Bimodal bilingual interpreting in the U.S. healthcare system

A critical linguistic activity in need of investigation

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Legislation guarantees communication access in the United States healthcare system for deaf citizens and this access is often made possible by bimodal bilingual interpreters, individuals fluent in spoken and signed languages. Yet there is a conspicuous lack of research on interpreted discourse in this setting. With the exception of research on mental health interpreting, not a single article investigating the practice of bimodal interpreting in the U.S. healthcare system has been published in a refereed journal, although interpreters work in healthcare with increasing frequency. This article examines this deficit in research, beginning with a review of the diagnostic benefits of language access in healthcare settings. Next, the demand for bimodal interpreting is examined in light of historical factors, legislative mandates, and linguistic research on American Sign Language. The lack of scholarship in bimodal interpreting and the potential impact of developing a specialization in healthcare interpreting are discussed. Finally, with the view of interpreting as an applied linguistic activity, critical research questions about interpretation between deaf and non-signing interlocutors in the healthcare setting are provided.

Introduction

It has been said that the essence of applied linguistics is the observation and analysis of real-world language problems with the aim of devising practical solutions (Cook 2003; Davies 1999). This chapter addresses the lack of evidence-based research on the practice of bimodal bilingual interpreting in the U.S. healthcare system. *Bimodal bilingual interpreters* are individuals who are fluent in two languages having distinct phonologies that are expressed by different articulators (Emmorey, Borinstein, Thompson and Gollan 2008). Thus, bimodal bilingual interpreters work between a spoken language (i.e., perceived by the ears and produced by the

vocal tract) and a signed language (i.e., perceived by the eyes and produced by the hands, face, and body). In contrast, *unimodal bilingual interpreters* are individuals who interpret between languages that share the same modality and use the same articulators (e.g., two spoken languages).

The goal of bimodal interpreters is essentially the same as that of unimodal interpreters; that is, to create a communication experience that is as equivalent to direct communication as possible. Communication is achieved by relaying the meaning of the message being conveyed by the interlocutors, including inferential information. Both bimodal and unimodal interpreters must be skilled in using a range of registers and dialects to accommodate the needs and preferences of the interlocutors involved in the communication exchange. Additionally, they must demonstrate versatility in meeting the challenges that arise from working in diverse linguistic situations and institutional structures (e.g., educational, vocational, and healthcare settings).

Arguably, the similarities between unimodal and bimodal interpreters are greater than the differences; however, one notable difference between the groups is the critical lack of research on bimodal interpreting in healthcare settings. The fundamental problem we explore in this paper is not with the provision of interpreting services; rather, it is *the persistent lack of evidence-based research on the practice of bimodal interpreting in the U.S. healthcare system*. We confess a degree of discomfort in using the word "problem"' in relation to bimodal interpreting since, as linguists, interpreters, and interpreter educators, we regard interpreters as a part of the *solution* to cross-linguistic communication, rather than as "the problem." Certainly, for deaf and hearing people who wish to communicate but do not share a common language, bimodal interpreters frequently provide the most effective means for communication access between the interlocutors. However, the lack of a solid research foundation in the critical arena of bimodal healthcare interpreting is a problem that warrants both attention and action.

It is worth noting that our focus in this chapter is research on interpreting that addresses physical healthcare rather than mental healthcare. Physical and mental healthcare certainly have areas of overlapping concern; however, mental healthcare carries with it special considerations and may be regarded as a distinct specialty in healthcare interpreting.

We begin this chapter with an overview of how healthcare is accessed through unimodal and bimodal interpretation. We then discuss the body of research in umimodal healthcare interpreting and the comparative lack in bimodal healthcare interpreting. To examine bimodal healthcare interpreting within its appropriate frame, we then turn our focus to the deaf population in the United States and the legislative mandates that have affected language access. Factors that created a 'culture of practice' among bimodal interpreters are analyzed. This is followed

by a proposal for the development of a specialty in healthcare interpreting, which we argue, could stimulate research that would ultimately support practice. Finally, key research questions on bimodal interpreting in the healthcare setting are proposed with the argument that, despite commonalities with unimodal interpreting, there are distinct aspects of bimodal interpreting that warrant specific investigation.

