Patient Encounters with LEP Individuals using Digital Interpreting Devices

Topic: Conducting patient care encounters utilizing video remote interpreting devices when language barriers exist.
Original Format Taught: In Person, Online, and Remotely. Integrated into a Physical Assessment Course which included a practice lab.
Academic Level: Was originally for graduate level students, but would work with undergraduate students.
Disciplines: Originally taught with Nurse Practitioners students. Applicable for any student clinicians involved with patient care.

Background

   With today's migration of people across nations, American healthcare clinicians may find themselves in situations where they are trying to communicate with individuals who are Limited English Proficient (LEP). Aside from the aim to deliver quality healthcare to all their patients some hospital systems are incentivized to address language barrier issues because of Title VI of the Civil Rights Act. This act specifies hospitals receiving federal funding are compelled to provide workable language services to LEP persons. Consequently, many healthcare systems are using the latest technology of video remote, digital-enhanced interpreting devices (e.g., Cloudbreak's Martti; The Health Care Interpreter Network (HCIN); Stratus Video Interpreting; Video Remote Interpreting (VRI)) to address communication barriers between providers and patients. As a result, current and emerging practitioners must be proficient in utilizing such devices during care exchanges when providers and patients do not speak the same languages.
   When preparing students for their future practitioner roles faculties teaching in health science programs need to be cognizant of how healthcare initiatives affect the educational needs of students. Clearly, faculties must recognize to feel clinically competent conversing with LEP patients via digital interpreting technology, students need practice time working with the

equipment. Identifying this need sparked the author to embed related behavioral competencies in a graduate level Physical Assessment course and lab. To purchase the necessary equipment and supplies to launch the program a university sponsored grant was obtained.

The belief was by allocating time for students to practice with actual digital interpreting devices used in care facilities, students would gain experience and self-assurance conducting visits with LEP individuals prior to the start of their clinical rotations. Likewise, learning from their mistakes in a controlled academic environment, and having repeated opportunities to hone their skills could make actual care encounters flow smoother. If students graduate from academic programs embracing this technology, it is likely that they will use such translation tools in their future professional practices.

Initiating this activity also brought together diverse individuals from within the campus community. Recognizing the campus body had a host of individuals who spoke languages other than English, a call went out for campus volunteers to act as standardized LEP patients. As we assumed, the request was well received.

Along with students and standardized LEP patients, three other key elements were needed. A key variable critical in procuring the last two resources was to establish a relationship with leaders from a communication company who specialized in medical digital interpreting systems. The company founders needed to share the same vision that future practitioners need opportunities during their schooling to practice conducting patient care exchanges using digital interpreting systems when language barriers exist. Once a working relationship was established with the selected communication company, the final two elements were obtained. The first was access to video remote, digital interpreting devices, and the other, a pool of interpreters who spoke a wide range of languages. Once acquired, all elements to practice simulated "Student-LEP Standardized Patient-Interpreter" encounters via digital interpreting devices became achievable.

If healthcare academicians embrace the challenge of educating future caregivers to be competent, technologically enlightened practitioners, students should graduate better prepared for the day when all patient rooms are equipped with large computer screens connected to single-platform, digital video devices. In addition, participating in remote digital video activities gives students a feel for what conducting patient-provider visits via telemedicine/telehealth platforms are like. Most importantly, by widely adopting such learning experiences in current curricula such practice opportunities should positively impact how future providers manage care when language is a barrier.

Purpose of Activity

- Provide future healthcare providers practice time conducting patient-care scenarios with simulated LEP individuals using video remote medical interpreting systems.
- Increase the probability that students who are provided practice opportunities using digital interpreting systems in their academic programs continue to use similar technology in their practices as licensed care-providers.
- To narrow the gap between what is expected in clinical settings and what is taught in academia.
- To build student confidence in conducting patient-care encounters using digital technology.
- To improve student-patient care exchanges when pairs do not speak the same language.
- To work collaboratively with other community partners to improve future healthcare delivery.
- To provide members of the campus community, who speak a language other than English, opportunities to share their language and culture by assuming standardized patient roles. In addition, standardized participants may feel good about contributing to the educational needs of healthcare students. Serendipitously, the hope is these volunteering individuals will also feel they are positively representing their cultural group and educating others about their group's language and distinct practices.

