Innovation Models in Telehealth: Education, Clinical Care and Research

GWEN LATENDRESSE, PHD, CNM, FACNM,
KATHERINE SUPIANO, PHD, MSW
SUE CHASE-CANTARINI, RN, DNP, CHSE
SUSAN HALL, DNP, APRN, WHNP, FNP

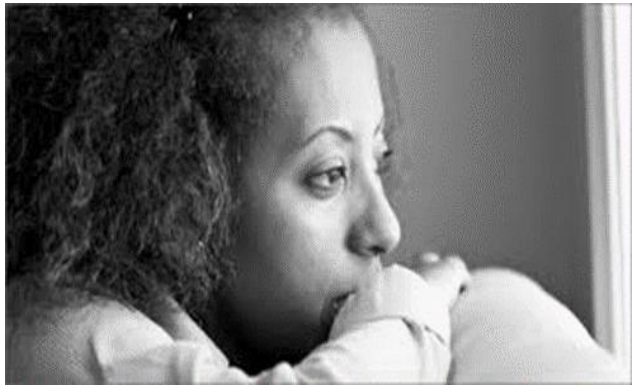
Telementalhealth: A Promising Approach to Reducing Perinatal Depression in Utah's Rural and Frontier Communities

GWEN LATENDRESSE, PHD CNM FACNM

IN COLLABORATION WITH THE UTAH TELEHEALTH NETWORK (UTN)

Perinatal Depression & Anxiety: The Facts

- Perinatal Depression is the most common complication of childbearing (10-20%)! – more common than preterm birth, gestational diabetes, pre-eclampsia!
- Maternal Depression is the most under diagnosed obstetric complication in America
- Not the “baby blues”
- Significant negative impact on women, babies, and families



http://www.postpartum.net/

So, how do we ensure that all childbearing women have access to the mental health resources they need?

Using Technology to Deliver Interventions

- Individual Psychotherapy
- Group Counseling
- Mental Health “Practices”
  - Resiliency
  - Coping strategies
  - Cognitive Behavioral Therapy
  - Mindfulness

Target Population

- Childbearing women (pregnant and up to one year postpartum)
- Public Health Clinics in Utah Health Districts:
  - Central
  - San Juan
  - Southeast

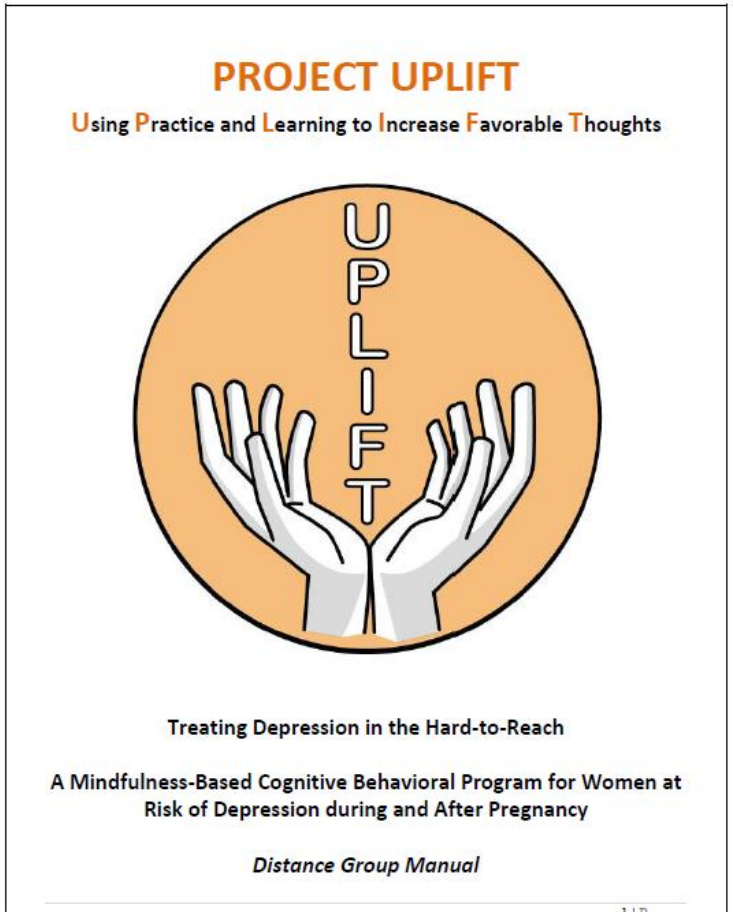
Soon to come:

