

Mobile, Digital Enhancement of Simulation to Improve Clinical Judgement Skills

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AACN-Apple Inaugural Digital Innovation Bootcamp

From Content to Action

July 9-12, 2018 Austin, Texas

30 Nursing Faculty from across the nation

Sessions covering:

- ❖ creating digital content,
- ❖ developing iOS mobile apps and multi-touch books,
- ❖ and creating an engaging learning environment.











Digital Bootcamp Project

Mobile Digital Enhancement of Simulation to Improve Clinical Judgement Skills

Purpose:

- ❖ To reimagine a simulated lab for students in the first Adult Health course
- ❖ To determine if active learning strategies such as mobile and digital enhancements used to augment a simulation scenario improves clinical judgement and communication

Current Simulation Format

Day of Simulation:

- ❖ Student virtual and physical orientation to Simulation Center and mannequins
- ❖ Pre-brief:
 - ❖ Students receive verbal report of patient history and current state
- ❖ Simulation
- ❖ Debrief:
 - ❖ Students and faculty review the activities and learning moments of simulation and discuss options and opportunities

Edited 07/03/2018						TMMathers
Last Name: Martinez	First Name: Miguel	Age 83	Gender Male Widowed	Date of Birth 05/05/XXXX	Medical Record # PCS050583	
Physicians: Dr. ELLIS/ Dr. MATHERS/Dr. GLAZE/ Dr. YOUNG/ Dr. DAY					Admission Dx: Syncope; Altered Mental Status	
Admission Wt: 145 lb	Height 5 Ft 5"	Isolation: Standard Language: Spanish Primary/English Secondary Ethnicity: Spanish Religion: Catholic Occupation: Retired HS Teacher (Mexico) Family History: CVD, Hyperlipidemia, DVT			Current Dx: HTN, CAD, CHF	
ALLERGIES: PCN, Latex						

Code Status Information			
Code Status	Full	Limited	None
Treatment Team			
PROVIDER	ROLE	FROM ED	TO
Dr. Glaze	Admitting Provider	Admit Today	Discharge Pending
Dr. Mathers	Consulting Provider		

Active Orders							
Orders to be Acknowledged for Martinez, Miguel							
New orders: Acknowledge all: XX							
Labs							
Date/Time	Description	Ordering Provider					
Today 0400	Electrolyte Panel	Dr. Glaze					
Today 0400	HGB and HCT Panel	Dr. Glaze					
Today 0400	BUN	Dr. Glaze					
Today 0400	Creatinine	Dr. Glaze					
Today 0400	Urinalysis	Dr. Glaze					
Today 0400	I&O Q12H	Dr. Glaze					
Today 0400	VS Q4H (Supine, Sitting and Standing BP) with focused Neuro assessment	Dr. Glaze					
Today 0400	No Added Salt Diet						
Medications							
Date	Medication	Dose	Route	Rate	Freq	Start	Stop
Today	Metoprolol	50 mg	PO	N/A	Q24H	0800	N/A
Today	Lisinopril	10 mg	PO	N/A	Q24H	0400	N/A
Today	Aspirin	81 mg	PO	N/A	PRN	0800	N/A
Today	Colace	100 mg	PO	N/A	Q24H	HS	N/A
Today	Heparin	5000 units	SQ	N/A	Q12H	0800	N/A
Today	D5W1/2	1000 ml	IV	125 ml/hr	Continuous	0400	N/A

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Mobile Digital Enhancement of Simulation

Prior to Simulation:

- ❖ Patient care team identified:
 - ❖ SON students
 - ❖ Provider: NP, PA, or SOM students

- ❖ Pre-brief activities:
 - ❖ All participants review video of patient and family clinic visit
 - ❖ All participants review patient chart in EPIC
 - ❖ All Participants map information gathered from video and chart
 - ❖ All Participants narrate and share impressions and mind maps with care team
 - ❖ All Participants give feedback on shared information and collaborate on plan of care

Mobile Digital Enhancement of Simulation

Day of Simulation:

- ❖ Simulation begins with mannequin and programmed script
- ❖ Provider participates via Double Robot
- ❖ Students and provider communicate regarding the case
- ❖ Students continue with the patient care scenario