Healthcare access through unimodal and bimodal interpretation

Language access is crucial in the healthcare setting for both its communicative and economic benefits. Research suggests that the ability of a healthcare provider to communicate accurately with a patient is one of the most effective and least expensive tools in diagnosing and treating patients (Lichstein 1990). In recent years, however, the number of non-English speaking patients in the U.S. healthcare system has expanded rapidly and healthcare organizations face enormous challenges in accommodating an increasingly diverse patient population. According to the U.S. Census Bureau, approximately 47 million people speak a language other than English. In addition, the National Institute on Deafness and Other Communication Disorders reports there are now approximately 36 million people with a hearing loss in the United States (NIDCD 2010).[1] The rapid growth of individuals who may not readily access spoken English, along with evidence demonstrating the importance of interpreters in the accurate diagnosis and treatment of patients, has caused organizations such as the U.S. Joint Commission[2] to enact policies regarding the education, certification, and use of healthcare interpreters.

Healthcare interpreting is a subset of work that falls within the broader domain of *community interpreting*. Originally overshadowed by the high profile work of conference interpreting,[3] there is increasing attention being given to both the work of interpreters in the community and the parameters that define this

1. The number of deaf people who use signed language is difficult to determine since no exact census figures exist (Padden and Humphries 2005).

2. The Joint Commission, formerly the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), is a private sector, not-for-profit organization based in the United States. The Joint Commission operates voluntary accreditation programs for hospitals and other medical organizations and accredits over 17,000 healthcare organizations and programs in the United States.

3. Conference interpreters first become widely recognized for their work at the 1945–46 Nuremburg Trials (Gaiba 1998). Among other high stakes settings, conference interpreters have played a crucial role in the diplomatic work at the United Nations (Baigorri-Jalón 2004).

context. Community interpreting is typically smaller in scale than conference interpreting; for example, instead of interpreting for a large group attending a conference, a community interpreter tends to work in smaller interactive environments. These environments tend to be conducted in a dialogic manner in such structured systems as hospitals, classrooms, courtrooms, or the workplace. The demand for unimodal and bimodal interpreters in these community settings is growing, particularly in countries, such as the United States, that have a rapidly expanding number of ethnic minorities.

Healthcare interpreting encompasses a range of medical situations as diverse as medical interviews, emergency room visits, in- and out-patient services, and healthcare education. Interpreting in the healthcare setting can be either highly predictable (e.g., a routine well-baby exam) or physically and emotionally challenging (e.g., an emergency department visit or unexpected test results). To interpret in the healthcare setting, both unimodal and bimodal interpreters need insight into the linguistic, social, and cultural influences that impact healthcare interactions; an awareness of communication dynamics (e.g., power and prestige of the interlocutors, triadic communication); the ability to balance the need for maintaining professional distance with empathy and flexibility; knowledge of the general physiological and psychological aspects of healthcare; a grasp of diverse healthcare approaches (e.g., Chinese, Ayurvedic, holistic, homeopathic, traditional); an understanding of the underlying practices of various healthcare delivery systems; and the role of self and others on the healthcare team (CATIE Center, College of St. Catherine and NCIEC 2008). Among unimodal interpreters, healthcare interpreting has been identified as a specialty area and efforts to address certification and training are well underway. Conversely, bimodal interpreters have yet to address the issues specific to healthcare interpreting in an organized manner, and few advances have been made towards a specialization in this area.

The term *healthcare interpreters* should not be taken to imply that there is an organized collective of bimodal interpreters who specialize in this setting. In bimodal interpreting, the term "healthcare interpreter" is used to refer to a wide range of practitioners with a diverse set of skills and experiences interpreting in healthcare settings, ranging from individuals who interpret an occasional medical assignment to those who dedicate their working hours specifically to the setting.

Although the degree of professional involvement varies considerably between practitioners, bimodal bilingual interpreting in healthcare settings takes place hundreds of times everyday across the United States. The most frequent situation encountered is that of English-speaking healthcare providers who need to conduct medical consultations with signing deaf patients. This presents a real-world problem for both the provider and the patient. Upon closer examination, there

are several variations of this scenario. For example, interpretation may be needed when deaf parents take their hearing infant to the pediatrician, or when hearing parents take their deaf teenager to a clinic for a checkup. Another example of a complex linguistic scenario is that of hearing immigrant parents with limited proficiency in English who are seeking immunizations for their deaf child who has learned American Sign Language in school. Further, the traditional roles of hearing physician and deaf patient are now being reversed by the small but increasing number of deaf physicians who regularly use interpreters in their practice when treating hearing patients (Moreland, personal communication, January 2010).

