



From Training to Practice: Evaluating the Role and Training of Lesser Diffusion Languages Interpreters and Mediators in Healthcare Services

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Abstract. This paper explores the crucial role of Lesser Diffusion Languages (LDL) Interpreters and Mediators in overcoming linguistic and cultural barriers in healthcare for migrant populations in Granada, Spain. Through a qualitative case study, it assesses the effectiveness of the *Salud Entre Culturas* training program in preparing interpreters for interpreting, cultural mediation, and translation services. The study draws on participant observation through detailed fieldnotes, document analysis, and surveys targeting both interpreters and healthcare professionals. These diverse data sources were brought together through a process of crystallization to provide a nuanced and comprehensive evaluation of interpreters' practical skills, their experiences during training, and the program's overall real-world impact within clinical settings. Findings highlight how the training equips interpreters with essential competencies that improve communication between healthcare staff and patients while also enhancing patient satisfaction and trust. The study identifies persistent challenges, including limited language-specific feedback for LDL interpreters, inconsistent access to supervisory support, and the ongoing need for continuous professional development. Recommendations include expanding language coverage, strengthening mentorship opportunities, and integrating interpreter training more fully into the public healthcare system. Additionally, the implementation of formal certification pathways would further professionalize LDL interpreters and ensure that linguistically diverse communities consistently receive high-quality, culturally responsive care. Beyond its specific findings, the study offers a replicable case-study approach grounded in crystallized data collection, which can serve as a model for evaluating LDL interpreter training programs in other multilingual and multicultural contexts.¹

Keywords. interpreting, cultural mediation, healthcare communication, migration, lesser diffusion languages

De la formación a la práctica: la evaluación del papel y la formación de intérpretes mediadoras de lenguas de menor difusión en los servicios de salud

Resumen. Este artículo explora el papel de las intérpretes y mediadoras en lenguas de menor difusión (LDL) en la superación de barreras lingüísticas y culturales en el ámbito sanitario para poblaciones migrantes en Granada, España. A través de un estudio de caso se evalúa la eficacia del programa de formación de *Salud Entre Culturas* en la preparación de intérpretes para prestar servicios de interpretación y mediación cultural. El estudio se basa en la observación participante documentada mediante notas de campo, el análisis de documentos y encuestas dirigidas tanto a las intérpretes mediadoras como a profesionales sanitarios del centro de salud en el que se insertaron. Estos datos fueron articulados mediante un proceso de cristalización para ofrecer una evaluación matizada de las habilidades prácticas de las intérpretes mediadoras y del impacto real del programa. El estudio pone de relieve cómo la formación dota a las intérpretes mediadoras

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de competencias esenciales para mejorar la comunicación y aumentar la satisfacción de los pacientes. También se identifican retos como la escasez de formación específica para algunos idiomas y la necesidad de formación continua. Entre las recomendaciones destacan la ampliación de la cobertura lingüística y la integración de la formación en el sistema público de salud. La certificación formal contribuiría además a profesionalizar la figura del intérprete LDL, garantizando una atención de calidad a las comunidades lingüísticamente diversas. Más allá de los resultados específicos, este estudio propone un enfoque metodológico basado en estudios de caso y en la cristalización de distintas técnicas de recogida de datos, que puede servir como modelo replicable para evaluar programas de formación de intérpretes LDL en otros contextos multilingües y multiculturales.

Palabras clave: interpretación; mediación cultural; comunicación en salud; migración; lenguas de menor difusión.

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1. Introduction

Spain has long played a pivotal role in global migration. Official data indicates that the foreign population with valid residency or registration stands at approximately 6.5 million, with significant representation from West African countries (Ministry of Inclusion, Social Security and Migration 2023). Growing cultural and linguistic diversity has created significant communication challenges, particularly in sectors such as healthcare, where accurate communication is essential for patient care (Marnpae 2014). Language and cultural barriers between healthcare providers and patients can result in miscommunication, reduced satisfaction, lower quality of care, and decreased patient safety (Al-Shamsi et al. 2020). Despite these critical issues, there is no specific legislation in Spain that guarantees the right to language assistance. Law 41/2002, of 14 November, regulates patient autonomy and the rights concerning clinical information, and documentation. It aims to guarantee fundamental rights such as the right to privacy, confidentiality, and access to essential clinical information. However, these rights cannot be fully realized when language barriers prevent effective communication between healthcare professionals and patients. The ISO Standard 13611:2024 stresses that interpreting and mediation in public services should be regarded as a profession, requiring formal qualifications and adherence to a Code of Ethics. The standard explicitly discourages the use of informal or untrained interpreters. However, the use of ad hoc interpreters—typically untrained individuals such as family members, friends, or bilingual staff who are asked to interpret spontaneously—is particularly frequent, which can undermine the accuracy of communication and compromise patient care (Valero-Garcés 2003, Grammenidis & Pokorn 2024).

