



SPECIAL ARTICLE

The impact of English-centric training for multilingual genetic counseling practice: A commentary



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Introduction

Communication is a crucial component in genetic counseling. Genetic counselors communicate with patients to discuss their medical conditions, testing options, and the personal and familial implications of a genetic test result to build rapport and a trusting relationship with patients.¹ Through clear and empathetic communication, genetic counselors play a pivotal role in guiding patients through complex medical information, which empowers them to make informed health decisions.²

Effective genetic counseling communication extends beyond the mere transmission of information. It encompasses the way information is conveyed, which includes aspects such as the tone, pacing, the perceived confidence of the communicator's voice, and nonverbal cues that are tailored to unique circumstances of each patient and case. It is important that all patients have a genetic counseling session in their preferred language. Lack of language-concordant care leads to a reduced comprehension of the content shared and inhibits the patient's ability to convey information they would have otherwise conveyed.³ From the genetic counseling standpoint, language used in a session influences how the message is delivered and how the relationship between patient and counselor is established.

These challenges become more pronounced considering the context of higher education in which master's programs can use English as the primary language of instruction. These programs attract students with diverse linguistic backgrounds worldwide, many of whom may return to their home countries to work upon graduation. Having had this experience, in this commentary we, 5 genetic counselors, describe the complexity and impact of communicating and conducting a genetic counseling session in languages different from the one in which we were trained. Our commentary is primarily focused on language-related components that affect our communication with patients that are largely ignored in our English-centric training. We find this to be a relevant topic for discussion and consideration

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among, first of all, genetic counseling program faculty, who teach and train future genetic counselors, practicing genetic counselors who might have gone through the same experience as us and have found their own ways to navigate multilingual genetic counseling, and prospective genetic counselors who will communicate in diverse languages beyond that of their initial training. Through a discussion of our own experience, challenges, solutions, and call to action, we hope to illuminate a greater understanding of multilingual genetic counselor experience.

Navigating the complexity of language in multilingual genetic counseling

To counsel in a language is more than understanding what is being communicated, it is about spontaneity and the capability to adapt to each patient's style and needs as the session goes on, to choose the right approach depending on their background, to know the socio-cultural and economic context they come from to be able to give the best possible support, to then improve health care outcomes because there is a clear and tailored understanding of the action plan.

One of the main challenges for the health care services is to properly communicate information because it is heavily affected by linguistic and cultural heterogeneity.⁴ The tone, the wording choices, the vibrations, and the deep meaning behind words juxtaposed with the rich fabric of cultural norms, allusions, formalities, and expressions of respect have emerged as integral components in the genetic counseling practice.

As the principal vessel of communication is language, it is known that each country has its own formalities and idioms. Because genetic counseling requires the finding of a channel between the counselor and the patients, it is fundamental for such differences to be cultivated.⁵ In some European countries, health care workers have been seen as authorities, reference figures, and experts with whom patients are not comfortable discussing certain topics, such as emotions and feelings. These formalities and cultural norms can create distance between patients and health care providers, leading to more formal and less emotional-centered conversations than the ones conducted in English, nonetheless, they should still be addressed by genetic counselors.⁶ For example, in English, when referring to people, there is frequently the common use of the second person pronoun *you*. When communicating with older individuals in Spanish, a more solemn tone is used using the formal second person pronoun *usted*. Similarly, when communicating with strangers in Italian or French, regardless of age, the third person pronoun *lei* and the second person plural *vous* are used, respectively, adding a layer of declared respect before their names.

In some countries, a greater emphasis is placed on addressing medical issues rather than emotional ones. Cultural factors (gender, socio-economic status, etc) can influence how patients and providers express, communicate, and react to

information. In many instances, one emotionally driven communication cannot just easily be translated from one language to the other.^{7,8} For example, when practicing how to communicate efficiently and empathetically with the patient during genetic counseling, we found ourselves trying to use phrases such as "I can hold your hand" to "I sense that you are feeling" and more. Alas, translating these models from English to Spanish, French, or Italian caused a feeling of discomfort, unmet expectations, and unwanted reactions by the patients.