These diverse scenarios illustrate the growing need for bimodal interpreters in a healthcare arena that is increasingly complex. As the demand for bimodal interpreting services continues to grow and the linguistic challenges become more complicated, the need for further study of this practice becomes crucial. However, at present, the urgent need for interpreting service in healthcare has overshadowed the need for research in this area.

Research on healthcare interpreting

As stated earlier, unimodal interpreters have recognized the specialized nature of healthcare interpreting and are actively addressing certification. Evidence of their commitment includes the establishment of state and national organizations specifically for healthcare interpreters; the availability of conferences that bring together healthcare interpreting practitioners, educators, service providers, and researchers; the offering of intensive on-site courses at the Monterey Institute, and a growing number of articles on healthcare interpreting in peer-reviewed publications (Angelelli 2004). A growing body of research on interpreted interactions between English-speaking healthcare providers and limited-English proficiency (LEP) patients has been studied from a variety of perspectives (see for example Elderkin-Thompson, Silver and Waitzkin 2001; Leanza 2005; Wiking, Saleh-Stattin, Johansson and Sundquist 2009). Publication of evidence-based research on unimodal healthcare interpreting has played an important role by advancing the knowledge and education of spoken language interpreters who work in the healthcare industry. In contrast, research literature on bimodal bilingual interpreting in healthcare settings is severely lacking despite the fact that signed language community interpreters have been professionalized longer than spoken language community interpreters.

An examination of publications reveals the disparity in research between unimodal and bimodal interpreters in the healthcare system. The authors conducted a systematic literature search of English-language, peer-reviewed publications

(through the year 2009) on bimodal interpreting in healthcare. The search included four databases: Linguistics and Language Behavior Abstracts (LLBA), Pub-Med, PsycINFO, and Social Services Abstracts. The search terms used were "interpreter/interpreting," "sign/signed language," "deaf," "United States/U.S.," and "medical/healthcare." Although related articles were found, not a single article was published in a refereed journal that addressed the specific practice of bimodal interpreters in the U.S. healthcare setting.

The majority of the resources found in bimodal interpreting specifically related to healthcare interpreting are best described as practical or introductory in nature, rather than advancing a theoretical model or framework about healthcare interpreting. The resources may be categorized as follows: (a) books that contain chapters or short sections on bimodal interpreting in the healthcare setting (Frishberg 1990; Humphrey and Alcorn 2001; Solow 1981; Stewart, Schein and Cartwright 1998); (b) publications from professional organizations, such as newsletter articles, papers in conference proceedings, or standard practice papers (e.g., RID.org); (c) informational and organizational websites (e.g., DeafMD.org, healthcareinterpreting.org); and (d) non-print educational and training resources such as DVDs and CDs (e.g., stkate.edu/offices/ academic/interpreting.nsf/pages/cd_roms). These resources are primarily produced by and for practicing interpreters and, judging by their popularity, indicate that practicing interpreters, students and educators are seeking information on healthcare interpreting.

While these publications and websites serve a worthwhile purpose, there is a pronounced lack of empirical research on healthcare interpreting to inform the work of bimodal interpreters and to guide the development of interpreting students. There has been research in refereed journals on related topics, such as surveys of deaf patients' experiences within the healthcare system (O'Hearn 2006) and the health literacy of deaf patients (Margellos-Anast, Estarziau and Kaufman 2006). A limited number of scholarly works on bimodal healthcare interpreting exists (see Metzger 1999 and Sanheim 2003); however, further study by other researchers has gone unfulfilled. As informative as these sources may be, bimodal interpreters are in need of a body of empirical research specific to the practice of interpreting in the U.S. healthcare system.

Conducting research on interpreting is by no means an easy venture (see Gile 2000 for a review of issues) and it is made more difficult in the healthcare setting (See Metzger and Roy, this volume). First, an individual's healthcare is generally a private affair, making it difficult to obtain authentic linguistic data. In contrast, settings such as legal and educational have more opportunities for observation, as well as layers of informal and formal monitoring within the institutions. For example, the work of an interpreter in a public school may be observed

by a colleague, a supervisor, the classroom teacher, the parents, and the principal; but the healthcare setting has built-in privacy protections for patients, and consequently, there are scant opportunities to observe interpreters. In part, it is this inherently private nature of healthcare that causes the reticence of bimodal interpreting researchers to pursue video-recorded data collection in healthcare settings, a factor in the paucity of authentic data. Additionally, the variety of approaches, services, settings, and the diverse population of healthcare consumers make generalizing any research findings a thorny issue for researchers.