Relying on unqualified interpreters' compromises access to essential services for certain population sectors, potentially endangering their physical integrity (Martin 2003). There is a notable gap in the training of interpreters for lesser-diffusion languages (LDLs)—languages spoken by smaller, often marginalized communities—which are not represented in traditional university translation and interpreting programs. To address this, it is essential to develop professional training programs for LDL-speakers. Without such initiatives, the services available for speakers of LDLs will remain far less professional and effective than those provided for speakers of majority languages (Mayoral 2003, Valero-Garcés 2019).

This topic clearly falls within the scope of Non-Professional Interpreting and Translation (NPIT), a growing subfield of Translation Studies that examines interpreting and translation not primarily as professions, but as widespread social practices of mediation. As highlighted by Valero-Garcés (2024), NPIT plays a critical role in contexts where individuals act as language mediators out of necessity, often navigating complex and adverse circumstances without formal training. By shedding light on these practices, NPIT scholarship contributes to the recognition of the essential, though frequently overlooked, work carried out by non-professional interpreters—particularly in turbulent or transitional societal contexts.

To address the shortage of interpreters, some progress has already been made to train public service interpreters who speak LDLs. Initiatives such as the Erasmus+ project *Training Newly Arrived Migrants for Community Interpreting and Intercultural Mediation* have successfully enabled newly arrived migrants to validate their skills and obtain official recognition for their work as interpreters and mediators (Grammenidis & Pokorn 2024). While interpreters focus primarily on facilitating verbal communication between parties who do not share a language, cultural mediators play a broader role that includes clarifying cultural misunderstandings, explaining healthcare systems, and building trust between migrants and service providers. These trained professionals can significantly improve the quality of healthcare for migrant populations, ensuring that language barriers do not impede their access to essential services (Grammenidis & Pokorn 2024). However, in Spain, the professionalization of public service interpreting—interpreting carried out in settings such as healthcare, education, and legal services—remains underdeveloped (Abril-Martí 2006, Valero-Garcés 2019). This type of interpreting is crucial for foreign citizens who depend on public institutions but face significant language barriers when accessing essential services. There is a pressing need to train members of migrant communities who speak LDLs and are already acting as *non-professional interpreters*—that is, individuals who interpret regularly despite lacking formal training—so they can meet professional standards. Unlike *ad hoc interpreters* (such as family members or friends who interpret occasionally), these community members

have the potential to become key actors for the social integration of minority linguistic communities if provided with appropriate training and certification (Pena 2016). The focus of this study will be a program run by *Salud Entre Culturas*, an initiative dedicated to providing interpreting and intercultural mediation services to migrants with limited Spanish proficiency in various public healthcare settings.

2. Objectives

The goal of this paper is to present a case study on the role and effectiveness of LDL interpreters and cultural mediators in addressing language and cultural barriers within healthcare services for LDL-speaking migrant populations in Granada, Spain. It evaluates the *Salud Entre Culturas* training program, focusing on the practical application of skills in healthcare settings and the translation and cultural adaptation of health documents. By analyzing perspectives from both healthcare professionals and interpreters, the study aims to identify key areas of success as well as potential challenges in LDL interpreter training and practice. The specific objectives are: i. Evaluate the effectiveness of LDL interpreters' training program: Analyze the effectiveness of the training provided to LDL Interpreters by the *Salud Entre Culturas* program; ii. Assess the role of LDL interpreters: Examine the contribution of LDL interpreters in overcoming language and cultural barriers within healthcare services in Granada; iii. Describe the translation and cultural adaptation process of information materials: Analyze the translation and cultural adaptation of health-related documents by LDL interpreters, identifying the strategies used to make health information more accessible to migrant communities, and; iv. Identify areas for improvement in LDL Interpreter Training and Practice: Highlight gaps and challenges in LDL interpreter training and practice as identified by both the mediators and healthcare professionals, providing recommendations for future training programs.

3. Methodology

This study employed a case study methodology to explore the role and effectiveness of LDL interpreters and cultural mediators in healthcare services in Granada, Spain. Case studies allow for direct access to processes and practices, offering a detailed understanding of how interpreters and mediators bridge language and cultural barriers in healthcare (Rodríguez-Gómez, Gil-Flores & García-Jiménez 1996). Case studies in healthcare interpreting are particularly valuable for offering a holistic view of interpreter performance in real settings (Pöschhacker 2006). In this study, this approach facilitated the evaluation of interpreters' practical skills and the broader dynamics of communication between patients and healthcare staff. It also allowed for an exploration of the interpreters' role in translating and culturally adapting healthcare materials for migrant populations. The use of multiple data sources further enhanced the robustness of the findings, ensuring that the results accurately reflect the challenges faced by interpreters in real healthcare contexts (Richardson & Adams 2016).

The case study focused on the LDL interpreters training program run by *Salud Entre Culturas* in Granada. The three interpreters who participated in this study are of Moroccan origin, with 18 to 25 years of residence in Spain. One holds a bachelor's degree in Hispanic Studies and has incomplete studies in Pharmacy. Another has vocational training as a Chemical Laboratory Technician, and the third has completed secondary education. All three are fluent in Spanish, as well as Standard Arabic and Moroccan Arabic. The study focused on evaluating how the training program shaped their interpreting and mediation practices in real healthcare contexts, and how healthcare professionals perceived the quality and impact of their services.