The multilayered nature of linguistic diversity became apparent as counselors grappled with the varied meanings attached to medical and nonmedical terms across different language-speaking regions.⁹ Instances of adjusting language to align with participants' cultural nuances underscored the importance of adopting a patient-centered approach.¹⁰ Some tangible examples are how in Italian the word *tumore* is preferred to *cancro*, whereas in English is the opposite, even within the same language spoken in different regions there is variance as *flu* in Spanish is commonly referred to as *gripe*, but in some Latin American countries it is referred to as *catarro*. Moreover, although in English the word *chance* is used when talking about genetic risk, as "one out of 2 chances," in French *chance* has a positive connotation; therefore, *risque* needs to be used instead. As far as translation, it often happens that, although in a language there is only the need of a single specific word to express a concept, in another, there may be the need for a whole sentence. Additionally, although in English there can be different ways to ask the same concept, the translation of those same constructs in other languages may sound odd because only one would be the most appropriate version. This nuance of meaning between one word and the other, or even between sentences, could also affect the effectiveness of communication that is required for processes such as supporting patients with making informed health care decisions. There has to be reciprocity of information between practitioner and patient that can only be achieved by knowing and understanding cultural norms, shades of languages, and the levels of emotional involvement.⁸

The multilingual genetic counselor student journey

As international students or those studying in a second language, we faced unique challenges and opportunities in our graduate training journey. Living in a foreign country and using a different language profoundly transformed our approach to genetic counseling. Practicing counseling in a nonnative language adds a layer of complexity, from everyday social expectations of communication to discussing genetic risks, often leading to misunderstandings and discomfort with patients and supervisors during our graduate training experience. Misinterpretation was a common concern, source of anxiety, and insecurity among us. This was prompted by our knowledge that culture-driven linguistic misunderstandings could have negative implications on the relationship between us and our patients.¹¹

Through our experiences, we were able to heighten our awareness toward the importance of language and communication, particularly how it is intricately linked to culture and identity. These experiences have helped us nurture a keen sensitivity to the nuances of counseling communication, unlocking skills that will be fundamental for our work.

Current strategies for overcoming language barriers in multilingual practice

With practice and time, we have been able to find strategies to overcome our limitations with practicing genetic counseling in languages other than English. For few of us, writing down key terms before a patient encounter was useful to ensure the delivery of a clear and specific message. To acquire knowledge of these terms, we read genetic counseling articles, researched terms from reliable sources, and listened to our peers converse in the language of interest.

To ensure both the usage of accurate medical language and its cultural appropriateness, some of us were fortunate enough to practice mock sessions with our colleagues. These conversations contributed to our comfort and helped us formulate our thoughts out loud. These individuals were colleagues who had experience with the patient population and understood the genetic aspects of the session. When these opportunities were limited, family or friends without a genetics background provided a supportive environment for practice and to develop our communication skills.

A call to action for genetic counselors: A possible future for multilingual practice

To improve the experience of multilingual genetic counseling and language-concordant care, in this section we propose solutions to absolve challenges that multilingual genetic counselors face when practicing in a language other than that one they were trained. Ideally, the growth of the genetic counseling profession should lead to the establishment of programs that cater to the diverse needs of our patient population. We therefore hope that future programs are developed in various languages. Courses and clinical experiences in which students are exposed to these languages would be very beneficial. Language-specific genetic counseling courses would serve as a foundation to enrich the student's medical and genetic counseling vocabulary. Clinical experiences, whether rotations or case-based role plays, can foster the growth of psychosocial and communication skills through realistic genetic counseling simulations with the guidance of genetic counselors proficient in the respective language. Rotations abroad can furthermore provide students with the opportunity to practice in the language and population they hope to serve. One limitation to many of the suggestions described is the scarcity of multilingual genetic counseling supervisors. This prompts us to encourage programs to significantly view multilingual international status as an asset in admissions because such