Modifications for Current and Future Needs

1. With the thrust of conducting provider-patient encounters via telemedicine technology during the COVID pandemic, this activity should be continued and integrated into future telemedicine opportunities. Additionally, becoming familiar with conducting patient encounters using video remote interpreting technology can help transition students to a time in the future when patient rooms are equipped with unified telemedicine touch-screen platforms that with the touch of a button connects them with physicians, healthcare providers and language interpreters across the country and globally.
2. This activity was conducted face-to-face and threaded throughout a semester. With a little creativity by academic faculties, this activity could be conducted as an online activity since the communication/interpreter component is already a digital system and online support is available. Or, include this experience within one of the "boot-camp" days often held by programs before the start of clinical experiences. These options would eliminate or minimize contact time between individuals.
3. Ideally a non-English speaking standardized human patient seems easiest to start with for the mock LEP patient care encounters. However, future advances could introduce use of high-fidelity manikins programed to speak a variety of languages.

4. If the future role of a student is not at the advance practice level, but instead an entry level position, make the scenarios less comprehensive. For example, have students teach the non-English speaking standardized patient about prescribed medications, or what to expect when having a particular diagnostic procedure done (e.g., Magnetic Resonance Imaging (MRI)), or how to use crutches.

Steps in Developing the Activity

Description

This simulation activity integrating digital interpreting technology and students communicating with Limited English Proficient (LEP) patients during care encounters was embedded in a physical assessment and diagnostic reasoning course. The class was fourteen weeks, face-to-face, and Blackboard enhanced. Video remote, digital-enhanced interpreting devices were used to practice simulated care scenarios with individuals who did not speak English proficiently.

Activity Embedded In**:** Advanced Physical Assessment and Diagnostic Reasoning Course with lab component
Level: Graduate
Curriculum Positioning of Course: First semester of program.
Students: Nurse Practitioner (NP) program
Course semester: 14 weeks
Course format: Face-to-Face with a didactic component followed with a practice lab.
Related course content also included on course's corresponding Blackboard web pages.
Format of Activity: Students/Faculty face-to-face format. Digital video enhanced web interaction with live interpreters
Grading: No numerical grade is assigned for the exercise since the focus is on building confidence through practice.

When using this technology, students are connected with interpreters on digital screens certified in healthcare interpretation. The language interpreters serve as translators between students (in-training providers) and simulated live patients. Although the activity described was developed with the learning needs of nurse practitioner students in mind, the basic model can be reconfigured to fit the learning needs of students in other healthcare programs (e.g., medicine, physician assistant, physical therapy…) and across undergraduate and graduate levels. Evidence-based practice findings derived from national care standards such as The National Culturally and Linguistically Appropriate Services (CLAS) Standards, experiential learning theory, Madeline

Leininger's cultural care model and simulation learning theory were foundational in developing this activity.

To truly mimic real life patient scenarios and use authentic state-of-the-art interpreting technology, faculties need to partner with communication leaders aligned with digital interpreting systems who share a similar vision of introducing this technology to academia.

Outlined are recommendations and implementation steps that should assist you in establishing a program that will allow you to offer this learning opportunity. Once set-up steps are in place, what teaching-learning strategies might be used to present the content are up to the ingenuity of faculties. Though the information below is listed in a specific order, the sequence of the steps can vary.

Pre-Initiation Steps: Formulate a Curriculum Plan

Identified below are questions to consider as you develop the course activity.