Data were gathered through multiple methods, allowing for crystallization, where different angles and perspectives were combined to achieve a more nuanced understanding of the interpreters' effectiveness (Richardson & Adams 2016). The following data collection methods were utilized:

One of the authors of this study, who supervised the *Salud Entre Culturas* LDL interpreter training in Granada, actively engaged in participant observation during the interpreters' interventions in the health centers. This role allowed for direct supervision of the interpreters during their interpreting and cultural mediation activities. Field notes were taken during these interactions, documenting key aspects of their performance.

Health documents that had been translated and culturally adapted by interpreters and cultural mediators were analyzed to assess the strategies used in the translation process. Through the questionnaires described below, interpreters outlined the main translation strategies they followed when dealing with these assignments. This method offered insights into how interpreters and cultural mediators ensured that health materials were both linguistically and culturally accessible.

Two questionnaires were administered as part of the data collection process. The first was distributed to LDL interpreters, assessing their perception of the skills gained during training and areas where they felt further improvement was needed. The second survey targeted healthcare professionals, collecting feedback on their satisfaction with interpreters' services and the perceived impact on patient care. Additionally, all interpreters registered their interpreting sessions on standardized forms, noting details such as the date and duration of the interpretation, the health center, the medical specialty of the consultation, and whether cultural mediation was involved.

To systematize data collection and facilitate analysis, several tools were employed. Google Forms was used to create and administer the questionnaires for both healthcare staff and interpreters, as well as to design a standardized form for interpreters to complete after each interpreting session. This digital format ensured consistent data collection and easy export to spreadsheet software. The responses were then compiled into Excel spreadsheets, which allowed for the organization and statistical analysis of quantitative

data, as well as the retrieval and categorization of responses to open-ended questions. For the qualitative data—namely, open-ended responses from the questionnaires and field notes from participant observation—the study used NVivo, a Computer-Assisted Qualitative Data Analysis Software (CAQDAS). NVivo enabled the coding and thematic analysis of qualitative data, supporting a structured interpretation of recurring themes and patterns across different data sources.

This case study approach, which incorporates crystallization through participant observation, surveys, and document analysis, provides a structured and replicable framework for evaluating interpreter and cultural mediator training programs. By combining multiple data sources and perspectives, it offers rich, context-sensitive insights into the challenges and impact of interpreting in public healthcare settings. This methodology may serve as a useful reference for similar initiatives aiming to assess or implement LDL interpreter training in other multilingual and multicultural environments.

4. Results and discussion

4.1. *Salud Entre Culturas*; Training for Interpreters and Mediators in Healthcare Services

Salud Entre Culturas is a multidisciplinary public health and migration team that is part of the Association for the Study of Infectious Diseases, integrated in the Infectious Diseases Service of the Ramón y Cajal University Hospital in Madrid (Spain). It is made up of health and migration professionals as well as a multilingual team of translators, interpreters, and cultural mediators.

Since 2015, *Salud Entre Culturas* has been organizing the “Training Course on Intercultural Mediation in Public Services”. This course is designed for migrants who have a high level of proficiency in Spanish, and speak at least one lesser-diffusion language, such as Wolof, Bambara, or Darija. Many of the participants may already be informally acting as interpreters and mediators for their relatives, friends, or other members of their community. The course aims to provide them with the fundamental knowledge and skills required to act as intercultural mediators, particularly within public services, with a strong focus on healthcare interpreting, helping to bridge communication gaps and cultural differences. Since its last edition in 2024, the course has been recognized by the University of Alcalá. Students were provided with scholarships upon successfully completing both the theoretical and practical components of the course, helping to ensure that financial difficulties do not become a barrier to completing the program (Mavreles-Ogrodnick et al. 2024).

The course content was structured around a theoretical component, consisting of four modules totaling 125 hours, which was delivered during May 2024. After completing this theoretical component and successfully passing an evaluation test, each student began a 150-hour internship. The details of this theoretical component are outlined in Table 1.

Module	Content	Hours
Migration and Vulnerable Populations	Understanding the challenges faced by migrants, with a focus on vulnerable populations, their access to services, and their specific needs.	20h
Public Services	Overview of the Spanish public service system, including healthcare, education, and social services, with a focus on how these services interact with migrant populations.	21h
Translation and Interpretation	Introduction to interpreting techniques, terminology management, and best practices for translating and interpreting in public service contexts.	42h
Intercultural Mediation	Training in mediation skills, focusing on resolving cross-cultural misunderstandings and facilitating effective communication between migrants and public service providers.	42h

Table 1. Modules of the theoretical component (own elaboration).

The Translation and Interpretation module emphasized key aspects of the healthcare interpreter’s role, including professional ethics, communicative situation management, and the boundaries of their advocacy, while developing practical skills like assignment preparation, memory exercises, and interpreting techniques such as consecutive and liaison interpreting, note-taking, and sight translation.

