Individualizing Telehealth in the Home

Kimberly Shea PhD RN CHPN

Clinical Professor

THE UNIVERSITY OF ARIZONA
College of Nursing

Today's Presentation

At the end of this presentation, attendees will be able to:

- Telehealth is here to stay but should not merely be a substitute….always improving the delivery of healthcare

- Discuss the importance of using a framework to guide telehealth practice based on the *Novice to Expert* framework

- Apply Comprehensive Patient Assessment for using Telehealth in the Home (CPATH) domains to a behavioral telehealth visit.

- US Fulbright to Chile to apply the CPATH

Home Visits -Telehealth Compared to Clinic Visits

Face-to-Face (telehealth)

- Rapid access to physical or psychological assessment of patient
- Traverses travel time and distances easily
- See patients in their home environment
- More frequent visits without exposure to risks
    - Fall
    - Infection
    - Exhaustion
- Senses used-Can't touch or smell
- Provider preparation can include contemplation of indicators of risks related to illness
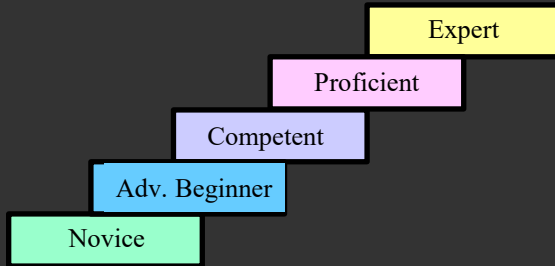
In-Person

- Access to assessment by primary provider may be untimely, so have to go to the ED
- Travel is challenging for patients, physically and emotionally and maybe financially costly
- Symptoms and fatigue can be heightened by stress of visit
- Questions to patient about home environment
- Travel, clinics, emergency rooms and hospitals visits increase exposure to infection
- Uses all senses
- Provider preparation before is overview of illness

Telehealth is here to stay

- Three categories of telehealth delivery
  - Synchronous (real-time)
  - Asynchronous (store and forward)
  - RPM (remote patient monitoring)
  - Combinations
- "Toothpaste out of the tube", "Genie out of the bottle", "Cat out of the bag"
- Public Health Emergency and telehealth
  - April 19, 2022 PHE ends
  - Telehealth regulations will continue for 5 more months
- More than 55% of providers find frustrating
  - Quality of Care and video/audio technology are sources
- **We are all novices on how to best use telehealth**

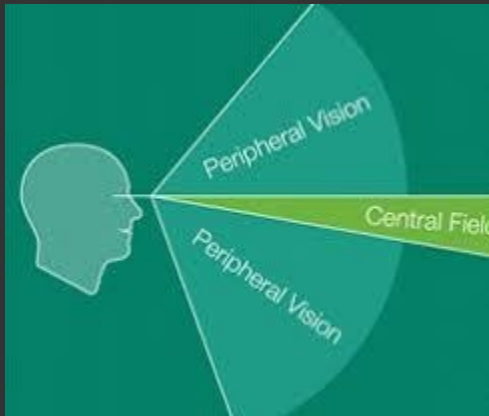# Video Conferencing Novice to Expert

Expert

Proficient

Competent

Adv. Beginner

Novice

Skill Acquisition (Dreyfus & Dreyfus 1979, Benner 1982)

- Novice
  - Focus on succeeding
  - Hasty mindset
- Advanced Beginner
  - Knowledge and information begins
  - Starts to troubleshoot

- Competent
  - Solves problems
  - Difficulty pinpointing which details to focus on
- Proficient
  - Looks at bigger picture
  - Frustrated by oversimplification
  - Desire for ongoing self-improvement
- Expert
  - Become source of information to others
  - Intuitive