Language modality also plays a role in how research is conducted in unimodal and bimodal interpreting. Unimodal interpreting researchers can audiotape the spoken interaction between doctor and patient and, for many spoken languages, conventional transcription systems have been developed. The benefit of having a uniform transcription system has served to advance research on spoken language data. Conversely, in bimodal interpreting, researchers must videotape the interlocutors to create a linguistic record. Further, ASL does not have a standardized written form or a conventional transcription system, posing additional problems for coding and analysis. Additionally, at the present time, no database or corpus of bimodal interpreted healthcare interactions (i.e., transcripts, videos) is currently in existence.

The deaf population in the United States

Bimodal healthcare interpreting cannot be adequately framed without grounding it within the context of the U.S. deaf community and the recognition of ASL as a language. Deaf people are active members of U.S. mainstream society and participate in endeavors as diverse as the Peace Corps (Swiller 2007) and popular television programs (e.g., Marlee Matlin on The West Wing). Out of the approximately 28 million deaf and hard of hearing people residing in the U.S., the estimated percentage of people using ASL as their primary language ranges from 100,000 to 300,000 individuals, making it a language of limited diffusion. Similar to many other minority language users in the U.S., deaf citizens are surrounded by English in their daily lives at work, school, and recreational activities, and thus negotiate with mainstream society through their non-native language while using ASL as their primary means of communication with other ASL users.

Many deaf individuals consider themselves members of a linguistic and cultural group, while mainstream society often views deafness from a disability perspective (Obasi 2008; Padden and Humphries 2005). Deaf people constitute a distinct bilingual minority in the United States; however, there are differences from other bilingual language minorities in spoken languages. Notably, spoken

language bilinguals are able to access the majority language through hearing and can acquire it to varying degrees, but deaf people rarely acquire spoken language through exposure, since they cannot fully access the auditory signal. Many deaf people access English in its written form, but ASL remains their most accessible and comfortable language for communication. In fact, it has been said that the use of ASL is the most central aspect of being deaf. As described by Kannapell (1980: 112) "ASL has a unifying function since deaf people are unified by their common language. It is important to understand that ASL is the only thing we have that belongs to deaf people completely."

American Sign Language is a visual-spatial language that is composed of linguistic units that use the hands, arms, eyes, face, head, and body as articulators and constructs meaning from various handshapes, locations, and movements. ASL is independent of and quite distinct from English in phonological, morphological, and syntactic domains (see Emmorey 2002 for a review). Notably, the phonological features of ASL are produced manually rather than orally (Brentari 1998; Corina and Sandler 1993). English and ASL also differ dramatically with respect to how spatial information is encoded. For example, ASL encodes locative and motion information with classifier predicates (Emmorey 2003), while English expresses locative information with prepositions, such as *in, on,* or *under*. A complete comparison is not possible within the constraints of this article; suffice it to say that English and ASL have very distinct language structures (Padden 1988).

Signed languages were not recognized to be true languages until the latter half of the 20th century, although they had been used in the U.S. since at least 1817 when the first school for the deaf in the U.S. was founded. The change in understanding of signed languages was prompted by the groundbreaking work of a professor at Gallaudet University, a liberal arts college for deaf students in Washington, DC. Based on observation and analysis of his deaf students' signing, William Stokoe published a monograph in 1965 that for the first time described ASL as a fully developed language, a premise that was mostly ignored, and sometimes ridiculed, by the larger academic community (Maher 1996). In time, they came to understand that Stokoe was right – that ASL is a highly structured language with a grammar that is much different from spoken English.

It is now widely acknowledged that signed languages are able to convey ideas, information, and emotion with as much range, complexity, and versatility as spoken languages. By the late 1980s, ASL courses were becoming more common in high schools and colleges (Wilcox and Wilcox 2002), thus influencing the language development of future interpreters. Additionally, in 2006, ASL was identified as the fourth most frequently taught language in colleges and universities in the United States (Furman, Goldbert and Lusin 2007). As deaf individuals slowly began to develop a collective identity as a linguistic minority in the 1960s, the

U.S. civil rights movement was also gaining momentum and legislation was being enacted to protect the rights of various minority groups, including deaf people.

Legislative mandates affecting language access for U.S. deaf citizens

Starting in the 1960s the passage of three major laws had a dramatic impact on both the everyday lives of the deaf community and the working conditions of bimodal interpreters. Some of the earliest legislation mandated services and prohibited discrimination for deaf individuals in the workplace[4] and, as a result, deaf people became employed or promoted in positions and vocations from which they were previously shut out. These new legislatively mandated protections created an atmosphere in which the need for qualified interpreters was recognized as a necessary practice to provide access in the workplace, and thus the demand for interpreters grew exponentially.

