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A pilot study of telephone-based interpretation in family physician offices in British Columbia

The use of telephone-based professional medical interpreters in fee-for-service family physicians' offices improves quality of care, is feasible, and is affordable. Access to this service is recommended across the province.

ABSTRACT

Background: **Evidence shows that patient care is affected by language barriers and that health disparities can result when care providers cannot communicate with patients. In British Columbia there is currently no province-wide system to support the use of interpreters in community-based fee-for-service family physician offices. Due to the negative consequences of language barriers for patients, physicians, and the health care system, a pilot study was proposed to evaluate the provision of professional medical interpreters by telephone to fee-for-service family physicians in several BC cities.**

Methods: **From October 2013 until March 2016, members of the Fraser Northwest Division were given access to interpreters through the Provincial Language Service. Physicians were informed of the division-funded telephone-based interpretation support available during the study through division meetings, the division newsletter and website, the Pathways online resource, and office visits by volunteer medical students and residents. Over the course of the study, physicians from New Westminster, Coquitlam, Port Coquitlam, and Port Moody, with later additions from Burnaby and Comox, participated. Data collected by the Provincial Language Service, including the language of interpretation and length of each call, were analyzed to determine usage patterns for the quantitative evaluation. Physician responses from semi-structured telephone interviews were analyzed to identify common themes for the qualitative evaluation.**

Results: **Interpretation was provided in 17 different languages during the 30-month study period, with 26 physicians participating in 145 calls. The average length of a call was 12.4 minutes and the average cost per call was approximately $22. A total of 17 physicians were interviewed about their experience with language barriers, including 8 physicians who had used the interpretation service and 9 physicians who had not. Analysis of physician responses identified five themes: common difficulties with language barriers, methods used to address difficulties, positive experiences with telephone-based interpretation, challenges with telephone-based interpretation, and support for ongoing provision of interpretation services. Physicians who used the telephone-based interpretation service noted that doctor-patient communication was improved and found the service particularly valuable for more complex or sensitive health issues. Overall, physicians were positive about the prospect of using the interpretation service in future.**

Conclusions: **This pilot study demonstrated the feasibility and affordability of providing interpretation**

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by telephone in family physician offices to address language barriers. Physicians who used the service were generally very positive regarding their experience and found the interpreters to be professional and accurate. Despite this positive experience and the need for interpretation in BC family practices, utilization of interpreters during the study was low and uptake for the service was slow. Interviews with physicians suggest that underutilization may be the result of concerns about accuracy, logistical challenges, and the amount of time needed for an appointment involving interpretation by telephone. Based on pilot study findings, access to professional medical interpreters for all family physicians across the province is recommended.

Background

Communication is integral to the provision of health care services. In Canada, language barriers have been shown to result in health disparities,[1,2] with a wealth of evidence indicating that equity, effectiveness, communication, patient safety, patient centredness, and timeliness of care are all affected.[1,3-5] Ideally, every Canadian would receive language-concordant health care, where the health care provider and patient are both able to speak the same language. According to Statistics Canada,[6] 15.8% of BC residents (25.8% in Metro Vancouver) speak a language other than English at home and 3.4% of the population (5.7% in Metro Vancouver) have no English language skills. While interpretation is obviously needed to care for the non-English-speaking patient population, professional language services are unavailable in most primary care settings in BC.

Strong arguments have been made for providing interpretation in primary care settings based on concerns for health quality, equity, ethics, law, economics, and precedence. Care provided with the help of professional medical interpreters is superior to care provided with ad hoc interpreters,[7] and is comparable to care received by patients who do not have language barriers.[8] Ethical arguments for interpretation are supported by evidence that health care inequity can result from language barriers, and in the United States the provision of interpretation services is viewed as a legal obligation for health care providers.[9] Although there is no Canadian legislation requiring the provision of interpretation, health care providers may be considered negligent and found liable for harm resulting from poor communication. Several malpractice suits in Canada demonstrate that this is a risk.[1] Economic arguments for interpretation show there is a cost for not providing interpreters, including unnecessary interventions and tests, and increased hospital utilization.[1] As for the expense of providing interpreters, most studies have demonstrated only a short-term increase in costs.[10]

Other countries have identified the need for interpreters in primary care settings. Australia, New Zealand, and the United States, among others, have acted systematically to implement interpretation programs.[9,11,12] In British Columbia interpretation services for 150 languages are provided through the Provincial Language Service (PLS), which has professional medical interpreters available to work in person, by telephone, or by videoconference 24 hours a day. Access to this service is provided by health authorities for use in hospitals and in some community health care clinics. However, only 2.5% of longitudinal care by family physicians takes place in these settings.[13] In the more commonly used fee-for-service setting, either the physician or the patient must pay for any interpretation service. Historically, no system has been in place for funding this service in community-based fee-for-service family physician offices.