Visualization

Human Eyes

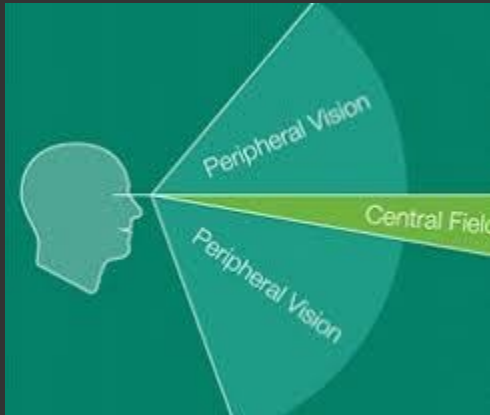- Wide focal area with peripheral vision

Camera lens

- Narrow focal area with <u>no</u> peripheral vision

Visualization
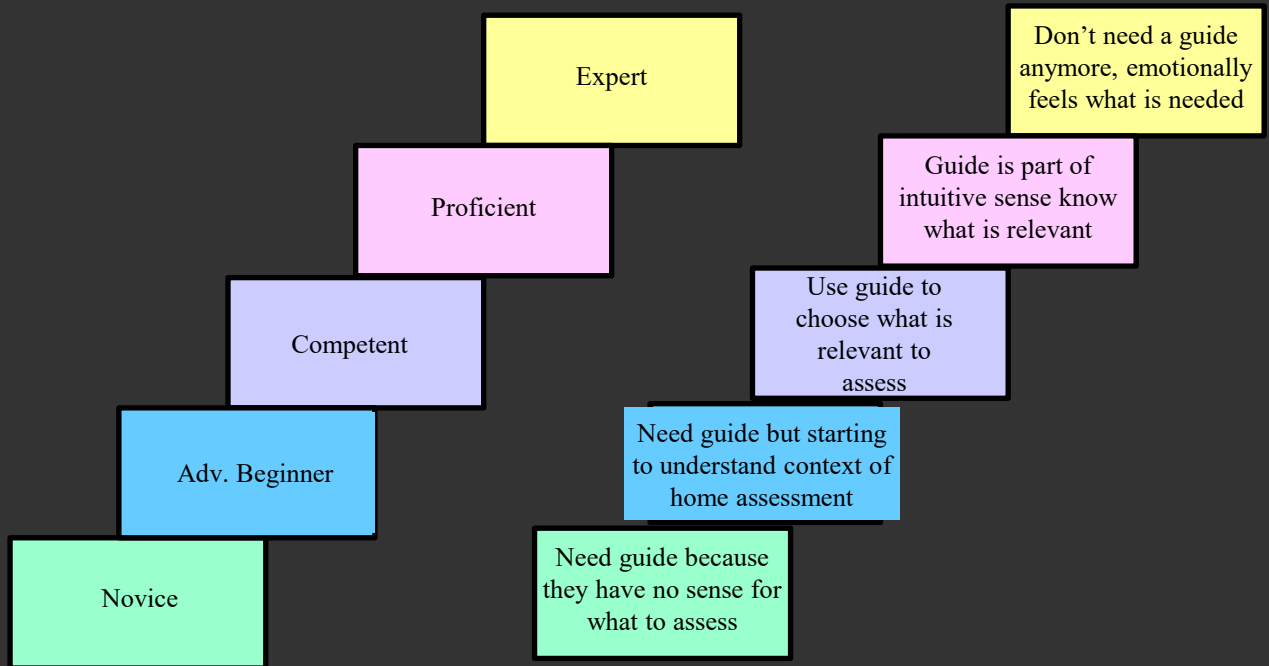
Human Eyes

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Camera lens

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Application to Telehealth Synchronous Video

Expert

Proficient

Competent

Adv. Beginner

Novice

Don't need a guide anymore, emotionally feels what is needed

Guide is part of intuitive sense know what is relevant

Use guide to choose what is relevant to assess

Need guide but starting to understand context of home assessment

Need guide because they have no sense for what to assess

Intentional Steps for Telehealth Visit

1. Small talk
   - Comfort
   - Relationship
2. Shared Understanding
   - Why the visit
   - Why looking around
   - What will do with information
3. **Consent** to use a camera along the way
4. Inform that you will be looking at four areas
   a) Domains
      - Environment
      - Equipment
      - Medications
      - Patient Characteristics
      - Caregiver Characteristics

Before video visit

Ergonomics

- ❑ Simplify patient Access
  - ❑ One click
  - ❑ Familiar with software
- ❑ Prepare **your** Technology
  - ❑ Audio
  - ❑ Video
  - ❑ Microphone
  - ❑ Signal
- ❑ Prepare **your** space
  - ❑ Minimize distractions
  - ❑ Lighting
  - ❑ Camera positioning
    - ❑ Eye contact
    - ❑ Distance
  - ❑ Background

Efficiency

- ❑ Risk review
  - ❑ Diagnosis
  - ❑ Comorbidity
  - ❑ Lack of care
  - ❑ Safety
- ❑ Prepare for the Flow
  - ❑ Items to discuss
    - ❑ Test results
  - ❑ Items to share
    - ❑ educational
- ❑ Review CPATH Domains
  - ❑ Critical items in Domains
  - ❑ Questions

Guide for Telehealth Visits
Diagnosis- congestive heart disease
Comprehensive Patient Assessment for using Telehealth at Home

Environment	Medication
• fans, airflow	• types
• safety	• dosages
• bedding	• administration guidance
Equipment/treatments (as appropriate)	**Patient characteristics**
• urinary collection	• breathing
• oxygen delivery	• Skin- color, edema, integrity
• feeding	• Non verbal gestures
• non-medical therapies	• positioning in bed
	Caregiver/family Characteristics

1.Shea K, Silva G, Evans BA. A Best Practice Assessment Protocol for Mobile Technology Home Visits. Western Institute of Nursing's Annual Communicating Nursing Research Conference. Portland, OR 2017.

