

Synchronous Telehealth Experiential Activity with an Intraprofessional Team of Nursing Students

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Disclosures

The speakers have no disclosures



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Objectives

Provide a high-level introduction to telehealth

Define intraprofessional nursing

Describe required telehealth education for nursing curriculum

Describe a simulated intraprofessional telehealth visit

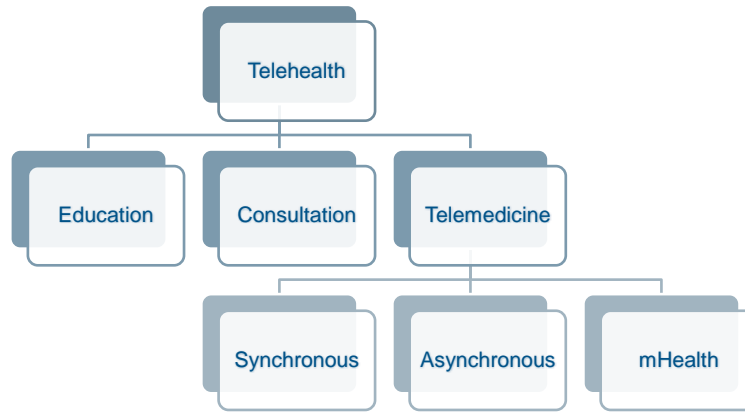
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Overview of

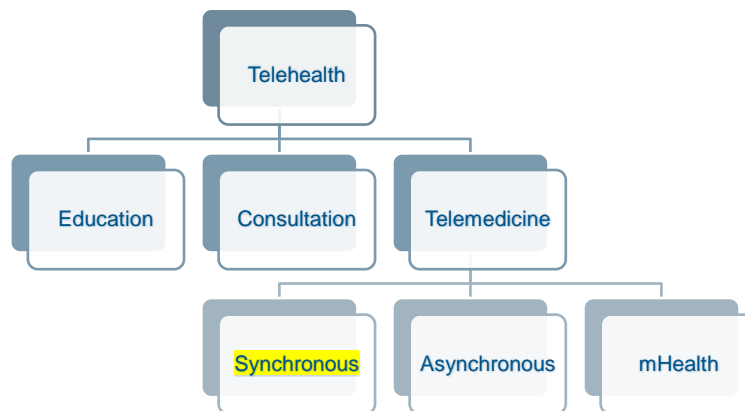
Telehealth

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Telehealth



Telehealth



Telehealth Nursing Education

Undergraduate¹

- Telehealth Overview
- RN Telehealth Roles
 - Manager/Director
 - Coordinator
 - Educator/Coach
 - Triage
 - Telepresenter
 - Patient Navigator
- Telehealth Technology
- Telehealth Etiquette

Graduate - The Four P's²

- Planning
 - Definitions
 - Target Populations
 - Regulations
 - Benefits/Barriers
- Preparing
 - Protocol Development
- Providing
 - Telehealth Etiquette
- Performance Evaluation
 - Program Assessment



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Telehealth Nursing Education

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Introduction of

Intraprofessional Collaborations

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Intraprofessional Collaborations³⁻⁵

- Definition^{3,4}

"multiple members of the same profession working collaboratively to deliver quality care within and across settings" and interprofessional collaboration as "a variety of health care professionals working together to deliver quality care within and across settings" (1, p. 18)

- Benefits⁵

- Increase communication
- Increase patient health care outcomes
- Reduce medical errors
- Reduce inefficient practice
- Reduce healthcare costs
- Increased job satisfaction
- Faster treatment initiation

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Pre-Simulation

Telehealth Education

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Telehealth Nursing Education at MUSC: Pre-Simulation

Undergraduate

- Included in the courses
 - Introduction
 - Telehealth cart and peripheral introduction
- Health Assessment (1st Semester)
 - Graded Subjective Interview
- Pediatrics (3rd Semester)
 - Choice Activity