Students were asked to complete a questionnaire reflecting on the module and their performance as interpreters and mediators. In Section 1, they responded to a series of close-ended questions in which they had to select from a predefined list of competences those they felt had been most developed and those needing further improvement. This list was based on the skill sets outlined in training programs such as the Master’s Degree in Public Service Interpreting at the University of Alcalá (Universidad de Alcalá n.d.) and by authors like Niska (2002). As the data were quantitative and the sample was limited to three participants, only those competences selected by at least two of the interpreters were considered significant for analysis. The results, based on their self-reporting, showed that interpreters had developed key skills such as consecutive

and bilateral interpreting techniques, attention, concentration, and memory skills. Competencies such as turn-taking management, glossary creation, and ethical standards, as well as understanding healthcare system access for migrants, were also highlighted. However, they expressed the need for improvement in areas like cultural mediation strategies, note-taking, glossary creation, and understanding healthcare system access.

Section 4 of the questionnaire consisted of a single open-ended question, which asked interpreters to reflect on which aspects of the course they would improve and what additional elements they would incorporate to enhance the training. Responses were analyzed qualitatively using thematic analysis. Participants highlighted real-life applications of the training, like managing a complex case involving a diabetic child with additional health complications, where interpreting techniques and healthcare knowledge facilitated effective communication and contributed to stabilizing the child's condition. Another interpreter stressed the importance of clear turn-taking and simple, first-person communication during consultations, which was positively received by patients and healthcare professionals. These examples demonstrate how targeted training can improve patient care, while participants also recognized the need to expand their medical terminology knowledge and understanding of complex social and cultural factors, emphasizing the need for continuous skill development.

Feedback from interpreters, observations by the module's trainer, and relevant literature highlight key reflections to enhance the course and professionalize LDL interpreters. While the course was led by a professional interpreter proficient in Spanish, English, and French, her ability to assess students in other languages was limited. Monolingual training can be insufficient for comprehensive feedback (Abril-Martí 2006), and incorporating language-specific resources or engaging already-trained interpreters to provide tailored feedback could improve outcomes (Zhao 2023). The interpreters themselves identified certain complex skills that require further practice to be fully integrated into their professional routines, such as note-taking techniques and the creation of glossaries. Given the high complexity of public service interpreting, the need for continuous education is essential (Pöchhacker 2022). Ongoing training opportunities would allow interpreters to refine their skills over time and adapt to the evolving demands of their profession.

4.2. Interpreting and Cultural Mediation at Almanjáyar-Cartuja Health Centre

After completing the theoretical component of the training course, interpreters began a 150-hour internship at a Health Centre located in the Almanjáyar-Cartuja area of Granada. This neighborhood is characterized by significant cultural and ethnic diversity, with a high concentration of immigrant populations—particularly from North Africa (mainly Morocco), Central and West Africa (notably Senegal, Mali, and Guinea), and the Roma community. This demographic profile is well documented in local socio-anthropological studies (Sánchez-González 2009). Given the linguistic plurality in this area—including LDLs such as Darija, Wolof, and Bambara—the demand for interpreting and cultural mediation services is especially pressing. The internships began in July 2024, paused for the month of August, and resumed from September through to mid-November 2024, with the interpreters working from Monday to Thursday, 10:00 to 14:00. They were supervised by the tutor, who provided feedback on their performance. After each interpretation, interpreters completed a Google Forms questionnaire recording details such as the date, health center, language combination, medical service, cultural mediation, and other relevant information. This process allowed for an exhaustive analysis of the services provided, ensuring comprehensive data collection for evaluating the effectiveness and scope of interpreting and cultural mediation services.

Table 2 shows the monthly breakdown of the interpreters' interventions, the health centers where interpretations took place and the types of services where interpreting was most frequently needed, with a total of 49 interventions across the four months. The highest number of interventions occurred in October 2024, with 25 interpretations. Most interpreting assignments took place at the Almanjáyar-Cartuja Health Centre, with a total of 36 interventions. Interpreting services were not initially offered at other health centers, such as La Chana and the Maternal Hospital. However, some patients from Almanjáyar-Cartuja were referred to specialists at other hospitals, and interpreters accompanied them to provide language support during those consultations. Additionally, due to the demand for interpreting services at La Chana district, one of the interpreters continued her internship there from mid-September onwards. Primary care services accounted for the largest portion of interventions, with 17 interpretations, followed by social worker services (9 interpretations), pediatrics (7 interpretations) and administrative services (6 interpretations). This distribution indicates that interpreters were most often needed in direct healthcare interactions and in facilitating administrative processes, such as appointments. Finally, in terms of language combinations, Table 2 shows that Arabic (Maghrebi) to Spanish was the most common language pair, with 33 interventions. This is consistent with the demographic composition of the area and suggests that interpreters were primarily addressing the needs of Moroccan migrants (Sánchez-González 2009).

		No. of interpretations	Total
Month	July	9	49
	September	14	
	October	25	
	November	1	
Health Centre	Almanjáyar-Cartuja Health Centre	36	49
	La Chana Health Centre	8	
	Other hospitals in Granada	5	
Service	Primary Care	17	49
	Social Work	9	
	Pediatrics	7	
	Administrative Services	6	
	Nursing	6	
	Physiotherapy	2	
	Laboratory	2	
Language Combination	Arabic (Maghrebi) <> Spanish	33	49
	Arabic (Classical) <> Spanish	6	
	Arabic (Oriental) <> Spanish	10	

Table 2. Breakdown of the interpreters' interventions (own elaboration).