- How will content and practice time be integrated in the curriculum?
- Will delivery be solely in one course or integrated and built upon in other courses?
- Will the activity be placed in a course that has corresponding didactic, lab and clinical components, or solely within a clinical course?
- Which format works best for delivery? Completed as a total virtual experience, or combination experience consisting of face-to-face (student-patient-faculty) with remote video access with interpreters. Or, for students enrolled in programs offering all didactic courses online, will the activity be included in at least one of the times students come to campus for *Skills Labs, Boot-Camps*, *Workshops*, or *Clinical Orientations*?
- Can the activity be developed as an interdisciplinary experience so healthcare students Nursing, Medical, Pharmacy…) learn collaboratively?
- Will the learning experience be introduced in undergraduate, graduate and doctoral levels? If so, how will the learning outcomes differ?
- Will the exchanges not be graded since the focus is on gaining self-confidence and telehealth experience, or will students be tested and graded to evaluate mastery?

Develop a proposal that answers questions comparable to those identified above, then outline a plan of action and construct a budget.

Research Available Video Medical Interpreting Devices

Identified below are questions to consider when screening communication companies who are on your list of potential partners.

Do they share your philosophical vision of developing such student experiences? What are the unique features of the company's digital interpreting systems? Any special computer services needed to integrate the system on campus? Does the school's technology department

think ongoing integration of the digital communication system is feasible? What is the financial investment related to: acquiring the device, setup, regular usage, and maintenance? How does the technology department on campus perceive they can assist you and interface with the technology staff at the communication company? Also, what questions does your computer technology personnel on campus have for the company?

Communities of Interest Groups

What information might your Communities of Interest be able to contribute to your information gathering? Are any members from your Communities of Interest or from where your students do their clinical practicums using essentially the same state-of-the-art video medical interpreting devices? What has been their experiences? What companies are they working with? What information can they offer related to preferred features of the interpreting devices and digital technology services? What are the positives and the challenges? Are any Communities of Interest groups already partnered with your college or university interested in offering students similar learning opportunities?

Formulate a List of Desired Features for Potential Communication Company Partners

From your research develop a list of features a healthcare communication company servicing digital interpreting devices would need to possess to meet your program's needs and deliver quality services. Here are some items for consideration:

- Utilizes a video remote interpreting system that employs certified, HIPAA compliant medical interpreters working from an interpreting center preferable from within one's own country. Note: Some digital programs may televise from the home environments of interpreters which could contribute to quality control and HIPAA issues.
- A video remote platform with a computer screen is used for "care" encounters in which live, real-time interpreters are visible.
- The service has access to diverse groups and a wide range of spoken languages.
- Interpreters are willing to work with academic programs and participate in simulated patient encounters.
- Interpreters are medically focused and able to translate medical terminology so as to effectively participate in student (provider)-patient-interpreter medical scenarios.
- Administrators owning the interpretation services are willing to work with an academic entity and utilize their interpreters, and network time to participate in simulated experiences.
- The digital interpreting company owners are willing to offer initial and ongoing support while their product is used within the academic setting.
- The company has their own staff educators who train and sponsor continuing education programs for their interpreters, as well as provides initial and on-going training for individuals at healthcare entities using their product.

- A positive working relationship is established between the IT team of the sponsoring company and academic institution.
- The interpreting experiences mimic real-life case scenarios.
- Since interpreters are modeling care behaviors, the company's interpreters should be high quality and professional. Characteristics to look for:

> Interpreters are certified as medical interpreters through a national certification group such as *The National Board of Certification for Medical Interpreters.* They are accurate in their interpreting and translating. Those interpreting are reliable and HIPAA compliant. Interpreters are readily available (e.g., some companies have language centers in a central area where interpreters are available 24/7).