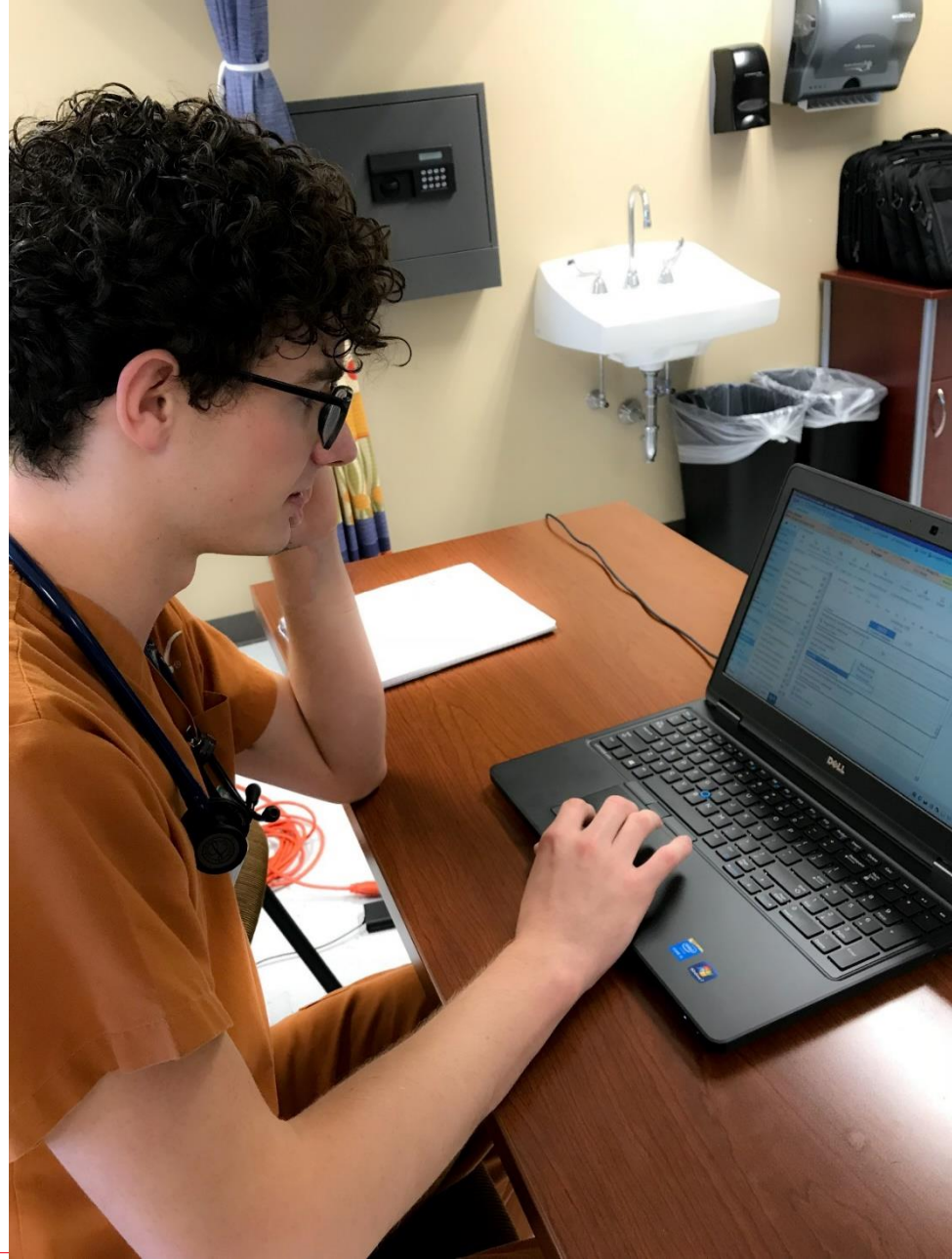
Mobile Digital Enhancement of Simulation