Ideally, every Canadian would receive language-concordant health care.

A 2013 qualitative study of family physician experience in British Columbia confirmed that practitioners have observed the negative consequences of language barriers for their patients, for themselves, and for the health care system.[14] Most physicians studied relied on informal interpretation from family or staff members, but recognized that this was suboptimal because of a lack of confidentiality, inaccurate interpretation, and the

strain put on family relationships. To follow up on this qualitative research, a pilot study was proposed to provide and then evaluate interpretation in the fee-for-service primary care setting in British Columbia.

Methods

This pilot study ran from October 2013 to March 2016 with communities in the Fraser Northwest (FNW) Division of Family Practice: New Westminster, Coquitlam, Port Coquitlam, and Port Moody. The Comox Valley and Burnaby Divisions of Family Practice were added later in the study. Accounts were set up for each division with the Provincial Language Service, and a unique division code was used by family practices arranging for PLS to provide interpretation by telephone for office-based appointments. Costs were covered by the Divisions of Family Practice at a rate of $1.80 per minute. Interpreters were not available for office visits because of the added in-person service cost (a 1.5-hour minimum charge at a rate of $45 per hour).

Study participants were restricted to those division members working in fee-for-service primary care settings. Physicians were informed of the availability of PLS interpreters through division meetings, the division newsletter and website, the Pathways online resource, and office visits by volunteer medical students and residents.

For the quantitative evaluation we analyzed PLS data, including the physician's name, when the service was used, the language of interpretation, and the length of the call. For the qualitative evaluation, we issued an invitation by e-mail or phone to any physician accessing the service for the first time and asked all new service users to participate in a semi-structured telephone interview. We also randomly selected other physicians from the FNW and Comox divisions who were nonusers of the service and invited them to participate in a similar interview. The interviews for users consisted of open-ended questions about physician experience with professional medical interpreters. The interviews for nonusers focused on determining if there was a need for interpretation and, if so, what barriers had prevented the physician from using the service. All interviews were audiotaped and transcribed. In 2014, two residents and the research lead assigned codes and identified themes for the nine interviews completed to date. In 2015, two medical students trained in qualitative analysis repeated the coding and theme identification for all 17 interviews completed.

Ethics approval for this research was obtained from the UBC Behavioural Research Ethics Board.

Results

During the 30-month study period, interpretation was provided in 17 different languages, with 26 physicians participating in 145 calls. The average length of a call was 12.4 minutes and the average cost per call was approximately $22 (12.4 minutes x $1.80 per minute). The languages used most frequently were Nepali, Korean, Vietnamese, Punjabi, Mandarin, Farsi, and Arabic (**Figure**). The predominance of Nepali speakers requiring interpretation was the result of including data from one clinic with a large number of Bhutanese refugees who were seen for prenatal care.

In total, 17 physicians were interviewed, including 8 physicians who had used the service and 9 physicians who had not. Analysis of the interviews identified five themes (**Table**) and confirmed that most physicians had personal experience with language barriers that had affected patient care. As well, most physicians relied on family members and friends to provide interpretation informally, leading to concerns about confidentiality and accuracy of interpretation. Some physicians asked medical office assistants and caseworkers to serve as interpreters or used the Google Translate app.

