuable insight into how linguistic barriers are managed in daily practice and how such challenges affect care delivery.

Based on the analysis of questionnaire data, we identified eight main conclusions that may be relevant to both public health policymakers in Catalonia and managers within the Catalan public health system.

First, the findings point to a notable lack of training among healthcare professionals in the competencies necessary for effective practice in multicultural and multilingual settings. While some respondents reported having received relevant training, it was generally limited in duration and scope, consisting primarily of short or isolated courses. This aligns with the observations of Allera and Checa (2018) and Álvaro Aranda (2016), who also highlight the absence of structured and systematic training in this area. Such a training deficit represents a serious barrier to ensuring equitable and high-quality healthcare in increasingly diverse sociolinguistic environments.

Second, a significant proportion of respondents – more than a quarter – reported experiencing communication problems with foreign patients on at least a weekly basis. This recurring challenge should raise concern among policymakers, given its implications for the delivery of a vital public service like healthcare.

Third, only a minority of healthcare centres in Catalonia – primarily those located in Barcelona and its metropolitan area – offer intercultural mediation or translation and interpreting services. However, this finding should be considered alongside respondents' largely positive evaluation of their professional experiences when such services were available, underscoring the underutilisation of a resource perceived as highly beneficial when accessible.

Fourth, 85 % of respondents stated that the language barrier interferes "a lot" or "quite a lot" with their ability to carry out their professional duties when dealing with patients who lack proficiency in any of Catalonia's official languages. This response highlights the fact that, beyond socio-cultural considerations, language remains the primary vehicle of clinical communication, without which effective interaction and accurate diagnosis are significantly hindered.

Fifth, the most common strategy adopted by healthcare providers in situations involving language barriers is the use of a family member or adult friend of the patient to act as a linguistic intermediary. This is followed, in descending order of frequency, by the use of machine translation tools (e.g., Google Translate), bridging languages (such as English or French), or a child language broker. Particularly notable is the limited use of the 061 Salut Respon telephone interpreting service, which ranks only seventh, as well as the fact that 44.4 % of respondents reported never having accessed a professional interpreter or mediator.

Sixth, and closely related to the previous point, 73.4 % of the sample reported never having used the 061 telephone interpreting service. This is especially striking considering the key features of the service: its immediacy (the connection with an interpreter in the requested language is established within minutes), its accessibility (calls can be made from any telephone, whether landline or mobile), its continuous availability (operational 24 hours a day, 365 days a year) and its linguistic coverage (with a total of 90 languages available). These results raise questions about the reasons behind the service's underuse. Possible explanations include a lack of awareness among healthcare providers, negative perceptions of its effectiveness, or the high workload and time constraints typical of the Catalan healthcare system. These findings strongly suggest the need for further in-depth research into awareness, current use, and effectiveness of the 061 service.

Seventh, regarding the thoughts and emotions reported in situations involving language barrier, the results indicate a considerable emotional toll on healthcare workers, echoing findings from Kwon et al. (2016), and Ulrey and Amason (2001). The prevalence of negative emotions such as stress, anger, and frustration reflects not only the complexity of these interactions but also the likely inadequacy of institutional support systems. This emotional landscape aligns with the observations of Schouten and Meeuwesen (2006), who described how linguistic mismatches can lead to emotionally demanding work environments and compromised trust

and efficacy in clinical relationships. While only a small proportion of providers reported feelings such as empathy and comfort, this reflects certain individual competencies and open attitudes. However, the low frequency with which feelings of security were reported points to an urgent need for the implementation of sustained training programmes and access to resources such as interpreters or mediators, which, according to our respondents and in line with the findings of Flores (2005), Angelelli (2008), and Kale and Syed (2010), could substantially reduce the negative emotional burden and improve both professional's experience and the quality of care provided.

Finally, the key conclusion – drawn from the open-ended responses – underscores the urgent need for available, reliable, accessible, and effective mediation, interpreting, and translation services in healthcare settings in order to enhance communication and reduce the strain caused by language barriers. Respondents also stressed the importance of encouraging patients to learn Catalan or other official languages as part of a broader integration strategy. However, language acquisition among recently arrived populations cannot be regarded as the sole solution to such a complex problem, as it depends on multiple factors, including educational background, socio-economic conditions, and the linguistic distance between their mother tongue(s) and the local languages, among others. Moreover, such learning may not necessarily eliminate communication barriers, since the highly specialised terminology used in clinical encounters can remain challenging even for those with moderate proficiency in one of the host languages. Other recurring suggestions included leveraging reliable translation technologies in clinical practice, as well as strengthening healthcare workers' training in intercultural communication, bridging languages, and the effective use of interpreters. Many of these recommendations align with those of Hudelson et al. (2013), who called for integrated approaches combining human resources and training to ensure culturally competent care. Notably, the strong emphasis on digital tools voiced by our participants aligns with a relatively recent trend in research on the use of digital translation tools in healthcare (Hudelson & Chappuis, 2024), pointing to an area of growing relevance for future studies and policy development.