In 1975, the passage of the Education of Handicapped Children's Act[5] provided the right for deaf children to attend their neighborhood public school, rather than a residential school specifically for deaf students and necessitated the hiring of interpreters in thousands of public schools across the nation. The passage of the Americans with Disabilities Act (ADA) in 1990 provided new access to employment, transportation, public accommodations, and public services for people who qualified as disabled. Under Title IV of the ADA, equal access to telecommunications was mandated, which resulted in an enormous demand for interpreters as video interpreting centers proliferated across the country (Peterson, this volume).

Crucially, because of state or local government funding, healthcare providers are included under Title II of the ADA. Further, they are regarded as "public accommodations" covered by Title III of the ADA, or federally funded programs, or activities covered under Section 504 of the Rehabilitation Act. As such, hospitals, doctors' offices, clinics, and other entities that provide healthcare services must make modifications to serve members of the public with disabilities, including the use of interpreters for communication access.

Each of these legislative mandates had an enormous impact on the lives of deaf people for accessing institutions in American society and escalated the demand for interpreting services, including access to healthcare settings. Despite these laws however, the demand for bimodal interpreters frequently goes unmet.

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4. Specifically, the laws are The Vocational Rehabilitation Amendments of 1965 (P.L. 89–333) and the Rehabilitation Act of 1973.

5. The current iteration of this law is titled The Individuals with Disabilities Education Act (IDEA).

The following story told by a 51-year-old deaf woman illustrates the fragile communication situation that can occur in healthcare settings, when no professional interpreter is present.

> I remember the time before there were professional signed language interpreters. Back then, if a deaf person went to the doctor or the hospital, a hearing family member had to go along to interpret. Unfortunately, that still happens today and not only to hearing family members. Three years ago, I interpreted for my deaf sister in the hospital – even though I am deaf myself. My sister had been diagnosed with Stage IV breast cancer and was in the hospital to receive chemotherapy for metastasized cancer in her brain. No interpreter was available to interpret for the procedure, but it had to be done immediately since my sister was very sick. Although I am deaf, I can lipread well, so I offered to try interpreting for the doctor during the procedure. I remember at one point, the doctor explained something to my sister, but I couldn't understand what he said. Even after he repeated it several times, I still couldn't lipread what he was saying. Finally, I asked him to write it down, but he just said, 'Oh never mind.' and kept talking. I was very close to my sister and was afraid that I had missed important information. She passed away less than a year after her diagnosis, and I always wondered if I missed telling her critical information. My sister didn't have interpreters for many of her treatments or consultations because they were often unscheduled and happened at the last minute. I did the best I could to interpret when I was there.[6,7]

This story is significant for what it reveals about the difficulties that deaf individuals face in the healthcare system when professional interpreters are not available to fulfill legislative mandates that were enacted beginning in the 1960s.

A confluence of factors has resulted in the demand for bimodal interpreters that is still unmet today. As a result of societal shifts, there has been an urgent call from deaf individuals, deaf advocacy organizations (e.g., the National Association of the Deaf), and the federal government to increase the number of qualified bimodal interpreters. Interpreters are needed in all segments of public and private life, but crucially 78% of deaf people identify the healthcare setting as the most important system for them to access; 52% identify healthcare settings as the most difficult for which to attain interpreting services (National Consortium for Interpreter Education Centers 2008b).

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6. With gratitude to Lucinda O'Grady Batch for sharing her experiences of interpreting for her sister. Her story was told in ASL, and the English translation, created by the authors, was approved by Ms. Batch.

7. Both deaf and hearing people can become certified, professional interpreters. Many untrained family members (deaf and hearing) interpret in family situations.

The response to meeting the demand for interpreting is understandable, but the balance of time, energy, and money has been on producing more and more interpreters without serious attention given to the research of teaching and interpreting practice. We suggest that these demands have led to a "culture of practice" in bimodal interpreting, a culture in which much-needed scholarship is, at best, an afterthought, rather than foundational to the field.

Bimodal interpreting as a "culture of practice"

In order to understand the lack of scholarship in bimodal healthcare interpreting, it is instructive to start with an examination of the field of bimodal interpreting in general, where the lack of research is also apparent, although not as profound as in the specific area of healthcare. As stated earlier, one of the most pervasive tensions in the interpreting profession is the balance of demand and supply. The demand for bimodal interpreting services has always outpaced the supply of available practitioners, and consequently, federal funding has primarily been directed at increasing the number of available practitioners, not on research and development. As a result, we contend that the field has adopted and maintains a "culture of practice" rather than a "culture of scholarship." Although the need for research has become more evident to practitioners and educators alike in recent years, there has yet to be a surge in this direction.