Physicians who used the phone-based interpretation service noted that doctor-patient communication was improved and found the service particularly valuable for more complex

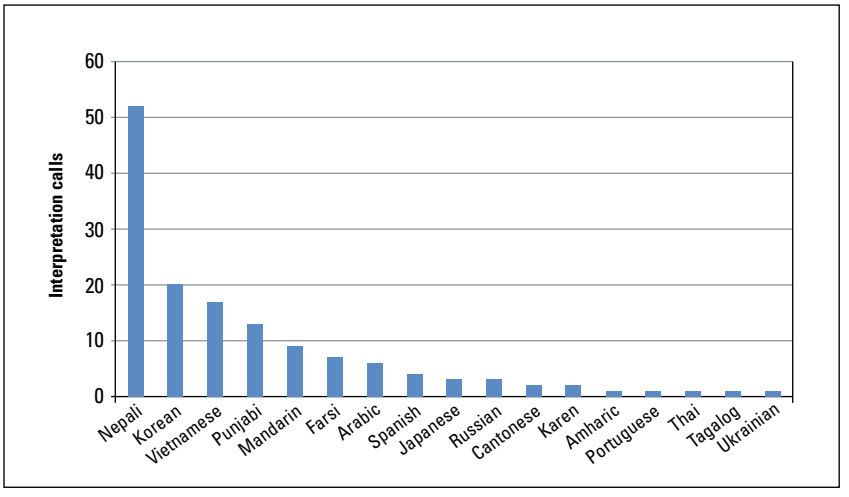

Figure. Languages interpreted during pilot study, 2013 to 2016.

Table. Themes identified in interviews with physicians during pilot study, 2013 to 2015.

Theme	Sample responses
Physicians had previous difficult experiences with language barriers	• *So often you get to see patients and you're unable to characterize their pain because of language barriers.* • *Sometimes it's just charades and gestures and trying to work out mutual understanding.* • *It can get a bit tricky when you're trying to ensure that they [friends or family members serving as interpreters] have consent to talk about sensitive or potentially sensitive issues or parent/child relationships where you might be asking for information . . . you're worried you might not get appropriate or complete information.*
Physicians had tried various ways to address language barriers, primarily using family and friends to interpret	• *In the quick pace of the office I relied on the friend rather than going to any other method.* • *The family member is going to be intentionally or unintentionally biased towards translating and doesn't know exactly how to translate . . . medical words . . . and who knows if they [are] . . . telling me what the patient actually said.*
Physicians had positive experiences with telephone-based interpretation	• *[The PLS interpreter] was well trained in medical terminology and medical interviewing and she really picked up on some of the nuances and wasn't shy to ask some of the questions around sexuality or sexual history, and so it was very helpful.* • *[There was] someone ready to go. Yes. That was the most useful, especially when you're talking about the efficiency of an office day. That was the biggest sell for me. The next time I didn't hesitate to call because I knew that it was going to be effective and efficient.*
Physicians had challenges with telephone-based interpretation	• *It was strange to use [the service] for the first time because it's on the phone and it's just different. I never used a system like that before.* • *Obviously, I would still need to book a longer visit for these patients if they're coming in and I know they need a translator, but at least I'd have that service if needed.* • *The other thing that I found tricky was whether or not to stay on the line with the service while I was doing the physical examination.*
Physicians supported ongoing provision of telephone-based interpretation	• *[With regular] use it would be much easier. Like starting a new technology . . . or new system, it feels strange at the beginning.* • *I can speak [my patient's] language well enough . . . but I've referred her on to specialists, and I've had a couple of letters back saying patient arrived without interpreter or without family member and it was . . . a waste of everybody's time . . . I could see that definitely specialists would probably benefit from [the service] even more than GPs.*

or sensitive health issues. Many felt using a professional medical interpreter was superior to using friends and family because of the greater accuracy of the interpretation and the preservation of confidentiality. Additionally, many commented on the convenience and speed of telephone-based interpretation. Physicians did remark on challenges, including the "foreignness" of the system, the need for longer appointment times, and occasional technical difficulties.

Overall, physicians were positive about the prospect of using the interpretation service in future. Many recognized the need to improve the quality of care for patients with language barriers while acknowledging that change can be difficult. Some physicians also commented on the need to expand telephone-based interpretation for specialists.

Conclusions

Results from this pilot study, the first to evaluate the use of professional medical interpreters in the fee-for-service primary care setting in Canada, demonstrate that telephone-based interpretation in family physician offices is feasible, is affordable for the health care system, and is appreciated by physicians. The study results also suggest why telephone-based interpretation is underutilized.