2. Shea, K. D., Towers, V., Koon, M., & Silva, G. (2021). Development of an Intentional Telehealth Viewing Guide for Home-Based Patient Assessment. *Telemedicine Reports, 2*(1), 32-38. doi:10.1089/tmr.2020.0017
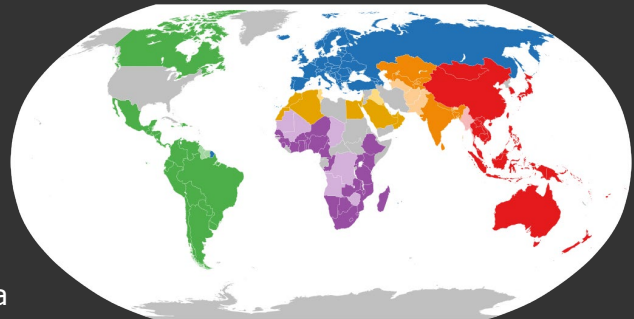
Fulbright Program

History

- Senator J. William Fulbright (1945)
- Congress created Fulbright Program (1946)
- U.S. Cultural Exchange Program
  - Students and faculty

Mission

- "to bring a little more knowledge, a little more reason, and a little more compassion into world affairs and thereby increase the chance that nations will learn at last to live in peace and friendship"

Fulbright U.S. Scholars Awards

Overview

- Teach
- Carry out Research
- Carry Out Professional Projects
- 130 Countries
- College/University Faculty
- Wide range of fields

Scholars Programs

- Scholar
  - Opportunities for professionals of all types at midlevel careers
  - Teaching/Research
- Distinguished Scholar
  - Scholars with more than 7 years
  - Mutual sharing of knowledge
- Postdoctoral
  - Within 5 years of graduation with doctoral degree
- International Education Administration
  - 2 week intensive to learn about host country's education
  - Establish network between US and host country

Assessment of Need

Geographical

- Country shape
- Population distribution
- Healthcare structure
- Healthcare access
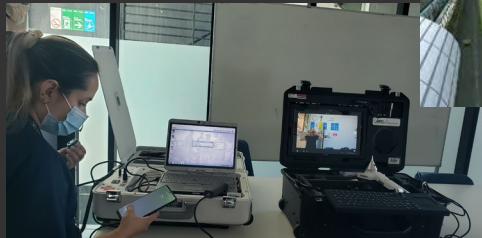 - **dual health care system**

Academic

- Private/Public University
  - Universidad Mayor
- Health Professions
  - 5 years
- Postgraduate Certificates
  - Informatics Certificate (UM)
  - Telehealth Certificate (UC)
  - Not applied…very high level
  - Online for working professionals
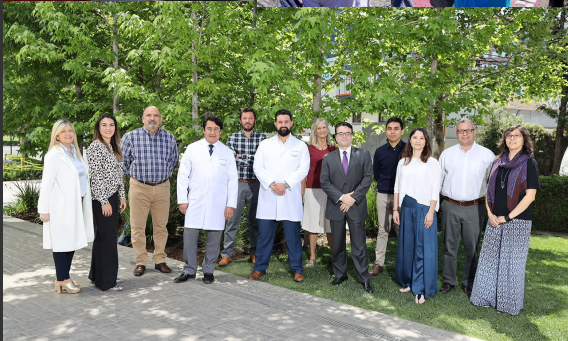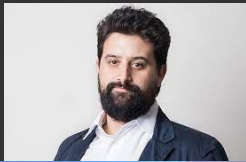
Award Activities

Teaching

- Telehealth use for health sciences
- Postgraduate certificates
- Use of telehealth equipment
- Current informatics certificate
  - theoretical
- Telehealth Certificate
  - Focus on application
  - Human factor interaction
  - Asynchronous

Award Activities

Research

- Original- Evaluate use of smartphones for home telehealth in Chilean culture, and further validate a guide for comprehensive home viewing, *Comprehensive Palliative Assessment for using Telehealth at Home* (CPATH).

- Pilot CPATH for genetic counseling with patients diagnosed with Gastrointestinal Stromal Tumors (GIST)

- Clinical Trials Group - Centro de oncología de precisión (COP)
  - 150 participants

- Procedure for setting up Telehealth encounters for genetic consultations and palliative care patients.

Conclusions

- Telehealth enables access to healthcare and limits risks to patients

- One type of telehealth, synchronous video visits are useful for visualization, communication and hearing

- Narrow camera lens limits what can be seen

- Using a guide aims for standardization

- Preparing before the video visit provides a more seamless and complete visit.

- The CPATH domains provide a framework for intentional viewing and allows for a more comprehensive visit

- Fulbright Scholarship teaching and research activities have disseminated the importance of considering human factors for efficiency and effectiveness of using a guide.

THANK-YOU to many who have contributed to this program of research!!

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- Victoria Towers MSN, FNP-BC
- Melissa Koon MSN, APRN, FNP-BC, NP-C,
- Bre Chamoff DNP, CPNP

THANK You for Attending

Questions?
Kshea@email.Arizona.edu