Walking the Language Technology Talk

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Chattanooga, TN is a playground for pioneers.
We Shall Achieve
Chattanooga Race and Origin

White, alone                      58.0%
Black or African American      34.9%
Hispanic or Latino, percent     5.5%

CHA Hard of Hearing Population

US Dept. HHS, 2014
US Census Bureau, 2015
3 Constructs

1. **Community partnerships** necessary and effective to reduce health disparities

2. **Simulation** learning scenario

3. Growing body of literature on strategies to overcome language barriers & effective *use of technology* to improve communication & reduce health disparities
“Teaching clinicians and trainees about how to avoid contributing to health-care disparities in the context of language barriers should be an essential component of clinical education”

(Diamond & Jacobs, 2009).
Identification of:
• the role of language barriers in health care;
• means to overcome language barriers

Understanding the mechanisms to work with language interpreters

Identification & Remediation of problems in interpreted encounters

Appropriate & Sage use of one’s own limited non-English language skills

(Diamond & Jacobs, 2009)
We shall achieve

Community Partner Volunteer “patients”

Language Interpretation Technology Tools

Certified Interpreters Cultural Experts

Scripted scenarios reflecting considerations for local language, culture & specific SDOH

We shall achieve
Scenario A: Homeopathic remedies and supplements

SDOH: Cultural Norms/Differences

Context: Pre-Op Intake/Assessment

Participants: Provider, Patient, Patient’s companion

History: Patient is brought in via ambulance prepping for an emergency appendectomy and is confused.
Scenario B: Pre-Op
Emergency Colonoscopy
SDOH: Cultural Norms

Context: Pre-Op intake/assessment for colonoscopy

History: Patient has experienced chronic constipation, stomach cramps, pain and rectal bleeding.
Scenario C: Pre-Op Emergency C-Section
SDOH: Cultural Norms

**Context:** Pre-Op intake/assessment for Emergency C-section

**History:** Patient has recently arrived in Chattanooga and does not have relatives/family members in town.
Simulation Experience

- 21 UTC SNRA students
- 14 Community Volunteers
- 2 Professional Medical Interpreters
- 1 ASL Interpreter
- 1 Language Line
- 4 Simultaneous Scenarios
- 20 minute interactions (2)

Morning LaPaz Volunteers arrive at 9:15 am
Afternoon LaPaz Volunteers arrive at 11:45 am

- Volunteers will be assessed by different “providers” (students) and will be “patients” for no more than 2.5 hours
- Volunteers will receive lunch either before or after their shift
- AM Volunteer Shift: “Patient” @ 9:40-12:05 Lunch @ 12:05 Complete evaluation after lunch
- PM Volunteer Shift: Lunch @12:00 “Patient” @ 12:30-2:15 Complete evaluation after shift

Each student will experience 2 different pre-op assessment scenarios and 2 different types of communication challenges
- Each student’s shift is 60 minutes: 40 mins of “patient” assessment and 20 mins. pre and post evaluation

<table>
<thead>
<tr>
<th>Session-Shift</th>
<th>Time</th>
<th>Room 1-Language Line</th>
<th>Room 2-Spanish Interpreter FTF</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1</td>
<td>9:40-10:00</td>
<td>Leda Lucas Patient Volunteer</td>
<td>Lucas Leda Patient Volunteer</td>
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<td></td>
<td>10:05-10:25</td>
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<tr>
<td>B-1</td>
<td>10:30-10:50</td>
<td>Hadley Patient Volunteer</td>
<td>Callie Patient Volunteer</td>
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<tr>
<td></td>
<td>10:55-11:15</td>
<td>Callie</td>
<td>Hadley Patient Volunteer</td>
</tr>
<tr>
<td>C-1</td>
<td>11:20-11:40</td>
<td>Dustin Patient Volunteer</td>
<td>Joseph Patient Volunteer</td>
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<tr>
<td></td>
<td>11:45-12:05</td>
<td>Joseph</td>
<td>Dustin Patient Volunteer</td>
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</tr>
<tr>
<td>D-1</td>
<td>9:40-10:00</td>
<td>Christy's Patient Volunteer</td>
<td>Jamie Patient Volunteer</td>
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<tr>
<td></td>
<td>10:05-10:25</td>
<td>Jamie Patient Volunteer</td>
<td>Christy Patient Volunteer</td>
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<tr>
<td>E-1</td>
<td>10:30-10:50</td>
<td>Karly Justus Patient Volunteer</td>
<td>Justus Patient Volunteer</td>
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<td></td>
<td>10:55-11:15</td>
<td>Justus Green Patient Volunteer</td>
<td>Karly Patient Volunteer</td>
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<td></td>
<td>11:45-12:05</td>
<td>William Price</td>
<td>Megan Patient Volunteer</td>
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<tr>
<td>D-2</td>
<td>12:30-12:50</td>
<td>Brenan Chris Patient Volunteer</td>
<td>Chris Patient Volunteer</td>
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<tr>
<td></td>
<td>12:55-1:15</td>
<td>Chris Patient Volunteer</td>
<td>Brenan Patient Volunteer</td>
</tr>
<tr>
<td>E-2</td>
<td>1:20-1:40</td>
<td>Taylor Rachel Patient Volunteer</td>
<td>Rachel Patient Volunteer</td>
</tr>
<tr>
<td></td>
<td>1:45-2:05</td>
<td>Rachel Taylor Patient Volunteer</td>
<td>Taylor Patient Volunteer</td>
</tr>
</tbody>
</table>

La Paz Volunteers complete survey and depart @2:15
Why video the simulations?

• Understanding the mechanisms...
• Identification & Remediation of problems...

LANGUAGE SIMULATION
Findings

“Using telephone interpreters was much more tricky....it got a bit messy...”

“I did recognize my own anxiety during the simulation. I need more practice when presented with these types of communication issues.”

“This was a great experience…I think that all nursing students should participate in this type of simulation.”

“I went into this simulation with low expectations, but I found it to be a great experience. Very real life. Very beneficial to my medical practice.”

“I recommend ASL classes for nurses/nursing students-sometimes deaf people come in on an urgent basis and it would be nice for nurses to know the basics...until an interpreter can arrive.”

“...some of the students didn't talk to the patient. The students talked to me directly. Some of the students would say too much at one time. The interpreter needs to break it into smaller groupings of words...”

“Providers should always speak in 1st person to the patient and let the interpreter translate...”
The study findings reveal consistent gains from pretest to posttest in students’ self-reported level of confidence in the delivery of culturally competent health care to patients. For each dimension observed, students’ means scores significantly increased from pretest to posttest (p< .05, p<.01, p<.001).

Additional findings indicate statistically significant increases in student mean scores pertaining to patient/provider communication, use of language technology and interpreters, and the importance of culturally congruent communication.
Karliner, Perez-Stable and Gildengorin (2014) identify the correlation between “...interpreter training” for healthcare providers and the increased use of language service and increased satisfaction with the medical care provided.

So, how do we accomplish this ???
Community Partners

Erlanger Health System
Questions

Thank you Gracias