Cultural mediation, which occurred whenever interpreters needed to make additional adjustments to ensure mutual understanding between healthcare providers and patients (Vaccarelli 2024), played a vital role in improving communication. As shown in Table 3, the most frequent type of cultural mediation involved assistance with administrative tasks, such as making appointments, occurring 12 times. Additionally, interpreters provided explanations of medical terminology and assisted with navigating healthcare services. While conflict management and the explanation of cultural concepts were less common, they remained important aspects of cultural mediation. These findings highlight how interpreters and cultural mediators not only provide linguistic support but also ensure that patients fully understand and can navigate the healthcare system effectively.

Type of mediation	No. of instances
Assistance with administrative tasks	12
Explanation of medical terminology	10
Assistance with healthcare services navigation	7
Conflict management (e.g. communication breakdowns)	5
Explanation of cultural concepts	5
Total	36

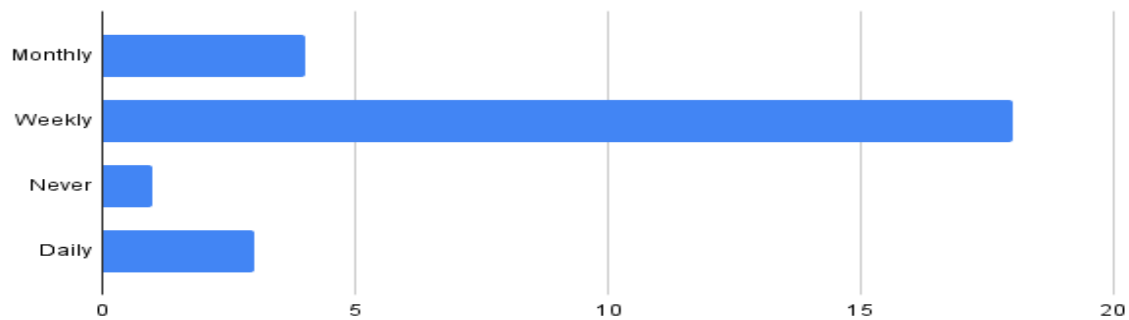
Table 3. Types of mediation provided (own elaboration).

Questionnaires were administered to staff at the Almanjáyar-Cartuja Health Centre to assess the solutions they used when facing language barriers with patients and to gauge their satisfaction with various aspects of the interpreting service. A total of 27 professionals from different services responded, including primary care (18), pediatrics (3), administration (2), physiotherapy (2), nursing (1), and social work (1). These responses provide a comprehensive overview of healthcare professionals' experiences with interpreters in practice.

Of the respondents, 26 claimed to regularly encounter patients with whom they face language barriers. The frequency of these encounters is shown in Graphic 1, which indicates that the majority—18 respondents (69%)—encounter language barriers on a weekly basis, while three respondents (11.5%) even face such

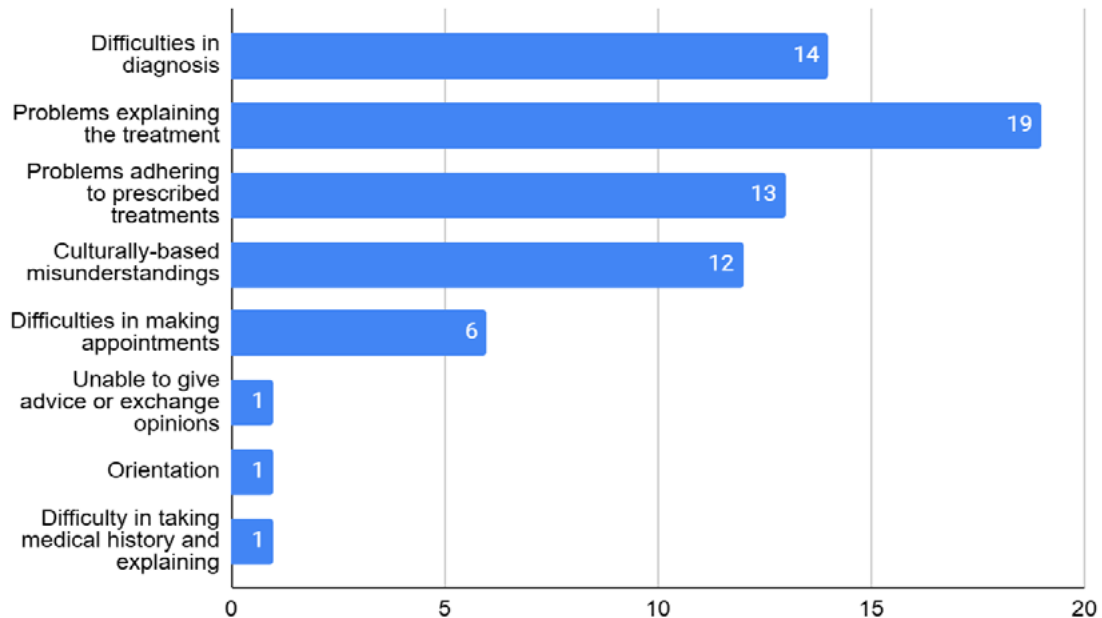
challenges daily. These findings underscore the prevalence of linguistic diversity in this healthcare setting and the pressing need for effective communication solutions.