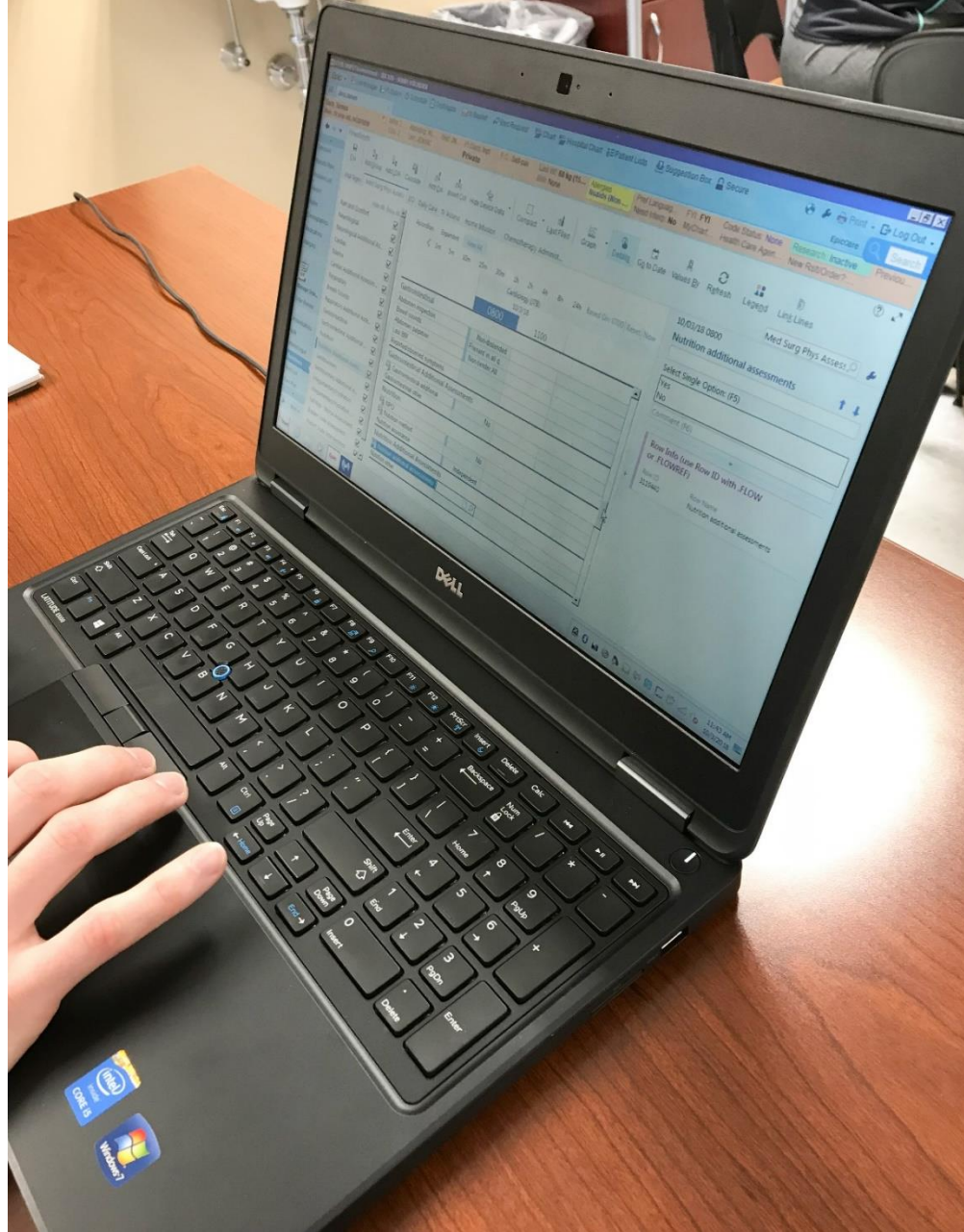
Post Simulation:

- ❖ All participants
 - ❖ Update and revise mindmaps
 - ❖ Reflect on the case and “what if” scenarios
 - ❖ Debrief with provider

Individuals	Preparation	Activity	Sharing	IPE Activity	Run Simulation	Debrief
BSN	Review Chart	Map case	Narrate and share map	Give feedback on narrated apps	Provide care	Revise map, reflect on case
	“Meet patient”				Call provider	
	“Get Report”					
Providers	Review Chart	Map case	Narrate and share map	Give feedback on narrated apps	Respond to call, ask questions	Revise map, reflect on case
	“Meet patient”					
	“Get Report”					
Tool	Epic Sandbox	mapping app	IOS screen recording feature	Synchronous: FaceTime	FaceTime	Mapping app, FaceTime
	Clips		Blackboard	Asynchronous: Clips		
Notes	Actors record patient introduction and Report in Clips and host (in blackboard)	Students use Simple Minds App to map information gathered from recording and patient record	Students narrate their findings using voice or video/voice recording and share with team	All students give feedback on shared information and plan care for patient	Simulation runs, provider is available via Double Robot	Students update maps and debrief using FaceTime with provider