prospective students have the potential to shape future language-inclusive programs. Although multilingual genetic counselors may not constitute the majority, there are enough of us who can actively participate in a crowdsourced manner to provide support for future students. This support can manifest in various ways such as rotation or class supervision to mentoring support within and outside our affiliated institutions. Through crowdsourcing strategies, multilingual genetic counselors can begin to create high quality genetic counseling teaching materials and contribute to the translation of already highly used resources (eg, GeneReviews). To further enhance multilingual genetic counseling education, our field can adopt innovative approaches, such as the implementation of trained language models (LMs) that students can use as valuable references. These trained LMs should be thoughtfully designed to consider the cultural nuances (eg, formalities and idioms) specific to the language they are intended for.

Specifically, analyzing the relationship between language and the components of a counseling session demonstrates how using the most appropriate vocabulary allows patients to answer exhaustively to clinical queries for a correct personal and family history analysis, to understand genetic concepts in all their complexity, to accurately look for and interpret the information, and finally, to make tailored decisions. In the future, it would be interesting to investigate how each of these linguistic factors has an impact on every aspect of the consultation, from information-seeking to decision making.

All the suggestions mentioned hinge on the acknowledgment of the cultural, attitudinal, and ever-evolving nature of language. For this reason, all language teaching modalities, whether in person or virtual education, should incorporate measurable language metrics specific to genetic counseling that can be continuously monitored, evaluated, and modified. These metrics could provide a way to evaluate language training strategies and determine whether they have adequately prepared students to deliver inclusive and evidence-based genetic counseling care in the language of their choice.

Conclusion

In this commentary, we aim to shed light on the unique experiences of practicing as multilingual genetic counselors. Our journey has revealed the significant challenges and intricacies involved in conveying medical and genetic information across diverse languages and cultural backgrounds. Although we have developed strategies to enhance our skills beyond the predominantly English-focused training we received, our goal is to contribute to the advancement of training for future multilingual genetic counselors. As the field of genetic counseling continues to expand, it is crucial to create and implement training programs that comprehensively address both linguistic and cultural aspects. This approach will ensure that genetic counselors are well prepared to provide empathetic, culturally sensitive, and effective care to a global patient population and across many languages.

About the authors

Daniela is a bilingual research genetic counselor working at Columbia University Irving Medical Center. In her role, she supports the logistical, educational, and emotional needs of Spanish-speaking participants interested in learning their risk to develop Alzheimer disease. She received her master's degree in genetic counseling in 2021 from Stanford University, and she is a native Spanish speaker from Peru.

Nicole grew up speaking French and Italian and decided to study a bachelor's in medical sciences at the University of Exeter (United Kingdom) followed by an English-taught master's degree in Genetic Counseling at the University of Siena (Italy). After learning and studying in English for the past 5 years, she now works as a Genetic Counselor at MEDISYN SA in Lausanne (Switzerland), practicing primarily in French and sometimes in Italian, German, or English.

Marina was born and raised in Barcelona, Spain, where she completed her undergraduate degree in Human Biology and a master's degree in Assisted Reproduction Techniques. She then received her master's degree in genetic counseling in 2020 from Stanford University. After graduating, she moved back to Barcelona, where she currently works as a prenatal, preconceptional, infertility, and cancer genetic counselor.

Vera is from Northern Italy, she graduated in Biological Sciences from Ohio University, United States, and pursued her master's degree in genetic counseling in English at the University of Siena, Italy. She is currently working as a genetic counselor and research fellow in the neurogenetics field at the Giannina Gaslini Institute, a pediatric hospital in Genoa, Italy.

Cecilia was born and raised in Tuscany, Italy. She graduated in biotechnology at the University of Pisa (Italy) in 2021, and then she completed her master's degree in Genetic Counseling at the University of Siena (Italy) in 2023. She is a native Italian speaker, and she obtained her master's degree in English. She now works as a genetic counselor in the oncological field, mainly in Italian, at the European Institute of Oncology in Milan (Italy).

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Ethics Declaration

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Conflict of Interest

The authors declare no conflicts of interest.

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