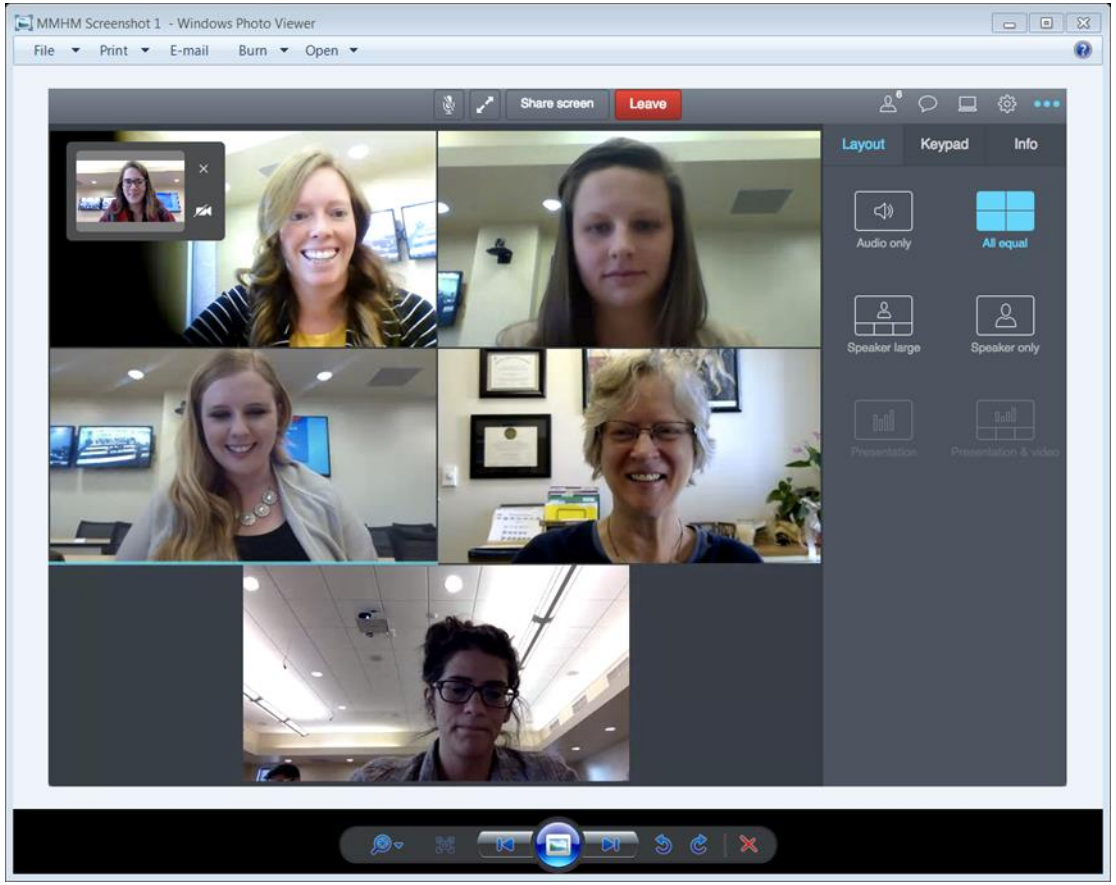
  - Bear River
  - Southwest
  - Tri County