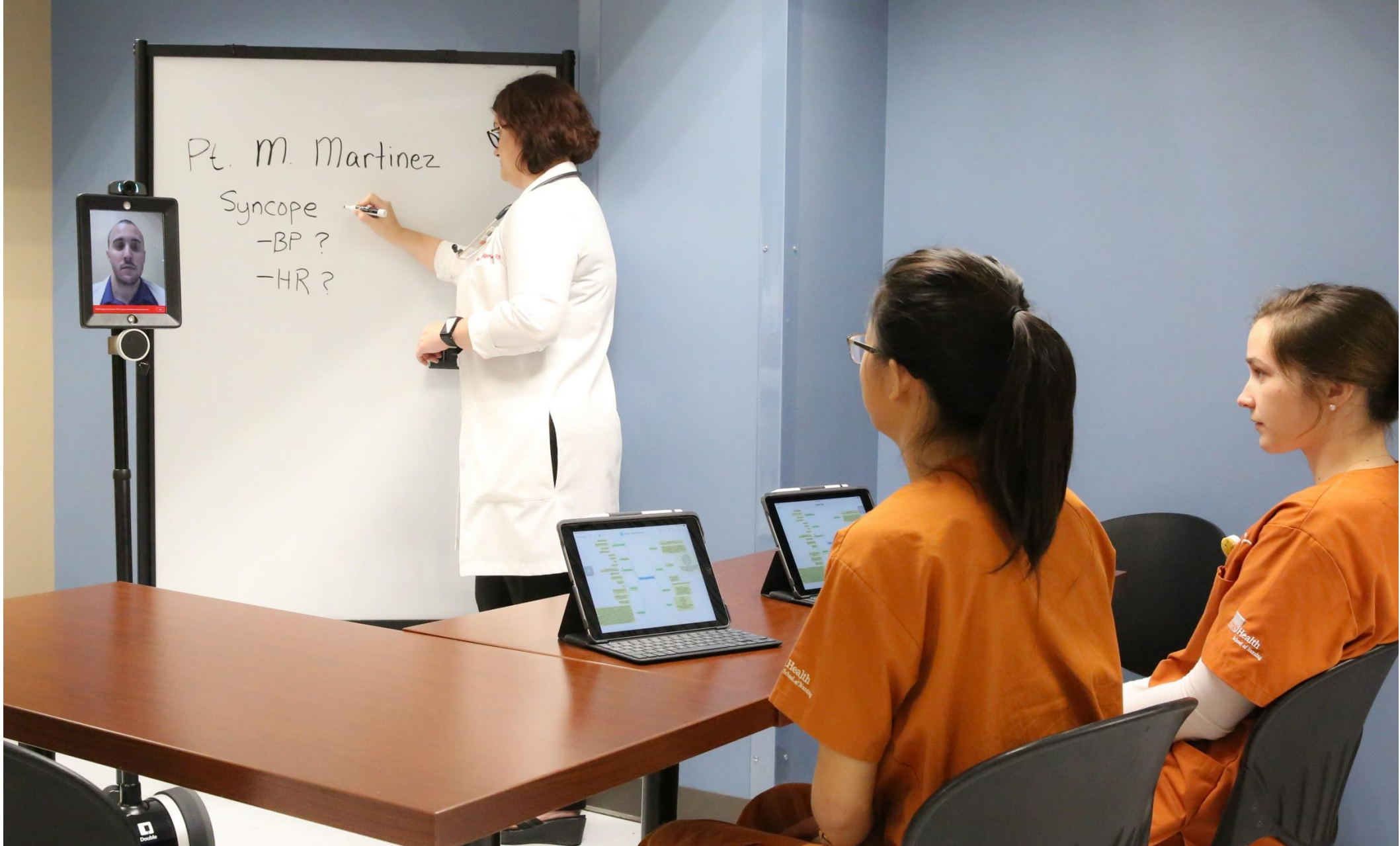












Project Evaluation

Technological Skills

Assessment

Communication

Critical Judgement

Patient Safety

Interprofessional Teams

Mobile Digital Enhancement of Simulation

Resources:

- ❖ Mind mapping: iPad/Android/Windows - SimpleMinds app
- ❖ Video Recording: Clips on iPad; HitFilm on Windows
- ❖ Audio Recording: iPad screen recording feature
- ❖ Synchronous feedback sessions: FaceTime for iPad; Skype for Windows
- ❖ Asynchronous feedback sessions: Clips or HitFilm
- ❖ Robot: Double Robot
- ❖ Blackboard