To conclude, two final reflections are warranted. Firstly, the data collected in this study are significant because they represent the most extensive dataset to date on intercultural communication within the healthcare system. It is therefore to be expected that public policymakers will consider these findings when planning and implementation improvements in the Catalan public health system.

Secondly, the results invite joint reflection by the academic community and healthcare providers on comprehensive strategies to address the challenges posed by language barriers in healthcare. While the academic literature has long emphasised the benefits of professional interpreters in achieving high-quality communication (Flores, 2005; Karliner et al., 2007; Bischoff et al., 2008; World Health Organization, 2020), we argue that the specific situation in Catalonia – characterised by a lack of necessary onsite mediators and interpreters, and the existence of an operational telephone interpreting service throughout the territory – could benefit from the following structural improvements related to the 061 phone interpreting service:

1. Decoupling the service from the emergency medical line in order to increase interpreting capacity without compromising emergency response services, with which it currently shares infrastructure.

2. Equipping consultation rooms with devices capable of video calls, enabling interpreters to participate more effectively in clinical interactions by incorporating the non-verbal dimension of communication. Initially, this could be piloted using mobile devices stationed at reception desks.

3. Launching a large-scale information campaign targeting all public healthcare personnel in Catalonia, to disseminate clear and accessible information on the function and availability of the 061 telephone interpreting service.

4. Implementing continuous training for interpreters, alongside a quality control system to monitor and evaluate call performance, thereby ensuring consistency and reliability across the service.

The above proposals for this particular service, which do not exclude other parallel solutions that may be adopted to address such a complex problem, are intended to improve the quality of communication in multilingual contexts and to move towards a health system that is more inclusive, equitable, and responsive to the linguistic and cultural diversity of the Catalan population.

6 References

Abril Martí, María Isabel, & Martin, Anne. (2011). La barrera de la comunicación como obstáculo en el acceso a la salud de los inmigrantes. In Francisco Javier García Castaño & Nina Kressova Iordanishvili (Eds.), *Actas del I Congreso Internacional sobre Migraciones en Andalucía* (pp. 1521–1534). Migration Institute.

Álvaro Aranda, Cristina. (2016). Formación, perfiles profesionales y grupos de trabajo en entornos sanitarios multiculturales. *FITISPos International Journal*, *3*, 153–163. https://doi.org/10.37536/FITISPos-IJ.2016.3.0.108

Allera, Pedro, & Checa, Francisco. (2018). Competencias culturales de los profesionales de salud mental del Sistema Sanitario Público de Andalucía en la atención a la población inmigrante. *Norte de Salud Mental*, *15*(58), 42–52.

Angelelli, Claudia. (2008). The role of the interpreter in the healthcare setting. In Carmen Valero Garcés & Anne Martin (Eds.), *Crossing borders in community interpreting: Definitions and dilemmas* (pp. 147–164). https://doi.org/10.1075/btl.76.08ang?locatt=mode:legacy

Antonín Martín, Montserrat. (2010). *La mediación intercultural en el sistema de salud de Cataluña* [PhD thesis]. Universitat Rovira i Virgili.

Antonini, Rachele, & Torresi, Ira. (2021). Child language brokering in healthcare settings. In Şebnem Susam-Saraeva & Eva Spišiaková, *The Routledge handbook of translation and health* (pp. 184–197). Routledge.

Arrasate, Marina. (2018). *Procesos de llegada y experiencias educativas de mujeres de origen pakistaní en Barcelona* [PhD thesis]. Universitat Autònoma de Barcelona.