Implementation

- Universal electronic screening program
- Public Health Clinics, nurses, and staff
- “Screen positive” pregnant and postpartum women offered participation in an 8-week videoconference group therapy
- Cognitive Behavioral Therapy and Mindfulness Practices (evidence-based therapies)
- Facilitated by mental health professional

Distant Group Connection





Screening

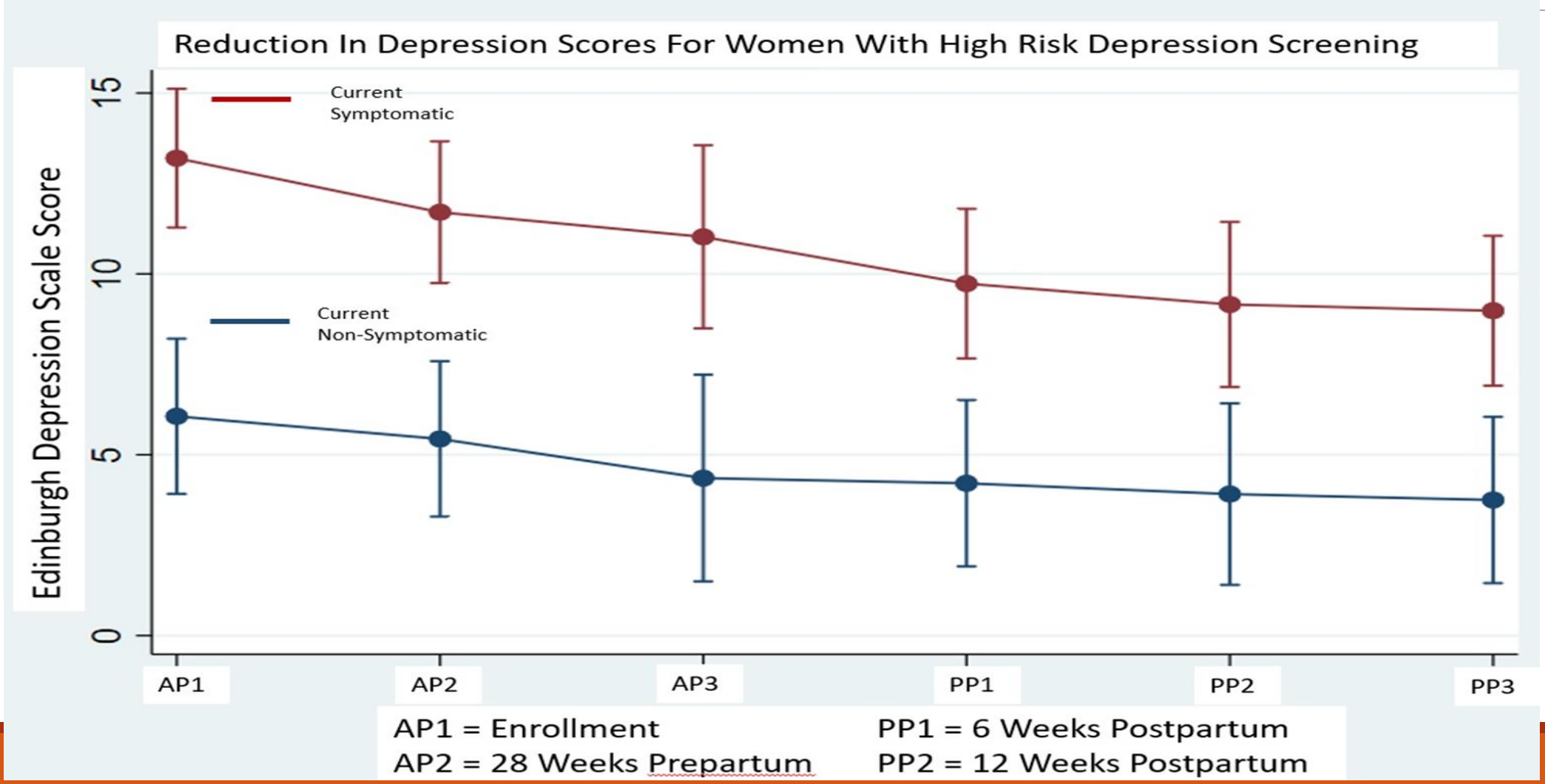
Screening

Tablet, Smartphone, laptop, computer, or QR code

Scan the QR Code

Alternatively, if you have a device that has an app capable of reading QR codes, you may scan the QR code below, which should take you directly to the survey in a web browser.

