Unfolding case studies in online teaching environments: A teaching pedagogy to enhance student learning

CFE Faculty Showcase
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Image from: https://nsjonline.com/article/2019/03/unc-old-well-to-undergo-repairs/

What is an Unfolding Case Study (UCS)?

- "A case that evolves over time, where further information is gained at each encounter" –National League for Nursing, 2020

Unfolding Case Studies

-Not a new concept

-Within the School of Nursing, we have successfully used UCSs in face-to-face learning environments

Eg: simulations

What was new / different about this academic year? Personal reflections

- How to continue to engage students and facilitate learning in an interactive and meaningful way with the pivot to remote learning
- Intentional design of the course with asynchronous AND synchronous learning
  - The role of each
  - *Application of concepts* versus *content delivery* in synchronous classroom sessions
- Solicitation of student input- how would they best learn?
- Gap in the nursing ed literature: UCSs and online learning

Unknowns

- Could UCSs stimulate learning and expand critical thinking in remote learning sessions d/t Covid?
- Could UCSs foster group discussions / cohesion in currently isolating circumstances for students?
- Could UCSs further opportunities for knowledge application?
- Could I pull it off on Zoom?

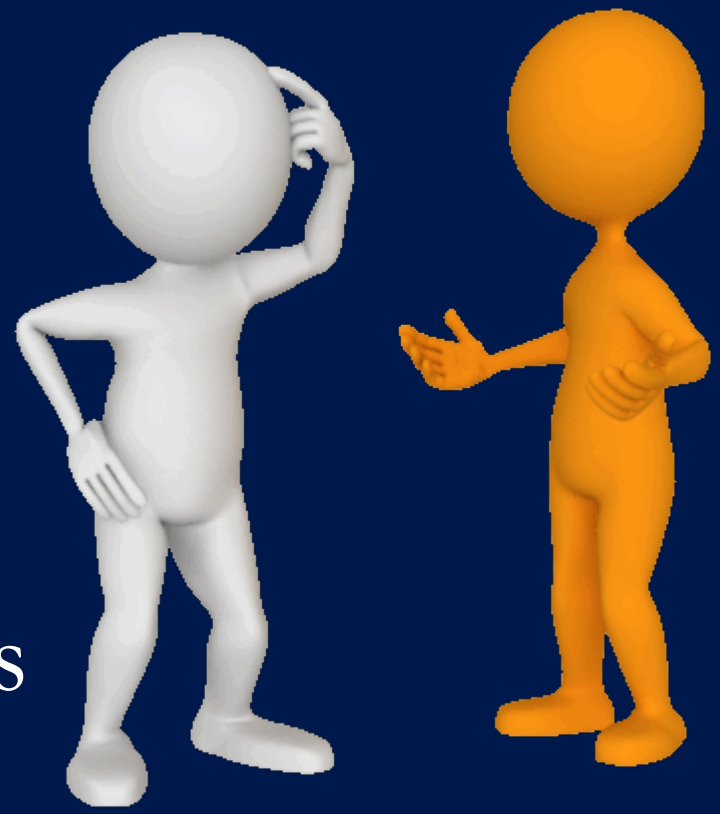
Example from Nursing 483: (Undergraduate Pediatric Nursing Course)

Previous way of teaching

Online learning:

First, students listen to an asynchronous Voice Thread and complete assigned readings.

They then arrive in our synchronous class via Zoom.



Example UCS: Pediatric Asthma Introduction to the case

- Joel (not his real name) is a 12 year old attending middle school in Orange County. He was diagnosed with asthma at the age of 5. During the school day, he was experiencing coughing and wheezing. Unfortunately, his school nurse was not available.
- If the school nurse *was* available, what should have been the first action that they carried out?