Arumí Ribas, Marta, & Vargas-Urpí, Mireia. (2017). Strategies in public service interpreting. A roleplay study of Chinese-Spanish/Catalan interactions. *Interpreting. International Journal of Research and Practice in Interpreting*, *19*(1), 119–142. https://doi.org/10.1075/intp.19.1.06aru?locatt=mode:legacy

Arumí Ribas, Marta, Bestué Salinas, Carme, García-Beyaert, Sofía, Gil-Bardají, Anna, Minett-Wilkinson, Jacqueline, Olaciregui, Miren, Onos, Liudmila, Ruiz de Infante, Begoña, Ugarte Ballester, Xus, & Vargas-Urpi, Mireia. (2012). Traducció i immigració: la formació de traductors i intèrprets als serveis públics, noves solucions per a noves realitats. In Magda Garcia (coord.), *Recerca i immigració IV. Convocatòria ARAFI-2008* (pp. 157–183). Generalitat de Catalunya, Departament de Benestar Social i Família.

Arumí Ribas, Marta, Gil-Bardají, Anna, & Vargas-Urpi, Mireia. (2011). Traducció i immigració: la figura de l'intèrpret als serveis públics de Catalunya. *Quaderns. Revista de Traducció*, *18*, 199–218.

Arumí Ribas, Marta, & Rubio-Carbonero, Gema. (2023). Reflecting on past language brokering experiences: how they affected children's and teenagers' emotions and relationships. *Multilingua*, *42*(1), 1–23. https://doi.org/10.1515/multi-2021-0152

Bartoll, Xavier (Ed.). (2011). *La salut a Barcelona 2010*. Agència de Salut Pública.

Bischoff, Alexander, Hudelson, Patricia, & Bovier, Patrick. (2008). Doctor–patient gender concordance and patient satisfaction in interpreter-mediated consultations: an exploratory study. *Journal of Travel Medicine*, *15*(1), 1-5. https://doi.org/10.1111/j.1708-8305.2007.00163.x

Boylen, Susan, Cherian, Sarah, Gill, Fenella, Leslie, Gavin, & Wilson, Sally. (2020). Impact of professional interpreters on outcomes for hospitalized children from migrant and refugee families with limited English proficiency: a systematic review. *JBI Evidence Synthesis*, *18*(7), 1360–1388. https://doi.org/10.11124/jbisrir-d-19-00300

Burdeus Domingo, Noelia. (2015). *La interpretación en los servicios públicos en el ámbito sanitario. Estudio comparativo de las ciudades de Barcelona y Montreal* [PhD thesis]. Universitat Autònoma de Barcelona.

Burdeus-Domingo, Noelia, & Arumi-Ribas, Marta. (2012). Study of public service interpreting and translating practice in healthcare settings in the metropolitan area of Barcelona. *Sendebar*, *23*, 17–36.

Dew, Kristin N., Turner, Anne M., Choi, Yong K., Bosold, Alyssa, & Kirchhoff, Katrin. (2018). Development of machine translation technology for assisting health communication: A systematic review. *Journal of Biomedical Informatics*, *85*, 56–67. https://doi.org/10.1016/j.jbi.2018.07.018

Ferrerós Pagès, Carla, Barrieras Angàs, Mònica, Roca Urgell, Francesc, & Baltasar Bagué, Alícia. (2020). Barreras en la comunicación asistencial con pacientes inmigrantes de origen amazig. *Revista Española de Comunicación en Salud*, *11*(2), 217–225. https://doi.org/10.20318/recs.2020/5249

Flores, Glenn. (2005). The impact of medical interpreter services on the quality of health care: a systematic review. *Medical Care Research and Review*, *62*(3), 255–299. https://doi.org/10.1177/1077558705275416

Flores, Glenn, Abreu, Milagros, Barone, Cara Pizzo, Bachur, Richard, & Lin, Hua. (2012). Errors of medical interpretation and their potential clinical consequences: a comparison of professional versus ad hoc versus no interpreters. *Annals of Emergency Medicine*, *60*(5), 545–553. https://doi.org/10.1016/j.annemergmed.2012.01.025

Foulquié-Rubio, Ana Isabel, Vargas-Urpi, Mireia, & Fernández Pérez, Magdalena. (2018). Introducción 2006-2016: una década de cambios. In Ana Isabel Foulquié Rubio, Mireia Vargas Urpí & Magdalena Fernández Pérez (Eds.), *Panorama de la traducción y la interpretación en los servicios públicos españoles. Una década de cambios, retos y oportunidades* (pp. 1–12). Comares.

García-Beyaert, Sofía, & Serrano Pons, Jordi. (2009). Recursos para superar las barreras lingüístico-culturales en los servicios de salud. In Joaquín Morera Montes, Alberto Alonso Babarro & Helena Huerga Aramburu (Eds.), *Manual de atención al inmigrante* (pp. 53–65). Ergón.