Graduate

- Introduction (1st Semester)
- Telehealth cart introduction (2nd Semester)
- IT requirements (4th Semester)
- Professionalism & Etiquette (4th Semester)
- Telehealth exam techniques (5th Semester)
- Program Planning & IPE (5th Semester)
- Credentialing & Billing (6th Semester)
- Policy (8th Semester)



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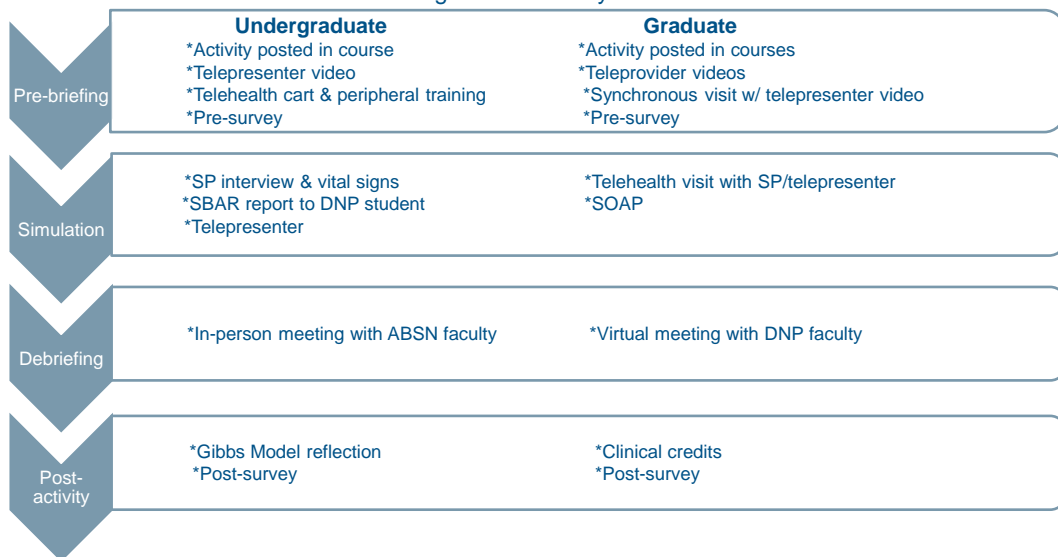
The Simulation Activity

Intraprofessional Telehealth SIM

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The Overall Simulation Design

August 2022 – July 2023



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Evaluations

- Researcher Created Survey
 - Demographics
 - Telehealth education/knowledge
 - Telehealth comfort
 - Future telehealth use
- Interprofessional Collaborative Competencies Attainment Survey (ICCAS)^{6,8}
 - Perception of intraprofessional communication
- Telehealth Performance
 - Undergraduate: Telepresenter
 - Graduate: Telehealth Etiquette & Professionalism⁹



Chike-Harris Personal Photo



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Simulation Images



All Photos – Chike-Harris Personal

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The Results

How Did It Go?

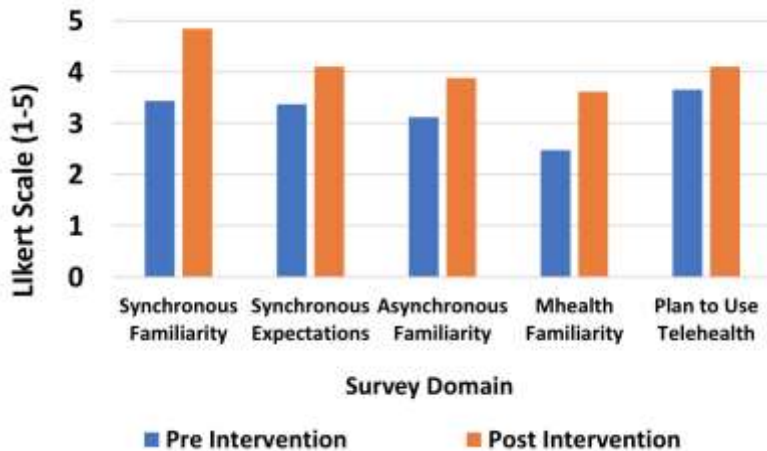
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Results: Demographics