Poll Everywhere | Activities | Participants | Reports | Teams | Help | Presenter tips | woodley

1. Configure | 2. Test | 3. Present

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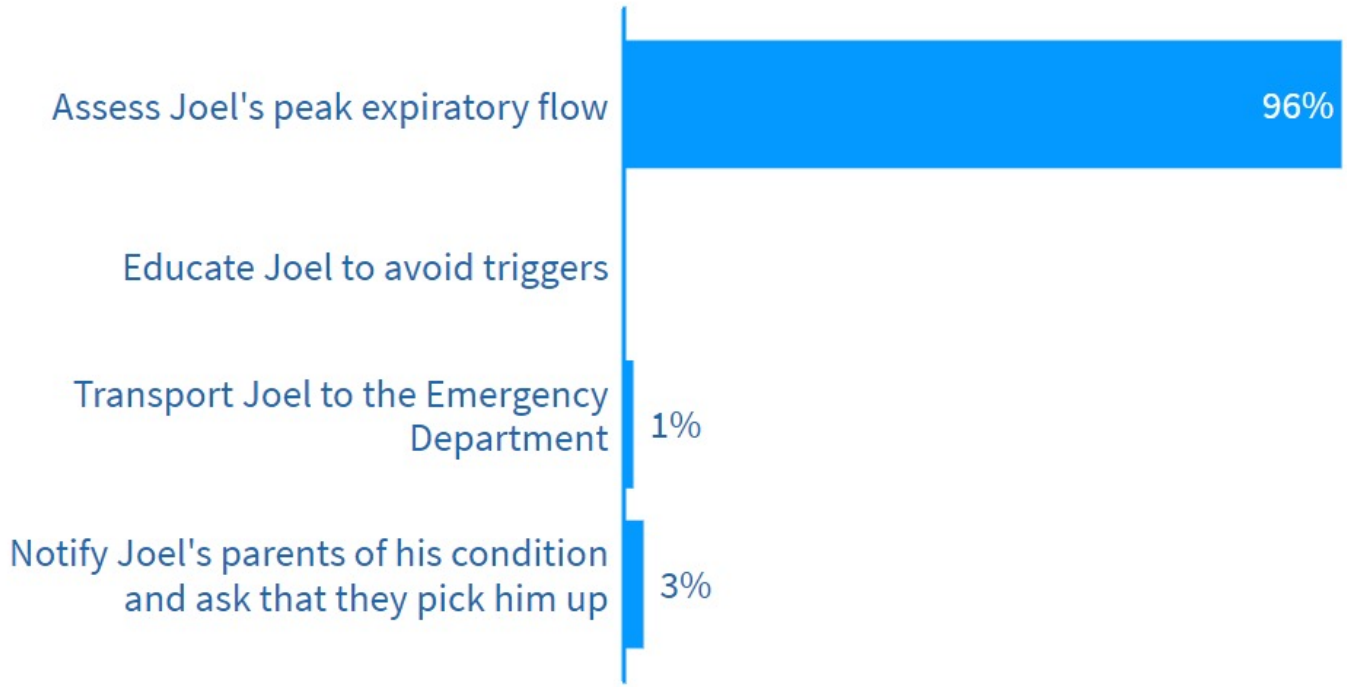
First nursing action by the school nurse (Joel with asthma)



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How people can respond

Audience restriction & identity

Response settings

Schedule lock/unlock times

- Unfortunately, because there was no school nurse at the time, Joel went to the school office instead. The office staff called his parents and asked that he be picked up. Both parents were working, and he remained at school longer than ideal. He did have a rescue inhaler of Albuterol, which he took while waiting in the front office.

- After Joel's mother picked him up, they returned home. They live in rural Orange County in a double-width trailer.