How often do you encounter language barriers with your patients?



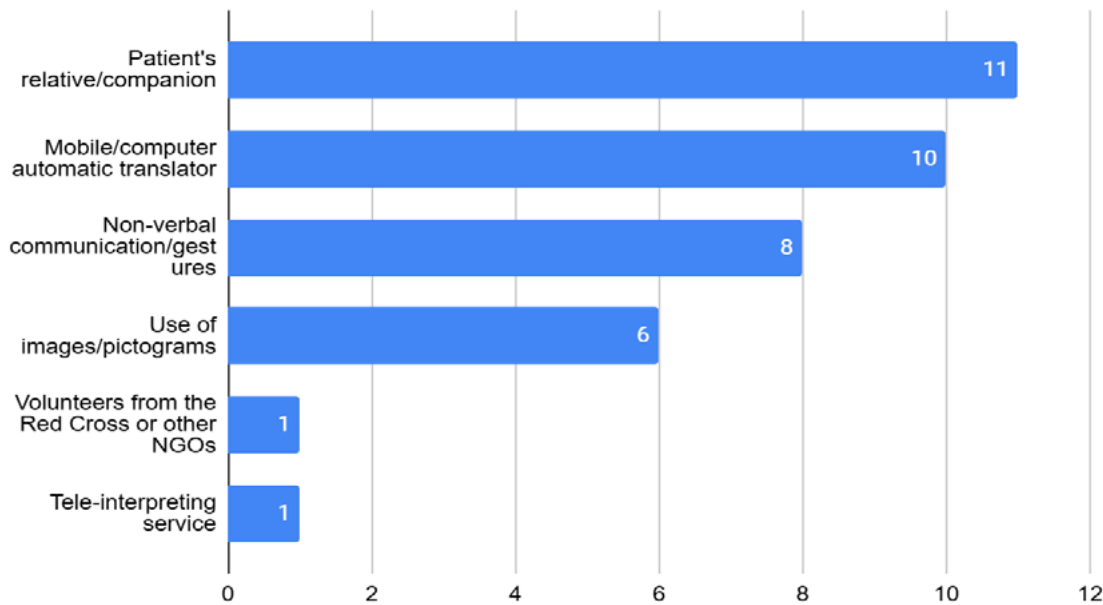
Graphic 1. Frequency of healthcare staff encountering patients with language barriers (own elaboration).

When asked about the difficulties encountered in caring for patients with language barriers, healthcare professionals reported a range of issues, including difficulties in explaining treatments (19 responses), challenges in making accurate diagnoses (14 responses), problems with ensuring patients comply with prescribed treatments (13 responses), and misunderstandings due to cultural differences (12 responses), as illustrated in Graphic 2. Providing healthcare in such multilingual environments poses numerous challenges related to communication, cultural sensitivity, and systemic accessibility. These challenges highlight the complex nature of delivering healthcare services to linguistically diverse populations and underscore the essential role of qualified interpreters and mediators in ensuring equitable care (Peled 2018).



Graphic 2. Main difficulties encountered by staff when attending patients with a language barrier (own elaboration).

In terms of solutions used to overcome language barriers, Graphic 3 reveals that only one professional reported using the official government-provided telephone interpreting service, *Salud Responde*. Instead, most professionals relied on informal methods. Eleven professionals (64%) resorted to using family members or companions as ad hoc interpreters, ten (58%) used automatic translation tools such as Google Translate, eight (47%) communicated through gestures, and six (35%) used pictograms or images. These strategies can compromise the accuracy and confidentiality of communication.



Graphic 3. Solutions used by staff to overcome language barriers in patient care

Source (own elaboration).

Relying on family members or friends as interpreters poses significant risks, both for the patient and the ad hoc interpreter. Research shows that ad hoc interpreters make twice as many errors as professional medical interpreters, increasing the risk of misunderstandings (Mavreles-Ogrodnick et al. 2024). Additionally, machine translators cannot guarantee the accuracy needed in healthcare settings, especially for patients who speak LDLs (Delfani et al. 2024, Dew et al. 2018). The absence of professional interpreters for these patients leaves them at greater risk of receiving inadequate care.

Those who worked with LDL interpreters during their internships were asked to rate their satisfaction with different aspects of the service on a scale from 1 to 5, with 1 being not at all satisfied and 5 being fully satisfied. Overall, the feedback was overwhelmingly positive. Respondents gave high ratings for various aspects, including the ability to convey better information to patients (4.83), improved understanding of what patients wanted to communicate (4.79), helping patients express their doubts more clearly (4.75), and resolving cultural misunderstandings (4.58). Satisfaction with turn-taking during interpretation sessions was also high (4.55), and nearly all respondents indicated they would use the service again (4.95). These findings align with broader research, which suggests that patients who receive language-concordant care are more likely to understand their diagnoses, align with treatment plans, and report higher satisfaction with their care (Diamond et al. 2019).