The computer interpreting devices are easy to use and mobile. Consider a touchscreen device with a one-touch connection that is wireless. In terms of being mobile, check to see if the device can be moved between areas and classrooms on campus. And, if you are considering using the device in practicum settings that are off campus, check with the company about your plans. For example, if students and faculties are conducting healthcare visits for LEP migrant workers at a migrant camp in remote fields, evaluate whether they will be able to effectively utilize the interpreting services.

Contacting the Communication Company to Partner

Review your collected information related to the Communities of Interest feedback and your list of needs, contact one or two companies to discuss your plans. Do they have an interest in partnering with you to introduce their digital interpreting systems on your campus? What would it cost to do so? What kind of support are they offering? Does the proposed relationship seem mutually beneficial? Select the company that best fits your needs and begin negotiating with them to bring their product to your students.

Note:

Developing a positive working relationship with the staff and administrators of a reputable digital interpreter network is a primary variable to the success of integrating a language interpreting system into an academic setting. Such collaboration is key for successful technology interfacing and so company interpreters know when the school is conducting simulated patient scenarios. Keeping the live interpreters informed of student practice sessions may be as simple as providing a schedule of practice dates, estimated time periods when students will practice live, and sharing ahead of time a list of the languages simulated LEP patients will speak. All of these helpful endeavors on the school's end will enable the company to plan accordingly.

Finding Funds to Lease or Purchase the Product and Services

Based on your projected budget and the cost quote provided by the suppliers of the digital interpreting system develop a plan for financing the program and buying or leasing the related equipment. Look to internal and external sources. Is there any funding available within your own school for such innovative programs? Are there other disciplines on campus who might be interested in using the digital interpreting system in their programs and thus share expenses? If you plan to have students obtain experience using the device in simulated case study formats, would it be appropriate to generate a student simulation fee to assist with covering cost? How about working with your multicultural center on campus? Would the best avenue be to write for a grant? With so many national healthcare initiatives focused on achieving cultural competencies, resolving communication barriers, improving patient outcomes, and introducing more telehealth care visits into healthcare systems writing for a grant might be a viable answer.

Signing Terms of Agreement Contracts to Initiate Program

Be sure the contract covers your request and fits your needs. Your terms may differ depending on whether you decide to buy or lease the product. Often the agreement contract will span a year so check on the renewal and the discontinuation process. The agreement should outline the responsibilities of your campus's IT department and the interpreting company's technology department. Ask about start-up support and on-going support. Does the company agree to send an inservice representative to your campus to introduce and explain how to operate the interpreting system? Also, is the interpreting company willing to conduct a mock patient-provider care session when introducing their system?

Set a Date for Introducing the Activity

If you are one of the first academic programs in your geographic area to introduce this teaching-learning initiative by all means share the information. Give those on campus and individuals off-campus an opportunity to learn what steps your academic institution is introducing to better prepare healthcare providers of tomorrow.

Set a mutually agreed upon date with the company's educator, whereby he/she comes to campus to confer the details of the program, demonstrate how the system works, and role-play patient-provider-interpreter scenarios using the digital video interpreter system. Or, plan a one-on-one session with the company's educator. However, if you decide to do a one-on-one session

be sure and plan another orientation session in which you introduce the system to students and faculties.

Inform your Campus Community and Surrounding Communities

A good start is to contact your Public Relations (PR) department on campus. Since introducing this technology in academia is essentially a new ambition, aspirations to adopt something similar will capture the interest of others. Below are some significant benefits for informing your PR department.

- To attract the interest of healthcare faculties and multicultural groups on and off campus interested in collaborating.
- Help identify those individuals on and off campus who are proficient in a language other than English who are interested in playing simulated non-English speaking patients for case scenarios.
- Informs individuals or groups who might be interested in monetarily supporting the endeavor.
- Rises community awareness of what your academic institution is doing to address care needs of vulnerable populations.

