



NATIONAL CONSORTIUM OF
TELEHEALTH
RESOURCE CENTERS

**Webinar
Series**

August 20, 2020



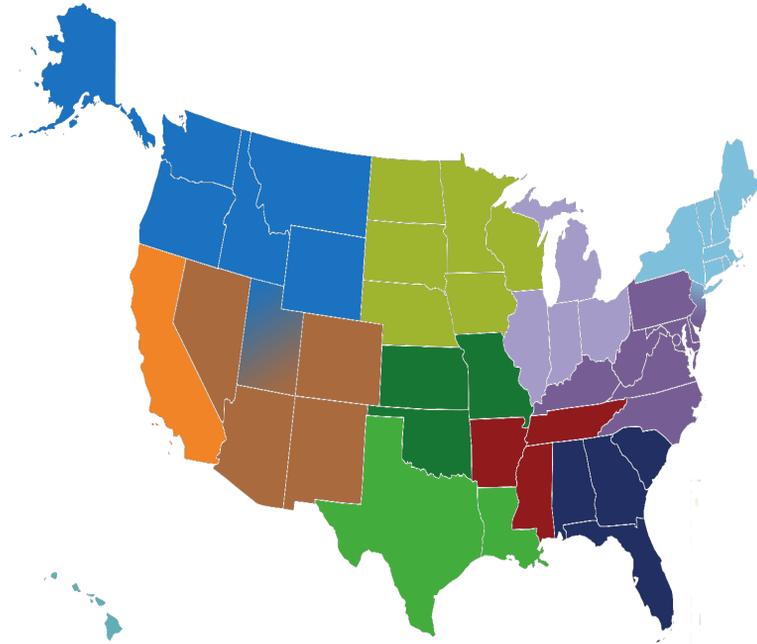


The National Consortium of Telehealth Resource Centers (NCTRC) consists of 14 Telehealth Resource Centers (TRCs). As a consortium, the TRCs have an unparalleled amount of resources available to help virtual programs across the nation, especially within rural communities. Each TRC is staffed with telehealth experts to who are available to provide guidance and answer questions. As telehealth continues to gain more visibility and recognition in healthcare, the TRCs will remain positioned to provide assistance for all.

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Webinar Tips and Notes

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- Time is reserved at the end for Q&A.
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Speaker Biographies



Kimberly Shea RN, PhD, CHPN

Kimberly Shea RN PhD CHPN is a Clinical Associate Professor at the UArizona College of Nursing and Assistant Professor of Practice at the UArizona Department of Biomedical Informatics. She has been funded for her program of research in home-based telehealth since 2004. Her clinical experience and certification, are in home case management and palliative nursing. Her research studies have examined, 1) relationship building when technology moderates interactions among patient, nurse and caregiver; 2) patient integration of telemonitoring data into lifestyle choices, 3) usability of iPad technology for symptom management, and currently, 4) best practices using the Comprehensive Patient Assessment for Telehealth in the Home (CPATH) framework. Dr. Shea has presented locally, nationally and internationally on telehealth, in general and telepalliative care, more specifically. She serves as the Associate Director of Telenursing for the Arizona Telemedicine Program.



Speaker Biographies



Victoria Towers MSN, FNP-BC

Victoria Towers MSN, FNP-BC is a current dual doctorate (DNP-PhD) student at the University of Arizona. Ms. Towers is a board certified Family Nurse Practitioner with her experience as a Registered Nurse being in the Neonatal Intensive Care Unit and telehealth. Her clinical training has largely been in the fields of rural and international health while working with both pediatric and adult populations. She is currently a member of numerous state and national nursing organizations, and has several publications and presentations in the fields of primary care and telehealth.