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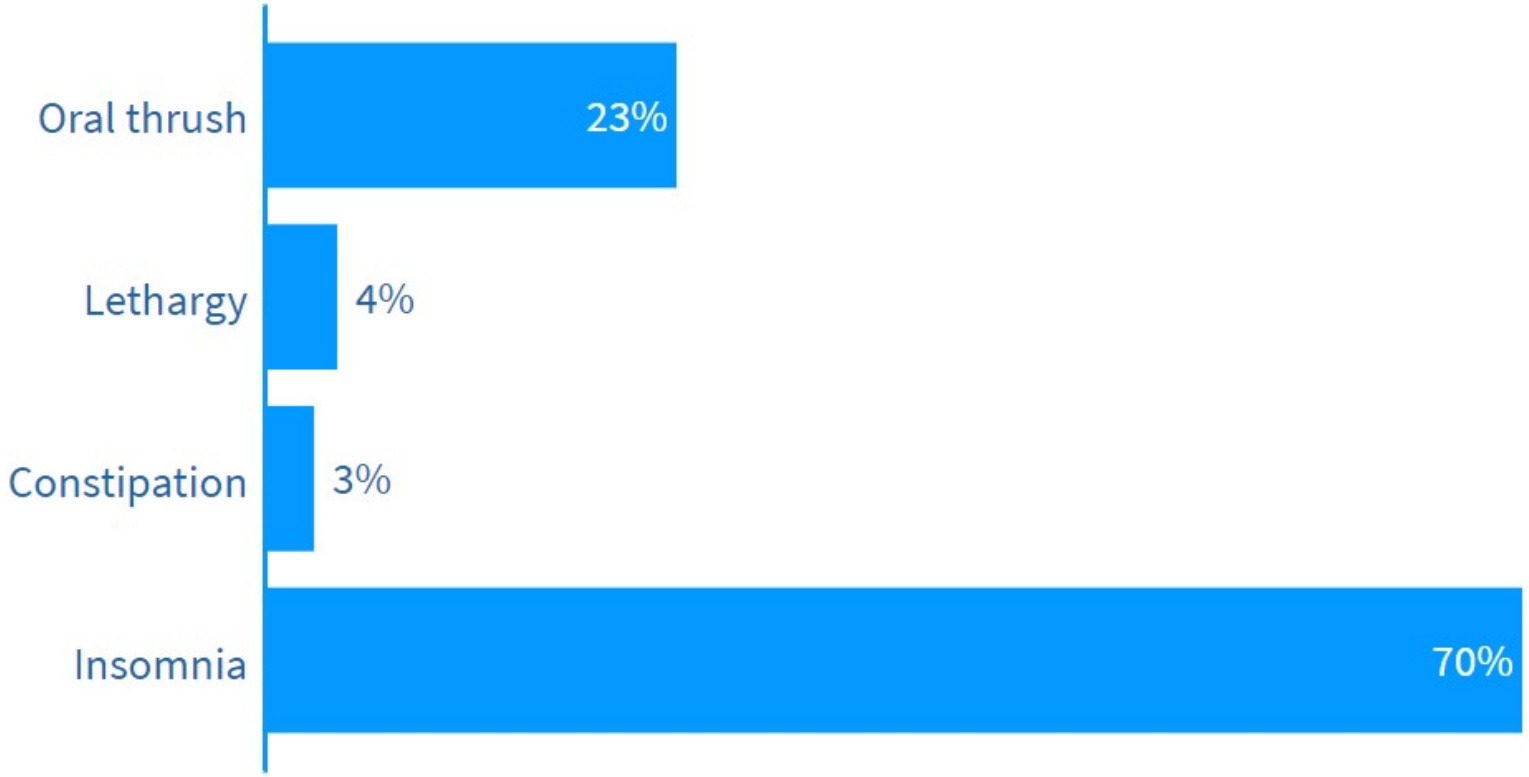
Because Joel took his inhaled Albuterol quite frequently, he suffered from



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Help

Later that night, Joel couldn't sleep. He was coughing ++, wheezing, anxious, and felt like he couldn't get breath into his lungs.

His parents were concerned and took him to the ED at UNC.