Your PR person may share your information with his/her community and campus media connections. A television news segment or a story placed in a community newspaper highlighting the program is a sure way to stir interest. When we introduced our program, two surrounding community newspapers, the university's newspapers, and a local news network highlighted the program. Below is a link to one such newspaper article.

http://timesleader.com/news/business/490367/misericordia-university-is-first-school-in-nepa-to-offer-martti-interpretation-system-to-nursing-students

Instructions for the In-Class Activity

- Each student assumes the role of care-provider in a case scenario whereby the patient does not speak English. Standardized patients who are proficient in a language other than English are used in case scenarios to role play individuals that are Limited English Proficient (LEP). As a way to communicate with non-English speaking individuals, students use digital remote video interpreting systems. Through the digital interpreting systems students connect with live certified language interpreters familiar with healthcare protocol.

- Individuals who role-play in the pre-planned patient-care encounters are volunteers who speak a language other than English. Those who speak another language are recruited from individuals on and off campus. Individuals on campus might come from staff personnel (e.g., librarians, maintenance), faculty pool, administration, and student body. Off campus

examples would be alumni, former faculty members, and community friends. The live component of each simulated case scenario is video-recorded on an iPad positioned on a tripod. The intent of obtaining the recording is so students have the opportunity to self-critique.

- The number of simulated sessions planned within a course will depend on the number of students in the class, classes/semester, number of LEP volunteers, digital interpreting systems available, pre-approved "training" sessions agreed with the communication company, and the number of students collaborating on one scenario. A recommended guide is no more than three students participate together in one patient-student-interpreter exchange. No more than three students ensure each student has an interactive role in the encounter. Since the focus is to create a non-threatening practice opportunity, two students working together on one case scenario works well. Having a buddy helps to minimize anxiety and allows for peer-to-peer learning. The ideal goal is to conduct one-to-two sessions in each class over a fourteen-week semester. Doing so gives all students at least one opportunity to practice before the end of the semester and allows for other course content to be taught. Including this activity within a course that has a corresponding lab or skills component works best for allocating practice time.

- The actual online encounters should be kept to approximately 20-30 minutes to mimic real patient-provider focused encounters, as well as, consider the fee/minute for interpreting services (if applicable). Whether are not the interpreter services are charged per online scenario, included within a bundled fee, or covered under another option are contractual terms faculties should negotiate with the communication company.

- Each case scenario for the student-interpreter-LEP standardized, digital patient session relates to content taught earlier in the didactic component of the class. For example, in this course since a key objective is conducting a history and physical assessment each case study focuses on a particular body system (e.g., Gastrointestinal). The history and physical examination would relate to the particular system being studied. Therefore, the diagnosis of the foreign-speaking simulated patient corresponds to a common illness/condition manifested when the particular system is dysfunctional or diseased.
Example:
System studied: Gastrointestinal (GI)
LEP Patient Complaint: Relates to complaints and manifestations prevalent when GI system is malfunctioning. In this case, the patient would express symptoms and manifestations typically found with Irritable Bowel Syndrome (IBS).
Definitive diagnosis: IBS

- Students work in groups of two to three members to facilitate peer-to-peer learning and create a comfortable learning environment. Each group's assignment is posted well in advance and each member of the group is expected to familiarize his/herself with the assigned case. Information posted includes items such as: group members, date of presentation, system the case scenario will be based on, relevant patient information, language spoken by the individual, ethnicity, health history, medical history, chief complaint,

symptoms and manifestations…. The definitive diagnosis is not given at this time, identifying the definitive diagnosis is a later expectation.