Measures of Depression Among Participants Over Time

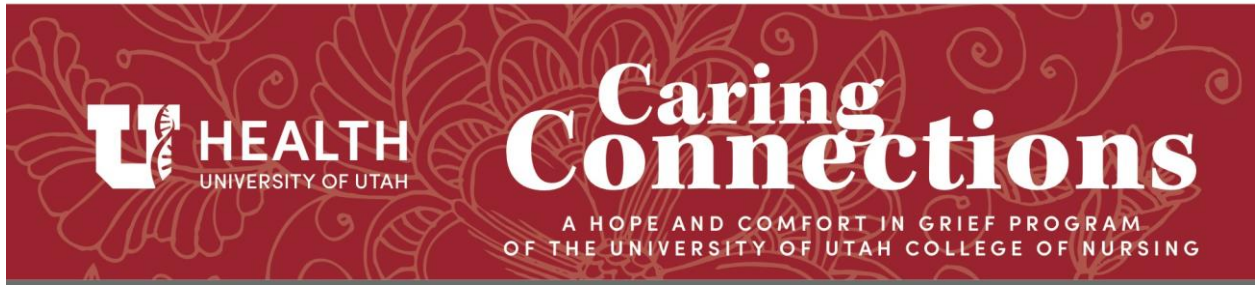


What Women Say…

Comments for participants…

Bereavement Care Across the Miles: Tele-Health Delivered Grief Support Groups for Rural Hospice