In an open-ended question, professionals highlighted the positive impact of interpreters on patient care. One respondent noted: "It's not just about language knowledge, it's also about empathy, making the patient feel understood". Another said: "In addition to the benefits mentioned earlier, patients feel much more comfortable and satisfied when they can express their doubts, discomforts, and symptoms". A specific case was shared where a woman, previously reliant on her husband for communication, was finally able to express her own pain and concerns during treatment, thanks to the interpreter. Such experiences illustrate how professional interpreters create a more productive dialogue between patients and healthcare providers, fostering person-centered care that integrates the patient's preferences and needs into the treatment plan (Coulter & Oldham 2016).

However, respondents also pointed out areas for improvement in another open-ended question. One key concern was the limited availability of the service, with several professionals calling for interpreters in all health centers and for a wider range of languages, particularly Wolof and Romanian. Another critique was the dependency on external projects to provide these interpreting services, rather than integrating them into the public healthcare system. This reliance on temporary or voluntary solutions means that interpreting services are not consistently available, affecting continuity of care (de Manuel Jerez et al. 2004). Finally, one healthcare professional mentioned that turn-taking during interpreted interactions occasionally felt challenging. Ongoing training could be implemented to help interpreters improve their management of turn-taking and guiding conversations, along with training for healthcare professionals on how to work with interpreters (Ilie et al. 2014).

4.3. Translation and Cultural Adaptation of Health Information Materials

As part of their internships, mediators-interpreters were tasked with translating health center documents into Arabic, intended for Moroccan patients. Translated documents were stored in a shared Drive folder, accessible to healthcare professionals from their consultation computers. This section outlines the translation

process and, where needed, the cultural adaptation of these materials. It is important to note that some of the mediators had limited IT skills, and for many, this was their first experience as translators. However, their perspective as members of the target audience, combined with their role as mediators within the healthcare system, proved invaluable. Their input helped ensure the translations were culturally relevant and readable, avoiding a top-down, one-way approach to communication (Chiu 2009, Nápoles & Stewart 2018, Taibi 2023). Additionally, this supervised translation experience allowed participants to put their translation skills into practice, offering a structured opportunity to engage with health-related content, create bilingual glossaries, and apply previously acquired translation strategies in a real-world context.

The translation process began with careful reading and analysis of the original documents, with particular attention to their informational goals. Mediators evaluated whether the information would be understandable to the target audience, whether the terminology was overly complex, and whether certain content needed adjustments to make it more culturally appropriate. After these assessments, they created a revised version of the document in Spanish, incorporating changes to enhance clarity and cultural relevance. This document was always reviewed by the internship tutor. Once approved, the mediators translated it into Arabic, and the translation was then sent to an Arabic translator from the *Salud Entre Culturas* team for final review. In total, 21 documents were translated and culturally adapted into Arabic. These documents covered a range of topics, including pediatrics, healthy lifestyle habits, female genital mutilation, sexual and reproductive health, gynecology and obstetrics, chronic diseases and access to social benefits. The documents primarily fell into two categories: informed consent forms and fact sheets (Grey Literature Network Service 2004). Each document type required different translation strategies, and the approach to each will be analyzed separately.

Due to the legal implications of signing informed consent forms, an equivalent Arabic translation was not feasible. Additionally, these forms are typically lengthy and highly technical, which may render them difficult to understand for some patients, even in their native language (Twimukye et al. 2024). General practitioners requested that the mediators create a simplified version of the informed consent forms, summarizing the key information and clearly explaining the implications of signing the original Spanish document, as well as providing clear instructions on how to do so. The summaries were first drafted in Spanish under the guidance of the internship tutor and then translated into Arabic, with a final review by a professional translator.

Most of the translated documents were fact sheets, that is, a document containing essential information about a topic which aims to provide an end user with information in concise, simple language (Grey Literature Network Service 2004). As Tuominen et al. (2018) suggest, translating these kinds of texts requires more than just linguistic accuracy; it involves careful consideration of multiple meaning-making elements, such as text, images, and other non-verbal components, ensuring that they form a cohesive whole. As a result, strategies resembling transcreation were employed, as they were the most effective way to ensure the target text would evoke the same response from the new audience as the original text did for its initial readers (Gaballo 2012). In the realm of public service translation, scholars like Way (2006) have long emphasized the need for translators to adopt a more proactive role, mediating between cultures and addressing the complexities of cross-cultural communication. This role requires translators to take a more functional and culturally sensitive approach that seeks to inform, educate, and empower marginalized linguistic communities (Taibi 2023).

In the questionnaire, the three mediators were asked to indicate which strategies they had most applied while translating and culturally adapting the fact sheets. All three reported using the following strategies: i. summarizing or simplifying information; ii. simplifying terminology; iii. keeping words in Spanish. Additionally, two of the mediators reported employing these strategies: iv. adding explanatory information; v. changing examples to make them culturally adapted; vi. adding visual elements; vii. changing visual elements for others that are more representative of the target audience; viii. dividing the text into shorter fragments; ix. changing the position of the text; x. changing the font (size and type).