Novice to Expert: Comprehensive Patient Assessment using Telehealth in the Home

Kimberly Shea PhD, RN, CHPN

Victoria Towers MSN, FNP-BC



THE UNIVERSITY OF ARIZONA

College of Nursing



Today's Presentation

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

- Recognize the importance of using a framework to guide telehealth based on *Novice to Expert* levels
- Consider domains from the Comprehensive Patient Assessment for using Telehealth in the Home (CPATH) for telehealth visits
- Discuss themes from preliminary results of the ongoing CPATH study

Public Health Emergency: COVID-19 Pandemic

Telehealth use has:

- increased claim lines 8,336% (4/19- 4/20)
- increased from 1,600 (2/2020) to 250,000 (5/2020) visits/month
- become reimbursable in patient home or <100 miles from clinic
- changed criteria for seeking out healthcare providers
- HIPAA penalties waived for use of Skype or FaceTime

<https://www.fairhealth.org/press-release/telehealth-claim-lines-increase-8-336-percent-nationally-from-april-2019-to-april-2020>

<https://www.help.senate.gov/hearings/telehealth-lessons-from-the-covid-19-pandemic>



- provided >70% primary care provider interactions
- changed emphasis from primarily behavioral health to other diagnoses
- telephone and video reimbursement same as in-person
- waived need for in-person visit before electronic prescription of a controlled substance (Ryan Haight Act)

<https://www.foley.com/en/insights/publications/2020/03/covid19-public-health-exception-telemedicine>

3 Types of Telehealth

- Telehealth is defined simply as “the delivery of health care services over a distance by using telecommunication technology” (Finley and Shea, 2019)
- Synchronous
 - Videoconferencing
 - telephone
 - “real-time”
- Remote monitoring
 - Ability to collect and pass biometric data
 - Daily monitoring (RPM)
 - Sensors
 - Health trackers
- Asynchronous
 - “Store and Forward”
 - Texting
 - images
 - Medical history

Mechanic OJ, Kimball AB. Telehealth Systems. [Updated 2019 Dec 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. https://www.ncbi.nlm.nih.gov/books/NBK459384/#_NBK459384_pubdet

Telehealth is Here to Stay

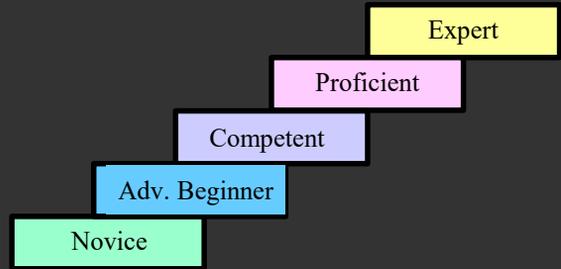
- “Toothpaste out of the tube”
- “Genie out of the bottle”
- “Cat out of the bag”
- *U.S Senate Committee on Health, Education, Labor & Pensions*
<https://www.help.senate.gov/hearings/telehealth-lessons-from-the-covid-19-pandemic>
- 20 years of efforts realized in last few months
- Opportunity to “practice what we preach” patient-centered care
 - Better understanding of who our patients are by visiting in their homes
- ***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

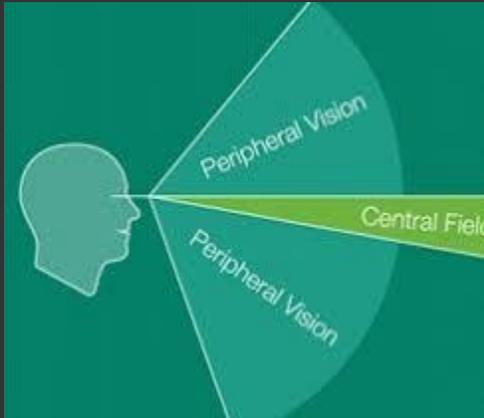


- **Proficient**
 - Looks at bigger picture
 - Frustrated by oversimplification
 - Desire for ongoing self-improvement
- **Expert**
 - Become source of information to others
 - Intuitive