The establishment of bimodal interpreting as a profession was a result of both linguistic research and legislative mandates described in earlier sections. Prior to the mid 1960s, the field of bimodal interpreting did not exist in the United States. Friends or family members of deaf people would occasionally serve as volunteer "interpreters" but the work of transferring meaning between languages was not regarded as professional practice or an area for scholarly investigation. Community interpreting, both unimodal and bimodal, was under-valued and under-recognized for many years, often not viewed as an activity that required a high level of linguistic, cognitive, ethical, or interactional competency.

In the mid- to late seventies, newly enacted legislation mandated communication access for deaf citizens but did not provide funding to create an infrastructure that could meet the demand. There was a scramble to create training opportunities and by 1980, over 50 interpreting training programs had been established in the United States (Cokely 2005).[8] However, because the laws requiring

8. The National Consortium of Interpreter Education Centers reports that, in 2010, approximately 145 associate, bachelor, and master degree interpreter education programs are in existence in the U.S. (http://www.nciec.org/projects/aa2ba.html).

interpreting services were enacted before almost any research on interpreting or interpreting education had been conducted, the field emerged without a strong foundation to support practice or education.

This laudable goal of meeting the immediate needs of the deaf community has resulted in a lack of academic rigor in bimodal interpreting. There are several intertwined root causes for this; one of the most significant is the dearth of PhD-prepared researchers in interpreting, linguistics, applied linguistics, or communication studies. In a survey of full-time interpreter education faculty (National Consortium of Interpreter Education Centers 2008a), only five out of 85 respondents had a PhD. Graduate study in signed languages and in signed language interpretation is a relatively recent development and, at present, no doctoral degrees are currently granted in signed language interpreting in North America.[9]

In the early years of the field, colleges and universities may not have seen bimodal interpreting education programs as having long-term viability. Rather, the view may have been that these programs would be temporarily available to fill a void in the workforce and be dismantled when the need was met. Hence, focus was not given to producing research that could guide the development of a promising new discipline.

Compounding the challenges bimodal interpreting faces in academia is the inconsistent placement of interpreter education programs within institutions of higher education. Due to political and pragmatic factors, the appropriate home for bimodal interpreting programs is still not standardized. Although translation and conference interpreting have long been recognized as linguistic activities, the practice of bimodal interpreting is still viewed differently, as evidenced by its placement within departments of special education, speech and hearing sciences, or deaf education. With notable exceptions, programs are rarely located in linguistics, applied linguistics, or educational linguistics departments, although these would be a logical placement for language-focused coursework.

Other factors related to the position of interpreting within the university system affect the scarcity of scholarship in bimodal interpreting. First, there is lack of agreement in the field regarding the academic discipline that would best prepare individuals for full-time faculty positions in interpreting departments at colleges and universities. This may stem from how the field evolved, with the first interpreter educators coming from the ranks of practitioners, without necessarily having completed advanced study. As a result, most interpreting faculty positions are not tenure track and typical job postings advertise for applicants holding a master's degree in a "related field." This lack of specific qualifications results in an

9. A notable exception is the Interpreting Department at Gallaudet University where a doctoral program in Interpreting was initiated in 2010.

assortment of degrees held by interpreter educators – degrees that may or may not be related to interpreting.

Without a recognized discipline specific to interpreter educators and with few opportunities for tenure track positions, the majority of interpreter educators do not choose to pursue doctoral studies. The few that do so, despite the lack of incentives, find that they are often studying in isolation – the lone graduate student interested in interpreting, taking programs that do not quite fit their needs and lacking colleagues who can critique their work or collaboratively build a body of knowledge.

A confounding factor is the type of degrees available for students who want to become interpreters. After the provision of bimodal interpreters was mandated by law, the initial placement of interpreter education programs was in vocational, technical, or community colleges. Presently, more than 30 years after the first interpreting programs were created, approximately seventy-five percent (75%) of the 145 identified interpreter education programs are offered at the associate degree level and housed in two-year institutions (National Consortium of Interpreter Education Centers 2008c). Even today, with bimodal interpreting programs shifting from the associate degree level to the baccalaureate degree level, the emphasis for faculty in many programs is on teaching, with little or no expectation of producing and publishing research.

