High Acuity Interpreting: The Relationship Between Fatigue and Encounter Complexity

September 4, 2010

2010 IMIA International Conference on Medical Interpreting
Boston, Massachusetts
Objectives

- To help interpreters recognize the factors that affect concentration and competence

- To advocate for the adoption of a measurement system in our field, both to prevent burn-out and justify higher staffing levels

- To share information about current research being carried out at Children’s Healthcare of Atlanta
Healthcare Interpreting
The Basics:

- **Communication:**
  Dialogue involving two or more parties

- **Setting:**
  In hospital, clinic or doctor’s office

- **Patient:**
  May be an infant, child, adult or elderly person
Dialogue: What is it?

- A conversation between two or more persons; an exchange of ideas and opinions
- A discussion between representatives of parties to a conflict that is aimed at resolution

Merriam-Webster
<table>
<thead>
<tr>
<th>Multiple Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Patient</td>
</tr>
<tr>
<td>▪ Spouse, partner</td>
</tr>
<tr>
<td>▪ Parents</td>
</tr>
<tr>
<td>▪ Children</td>
</tr>
<tr>
<td>▪ Relatives</td>
</tr>
<tr>
<td>▪ Friends</td>
</tr>
<tr>
<td>▪ Church members</td>
</tr>
<tr>
<td>▪ Community advocates</td>
</tr>
<tr>
<td>▪ Nurse</td>
</tr>
<tr>
<td>▪ Provider</td>
</tr>
<tr>
<td>▪ Social worker</td>
</tr>
<tr>
<td>▪ Chaplain</td>
</tr>
<tr>
<td>▪ Receptionist</td>
</tr>
<tr>
<td>▪ Case worker</td>
</tr>
<tr>
<td>▪ Psychologist</td>
</tr>
<tr>
<td>▪ Lactation Specialist</td>
</tr>
</tbody>
</table>
Parties may not be comfortable with or accustomed to professionally interpreted dialogue.
Various Disparities…
Parties may not share:

✓ Socio-economic level
✓ Educational access
✓ Health literacy
✓ Social collateral
Parties may not share:

- Beliefs about illness
- Beliefs about healing
- Religious convictions
- Cultural beliefs
- Humor
There may be immense power differences
The untold reality…

The healthcare interpreter strives to replicate each speaker’s message, and at the same time navigate…

• a complicated, interpersonal dynamic, or
• a disruptive environment, or
• an emotionally-charged interaction.
Acuity in Nursing
A measurement system for identifying and stratifying patients according to intensity level and the corresponding care and resources that they require.
# ESI: An ED Acuity System

<table>
<thead>
<tr>
<th>Green</th>
<th>Grey</th>
<th>Pink</th>
<th>Red</th>
<th>Blue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient requires no resource</strong>*</td>
<td><strong>Patient requires only one resource</strong>*</td>
<td><strong>Patient requires many different resources</strong> <strong>AND does not have “High Risk Vital Signs”</strong></td>
<td><strong>Patient is confused, lethargic, disoriented</strong> <strong>OR</strong> <strong>Patient is “high risk”</strong> <strong>OR</strong> <strong>Patient will require many different resources</strong> <strong>AND</strong> is also a patient who has “High Risk Vital Signs”</td>
<td><strong>Patient requires immediate, life-saving intervention</strong></td>
</tr>
</tbody>
</table>

*Indicates a lower level of acuity.

**Indicates a higher level of acuity.
“Over the past five years, Valley Medical Center has been voted one of the best, large not-for-profit organizations to work for in the state of Washington.

Why? One major reason is that we have allowed our nurses to assess patient acuity and to adjust staffing levels to acuity levels.

Staffing for high quality care doesn’t depend on the number of patients alone; it also depends on how sick those patients are.”