		Pre-Intervention (n = 50) Raw (%)	Post-intervention (n = 27) Raw (%)
Gender	Male	5 (10)	2 (7)
	Female	45 (90)	25 (93)
Race	Black/African American	11 (22)	6 (22)
	White	36 (72)	19 (70)
	American Indian/Alaska native	0 (0)	1 (4)
	Asian	1 (2)	3 (11)
	Native Hawaiian	0 (0)	0 (0)
	Other	2 (4)	0 (0)
Nursing Program	ABSN	33 (66)	15 (56)
	Post-BSN DNP	16 (32)	11 (41)
	Post-MSN DNP	1 (2)	1 (4)
DNP Plan of Study	AGNP	1 (6)	1 (8)
	FNP	12 (71)	9 (75)
	PNP	4 (24)	2 (17)

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Results: Change in Telehealth Comfort/Knowledge



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Results: Intraprofessionalism (ICCAS) Part 1

Survey Domain	All Students Mean (Standard Deviation)		ABSN Students Mean (Standard Deviation)		DNP Students Mean (Standard Deviation)	
	Pre (n = 50)	Post (n = 27)	Pre (n = 33)	Post (n = 15)	Pre (n = 17)	Post (n = 12)
Overall	3.90 (0.82)	3.92 (0.77)	3.85 (0.95)	4.2 (0.83)	4.10 (0.88)	4.32 (0.74)
	$p \leq 0.001^*$		$p = 0.001^*$		$p = 0.008^*$	
Communication	3.90 (0.85)	3.93 (0.79)	3.86 (0.95)	4.17 (0.82)	4.09 (0.84)	4.27 (0.78)
	$p = 0.003^*$		P=0.650		P=0.10	
Collaboration	3.91 (0.81)	3.90 (0.79)	3.94 (0.86)	4.21 (0.79)	4.13 (0.81)	4.31 (0.75)
	$p = 0.008^*$		P=0.83		p=0.136	

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Results: Intraprofessionalism (ICCAS) Part 2

Survey Domain	All Students Mean (Standard Deviation)		ABSN Students Mean (Standard Deviation)		DNP Students Mean (Standard Deviation)	
	Pre (n = 50)	Post (n = 27)	Pre (n = 33)	Post (n = 15)	Pre (n = 17)	Post (n = 12)
Roles/ Responsibilities	3.87 (0.83)	4.20 (0.84)	3.90 (0.79)	4.07 (0.91)	3.79 (0.92)	4.38 (0.68)
	p=0.001*		p=0.411		p=0.001*	
Collaborative patient/family centered approach	3.88 (0.82)	4.20 (0.80)	3.93 (0.77)	4.09 (0.87)	3.78 (0.90)	4.33 (0.81)
	p=0.005*		p=0.424		p=0.004*	
Conflict Resolution	3.97 (0.81)	4.28 (0.87)	3.98 (0.77)	4.18 (0.91)	3.94 (0.94)	4.42 (0.81)
	p=0.008*		p=0.511		p=0.056	
Team Functioning	3.84 (0.77)	4.13 (0.89)	3.86 (0.72)	4.0 (0.98)	3.79 (0.88)	4.29 (0.75)
	p=0.047*		p=0.442		p=0.400	

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Results: ABSN (Telepresenter) Evaluations