Feasibility and affordability

The feasibility of using professional medical interpreters in the fee-for-service primary care setting is best supported by the average phone call length of 12.4 minutes. Physicians who had not used the service expressed concerns about the process taking too long. Understandably, many family physicians in the fee-for-service setting struggle with finding adequate time for each patient encounter given the volume of patients that must be seen in a day. While the optimal time per consultation is highly contextual, a 12.4-minute appointment reflects the typical experience for general practitioners in BC. We can conclude that the use of a professional medical interpreter does not create unreasonably long patient encounters. In fact, some physicians noted that appointments were actually

more efficient, especially when compared with an appointment relying on the use of Google Translate or another translation app.

The affordability of telephone-based interpretation was also established in this study. The average cost per call was approximately $22. The decision to use an interpreter rather than to rely on a family member or a patient's limited language abilities is made on a case-by-case basis by the physician and patient. While there is a health system cost for interpretation (one covered in the pilot study by the Divisions of Family Practice), physicians are already familiar with the need to make appropriate decisions that incur a health system cost, such as ordering laboratory tests and other costly investigations. The $22 cost of telephone-based interpretation is comparable to the cost of a plain film single-view X-ray ($34) or bloodwork for CBC, ferritin, and TSH ($30), and is far less than the cost of an abdominal ultrasound ($105) or a standard MRI ($721),[15] all tests that might reasonably be ordered if an adequate history cannot be obtained because of language barriers.

Physicians who used the interpretation service in the pilot study noted improved communication with their patients.

Communication benefits

Physicians who used the interpretation service in the pilot study noted improved communication with their patients and were generally very positive about their experience. They found the interpreters to be professional and accurate. Physicians were impressed that they were connected to an interpreter within minutes of contacting PLS and that the interpretation process was smooth. Physicians who used the service expressed a preference for professional medical interpreters when dealing with more complex or sensitive subject matter that might be difficult to discuss in the presence of a family member. They also felt that having the PLS service available would reduce the burden placed on patients and their families to find their own interpreter for every medical appointment.

Underutilization

Even though telephone interpretation was offered to physicians and patients at no charge during the study, utilization of the service was low and uptake was slow. These findings, however, should not be taken to mean that there is no need for language services in the communities studied. Such underutilization of interpretation services is a recognized problem in health care.[16] Furthermore, an unpublished 2013 survey of the FNW Division prior to the onset of the pilot study revealed that 81% of the 93 respondents had difficulty communicating with one patient or more within the previous month because of a language barrier. When asked which services they would likely use to address language barriers, 53% of 81 respondents selected "Free access to professional interpreters by telephone." These survey findings suggest a much higher need for interpretation services than was demonstrated by the study results.

Possible reasons for underutilization include some concerns revealed in the qualitative analysis. Physicians who chose not to use the service were concerned about accuracy and not being able to read body language cues. They were also concerned about logistical challenges, the extra time they assumed would be needed for the appointment, and the prospect of technical challenges, including poor speakerphone sound quality. Comparing the responses of user and nonuser physicians highlighted a common misconception that access to PLS requires making arrangements far in advance. Despite not having used PLS interpreters because of such concerns, many nonuser physicians were still grateful that the service is available to them and that it could permit patients with language barriers to receive effective care if a friend or family member was not available. The majority of the physicians who used the system were open to using it again and felt the service was particularly valuable for walk-in patients, patients with complex or sensitive health issues, and patients needing frequent appointments, such as those receiving prenatal care.

Recommendations

This pilot study demonstrates that using professional medical interpreters is feasible in the fee-for-service primary care setting, is affordable for the health care system, and is viewed

positively by family physicians. As with any new technology or process, time is needed to change practice, and to date the service has been underutilized. Work is underway with the health authorities, the General Practice Services Committee, and additional Divisions of Family Practice (including the Vancouver Division as of January 2016 and the Surrey–North Delta Division in August 2016) to increase access to interpretation services.

We recommend providing ongoing education to family physicians about the availability, use, and benefits of the interpretation service to increase utilization where indicated. Furthermore, we recommend establishing access to professional medical interpreters for all family physicians across the province. We also recommend that fee-for-service specialists consider assessing the feasibility of using such a service in their practice settings.

Competing interests

None declared.

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