Source: Valley Medical Center, Washington State
Applying an Acuity Model to Healthcare Interpreting
Acuity in Healthcare Interpreting

A measurement system used for identifying and stratifying encounters according to their complexity and the corresponding mental resources used by the interpreter.
Resources Used by Interpreter

- Decision-making skills
- Concentration skills
- Overall “brain fuel”
“Occupational stress and illness, or work satisfaction and effectiveness, arise from an interactive dynamic between the challenges (demands) presented by work tasks in relation to the resources (controls or decision latitude) that workers bring to bear in response to job demands.”

Robert Karasek (1979) and Torres Theorell (Karasek & Theorell, 1990):
Sign Language Interpreting & D-C Schema

“Demands: Environmental, interpersonal, paralinguistic, and intrapersonal

Controls: Skills, decisions, and other resources that an interpreter may bring to bear in response to the demands presented by a given work assignment. “

(Dean and Pollard)
Factors Affecting Acuity in Healthcare Interpreting
- Communication
  - Sensory
  - Physical
  - Emotional
Communication factors
- Parties interrupt the interpreter
- Parties interrupt themselves
- Parties do not pause
- Parties pause before the thought is complete
- Parties unorganized in thought and speaking
- Parties use excess of “hybridized” language
- Parties merge in and out of two languages
- Parties have unfamiliar accent
- Parties slur words
- Parties speak unclearly
- Parties mumble, talk in low voice
- Parties have speech impediment
- Parties uses excess of technical terms
- Parties use inappropriate or high register
- Parties use excess of jargon
- Parties refer to implicitly cultural information
Multiple parties—
Some need interpreter, some don't; 
some share a common language, some don’t.
• Parties have “echo effect” (echolalia) and repeat phrases and words with each exchange
• Parties attempt excess of “side conversations” with interpreter
• Parties speak indirectly about each other (tell him, tell her)

  Parties give seemingly inconsistent or incorrect information (e.g. different health history, wrong directions, wrong resources ...
Deciding when and if to intervene
Visual Factors
• Vomit
• Bleeding
• Suctioning of mucous
• Open wounds
• Physical deformities
• Amputated limbs
• Dying or deceased patient
• Delivery of a live, healthy infant
• Delivery of sick, deformed or deceased infant
• Surgical procedure in progress
• Gunshot wound
• Cardiac arrest
• Respiratory arrest
• Code in progress
• Injuries as result of abuse
• Deteriorating body parts
• Severe burns, blistering, and treatment
• Car accident w/ severe wounds
• Cockroach in patient room
Auditory Factors
- Crying, screaming child
- Construction noise
- Phones ringing (w/ ring tones)
- Honking of cars outside
- Alarming of medical equipment
- Television or radio (w/ news programs, soap operas, game shows, talk shows, cartoons, etc)
- Simultaneous, secondary conversation inside of patient room
Olfactory Factors
- Feces, bedpan, portable toilet
- Soiled diaper odors
- Scent of infection
- Odd food odors
- Chemical, heavy perfume
- Medication odors
- Bodily perspiration odors
- Unidentifiable odd odors
Physical Distractions
- Temperature too hot, interpreter sweating
- Temperature too cold, interpreter shivering
- Interpreter tired
- Interpreter hungry
- Interpreter needs to use restroom
- Interpreter in physical pain
Emotional factors
| Patient, family is crying                  | Relief              |
| Staff, providers are crying               | Sadness             |
| Family is angry, hostile                  | Joy                 |
| Staff, providers are angry, hostile       | Anger               |
| Parties are indirectly/directly pejorative| Shock               |
| Vicarious trauma                          | Fear                |
| Internalized response                     | Surprise            |
|                                         | Guilt               |
So, Just How Much of One’s Brain is Occupied by the Factors?
“Nursing classification systems were first identified in the staffing needs in the hospital setting (Prescott, 1991).

Traditionally, they have been used in the inpatient setting to determine staffing needs by shift, and used in the budgeting process to determine nursing hours of care per patient day. In 1998, the American Nurses Association convened a panel of experts to address issues related to safe and appropriate staffing (Gallagher, Kany, Rowell, & Peterson, 1999).

The panel proposed that staffing focus on intensity and complexity of care rather than on hours spent with the patient.”