The lack of research by bimodal interpreting faculty, many of whom are part-time, also influences students, who may not have opportunities to be research assistants or co-authors with their professors. Further, the limited number of books available for use in most interpreting programs are not well-grounded in research, with only a handful of introductory texts and even fewer that might be considered advanced or in-depth. Instructors may incorporate textbooks, papers, and edited collections from other disciplines in their teaching, but a void exists in research-based texts in bimodal interpreting. Without the expectation for undergraduate students to be grounded in theoretical foundations and without various opportunities for future research, a culture of scholarship is not cultivated in bimodal interpreting.

All this is not to say that the profession should diminish its focus on the fundamental nature of its work, that is, to provide communication access between deaf and hearing people. The vast majority of interpreters will spend their entire careers performing this vital language service. However, we do argue that, as with other practice professions (e.g., nursing and social work), practice is both elevated and honored by being firmly grounded in research and scholarship. Further, we contend that to achieve a culture of scholarship, academic institutions must examine their programs' location within the college or university, hiring practices of interpreter educators, expectations for faculty research, designated teaching

loads, opportunities for student scholarship, and conduct a regular review of program curricula and textbooks.

In sum, a confluence of factors has led to a situation in which the discipline of bimodal interpretation is experiencing a "lack of coordinated basic research that can inform the practice of interpreting" (Cokely 2005: 16). In the following sections, we urge action in the pursuit of research in the area of bimodal healthcare interpreting by first examining the potential ramifications of developing a specialization in healthcare interpreting and then by discussing how it may serve as the catalyst to ignite scholarship in this area.

Specialization as a path to research

The development of a specialization in healthcare interpreting within bimodal interpreting could play a critical role in the propagation of research in this domain. Specialists are practitioners who have advanced education, specialized knowledge, and experiences that distinguish them as being uniquely qualified for work in a particular setting. The development of a specialization requires both a perceived need for a designated service that requires a specific set of skills, as well as a supply of individuals interested in becoming specialized in that area.

The evidence of the need for healthcare interpreters has been advanced in prior sections; there is also an expressed interest by bimodal interpreters in becoming specialized in healthcare interpreting. In one study, 54 working interpreters across eight states were interviewed about their experiences in healthcare interpreting (CATIE Center, College of St. Catherine and NCIEC 2007). The interpreters were asked whether they "see a need for a specific advanced education in medical interpreting." Among the responses, 60% responded "yes" to the proposal of establishing of a post-baccalaureate certificate. The interpreters were also asked to provide reasons for advanced education in healthcare interpreting and a sample of the responses is provided below:

- There can be serious consequences to a deaf person's life or health or that of their children if there is not a qualified interpreter.
- Without understanding, a lot of false assumptions are made.
- Healthcare is high stakes interpreting and we can never be too prepared.

At present, healthcare interpreting has not been formally identified as an area of specialization by the Registry of Interpreters for the Deaf (RID), the national organization in the U.S. for bimodal interpreters. In considering the purpose and focus of RID, the lack of focus on specialization can be understood, particularly in the early years of the profession. In the face of great need, having a critical mass of

generalist practitioners was in the interest of the community whose communication needs in legal, educational, healthcare, and work settings had long been underserved. As a result, the first wave of professional interpreters was called upon to work in almost every setting. As the number of interpreters grew, however, the field was able to establish areas of specialization within the field. The high-stakes venues of legal and educational interpreting received priority within the field, resulting in recognized specialties with certification.

Given that communicative access to healthcare raises both public health concerns and quality of life issues, we argue that healthcare interpreting can no longer be regarded as a low priority. Across age, gender, education, socio-economic status and ethnicity, all deaf citizens need access to healthcare services. While the majority of deaf people will have little, if any, contact with the legal system, every deaf person will have contact with the healthcare system, both for themselves, as well as for their family members.

Interpreting in healthcare settings is often physically and cognitively demanding, stressing the linguistic, ethical and emotional limits of the practitioner. Further, as outsiders without specialized status or training, the health and safety of interpreters is at risk of being compromised. This level of challenge is common in many practice professions; the difference is that in other demanding fields, specialized education and credentials are required. Without such standards, under-qualified interpreters will continue to work in this setting, compromising the health and well-being of deaf patients.