Garrett, Pam. (2009). Healthcare interpreter policy: Policy determinants and current issues in the Australian context. *Translation and Interpreting*, *1*(2), 44–54.

Genovese, Ariana, Borna, Sahar, Gomez-Cabello, César A., Haider, Syed Ali, Prabha, S Srinivasagam, Forte, Antonio J., & Veenstra, Benjamin R. (2024). Artificial intelligence in clinical settings: a systematic review of its role in language translation and interpretation. *Annals of Translational Medicine*, *12*(6), 117.

Grau Mestre, Cristina. (1998). *La interpretación de enlace. Panorama mundial y aproximación al contexto español* [Master's thesis]. Universitat Rovira i Virgili.

Gray, Ben, Hilder, Jo, & Stubbe, Maria. (2012). How to use interpreters in general practice: the development of a New Zealand toolkit. *Journal of Primary Health Care*, *4*(1), 52–61.

Hilder, Jo, Gray, Ben, Dowell, Anthony, Macdonald, Lindsay, Tester, Rachel, & Stubbe, Maria. (2017). 'It depends on the consultation': revisiting use of family members as interpreters for general practice consultations – when and why? *Australian Journal of Primary Health*, *23*(3), 257–262. https://doi.org/10.1071/py16053

Hudelson, Patricia, Dominicé Dao, Melissa, Junod Perron, Noelle, & Bischoff, Alexander. (2013). Interpreter-mediated diabetes consultations: a qualitative analysis of physician communication practices. *BMC Family Practice*, *14*, 1–9. https://doi.org/10.1186/1471-2296-14-163

Hudelson, Patricia, & Chappuis, François. (2024). Using voice-to-voice machine translation to overcome language barriers in clinical communication: An exploratory study. *Journal of General Internal Medicine*, *39*(7), 1095–1102. https://doi.org/10.1007/s11606-024-08641-w.

Iqbal, Humera, & Crafter, Sarah. (2022). Child language brokering in healthcare: Exploring the intersection of power and age in mediation practices. *Journal of Child and Family Studies*, *32*, 586–597 . https://doi.org/10.1007/s10826-022-02376-0

Kale, Emmine, & Syed, Hammad Raza. (2010). Language barriers and the use of interpreters in the public health services. A questionnaire-based survey. *Patient Education and Counseling*, *81*(2), 187–191. https://doi.org/10.1016/j.pec.2010.05.002

Karliner, Leah, Jacobs, Elisabeth, Chen, Alice, & Mutha, Sunita. (2007). Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. *Health Services Research*, *42*(2), 727–754. https://doi.org/10.1111/j.1475-6773.2006.00629.x

Kwon, Su A., Yang, Nam Young, Song, Min Sun, & Kim, Nam Yi. (2016). Healthcare workers' cultural competence and multi-cultural job stress. *Journal of Korean Academic Society of Home Health Care Nursing*, *23*(2), 206–215.

Lázaro Gutiérrez, Raquel. (2021). Remote (telephone) interpreting in healthcare settings. In Şebnem Susam-Saraeva & Eva Spišiaková (Eds.), *The Routledge handbook of translation and health* (pp. 216-231). Routledge.

Li, Shuangyu, Pearson, David, & Escott, Sarah. (2010). Language barriers within primary care consultations: an increasing challenge needing new solutions. *Education for Primary Care*, *21*(6), 385–391. https://doi.org/10.1080/14739879.2010.11493944

Llosada, Joan (Ed.). (2011). *Immigració i serveis sanitaris a la ciutat de Barcelona. La perspectiva de la població marroquina, xinesa, equatoriana i pakistanesa*. Agència de Salut Pública.

Lurgain, Jone, Ouaarab-Essadek, Hakima, Mellouki, Khadija, Malik-Hameed, Sumaira, Sarif, Andleed, Bruni, Laia, Rangel-Sarmiento, Valentina, & Peremiquel-Trillas, Paula. (2024). Exploring cultural competence barriers in the primary care sexual and reproductive health centres in Catalonia, Spain: perspectives from immigrant women and healthcare providers. *International Journal for Equity in Health*, *23*, article number: 206. https://doi.org/10.1186/s12939-024-02290-5

MacFarlane, Anne, Dowrick, Chris, Gravenhorst, Katja, O'Reilly-de Brun, Mary, De Brún, Tomas, Van den Muijsenbergh, Maria, Van Weel Baumgarten, Evelyn, Lionis, Christos, & Papadakaki, Maria. (2021). Involving migrants in the adaptation of primary care services in a 'newly' diverse urban area in Ireland: the tension between agency and structure. *Health & Place*, *70*, 102556. https://doi.org/10.1016/j.healthplace.2021.102556