Risks associated with static video conferencing

Human Eyes

- Wide focal area with peripheral vision



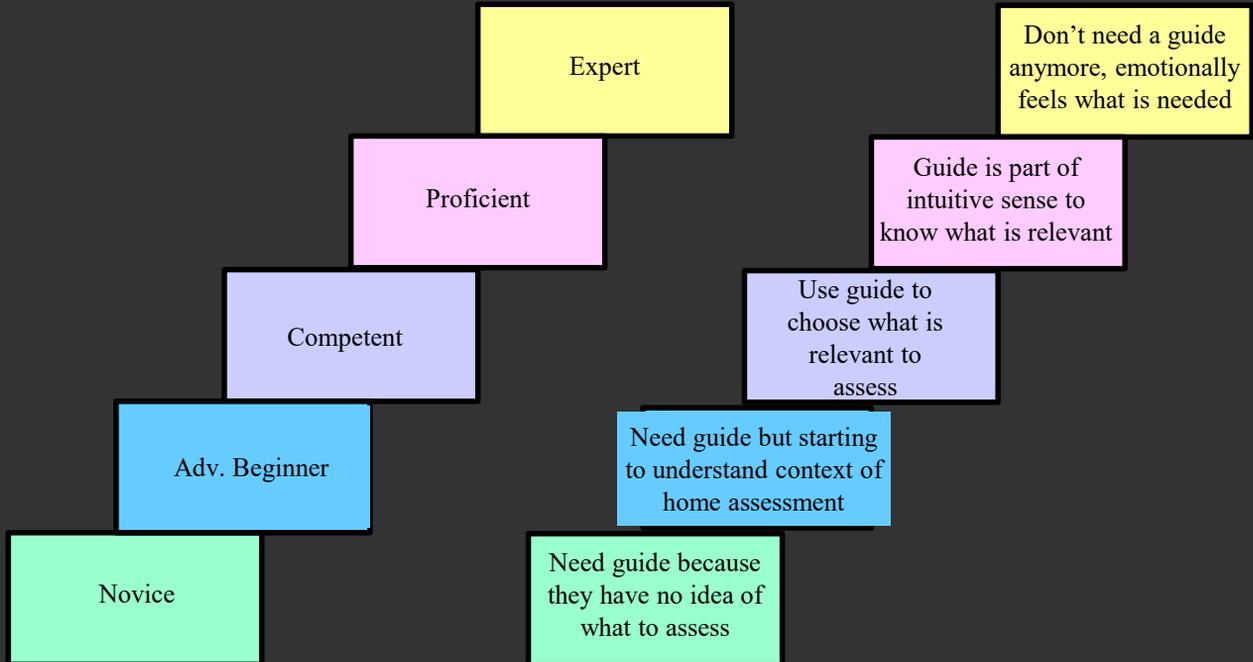
Intentional viewing

Camera Lens

- Narrow focal area with no peripheral vision



Novice to Expert use of guides for synchronous videoconferencing



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 camera to look around home
 - Show how patient can control viewing with switching from self-view to camera view
4. Inform that you will be looking at five main areas:
 - Domains
 1. Environment
 2. Equipment
 3. Medications
 4. Patient Characteristics
 5. Caregiver Characteristics



Shea K, Chamoff B. Telehomecare Communication and Self-Care in Chronic Conditions: Moving Toward a Shared Understanding. *Worldviews on Evidence-Based Nursing*. 2012;9(2):109-116

Development of CPATH Domains

- Study Design
 - Quantitative Content Validity
- Setting & Sample
 - Southwestern home health and hospice agency
 - 7 nurse home case managers
 - Experts (>3 years experience)
- Data Collection
 - Each item in *Home Assessment List (20 items)* rated by expert for appropriateness
 - 4-point Likert scale rating (no ambivalence)
 - Strongly Disagree to Strongly Agree
 - Instructions: *"Pretend that you are entering a patient's home for a nursing visit. What would you look at in order to do an assessment? Rate how strongly you agree on the need for each item in the protocol. Add additional items."*

Content Validity Analysis

- number of experts to agree
- significance value of $p \leq .05$

Number of Experts	Number of Experts Endorsing Item as Valid Content									
	2	3	4	5	6	7	8	9	10	
2	1.00									
3	.67	1.00								
4	.50	.75	1.00							
5	.40	.60	.80	1.00						
6	.33	.50	.67	.83	1.00					
7	.29	.43	.57	.71	.86	1.00				
8	.25	.38	.50	.63	.75	.88	1.00			
9	.22	.33	.44	.56	.67	.78	.89	1.00		
10	.20	.30	.40	.50	.60	.70	.80	.90	1.00	

Lynn MR. Determination and Quantification of Content Validity. *Nursing Research*. 1986;35(6):382-385