Image from https://med.unc.edu

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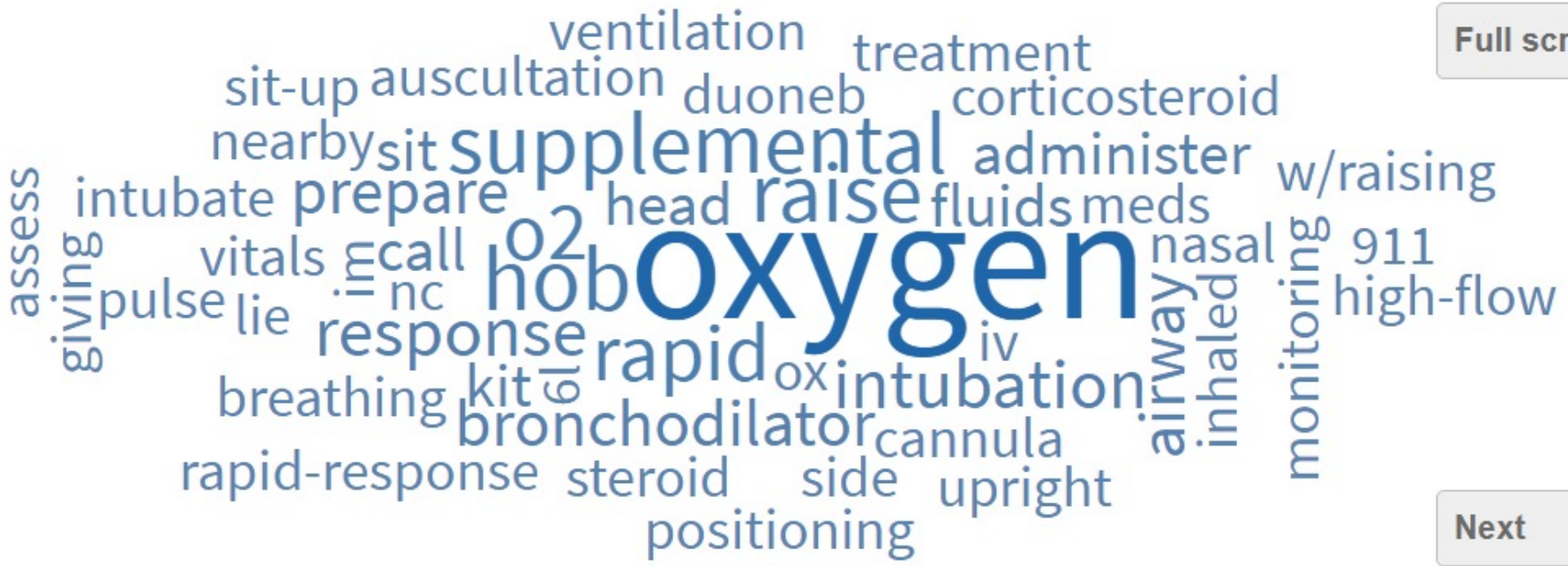
At this point, Joel was extremely pale, had severe substernal retractions, and could [illegible] when laid down on the stretcher. If you were the nurse caring for Joel, what would [illegible] nursing action(s) be?