	Obtains Consent	Introduces Patient	Introduces Everyone	Provider Can See/Hear	Succinct SBAR	Stethoscope on skin	Follows Direction	Communicates	Therapeutic Communication
Not Done	19 (82.6%)	16 (69.6%)	18 (78.3%)	16 (72.7%)	0	3 (13%)	0	0	0
Novice	1 (4.3%)	5 (21.7%)	2 (8.7%)	4 (18.2%)	7 (30.4%)	5 (21.7%)	10 (43.5%)	13 (56.5%)	8 (34.8%)
Advanced Beginner	0	0	0	0	2 (8.7%)	2 (8.7%)	5 (21.7%)	6 (26.1%)	15 (65.2%)
Competent	0	1 (4.3%)	1 (4.3%)	0	4 (17.4%)	5 (21.7%)	1 (4.3%)	1 (4.3%)	1 (4.3%)
Proficient	0	0	0	0	3 (13.0%)	0	5 (21.7%)	1 (4.3%)	1 (4.3%)
Expert	3 (13%)	1 (4.3%)	0	2 (9.1%)	2 (8.7%)	4 (17.4%)	2 (8.7%)	2 (8.7%)	1 (4.3%)

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Results: DNP (Teleprovider) Evaluations

	Webcam at eye level	Appropriate Lightning	Desk/Table	Uncluttered Background	Confirm See/hear	Visit Appropriateness	Set Expectation	Simulated Eye Contact	Non-verbal Cues
Novice	0	1 (7.7%)	3 (23.1%)	1 (7.7%)	6 (46.2%)	5 (28.5%)	2 (15.4%)	3 (23.1%)	0
Advanced Beginner	1 (7.7%)	0	0	0	1 (7.7%)	2 (15.4%)	2 (15.4%)	0	0
Competent	1 (7.7%)	2 (15.4%)	1 (7.7%)	0	1 (7.7%)	3 (23.1%)	3 (23.1%)	1 (7.7%)	3 (23.1%)
Proficient	1 (7.7%)	2 (15.4%)	1 (7.7%)	2 (15.4%)	2 (15.4%)	1 (7.7%)	4 (30.8%)	2 (15.4%)	5 (38.5%)
Expert	10 (76.9%)	8 (61.5%)	8 (61.5%)	10 (76.9%)	3 (23.1%)	1 (7.7%)	1 (7.7%)	7 (53.8%)	5 (38.5%)

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Qualitative Data

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Results: Qualitative (Graduate) Themes

- More training
 - Proper visit flow/initiation
 - Unsure how to work with telepresenters
 - Proper placement of stethoscope
 - Use of peripherals
- Equipment
 - Use of good headphones needed to clearly hear the heart/lung sounds
- Clinical Opportunity
 - Similar to an in-person visit
 - Similar clinical activities should be afforded to all student
 - Love more simulated/real telehealth experiences
- Positives
 - Interaction with patient/caregiver-child dyad realistic
 - Intraprofessional learning activity created opportunity for reflection and exposure to graduate education in nursing
 - Curated educational activity
 - Telehealth lectures throughout program very helpful

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Student Quotes

Undergraduate

"It was really great working with a healthy patient and practice getting a good history."

"One of the highlights of the ABSN program...one of my favorite clinical activities."

Graduate

"I was very curious to see how it actually works, cause I've been a nurse for over 25 years, so I'm old school. I'm a hands on, I wanna feel what I'm what I'm assessing. So, I always had reservations about that. I was pleasantly surprised that the capability of actually doing a full exam was possible without touching the person."

"Changed my perception of telehealth. In clinical there were no ability to exam the patient – just talking. Couldn't really give a good diagnosis."

"At first I was a littler freaked out by just the levels, like the hierarchy of healthcare.....It's important for everybody to acknowledge that we each have our own role, that it is equally important to the patient."

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Future Plans

- Expand the focus
 - Assess clinical skills (e.g., OSCEs)
 - Increase use of soft skills
 - Integrate social determinants of health factors
 - Introduce complex/difficult visits/conversations
 - Expand to other colleges, IPE experiential activity
- Permanently integrate high-fidelity telehealth simulation into nursing curriculum



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Questions?



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