MacFarlane, Anne, Glynn, Liam G., Mosinkie, Philip I., & Murphy, Andrew. W. (2008). Responses to language barriers in consultations with refugees and asylum seekers: a telephone survey of Irish general practitioners. *BMC Family Practice*, *9*, 1–6. https://doi.org/10.1186/1471-2296-9-68

Moss, Becky, & Roberts, Celia. (2005). Explanations, explanations, explanations: how do patients with limited English construct narrative accounts in multi-lingual, multi-ethnic settings, and how can GPs interpret them?. *Family Practice*, *22*(4), 412–418. https://doi.org/10.1093/fampra/cmi037

Origlia Ikhilor, Paola, Hasenberg, Gabriele, Kurth, Elisabeth, Asefaw, Fana, Pehlke-Milde, Jessica, & Cignacco, Eva. (2019). Communication barriers in maternity care of allophone migrants: experiences of women, healthcare professionals, and intercultural interpreters. *Journal of Advanced Nursing*, *75*(10), 2200–2210. https://doi.org/10.1111/jan.14093

Orozco-Jutorán, Mariana, & Vargas-Urpí, Mireia. (2022). Children and teenagers acting as language brokers: the perception of teachers at secondary schools. *Across Languages and Cultures*, *23*(1), 14–35. https://doi.org/10.1556/084.2022.00134

Peled, Yael. (2018). Language barriers and epistemic injustice in healthcare settings. *Bioethics*, *32*(6), 360–367. https://doi.org/10.1111/bioe.12435

Pines, Rachyl L., Jones, Liz, & Sheeran, Nicola. (2020). Using family members as medical interpreters: an explanation of healthcare practitioners' normative practices in pediatric and neonatal departments in Australia. *Health Communication*, *35*(7), 902–909. https://doi.org/10.1080/10410236.2019.1598740

Pöchhacker, Franz. (2000). Language barriers in Vienna hospitals. *Ethnicity and Health*, *5*(2), 113–119. https://doi.org/10.1080/713667449

Priebe, Stefan, Sandhu, Sima, Dias, Sónia, Gaddini, Andrea, Greacen, Tim, Ioannidis, Elisabeth, Kluge, Ulrike, Krasnik, Allan, Lamkaddem, Majda, Lorant, Vincent, Puigpinósi Riera, Rosa, Sarvary, Attila, Soares, Joaquim JF, Stankunas, Mindaugas, Straßmayr, Christa, Wahlbeck, Kristian, Welbel, Marta, & Bogic, Marija. (2011). Good practice in health care for migrants: views and experiences of care professionals in 16 European countries. *BMC Public Health*, *11*(1), 1–12. https://doi.org/10.1186/1471-2458-11-187

Pruskil, Susanne, Fiedler, Jonas, Pohontsch, Nadine Janis, & Scherer, Martin. (2023). Experiences with remote interpreting tools in primary care settings: a qualitative evaluation of the implementation and usage of remote interpreting tools during a feasibility trial in Germany. *BMJ Open*, *13*(11), e073620. https://doi.org/10.1136/bmjopen-2023-073620

Roberts, Celia, Sarangi, Srikant, & Moss, Becky. (2004). Presentation of self and symptoms in primary care consultations involving patients from non-English speaking backgrounds. *Communication and Medicine, 1*(2), 159–169. https://doi.org/10.1515/come.2004.1.2.159

Rosenberg, Ellen, Leanza, Yvan, & Seller, Robbyn. (2007). Doctor-patient communication in primary care with an interpreter: physician perceptions of professional and family interpreters. *Patient Education and Counseling*, *67*(3), 286–292. https://doi.org/10.1016/j.pec.2007.03.011

Rosenberg, Ellen, Seller, Robbyn, & Leanza, Yvan. (2008). Through interpreters' eyes: comparing roles of professional and family interpreters. *Patient Education and Counseling*, *70*(1), 87–93. https://doi.org/10.1016/j.pec.2007.09.015

Rubio-Carbonero, Gema, Vargas-Urpí, Mireia, & Raigal-Aran, Judith. (2022). Child language brokering and multilingualism in Catalonia: language use and attitudes in a bilingual region. *Language and Intercultural Communication, 22*(4), 455–472. https://doi.org/10.1080/14708477.2021.2005617

Rubio Rico, Lourdes. (2022). *Magribins a Catalunya: determinants socials i necessitats de salut* [PhD thesis]. Universitat Rovira i Virgili.