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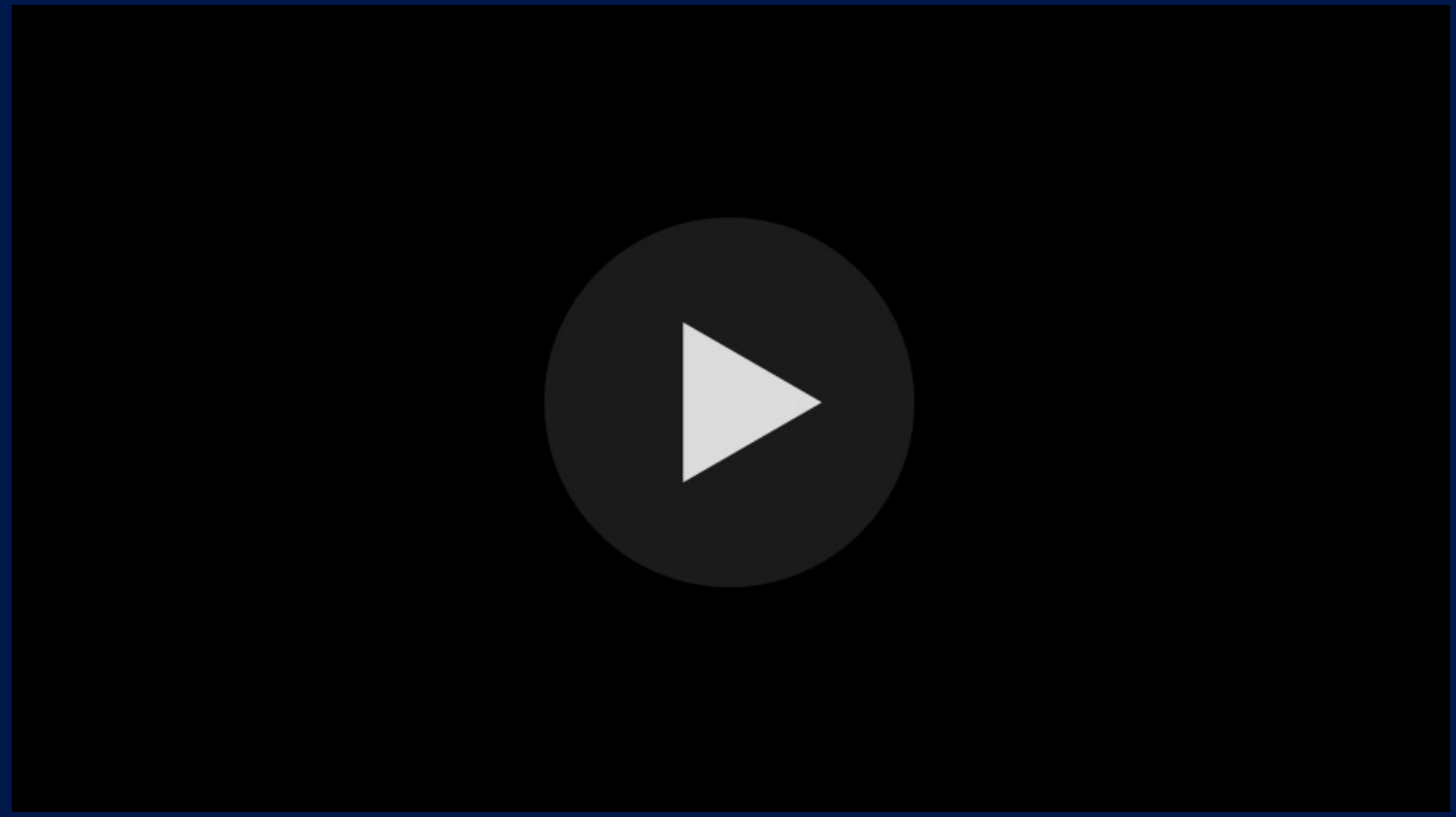
You are the nurse in the ED. You immediately sit Joel up and begin oxygen administration…

His respiration rate is 50, SaO2 = 85%. You hear no wheezes when listening to his chest- in fact, there are no audible breath sounds at all! Joel's chest and abdomen seem to be moving in a strange wave form pattern when he breathes.



