SIMULATION TECHNOLOGY AT SACN

Dawn Mosher DNP, RN, CHSE, CNE

BACKGROUND

Hospital/health care system associations

Simulation programs (UG, G, tech?)

Simulation space

Simulation specialists

Simulation technology/programs

COURSES INCLUDING SIMULATION

Junior 1
- N302 Health Assessment
- N310 Foundations of Nursing Practice
- N311 Concepts and Practice of Adult Health Deviations

Junior II
- N312 Nursing Care of Infants and Children
- N314 Maternal-Newborn Nursing

Senior I
- N401 Nursing Care of the Adult with Complex Health Deviations

Senior II
- N416 Psychiatric/Mental Health Nursing
- N420 Community Health Nursing

Graduate

- Advanced Health and Physical Assessment
- Differential Diagnosis and Disease Management

Practicum/clinical courses

- Adult-Gero Primary Care, Family, Adult Gero Acute Care NP
- Nurse Educator

SIMULATION ITEMS (BUDGET??)

Manikins

Monitors

EHR

Task Trainers

Moulage

Standardized participants

- SLS   https://evolve.elsevier.com/cs/
- ATI EHR Tutor

TECHNOLOGY
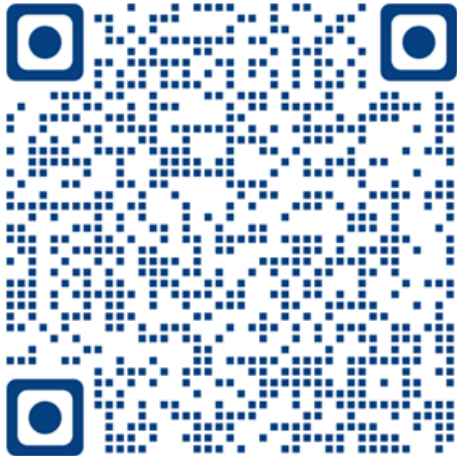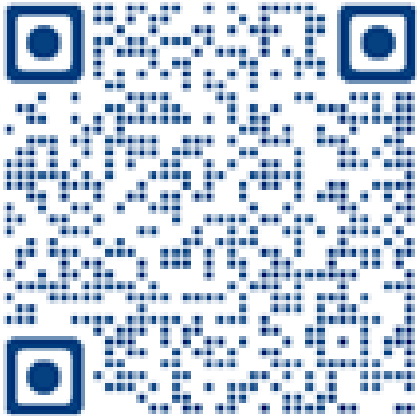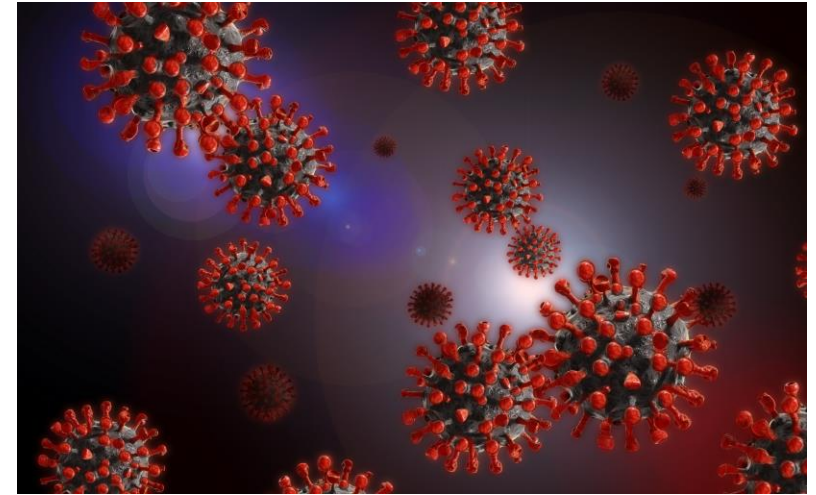
- Obvious items

- Recording

- Communication

ABNORMALS

TELEHEALTH

TELEHEALTH

Med-Surg

Spring 2022

- CHF

Fall 2022

- Covid
- Concussion
- Headache
- Hypertension
- Seizure
- Stroke

Mental Health

Spring 23

- Depression (3 levels)