Results

Assessment Areas of Concern	$p \geq .05$	SD	Rank
Physical Characteristics			
breathing	X	0.38	2
skin		1.06	8
nonverbal gestures	X	0	1
positioning	X	0.49	3
Treatment Equipment Functioning			
urine collection		0.79	5
O2	X	0.76	4
feeding		0.95	6
non-medical		0.79	5
massage		1.35	
Medications Available			
types	X	0.38	2
dosage	X	0.38	2
admin guide	X	0	1
Environmental Quality			
fans		1.0	7
safety	X	0	1
bedding		1.7	9

- Expert home hospice nurses strongly agree that *medication type, dosage and administration; non-verbal gestures, breathing, oxygen and safety* are needed for assessment in a home visit
- Caregivers also require assessment and visualization
- Variation in agreement depending on what purpose of visit, context and diagnosis

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

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 or turgor or integrity• Non verbal gestures• positioning in bed Caregiver/family Characteristics
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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.

Current CPATH Study Design and Methods

- Mixed-methods approach
- Inclusion criteria
 - Adults > 60 years old
 - Requiring ongoing symptom management for at least one of four symptoms (pain, breathlessness, fatigue, and/or decreased well-being)
 - Used email and a smartphone with WiFi connection at least weekly
- Exclusion criteria
 - Cognitive impairment
 - Immobility
- Recruitment of hospice/seriously ill patients from Arizona-based organizations

Current CPATH Study Design and Methods

- Consent forms signed by participant (and caregiver)
- **Intervention appointment** time coordinated between patient, hospice NP, social worker, and researcher
- **Intervention appointment** completed via Zoom
 - REDCap survey electronically sent to patient and caregiver for completion following intervention appointment
- *Interview appointment* time coordinated between patient and researcher
- *Interview appointment* completed
- Participants compensated for their participation

Preliminary Quantitative Results

- 6 completed interventions & interviews
- Time spent on domains
 - ★ • Patient (106)
 - Environment (29)
 - Medications (23)
 - Equipment (20)
 - Caregiver (11)
- REDCap Data
 - Patient and caregiver demographics
 - Technology usefulness evaluation
 - Application
 - Ease of use
 - Usability
 - Items in the CPATH
 - Degree of feeling cared for

On 5-point Likert scale, all participants thus far have reported feeling very satisfied or mostly satisfied with the home telehealth services they have received through participating in this study.

Preliminary Qualitative Results

- Interview appointment
 - Examination of the patient's perspective
- Inductive approach to Qualitative Description
- Open-ended conversational interview
- Content analysis
 - Independent coding
- Identified Themes
 - Usefulness of telehealth placed on a situational continuum
 - Privacy and confidentiality
 - Technological support/partnership
 - Communication and relationship building opportunities

Convergence of Results

- Opportunity to address physical, emotional, and future health needs
- Improved health management/awareness
 - Integration of technologies based upon ease of use and situational continuum
- Engagement and communication without distraction and in privacy of home

If the smartphone with video was available for regular use in palliative home care, would you recommend it to a friend?

Continuation of Study & Future Initiatives

- Future participants
- Application to other populations
- Preliminary assessment for new patients prior to standard clinic appointment
- Educational opportunity for all providers, not just those providing telehealth



Conclusions

- Telehealth use has increased immensely, and video conferencing reimbursement limits have been reduced due to the PHE
- Narrow camera lens limits what can be seen and reduces cues for assessment
- In general, most telehealth providers are novices
 - Novices need a guide to promote intentional viewing
- CPATH guide was developed from experts in home-based assessments using a standardized research process
- Current CPATH evaluation research is ongoing, however emerging themes have been found
 - Situational continuum for the application of telehealth
 - Offering technological support and partnering with a caregiver/designated point of contact is highly desired
 - Comprehensive assessment without physical barriers to care

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

- Arizona Telemedicine Program
- Graciela Silva PhD, MPH
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- Claire Bethel MSN, RN-BC
- Melissa Koon MSN, APRN, FNP-BC, NP-C,
- Bre Chamoff DNP, CPNP
- And all the past and future study participants!

Thank You for Attending

Questions?

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Our Next Webinar

The NCTRC Webinar Series

Occurs 3rd Thursday of every month.

Topic: Multicultural Patient Engagement Drives Improved Outcomes

Date: September 17th, 2020

Times: : 9:00AM HST, 10:00AM AKST, 11:00AM PST, 12:00PM MST,
1:00PM CST, 2:00PM EST



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