https://www.youtube.com/watch?v=Hv68EQ3tCBI&t=1s

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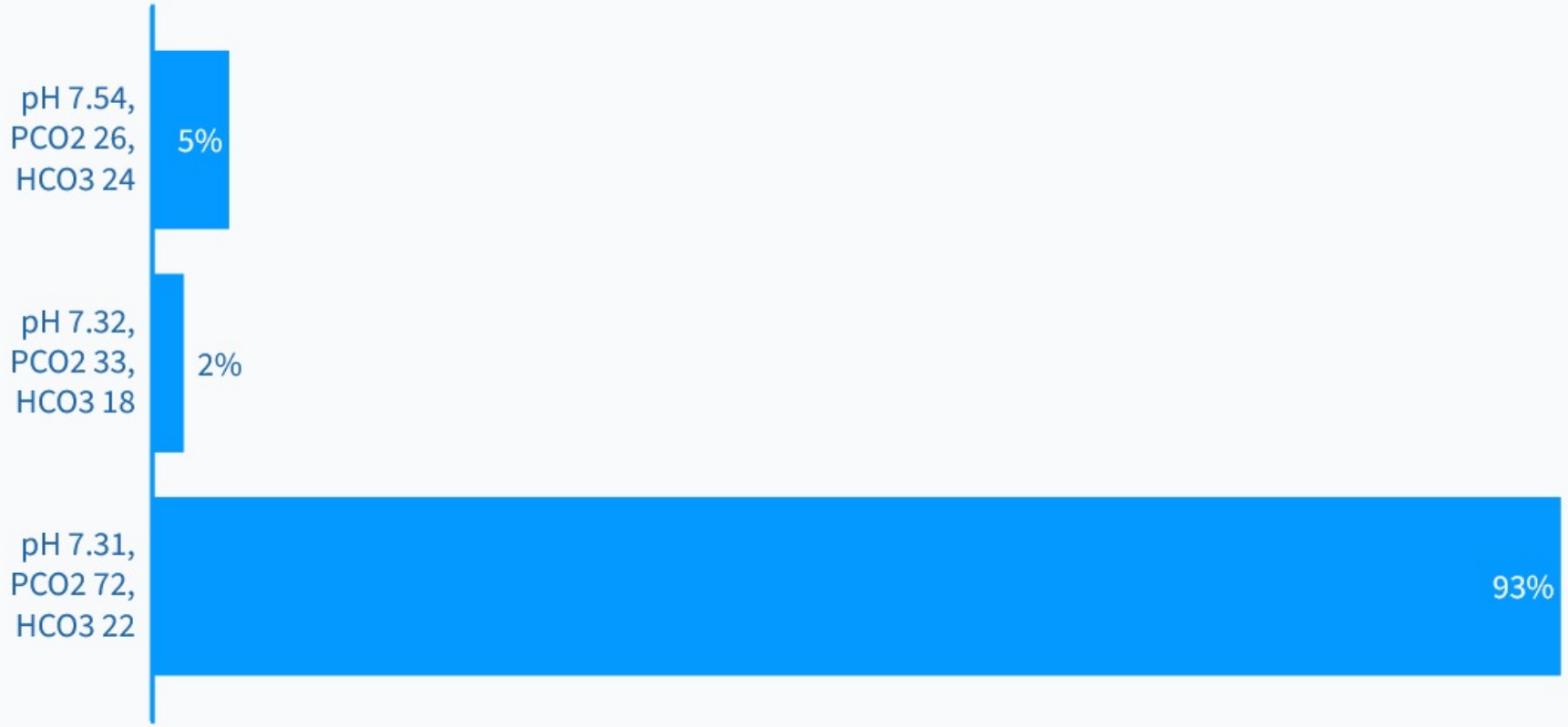
A blood gas is drawn on Joel. Which of the following do you think reflected his results? Here are the norms if you need
7.35-7.45 / PCO2 = 35-45 mm Hg / HCO3 =22-26 mEq/L