Santana García, Mónica del Carmen. (2021). *La interpretación sanitaria en los hospitales públicos de la isla de Gran Canaria: situación actual y protocolo de actuación* [PhD thesis]. University of Las Palmas de Gran Canaria.

Schouten, Barbara C., Manthey, Linn, & Scarvaglieri, Claudio. (2023). Teaching intercultural communication skills in healthcare to improve care for culturally and linguistically diverse patients. *Patient Education and Counseling*, *115*, 107890. https://doi.org/10.1016/j.pec.2023.107890

Schouten, Barbara C., & Meeuwesen, Ludwien. (2006). Cultural differences in medical communication: a review of the literature. *Patient Education and Counseling*, *64*(1–3), 21–34. https://doi.org/10.1016/j.pec.2005.11.014

Terraza-Núñez, Rebeca, Vázquez, María Luisa, Vargas, Ingrid, & Lizana, Tona. (2011). Health professional perceptions regarding healthcare provision to immigrants in Catalonia. *International Journal of Public Health*, *56*, 549–557. https://doi.org/10.1007/s00038-010-0223-7

Ugarte Ballester, Xus. (2006). Traducción e interpretación en los servicios públicos en Cataluña y Baleares. *Revista Española de Lingüística Aplicada (RESLA*), *1*, 111–128.

Ulrey, Kelsy Lin, & Amason, Patricia. (2001). Intercultural communication between patients and health care providers: an exploration of intercultural communication effectiveness, cultural sensitivity, stress, and anxiety. *Journal of Health Communication*, *13*(4), 449–463. https://doi.org/10.1207/s15327027hc1304_06

Valero Garcés, Carmen, & Lázaro Gutiérrez, Raquel. (2008). Investigación sobre la calidad de la comunicación en la atención sanitaria a la población inmigrante. In Carmen Valero Garcés (Ed.), *Investigación y práctica en traducción e interpretación en los servicios públicos: desafíos y alianzas* (pp. 254–274). Universidad de Alcalá, Servicio de Publicaciones.

Vargas-Urpi, Mireia. (2012). *La interpretació als serveis públics i la mediació intercultural amb el col·lectiu xinès a Catalunya* [PhD thesis]. Universitat Autònoma de Barcelona.

Vargas-Urpi, Mireia. (2013). ISP y/o mediación intercultural: la realidad de los profesionales que trabajan en el contexto catalán. *Cuadernos de ALDEEU*, *25*, 131–164.

Vázquez, María Luisa, Vargas, Ingrid, López Jaramillo, Daniel, Porthé, Victoria, López-Fernández, Luis Andrés, Vargas, Hernán, Bosch, Lola, Hernández, Silvia S., & Ruiz Azarola, Ainhoa. (2016). Was access to health care easy for immigrants in Spain? The perspectives of health personnel in Catalonia and Andalusia. *Health Policy*, *120*(4), 396–405. https://doi.org/10.1016/j.healthpol.2016.01.011

Vázquez Navarrete, M. Luisa (dir.), Terraza Núñez, Rebeca, & Vargas Lorenzo, Ingrid. (2007). *Atenció a la salut dels immigrants: necessitats sentides pel personal responsable*. Generalitat de Catalunya, Departament de Salut, i Consorci Hospitalari de Catalunya.

Vázquez Navarrete, M. Luisa, Terraza Núñez, Rebeca, Vargas Lorenzo, Ingrid, & Lizana Alcazo, Tona. (2009). Necesidades de los profesionales de salud en la atención a la población inmigrante. *Gaceta Sanitaria*, *23*, 396-402.

Vieira, Lucas Nunes, O'Hagan, Minako, & O'Sullivan, Carol. (2021). Understanding the societal impacts of machine translation: a critical review of the literature on medical and legal use cases. *Information, Communication and Society*, *24*(11), 1515–1532. https://doi.org/10.1080/1369118X.2020.1776370

World Health Organization. (2020). *WHO Strategic Communications Framework for effective communications*.

Zendedel, Rena, Schouten, Barbara C., Van Weert, Julia C., & Van den Putte, Bas. (2016). Informal interpreting in general practice: comparing the perspectives of general practitioners, migrant patients and family interpreters. *Patient Education and Counseling*, *99*(6), 981–987. https://doi.org/10.1016/j.ec.2015.12.021