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Individualizing Telehealth in the Home

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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.

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

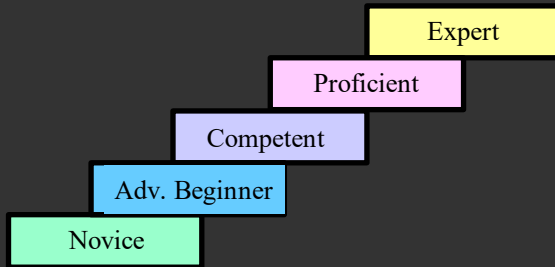
In-Person

- 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”
- *U.S Senate Committee on Health, Education, Labor & Pensions*
- 20 years of efforts realized in 3 months
- Opportunity to improve personalized care by understanding who our patients are
- **We are all novices on how to best use telehealth**

Video Conferencing Novice to Expert



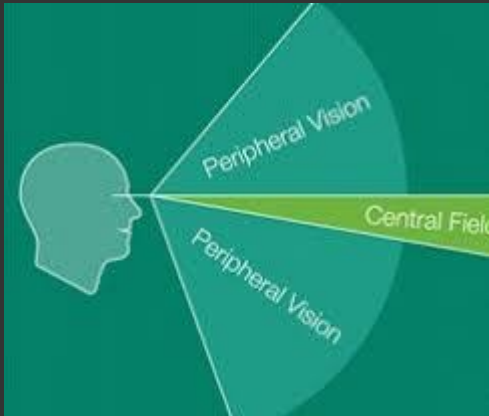
Skill Acquisition (Dreyfus & Dreyfus 1979, Benner 1982)

- **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 no peripheral vision



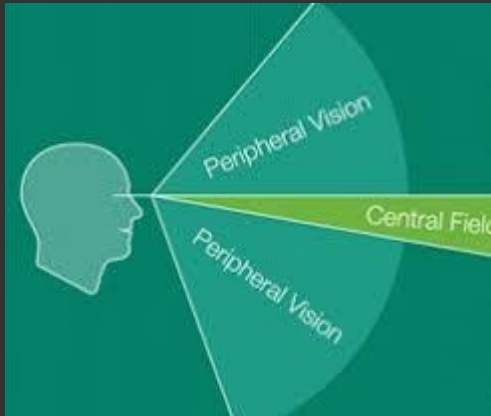
Visualization

Human Eyes

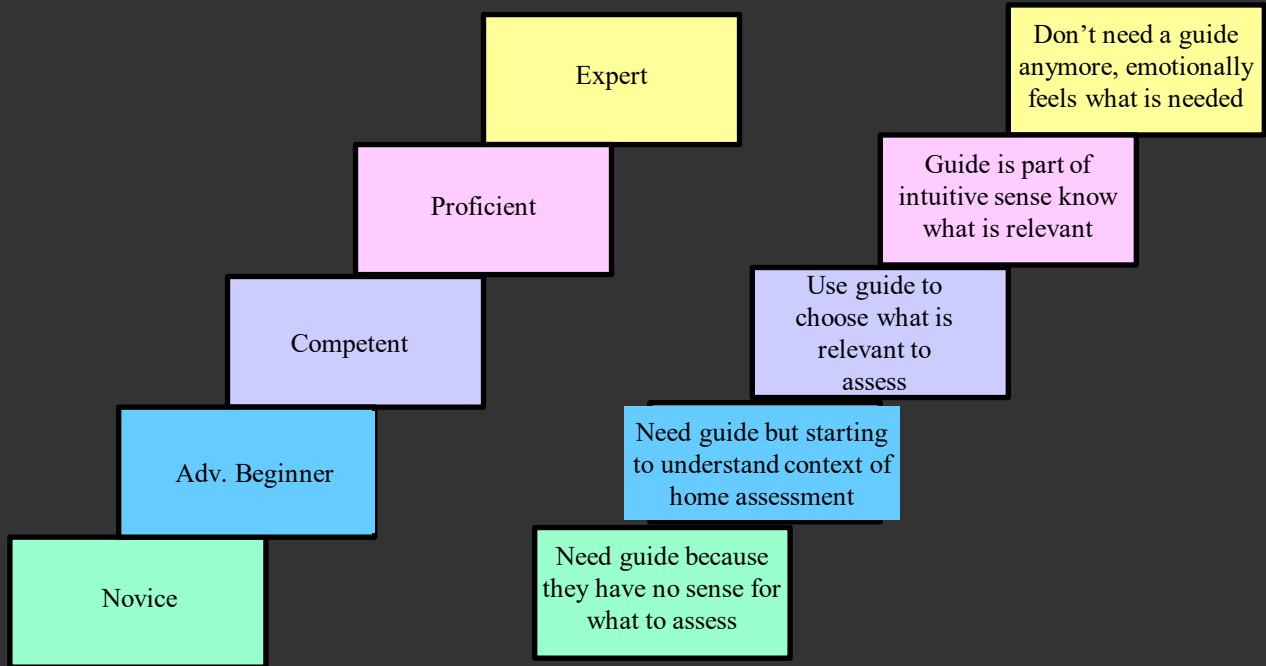
- Wide focal area with peripheral vision