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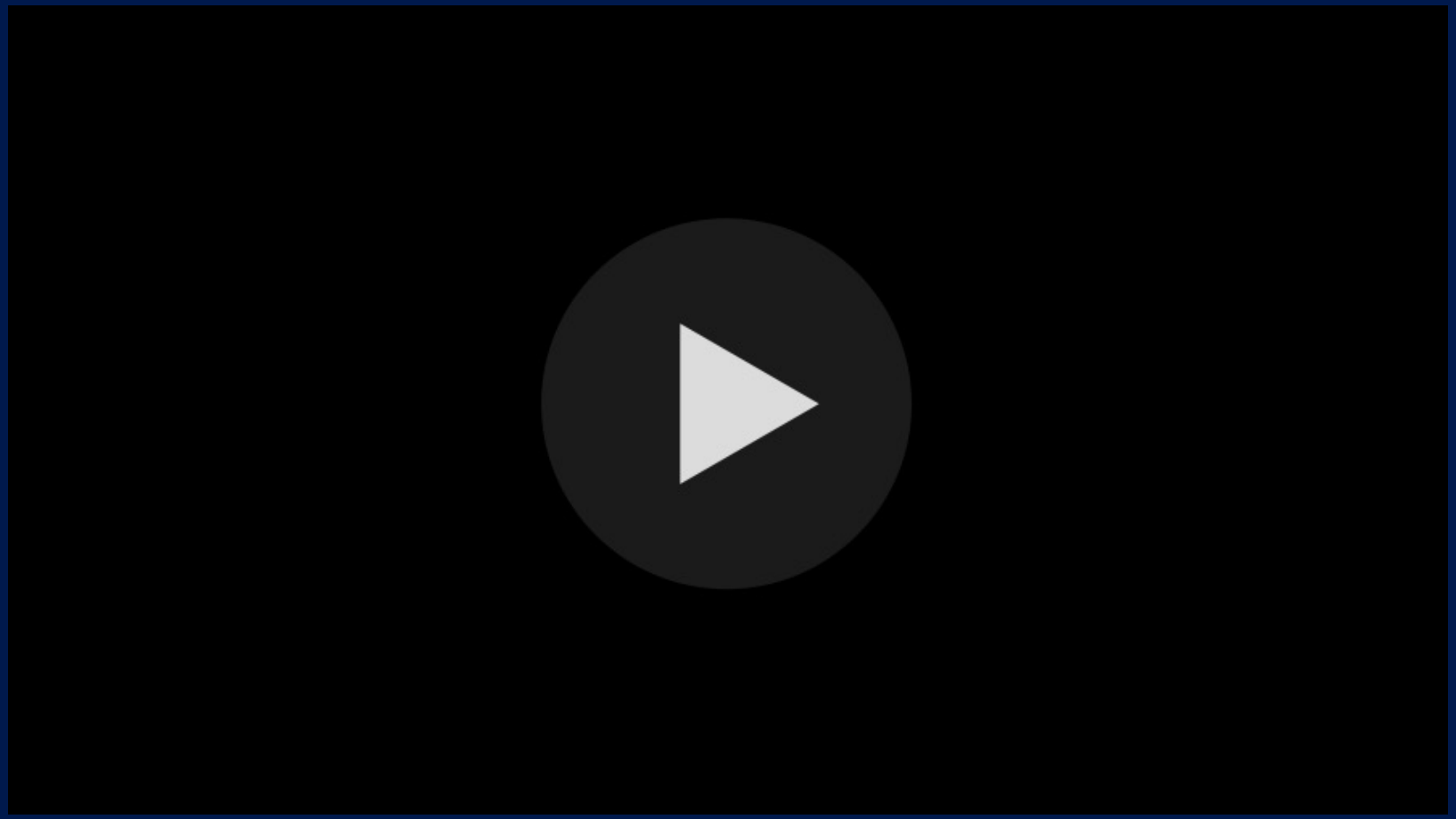


We'll come back to Joel in a moment.

First, let's look at the larger context of his situation. He is greatly impacted by social determinants of health.