Summer 2020
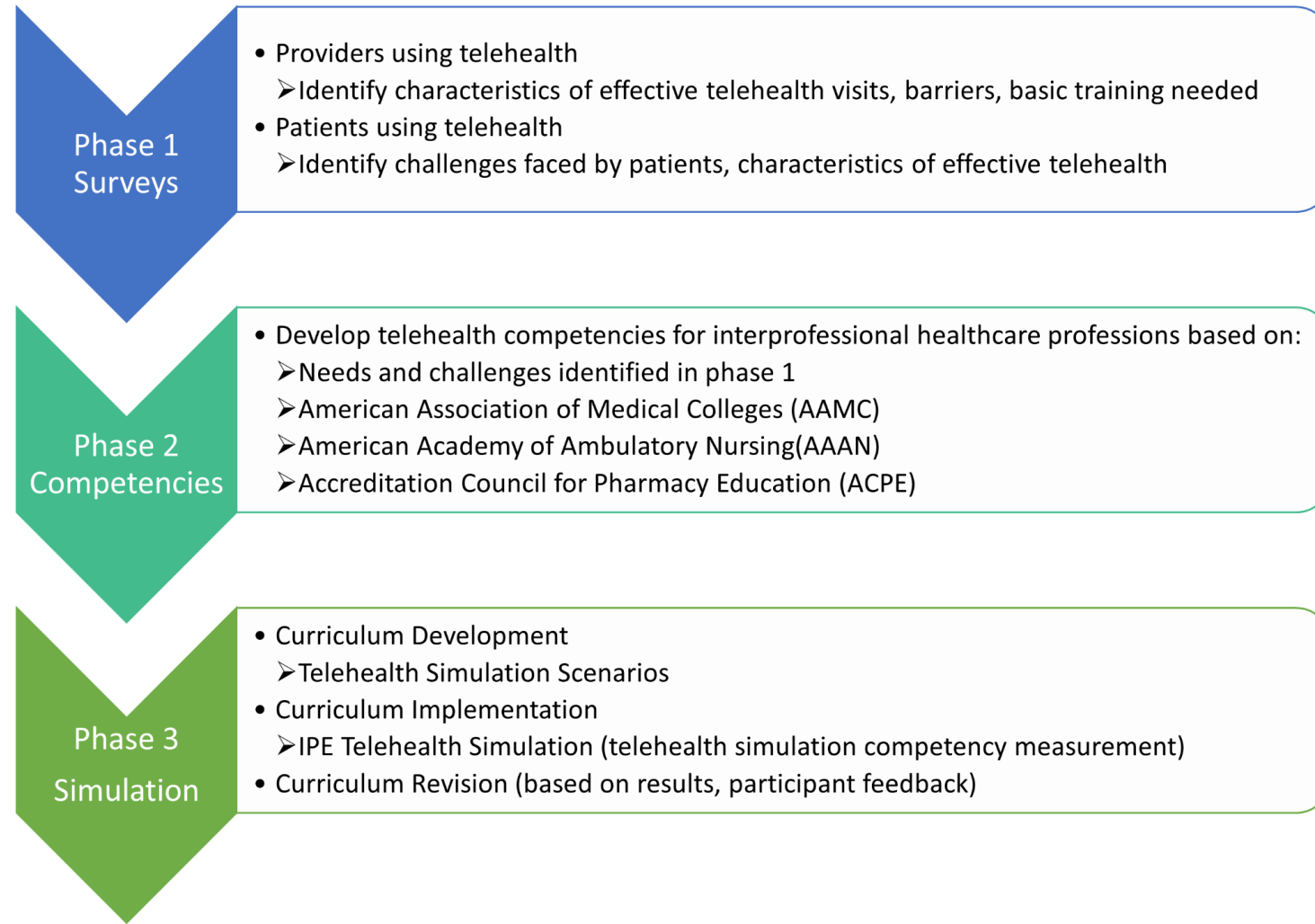
- HPI/Plan

Spring 2021

- Covid

Spring 2022

- Labs Review

INTERPROFESSIONAL EDUCATION

- Telehealth Grant

Phase 1 Surveys
- Providers using telehealth
  - Identify characteristics of effective telehealth visits, barriers, basic training needed
- Patients using telehealth
  - Identify challenges faced by patients, characteristics of effective telehealth

Phase 2 Competencies
- Develop telehealth competencies for interprofessional healthcare professions based on:
  - Needs and challenges identified in phase 1
  - American Association of Medical Colleges (AAMC)
  - American Academy of Ambulatory Nursing(AAAN)
  - Accreditation Council for Pharmacy Education (ACPE)

Phase 3 Simulation
- Curriculum Development
  - Telehealth Simulation Scenarios
- Curriculum Implementation
  - IPE Telehealth Simulation (telehealth simulation competency measurement)
- Curriculum Revision (based on results, participant feedback)

INTRAPROFESSIONAL EDUCATION

Spring 24 Clinical OSCE April 16, 2024   8-2 Schedule

APN Student	UG Student	Time							
		0800 - 0840	0840 - 0920	0920 - 1000	1000 - 1040	1040 - 1120	1200 - 1240	1240 - 120	120 - 200
Valerie Wright	Kaylee Blocker	Room 1	Room 2	Room 3	On Call Nurse appt 4210 Toni	Room 4	Room 5 Role Obs	Room 6 Nurse appt 4250 Simon	Room 7 Nurse Clinic
Abby Antczak	Josh Roth	Room 2	Room 3	On Call Nurse appt 4210 Toni	Room 4	Room 5 Role Obs	Room 6 Nurse appt 4250 Simon	Room 7 Nurse Clinic	Room 1
Michaela Fritz	Candice Sane	Room 3	On Call Nurse appt 4210 Toni	Room 4	Room 5 Role Obs	Room 6 Nurse appt 4250 Simon	Room 7 Nurse Clinic	Room 1	Room 2
Kristina Thomas	Mackenzie Schuur	Room 5	Room 6 Nurse appt 4250 Simon	Room 7 Nurse Clinic	Room 1	Room 2 Role Obs	Room 3	On Call Nurse appt 4210 Toni	Room 4
Mackenzie Hazzard	Alexa Zapata	Room 4	Room 5 Role Obs	Room 6 Nurse appt 4250 Simon	Room 7 Nurse Clinic	Room 1	Room 2	Room 3	On Call Nurse appt 4210 Toni