KATHERINE P. SUPIANO, PHD, LCSW

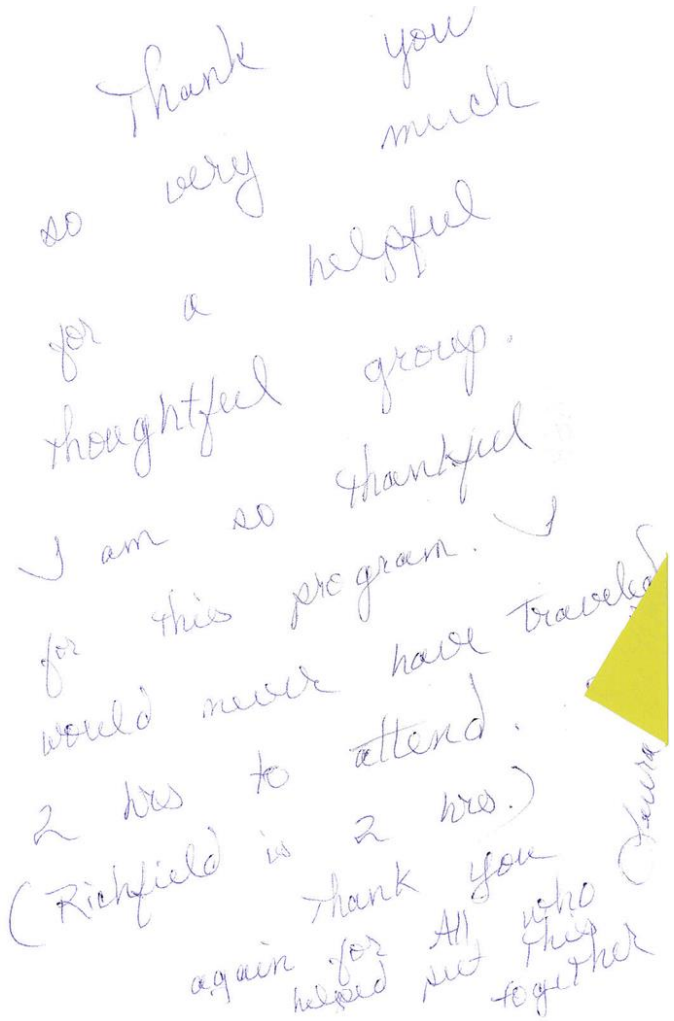


The Rural Challenge

- Provision of direct care is a challenge for hospice professionals in rural/frontier areas, and nurses, nurse aides, social workers, chaplains and physicians drive very long distances to provide hands-on care.
- Hospices in rural/frontier communities are under resourced; challenged by time and travel distance, clinician shortages and barriers to continuing professional education.
- Bereaved families are unable and unwilling to travel extended distances to participate in grief support programs offered by hospices serving rural communities.

The Solution

- Grief support groups can provide effective, low cost support for bereaved persons, and are an essential component of comprehensive hospice and palliative care.
- Distance technology can provide grief support that exceeds the goals of the bereavement care requirement of the Medicare Hospice benefit, and optimizes evidence-based bereavement care.



- 4 tele-health griefs in partnership with non-profit hospices serving rural/frontier Utah—8 participants/group.
- 8 week grief group (Caring Connections format) co-facilitated by PI and hospice Social Worker.
- **Feasibility**—Training of social workers was effective, and all social workers demonstrated highly satisfactory manual adherence and skill performance.
  - Recruitment and retention,
  - Technology performance,
  - Participant satisfaction and
  - Social worker satisfaction exceeded goals.
- **Clinical Outcomes**—align with F2F groups

"Do not be daunted by the enormity of the world's grief. Do justly, now. Love mercy, now. Walk humbly, now. You are not obligated to complete the work, but neither are you free to abandon it.”

Talmud (attributed)

The Application of Telehealth in Education, Clinical Practice and Research (IPE / AHEC)