- The case scenarios used for the live LEP sessions will be the same system examples discussed in class and used to practice history and physical examinations of the different body systems. Therefore, prior to the live video scenario, students will have practiced conducting a history and physical on an English-speaking person with the same system complaints framing the LEP case. In-class potential differential diagnoses will be discussed but the definitive diagnosis will not be shared until those students assigned the related LEP case scenario have identified the correct diagnosis during pre-live, faculty-student case

- Before their assigned live practice date each group runs through their case with either the course faculty member or graduate assistant. If the class is an advance assessment class which includes diagnostic reasoning content students are expected to discuss differential diagnoses. In addition, they are expected to share the diagnostic reasoning steps for how they arrived at their definitive diagnosis. More than likely, information learned in the related didactic class framed around the case study provides enough information for students to determine the correct diagnosis. Unlike a true-life encounter, the definitive diagnosis is derived earlier in the patient assessment since this is a practice session and knowing the definitive diagnosis provides direction for students in planning care for their online LEP encounter. The faculty member (or graduate assistant) and students discuss the suspected diagnosis and the plan of care the group has developed for managing the patient's care. If the plan of care includes prescribing medications (if prescribing is part of their future practice realm) students should be prepared to explain medication/s and offer patients pseudo prescriptions written per prescribing guidelines. The same holds true for any diagnostic studies or procedures students may suggest.

- Students should complete the scenario as close to reality as possible. In addition, each student participating in the scenario should have an assigned role. For example, one student might ask the history gathering questions, one student might conduct the actual physical exam, and one student might explain the diagnosis and plan of care. Or, some variation of this. A faculty member or graduate assistant will be present with students during every session but only intervene when needed. Generally during each live simulated session, when using the digital interpreting machine, some basic student responsibilities should include: Students …
  record the session for self-critiquing immediately after the live encounter.
  independently operate the digital interpreting system.
  work professionally with the "LEP patient" and certified medical interpreter on the live, digital screen.
  inquire as to what brings the patient to the clinic this day.
  ask pertinent questions related to the patient's complaint/s.
  complete a brief focused history.
  conduct a focused physical examination.
  explain the suspected diagnosis to the patient.
  outline the plan of care.
  provide and explain prescriptions for medications or diagnostic tests.
  provide time throughout for the simulated patient to ask questions.

inquire if patients have any questions, and address issues accordingly prior to ending the session.

Evaluation Data

The entire session is recorded via an iPad on a self-supporting tripod. Immediately following the live session students and the faculty member (or graduate assistant) discuss the scenario, watch the recorded video, and review strengths and areas for improvement. If the performance of the group has major concerns, or the faculty (or graduate assistant) had to intervene frequently while students were "live", the group is assigned to repeat the exercise another time.

Use course evaluation tools and other applicable feedback methods to assess the effectiveness of the program. Evaluation data should be collected for all elements of the program such as perceptions of students, faculties, graduate assistants, LEP standardized patients and live-translators. Also, the working relationship between the academic institution and the communication network should be evaluated. Additionally, evaluation data should measure such elements as effectiveness of interpreter-student interactions and equipment reliability.

Additionally, for future growth of the program one would also want to collect data on whether other programs on campus have expressed interest in partnering or collaborating, potential funding sources for sustainability, and interest of community groups in future program networking.

Student Feedback

Evaluative data was collected after each case scenario and via end-of-semester student course evaluations. Related course objectives were met or exceeded the prescribed 85% benchmark. Overall, students felt such practice opportunities were positive experiences and would recommend all students be offered similar experiences. Many students asked for additional practice opportunities and felt such knowledge would benefit them in their clinical practicum roles and future jobs. Other evaluative feedback was obtained from debriefing sessions held post practice with students, simulated patients, graduate assistants, and faculties. This feedback offered valuable information in improving practice sessions. One future evaluative recommendation is to develop an evaluation tool that collects data related to whether students

who are provided practice opportunities using digital interpreting systems in their academic programs continue to use similar technology in their future practices as care providers.

Comment share by a former student now practicing as clinician who participated in this activity:

"Working in a culturally diverse practice location can be challenging at times. Initially the language barrier between me, an English-speaking provider, and my non-English speaking patients was one of the biggest challenges within our market share. For me the language barrier had an easy and economical solution; the addition of a multi linguistic translator app to my cell phone. (P.R)"