# Acuity in Healthcare Interpreting

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication:</strong></td>
<td><strong>Communication:</strong></td>
<td><strong>Communication:</strong></td>
<td><strong>Communication:</strong></td>
</tr>
<tr>
<td>Zero</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td><strong>Sensory:</strong></td>
<td><strong>Sensory:</strong></td>
<td><strong>Sensory:</strong></td>
<td><strong>Sensory:</strong></td>
</tr>
<tr>
<td>Zero</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td><strong>Physical:</strong></td>
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</tr>
<tr>
<td>Zero</td>
<td>Low</td>
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</tr>
<tr>
<td><strong>Emotional:</strong></td>
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</tr>
<tr>
<td>Zero</td>
<td>Low</td>
<td>Moderate</td>
<td>High</td>
</tr>
</tbody>
</table>

- No need for interventions; communication very clear; formulaic exchanges.
- Occasional need for interventions; communication at risk at times.
- Regular need for interventions; communication frequently at risk.
- Constant need for interventions; communication dangerously at risk.
# Applying Weight

<table>
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<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero acuity</td>
<td>Low acuity</td>
<td>Moderate acuity</td>
<td>High acuity</td>
</tr>
<tr>
<td>1.0</td>
<td>1.25</td>
<td>1.50</td>
<td>1.75</td>
</tr>
</tbody>
</table>

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## Productivity: A Basic Analysis

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>February</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Interpreters</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total encounters per interpreter</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Total Encounters (all interpreters)</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Total time interpreting</td>
<td>1,000 hours</td>
<td>1,000 hours</td>
</tr>
<tr>
<td>Total potential time to interpret</td>
<td>1,600 hours</td>
<td>1,600 hours</td>
</tr>
<tr>
<td>Total Productivity</td>
<td>63%</td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>January</td>
<td>February</td>
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<tr>
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</tr>
<tr>
<td>Total Interpreters</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total encounters per interpreter</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Total Encounters (all interpreters)</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>Acuity level's &quot;Weight&quot;</td>
<td>Level 2 / 1.25</td>
<td>Level 3+ / 1.65</td>
</tr>
<tr>
<td>Total time interpreting AND acuity</td>
<td>1000hrs X 1.25=</td>
<td>1000hrs X 1.65=</td>
</tr>
<tr>
<td></td>
<td>1200hrs</td>
<td>1650 hrs</td>
</tr>
<tr>
<td>Total potential time to interpret</td>
<td>1600 hrs</td>
<td>1600 hrs</td>
</tr>
<tr>
<td>Total Productivity</td>
<td>78%</td>
<td>103%</td>
</tr>
</tbody>
</table>
Moving Forward:

Research at

Children’s Healthcare of Atlanta
Where We Started...

1. Presented at the First Southeast Regional Medical Interpreter Conference in Atlanta (2008)

2. Presented to internal department and leadership (2008)

3. Collaborated with manager and two research experts at Children’s Healthcare of Atlanta to create the “CFIE scale” (2009)

4. Wrote a formal grant proposal (Fall 2009)

5. Began looking for grant support (Fall 2009)
Where We Are Now…

1. Awarded $15,000 grant to address costs of doing research
2. Met with co-investigators to create plan for inter-rater reliability process
3. Wrote & edited seven scripts (ad infinitum)
4. Filmed seven “practice videos”
5. Secured volunteer actors for final filming
Next Steps…

1. Finalize the inter-rater reliability videos
2. Provide teaching to study-participants on use the CFIE scale
3. Show videos to the study-participants so they can independently “rate” them with CFIE scale
4. Compile results, and if we achieve consistency, then we move forward with data collection.
5. Begin collecting data with the CFIE scale for a total of 3,500 encounters.
### Implications for the Profession:

- Improved awareness of factors affecting competence
- Control of fatigue, burn-out
- Improved working conditions
- Improved patient safety
- Improved understanding regarding the need for additional positions when acuity is elevated
- Improved understanding of acuity could impact the compensation debate
Thank you!