Suffice it to say, the case for specialization in healthcare interpreting warrants further attention. We extend the idea of specialization to the impact that it may have on the development of research. First, a specialization of interpreting in healthcare will require that interpreter educators design and implement advanced preparation programs, both of which require research. On another level, we suggest that as interpreter practitioners seek to engage in specialized practice they become increasingly vested in the work. The insights of interpreters who are dedicated to healthcare and are examining their own performance critically will logically lead to opportunities for action research within their employment settings. We argue that of the interpreters who have the opportunity to be credentialed and educated as specialists, a few will ultimately chose to advance the specialty by becoming administrators, educators and crucially, researchers.

Although an in-depth discussion of specialization is beyond the scope of this article, the position taken here is that, in addition to other benefits, specialization can play an important role in creating a body of research about bimodal interpreting in the U.S. healthcare setting. With recognition from the field as a specialty, more healthcare facilities may be convinced of the need to hire interpreters with specialized education and credentials. Further, specialization will require changes

in the education of subsequent generations of interpreters who choose to practice in this setting. Finally, specialization may provide interpreters, researchers, deaf consumers and healthcare providers with a more powerful voice to negotiate for better communication access within the healthcare system.

A call to action: Research questions

Over time, the complexity of healthcare interpreting and the legal, social, ethical, emotional and cognitive implications of the work have become apparent. Many questions on a practical and theoretical level have been raised but remain unanswered, making the field ripe for research. We suggest that interpreting researchers, deaf consumer organizations, national interpreting organizations, and interpreting education programs should set and prioritize a research agenda in bimodal healthcare interpreting, with a potential outcome that this practice would become a recognized specialty. This should not be done in isolation, but in collaboration with other entities and disciplines, including educators, researchers and practitioners in unimodal healthcare interpreting, deaf and hard-of hearing healthcare providers, sociologists, and linguists.

Areas in need of investigation include the efficacy of healthcare communication mediated by a bimodal interpreter, especially as it applies to the specific language needs of specialized populations in the healthcare setting (e.g., patients who are deafblind, deaf immigrants and refugees, and elderly deaf patients with limitations including aphasia, vision loss, or severe arthritis in the hands and arms). A rich area of investigation is the role and boundaries of healthcare interpreters, particularly in highly charged settings or in situations with extreme power imbalances. A largely untouched area of research is the role and function of interpreters who themselves are deaf, as well as deaf community healthcare workers, and how these professionals interface with hearing interpreters in the medical interview. Research is needed on delivery means, particularly the efficacy of using interpreters in remote locations via video. Finally, direct communication in the healthcare setting could be studied through the observation of deaf physicians treating deaf patients, which may result in identifying strategies for more effective interpretation in healthcare settings.

Although the need for research in healthcare interpreting is crucial, there are important considerations to such investigations. Questions that warrant further deliberation include: Are organizations and educational programs prepared to incorporate research findings into their education and advocacy work? Is there any possibility that research findings would make language access to

healthcare more difficult for deaf people; for example, by advocating for higher educational standards and credentials for interpreters, would the cost of interpreters increase and fewer be hired? Or, conversely, would interpreters choose to continue to work as generalists and the requirements of a specialty decrease the number of available interpreters in healthcare even more dramatically? Is the field of bimodal interpreting still too small to have a specialty in healthcare interpreting? Have we reached our limits of specialization with educational and legal professionals? Would specialization further atomize an already divergent field of practitioners?

Even with these unanswered questions, so little is known empirically about healthcare interpreting, the logical next step is to take action – both in terms of research and the pursuit of recognition of bimodal bilingual healthcare interpreting as a recognized specialty.

Conclusion

A recursive theme of this article is that of "lack" – the lack of research on bimodal interpreting overall and the specific lack of research on healthcare interpreting, the lack of a specific academic home for interpreting, the lack of requirements for advanced degrees for interpreting faculty, the lack of an expectation of faculty to produce research, the lack of a long-range vision for interpreting, and the lack of research opportunities and guidance for interpreting students. A strong research foundation for interpreting and interpreting education has not developed because the field has historically been driven by a desire to react to new legislation or to quickly meet the demand for the number of practitioners needed.

These challenges are certainly not unique to the field of bimodal interpreting, nor are they unsolvable. But, to find a solution will require a shift in thinking and assumptions. The field of bimodal interpreting has already challenged many assumptions in the last 40 years and progress has been made. We now understand that legitimate languages can be either spoken or signed; that deaf people who use ASL are a linguistic and cultural minority group; that citizens who do not speak English, including deaf people, have rights to communication access in health, legal and educational settings; and that community interpretation is a complex process, worthy of scholarly investigation, as well as specialized professional practice.

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