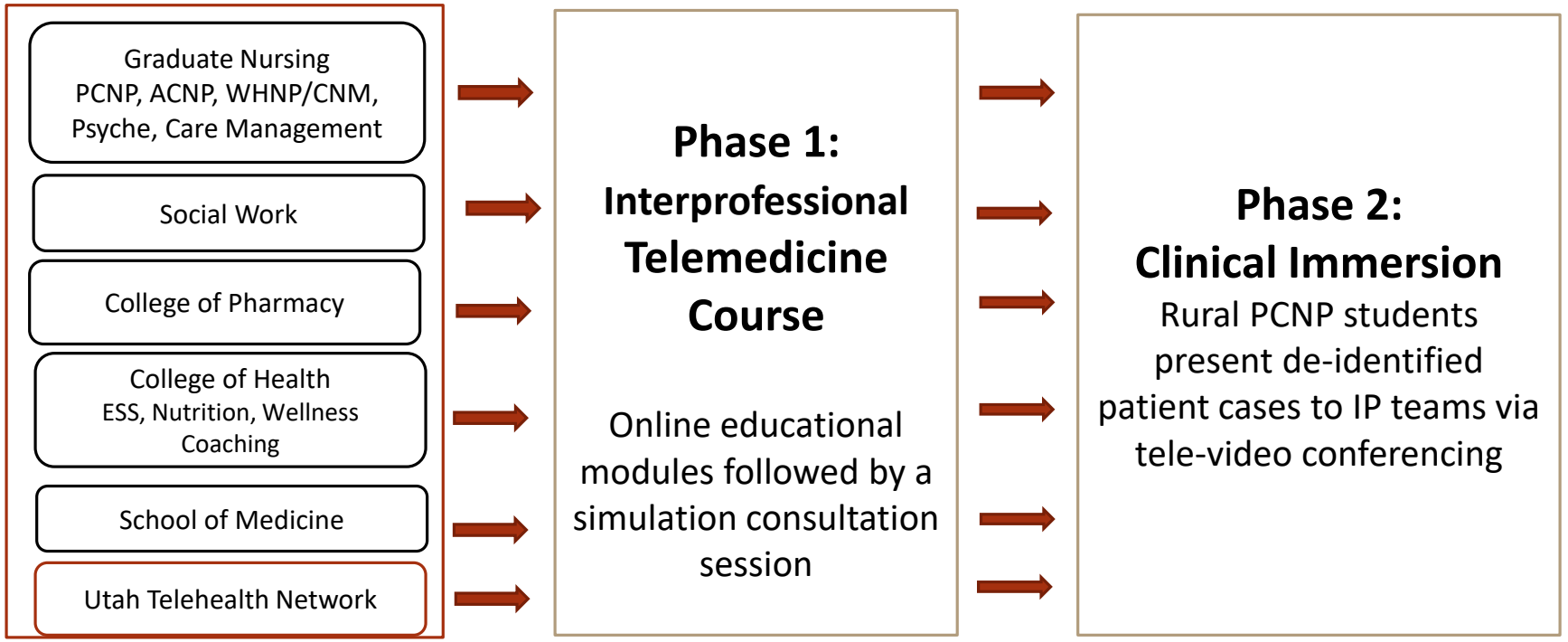
SUSAN CHASE-CANTARINI, RN, DNP, CHSE

SUSAN HALL, DNP, APRN, WHNP, FNP

Background

HRSA GRANT

- "An Interprofessional Education (IPE) Module for Telehealth Management of Multiple Chronic Health Conditions in Rural Populations"
- SIMULTANEOUS MOVEMENTS IN HEALTH CARE
  Institute of Medicine, Affordable Care Act and Interprofessional Practice Competencies
- Information technology and telemedicine growth to improve patient care delivery and health outcomes


Graduate Nursing
PCNP, ACNP, WHNP/CNM,
Psyche, Care Management
Social Work
College of Pharmacy
College of Health
ESS, Nutrition, Wellness
Coaching
School of Medicine
Utah Telehealth Network
Phase 1:
Interprofessional
Telemedicine
Course
Online educational modules followed by a simulation consultation session
Phase 2:
Clinical Immersion
Rural PCNP students present de-identified patient cases to IP teams via tele-video conferencing

Online IPE Telehealth Course

3 Educational Modules

- Course and simulation full roll out began Fall 2014
- Interactive pages and videos
- Modules updated/ evolved based on student feedback and participant mix

Online IPE Telehealth Module Content

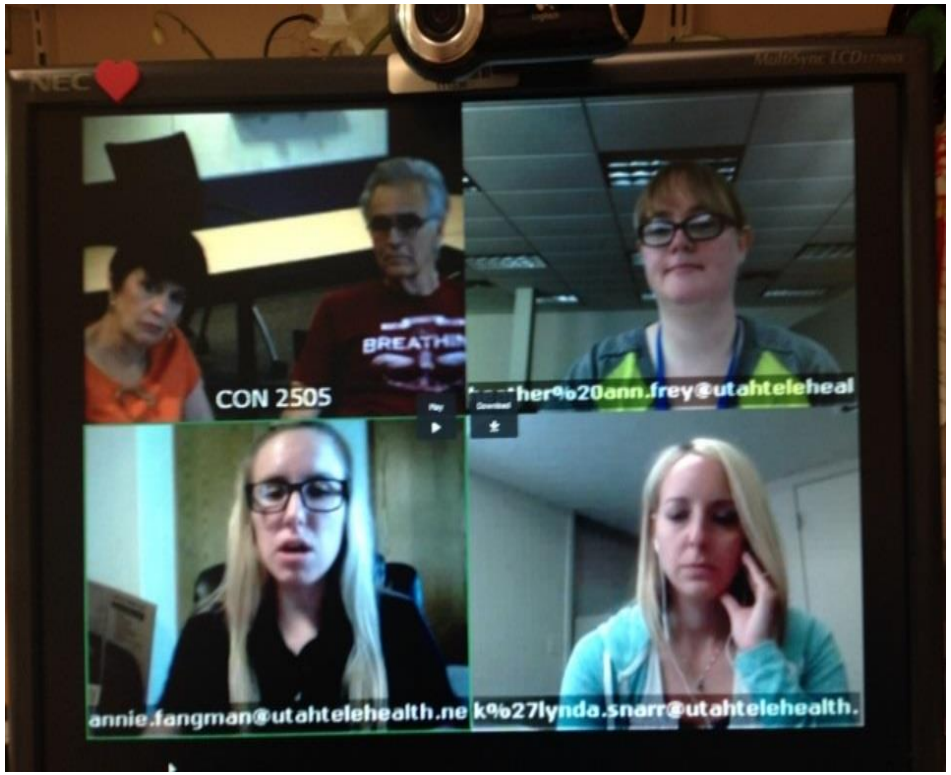
- Uses, benefits, and best practices of telemedicine
- Telepresenting
- Clinical applications
- Ethics of practice
- IP core competencies
- Scope of various health professionals
- Cultural aspects of rural health
- Preparation materials for IPE telehealth simulation

