Simulation: A Teaching Tool in CSD

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Disclosure Statement

Presenters: Lizbeth Stevens, Willie Cupples, Elizabeth Howard

- We have no relevant financial or nonfinancial relationships in the products or services described, reviewed, evaluated or compared in this presentation.
Welcome & Introductions
Overview: Simulation in health education
Definition/types of simulation in CSD
Course examples: fluency, counseling, AAC
Evaluation and outcomes
Questions & Answers
Elizabeth Howard, B.S.

- Will graduate with speech-language pathology masters from EMU, April 2013; Participated in simulations in Counseling & Fluency courses (Cupple) and AAC course (Stevens)
Faculty Panelists

- Bill Cupples, Ph.D., CCC-SLP
  - Professor, Eastern Michigan University
  - Uses simulations in courses on fluency disorders and counseling

- Lizbeth Curme Stevens, Ph.D., CCC-SLP
  - Professor, Eastern Michigan University
  - Uses simulations in graduate AAC course
Overview:

Simulation in Health Education (Stevens)

- Used widely
- Validated as efficacious
- Regarded as innovative
- Implemented to offset decreases in opportunities for direct patient contact
- Used as both vehicle for learning and as an evaluation tool
- Comprised of many different types
A method used in health care education to replace or amplify real patient experiences with scenarios designed to replicate real health encounters using lifelike mannequins, physical models, standardized patients, or computers (Passiment, Sacks, & Huang, 2011)
Simulations Types

- **Low-fidelity**
  - Not computerized; Involve task trainers (i.e., physical model simulating normal/abnormal anatomical function)

- **Mid-fidelity**
  - Computerized; video games; standardized patients (i.e., person trained to portray patient)

- **High-fidelity**
  - Computerized human patient manikins (i.e., avatars)

(Harder, 2010)
Simulation in CSD

- Used less often than other teaching/learning techniques (Hadley & Fulcomer, 2010)
- Holds promise for providing effective clinical instruction and practice (Williams & Schreiber, 2010)
- Part of problem based learning (PBL)
- Comprised of many types
Types of Simulations (CSD)

- Role play (e.g., classroom simulations) (Harten 2012)
- Systems dynamic simulation (Chilcott, 1996)
- Case study (including text based and videos) (Master Clinician Network)
- Standardized patients (Zraick 2002; Tharpe & Rokuson, 2011)
- Virtual cases w/ avatars (Williams & Schreiber 2010)
What is a simulation?

- Active method of teaching and learning
- Students interact with each other and instructor to create a community of learning
- Engages students by replicating a real-life situation
- Students assume roles directed by instructor
- Instructor can design simulation for different purposes
Purposes of Simulation

- Analyze data
- Make decisions about problems inherent in the simulation
- Respond to changes in the simulation by studying consequences of actions
- Plan future actions based on analysis of decisions
Designing a Simulation

- Simulation should be carefully designed to address curricular goals, needs of students, and skills necessary to successfully complete simulation
- Authenticity of simulation should be carefully assessed for its real-life application
- Time should be carefully managed
Role playing

- Students assume various roles or characters in the simulated situation
- Focus is on learning by doing
- Provides opportunity for spontaneous critical thinking and analysis
- Students “think on their feet”
Types of Simulations

- **Systems dynamic simulations** (Chilcott, 1996)
  - Experience a situation as it plays out over time
  - Students may plan the introduction of variables into the situation
  - Predict how situation will evolve
  - Analyze dynamics in play
  - Plan how to change behaviors as dynamics influence the situation
Simulations in CSD

- Can be used in all aspects of clinical instruction
- Planning assessments
- Analyzing assessment data
- Determining diagnosis
- Developing goals and objectives
Collecting data on goals and objectives
Revising treatment decisions based on data analysis
Developing interactional skills to communicate effectively with clients and families
Examples of Simulations in CSD

Case studies

• Planning an assessment based on initial intake
• Analyzing assessment data and making a diagnosis
• Analyzing assessment data and planning treatment
Examples of Simulations (Syder, 1996)

- Testing thickened liquids as a patient with dysphagia
- Simulating dysarthria by placing 3 marshmallows in mouth
- Simulate decreased auditory perception by asking students to label pictures with sounds omitted
- Simulate a receptive language deficit by giving confusing directions on a map
Use of videos for CSD Simulations

- The Master Clinician Series
- www.masterclinician.org
- Series of videos of experienced clinicians providing a variety of clinical services
A Counseling Simulation

- Students create a scenario in which a patient or family presents a question or concern
- Students formulate various responses to the concern
- The situation is enacted in a role-play with class members participating
- Students discuss various counseling strategies that might be employed
Students learn to stutter by varying types of disfluencies with varying tension
Students demonstrate various fluency enhancing techniques in a simulated therapy session
Students observe videos of assessment and therapy and make differing clinical decisions based on data collected
AAC Simulations

- Students communicate in community setting w/o speaking and reflect on experience
- Students create a communication display
- for an individual using recognized techniques for assessment
Efficacy of Simulations in CSD

- Use of simulated clients seen as valid supplemental approach to clinical teaching of SLP graduate students (Syder, 1996)
- Simulations resulted in increased confidence of first year graduate students (Vaughn, 2001)
Efficacy of Simulations in CSD

Use of standardized patients allowed students to

- practice communication skills with difficult clients in difficult situations
- reflect on their performance and make self-corrections w/o supervisor interference
- Practice clinical skills in a safe, risk-free environment

(Tharpe & Rokuson, 2011)
Pseudo-stuttering experiences result in enhanced insight of student as to social and emotional impact of the disorder and helps prepare students to work with individuals who stutter

(Rami, Kalinowski, Stuart & Rastatter 2003; Lohman-Hawk 2008)
Struggled w/ assignments initially due to discomfort in enactment
Negative experiences encountered resulted in increased empathy and understanding
Insight gained outweighed momentary anxiousness
Able to apply experiences to later clinical internship and service project
Discussion Topics

Benefits and challenges of simulations

Suggestions for implementation

Specific tools/rubrics
Questions & Answers

- Ask us......
REFERENCES


Master Clinician Network. [Website]. www.masterclinician.org


References (continued)

Wrap-up and additional resources for you

- Thank you for coming!
- Feel free to contact us with additional questions or to receive a copy of this PPT:

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