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Application to Telehealth Synchronous Video



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 <ul style="list-style-type: none">• fans, airflow• safety• bedding Equipment/treatments (as appropriate) <ul style="list-style-type: none">• urinary collection• oxygen delivery• feeding• non-medical therapies	Medication <ul style="list-style-type: none">• types• dosages• administration guidance Patient characteristics <ul style="list-style-type: none">• breathing• Skin- color, edema, integrity• Non verbal gestures• positioning in bed Caregiver/family Characteristics
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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

Case Study- You are the nurse on a Home Care Visit with Telehealth

- Steve – 75 year old male
- CVA 2018 with left side neglect
- COPD
- Experiencing shortness of breath and increasing dementia
- Lives with wife and son

Display Video

<https://swtrc.wistia.com/medias/ntf7h2p5ah>

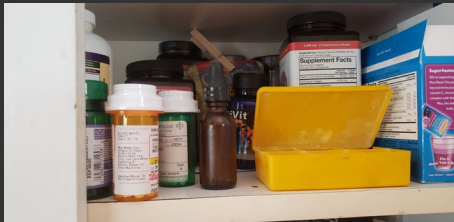
40:35 - 44:15.

Items of Concern

Medication: Can't tell if have been taken at right time



Medications: not organized, potential for error



Environment: Fall Safety
throw rug



Equipment- Urine color



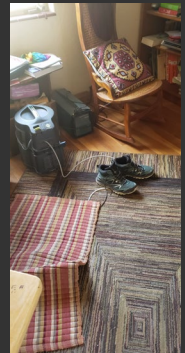
Environment: interest in dogs and reading, potential COVID exposure to son's work clothes



Patient Characteristics:
crunched in bed, difficult to breathe



Equipment- Oxygen concentrator shoes and rug on tubing



Break Out Room Activity

Domains:

1) Patient Characteristics, 2) Environment, 3) Equipment, 4) Medications & 5) Caregiver capabilities

Case Study

- Peter – 25 year old male
- Bipolar Disorder
- Severe Asthma
- Waits tables in restaurant but unemployed now
- Lives with wife and son
 - Report that he is sleeping all day and not eating

Instructions

- Plan a videoconferencing meeting with Peter who is awake but lethargic, wife is home
- Assign a recorder in the group that will enter into the following into the chat box when you return to the meeting
 - Make-up of disciplines in group
 - Items you would want to look at in each domain
 - If time: Caregiver/small talk

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
- Until we become experts in synchronous video visits, we will need to use a guide for intentional viewing
- 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
- Resources Telehealth Nationally Regionally and Locally. <https://telemedicine.arizona.edu/>

<https://www.telehealthresourcecenter.org/>

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THANK You for Attending

Questions?

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