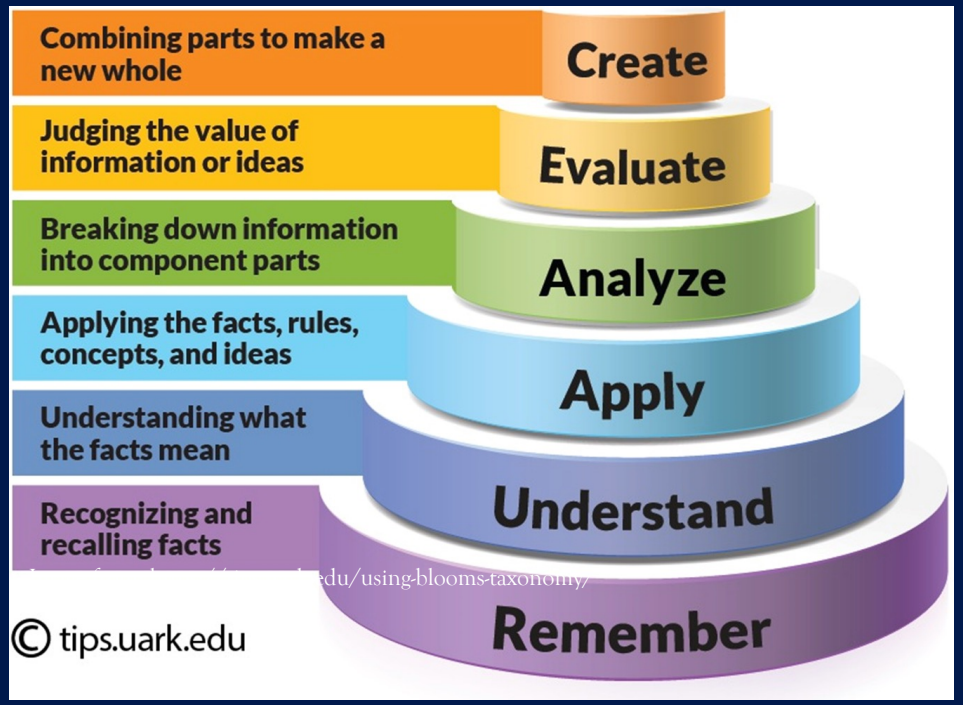
Student Challenge

Design a health education session or program for kids like Joel and their families, growth and development and culturally responsive nursing care

In small groups, students discussed:

Bringing it back to the patient...

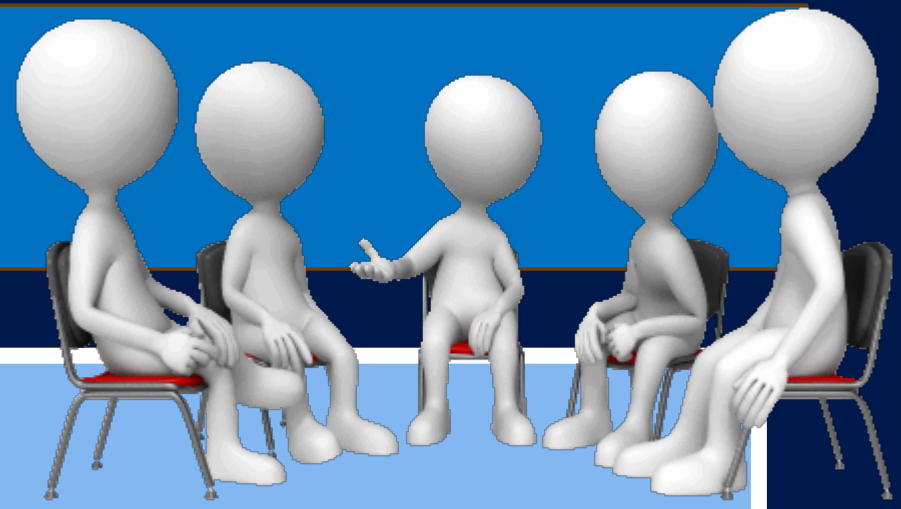
Students are given a clinical update on Joel and charged with family-centered discharge teaching



Takeaways: Use of UCSs in Nurs483 Online

- Enhanced student learning and participation
- Students interacted at all levels of Bloom's taxonomy
- Assisted with student isolation associated with quarantining and learning remotely
- Synergism between synchronous and asynchronous class
- Made it easy to follow patient trajectory through a variety of health care settings

UCS takeways



- Very positive student feedback
- Recorded sessions and access to slides minimized learning disparities r/t home environments, connectivity issues
  - Invited multiple voices and student perspectives
  - Emphasized collective learning
  - Provided a vehicle to be inclusive and design UCSs free from stereotypes

Thank you for being here!

Questions?

Image from: https://www.ourstate.com/how-unc-chapel-hill-became-the-nations-first-public-university/