IPE Telehealth Simulation Consultation Activity

Simulations conducted through TVC technology

2 Hour Simulation Timeline:

- Facilitator Setup
- Warm-up Activity
- Case presentation by (DNP or SOM) student moderator
- Interdisciplinary consultation
- Treatment plan summary
- Debriefing by facilitator *



IPE Telehealth Simulation Cases

- Variety of cases/charts have been developed
- Each patient has multiple chronic conditions including mental illness and social issues
- Scripts developed by faculty for each discipline and level of schooling
  - Primary care elderly rural widowed farmer patient/DM
  - Primary care woman in rural community/obesity and depression
  - Adolescent patient (asthma) and grandmother
  - Women's health/PCOS pregnancy planning
  - Acute care Veteran transfer to urban med center
  - Complex discharge from acute to rural setting

Best practices of simulation/debriefing incorporated

Course Modules & Simulation Evaluation

- IPE Telemedicine Course
- Pre and post module surveys: Assessment of student **knowledge** regarding telemedicine, rural healthcare needs, and IP competencies

  Knowledge increased or remained the same in 89% of questions asked

- Pre and post simulation survey: Interprofessional Attitudes Scale (IPAS) with additional telehealth technology questions assessed **beliefs and attitudes** towards IP learning and telemedicine

  Attitudes and beliefs increased in 85% of questions asked

- Responses towards simulation activity was positive overall (71-91%)

Sample Data

1 = Strongly Disagree 2 = Disagree 3 = Neither Agree Nor Disagree 4 = Agree 5 = Strongly Agree	Pre-Survey	Post- Survey	Difference
Telemedicine technology could improve patient care and management	**2.64**	3.44	+0.8
Telemedicine technology could make patient care and management easier	3.03	3.35	+0.32
Telemedicine technology is something I would like to use in my future practice	2.71	2.94	+0.23
I would find it easy to incorporate telemedicine technology in my future practice	2.42	2.8	+0.38
I can promote telemedicine as a mode of collaborative communication to improve patient care	---	2.91	---

Reflection

What students learned about telemedicine, interprofessional practice and providing care to patients with multiple chronic conditions

"This simulation was a great experience. It reminded me that we don't always have the answers and it is OK to ask for help. Healthcare is constantly evolving and it is great to witness such a huge step toward advancing care of the patient through collaboration."

"Telemedicine provides a wonderful option to care for certain populations that are not able to have direct access to healthcare. It is not only a new way of providing care, but an excellent method of interprofessional communication."

How students plan to apply what they have learned into future practice

I think this technology would be wonderful for scheduled well care follow-up appointments, medication refill appointments, and when reviewing labs, diagnostics and other applications."

"I will be based out of a rural community health care clinic that has limited resources. Telemedicine would be a great addition to our plan of care and compiling many resources for our patients."