LUNCH 11:20 – 12:00

UG Student Gathering Room – Classroom 4220   Grad Student Gathering Room - 4246

Doctoral Lab 1 Room 1 – Tessa Torres   On Call for NP and Room 6 for NP = Nurse appt for RN telehealth lab
SP –   Role Obs – Control Room   Role Obs = Mary/Mary Keith visit for NP
                                                    Nurse Clinic – Sim Lab   Nurse Clinic = Nathan Showe for NP

Doctoral Lab 2 Room 2 - Jordan Arctic
SP – Phil Baylor

Doctoral Lab 3 Room 3 – Trent Markle (T)   My Chart patients: James Walker, Melissa Dean, Teresa Thomas
SP - Dominic Krischke

Doctoral Lab 4 Room 4 – Riley Tripp   On Call Nurse Appointment - Toni Monroe (wound)
SP – Sue Baylor   SP   (4248) student (4210)

AI

Grant 1

- Develop a survey tool to identify health professions students (medicine/nursing/pharmacy) understanding of benefits and limitations of AI in medical care.

- Conduct a qualitative focus group interviews to further explore health professions students' perceptions of AI in medical care.

- Create an online/ hybrid course to improve health professions students' knowledge and skills related to AI in medical care.

AI

- Grant 2

Objective 1: Identify the needs of actual health professions faculty regarding factors currently influencing integration of AI into Curriculum (AI Anxiety Scale (13) and the Digital Use Self-Efficacy Scale)

Objective 2: Provide education workshops on how to concretely incorporate AI into health professions curriculum.

Table 1. Proposed Competencies for the Use of AI-Based Tools in Primary Care Decision Making

Domain	Bottom Line	Competency	Hypothetical Scenario
Foundational knowledge	What is this tool?	Clinicians will explain the fundamentals of AI, how AI-based tools are created and evaluated, the critical regulatory and socio-legal issues of the AI-based tools, and the current and emerging roles of AI in health care.	The FDA approved an AI tool that provides a differential diagnosis using photographs of skin conditions and medical history. It was developed using 16,000 cases and a convolutional neural network to output prediction scores across 400 skin diseases.
Critical appraisal	Should I use this tool?	Clinicians will appraise the evidence behind AI-based tools and assess their appropriate uses via validated evaluation frameworks for health care AI.	In a retrospective study, the AI tool was superior to primary care clinicians, for which use was associated with improved diagnoses for 1 in every 10 cases. A prospective study in a clinical setting has not been done yet.
Medical decision making	When should I use this tool?	Clinicians will identify the appropriate indications for and incorporate the outputs of AI-based tools into medical decision making such that effectiveness, value, equity, fairness, and justice are enhanced.	You decide to use this AI tool to augment your diagnostic ability for skin conditions where the diagnosis is unclear. You use it to inform, not override, your decisions regarding treatment, biopsies, and referrals in a way that boosts accuracy, quality of care, and resource stewardship.
Technical use	How do I use this tool?	Clinicians will execute the tasks needed to operate AI-based tools in a manner that supports efficiency and builds mastery.	You learn to take clinical photographs of skin conditions as required by the AI tool and generate a differential diagnosis using it. You do this seamlessly and efficiently during physical exams.
Patient communication	How should I communicate with patients regarding the use of the tool?	Clinicians will communicate what the tool is and why it is being used, answer questions about privacy and confidentiality, and engage in shared decision making, in a manner that preserves or augments the clinician-patient relationship.	You discuss with the patient why and how the tool is being used and answer questions regarding privacy, ultimately building trust and confidence.
Unintended consequences (cross-cutting)	What are the "side effects" of this tool?	Clinicians will anticipate and recognize the potential adverse effects of AI-based tools and take appropriate actions to mitigate or address unintended consequences.	Foundational knowledge: You recognize that a convolutional neural network is a "black box." As a result, you will not consult the tool for a rationale behind the suggested diagnosis. You remind yourself to guard against cognitive biases that may arise from only seeing the final suggested diagnosis. Critical appraisal: You understand that Fitzpatrick skin types I and V are under-represented, and type VI is absent in the data set for this AI tool.[a] Medical decision making: You anticipate that the tool will be less accurate for patients with these skin types and adjust your utilization, choosing to learn more about patients with these skin types. Technical use: You take the appropriate steps when the tool delivers an error message. Patient communication: You explain to the patient why your diagnosis is not the same as the one suggested by the tool, engaging in a shared decision making process that engenders trust, confidence, and respect.

AI = artificial intelligence; FDA = Food and Drug Administration.

Note: Fitzpatrick skin type 1 is pale white skin, while type VI is dark brown or black.

[a] The Fitzpatrick skin type classifies skin according to the amount of melanin pigment in the skin.

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NEXT TECHNOLOGY IDEAS