Some of the most frequently used strategies, such as summarizing information and simplifying terminology, highlight the need to make these translated documents more accessible and easier to understand for the target audience (Cornelius 2010, Taibi 2023). Keeping certain words in Spanish alongside the translation also helps users identify specific terms like health center names or medications more easily (Arora et al. 2018). Other strategies emphasize that changes should extend beyond just language, involving adjustments to text organization (“dividing the text into shorter fragments”), layout (“repositioning text”), and visual elements (“adding images” or “changing visuals to better reflect the target audience”). These adjustments help ensure the cultural appropriateness of the health message being conveyed (Sengupta et al. 2024). As Boria et al. (2019) argue, all semiotic resources—such as images, text, and their placement—contribute to the overall message, so they must be carefully considered in the translation process. In some cases, additional explanatory information was added, particularly related to accessing the healthcare system (Svensson 2016, Vitalaru 2023).

The mediators were also asked to identify which strategies they considered important but were unable to apply due to time constraints or limited resources. All three indicated the following: i) changing examples so that they are culturally adapted; ii) checking with patients whether the material fulfils its function; iii) suggesting to staff to create materials in other formats (video and audio). Two of the mediators also noted these unmet strategies: iv) use words and expressions that do not promote stereotypes; v) add sources that patients could refer to; vi) change visual elements to ones that are more representative of the target audience; vii) check with some patients whether the materials are well understood. The mediators emphasized that, at times, they felt they lacked the necessary knowledge, skills, or feedback from the target audience to make certain changes or add relevant resources for patients (Svensson 2016). Additionally, they recognized the importance of testing the materials with patients to ensure that the content resonates and is easily understood (Chiu 2009,

Nápoles & Stewart 2018, Taibi 2023). Finally, they suggested that developing audiovisual materials would be particularly beneficial for the intended audience. For diglossic languages like Arabic—where there is a significant difference between written standard Arabic and spoken Darija—supplementing written materials with audiovisual resources could significantly enhance accessibility and comprehension (Lázaro-Gutiérrez 2016, Taibi 2023).

5. Conclusions: Areas for Improvement in LDL Interpreters and Cultural Mediators Training and Practice

This study aimed to assess the role and effectiveness of LDL interpreters and cultural mediators in overcoming language and cultural barriers in healthcare settings in Granada, with a focus on the impact of the *Salud Entre Culturas* training program. It addressed four research objectives: evaluating the training's effectiveness, examining interpreters' roles in practice, analyzing their work in translating and adapting health materials, and identifying areas for improvement. The findings indicate that the training equips participants with key interpreting and mediation skills aligned with professional ethics, that interpreters enhance communication and patient satisfaction, and that their involvement in translating health materials supports clearer, culturally appropriate communication.

This study has highlighted the vital role of LDL interpreters in bridging linguistic and cultural gaps in healthcare settings for migrant populations in Granada. The analysis of the training program and its application in real-world healthcare scenarios reveals both successes and areas requiring enhancement.

The course has equipped members of the LDL community with an essential toolkit to act as interpreters and mediators while adhering to professional standards of practice. Trainees learn to respect core values such as confidentiality, faithfulness, and impartiality, all of which are key components of the interpreter's code of ethics. As a result, these interpreters not only improve patient-provider communication but also empower other LDL speakers to fully understand the information provided by medical professionals and to express their own concerns, symptoms, and disease management more effectively. The presence of these interpreters in healthcare settings has been shown to significantly enhance patient comfort, satisfaction, and their ability to engage in their own healthcare. Additionally, the program's supervised internships offer trainees hands-on experience, allowing them to refine their skills in real-time while receiving feedback, which is invaluable for their professional development.

Nevertheless, the study also identifies some challenges. One of the main issues was the limited capacity for language-specific feedback during training. Developing resources and engaging experienced interpreters proficient in LDLs would allow for more tailored feedback and skill refinement. The complexity of healthcare interpreting underscores the necessity for ongoing education. Interpreters identified several skills requiring further development, so establishing continuing education opportunities, such as workshops or refresher courses, would help LDL interpreters refine these competencies. Moreover, incorporating language reinforcement modules tailored to the specialized contexts of healthcare and public services could help standardize the baseline skill level among participants.

The demand for interpreters in a wider range of languages and healthcare settings highlights the need for program expansion. Prioritizing the inclusion of languages such as Wolof, Bambara, and Romanian, and extending interpreting services to more health centers, would address unmet needs. Additionally, integrating training into the public healthcare system, rather than relying solely on external initiatives, would ensure the continuity and availability of these services. Furthermore, regarding the translation and cultural adaptation of health documents, testing materials with target audiences, and developing audiovisual resources could significantly enhance the accessibility and cultural relevance of healthcare information.

Establishing formal certification pathways and advocating for recognition of LDL interpreters within the healthcare system would elevate the quality and reliability of interpreting and mediation services. Ultimately, investing in robust and responsive training programs is not only crucial for improving healthcare access for linguistically and culturally diverse populations, but it is also a matter of ensuring fundamental human rights—ensuring that no patient is excluded from receiving high-quality care.

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