Clinical Immersion in Partnership in Project ECHO

Project ECHO (Extension for Community Healthcare Outcomes)

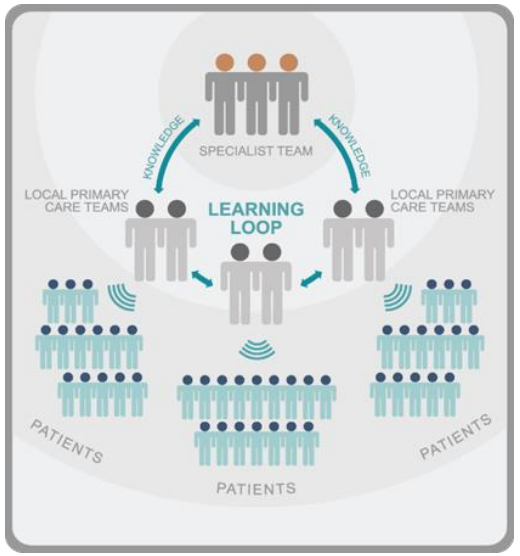
- Link expert specialist teams in an academic center with primary care clinicians in rural communities (telementoring/teleconsulting)

- Model expanded to include graduate students from multiple disciplines

DNP

Nutrition

Pharmacy



Wellness Coach

Social Work

Conclusion & Implications

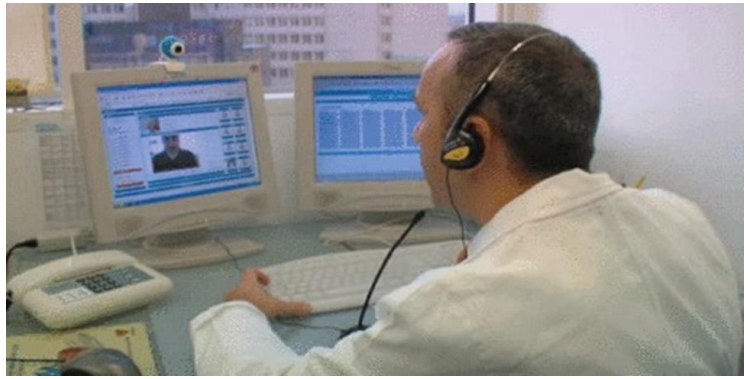
- Familiarity and Comfort with Technology
- Practice with Telepresenting
- Variety of Uses in Clinical Practice
- Benefits to Patients
- Benefits to Providers
- Leadership in Consultation
- Partnerships Across Health Sciences
- Collaboration/Teamwork Skills
- Meets Accreditation Standards and Goals of Triple Aim

Utilization of Telehealth Education with Utah AHEC Scholar's Project

- Application for Grant – Utah Area Health Education Center (Utah AHEC) Scholar's Project
- Exploring teaching methods
- Connecting students from across Utah in one classroom
- Pilot
  - The purpose is to assess if students from different state institutions are able to come together via teleconferencing to work as a team Survey

Pilot

- Pilot
  - **Primary Care Nurse Practitioner Student**
  - **Baccalaureate Nursing Student**
  - **Pharmacy Student**
  - **Dental Hygienist**
  - **Medical Social Worker Student**
- Survey
- Outcomes



Future Endeavors

- Continue to teach the concepts of telehealth and access for health care
- Enroll other disciplines from the University of Utah
- Have students present actual cases to a team
- Have students present cases to ECHO
- Expand the number of colleges and universities and disciplines enrolled in the Utah AHEC Scholar's program to teach about telehealth

Questions?

Contact Information

Gwen Latendresse: gwen.latendresse@nurs.utah.edu

Kathie Supiano: Katherine.supiano@nurs.utah.edu

Susan Chase-Cantarini: Susan.chase@nurs.Utah.edu

Susan Hall: Susan.hall@nurs.utah.edu

University of Utah, College of Nursing