CAN AN INTERPROFESSIONAL "VIRTUAL CLINIC" TEACH CULTURALLY APPROPRIATE INTERVIEWING TECHNIQUES?

MARY VAL PALUMBO DNP, APRN, GNP-BC

JEAN BEATSON EDD, RN AND VICKI HART PHD

UNIVERSITY OF VERMONT

BURLINGTON, VERMONT USA

JENNIE DE GAGNE, PHD, DNP, RN-BC, CNE

DUKE UNIVERSITY, DURHAM

NORTH CAROLINA USA

The UNIVERSITY of VERMONT

Clinical Simulation Laboratory
AT THE UNIVERSITY OF VERMONT

Duke University
School of Nursing

ACKNOWLEDGEMENTS

OBJECTIVES

1. Participants will discuss how a virtual environment can be utilized for interprofessional education.

2. Participants will review avatar creation and development of the "virtual" patient interview

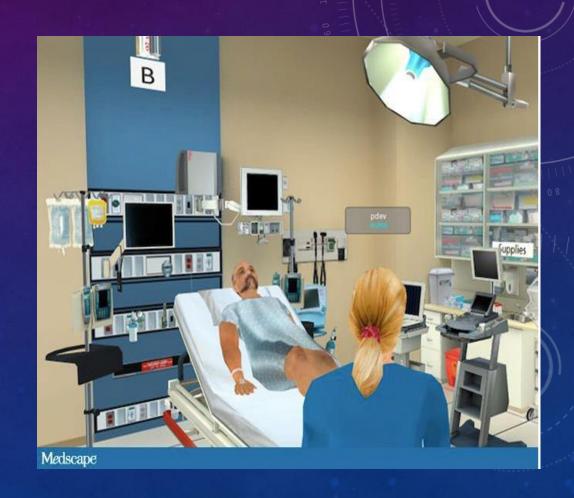3. Participants will review measurements available using online metrics.

BACKGROUND

Terms - (Virtual reality, virtual world, avatars, 3DVW, Second Life®, Virtual Learning Environments (VLE) and Digital Clinical Experience - DCE ("*Tina*"), serious games.

- *"A computer-generated simulation of the real or imagined environment or world." (Gaddis, 1998)*

- *"Serious games are applications that use computer game-derived technologies and design strategies to achieve educational aims. (Lynch-Sauer et al., 2011)*

BACKGROUND – NSG. EDUCATION

- "Avatars and virtual worlds have the potential to make active learning at a distance possible, especially when students have time constraints that make sitting in traditional classrooms unrealistic". (Miller & Jensen 2014)

- Three overarching themes emerged: "(a) critical reasoning skills, (b) student-centered learning, and (c) instructional design considerations". (De Gagne et al., 2013)

- "An overwhelming majority (94%) of students liked the idea of using technology to enhance health care education, and 88% believed that nursing education should make better use of video games and related new media technology". (Lynch-Sauer et al., 2011)

BACKGROUND – NP AND IP EDUCATION

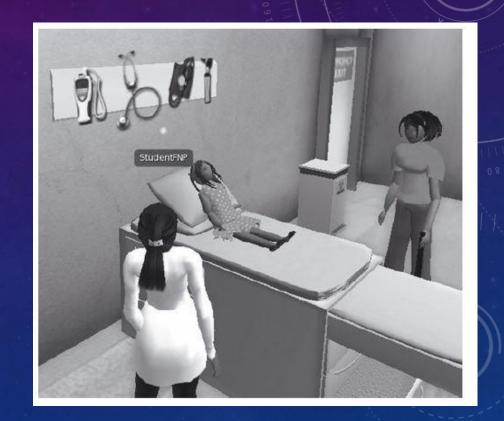NP Education and Virtual Environments

- *PNP students in Second Life® primary care clinic (Cook, 2012)*

Interprofessional Education

- *SBIRT IPE training (Flemming et al., 2009)*

Need for Research

- *Use of online gaming for education purposes has been shown to be acceptable to students and there has been a call for research to demonstrate more robust outcomes assessment (Miller & Jensen, 2014).*

PURPOSE

The purpose of this presentation is to discuss innovative ways of teaching interview skills and interprofessional care of a Korean-immigrant elderly with multiple chronic health issues and complex needs. This presentation will illustrate the use of a virtual clinic when teaching culturally appropriate interviewing techniques for use with eight disciplines and the data available for analysis from this activity.

METHODS - PREPARATION

Completion of an online learning module included the following topics:

1. Care of frail elders with multiple medical conditions requires team approach

2. Interprofessional practice is different from a multi-disciplinary approach

3. Information on all disciplines

4. NP students received content and practice re: meeting facilitation.

METHODS – THE VIRTUAL CLINIC

Enter the Virtual Clinic at

https://www.uvm.edu/medicine/simlab/?Page=virtualclinic.html&SM=ipemenu.html

Use the password: **UVMDIVE**

Enter your information

Choose an avatar

METHODS – THE VIRTUAL CLINIC
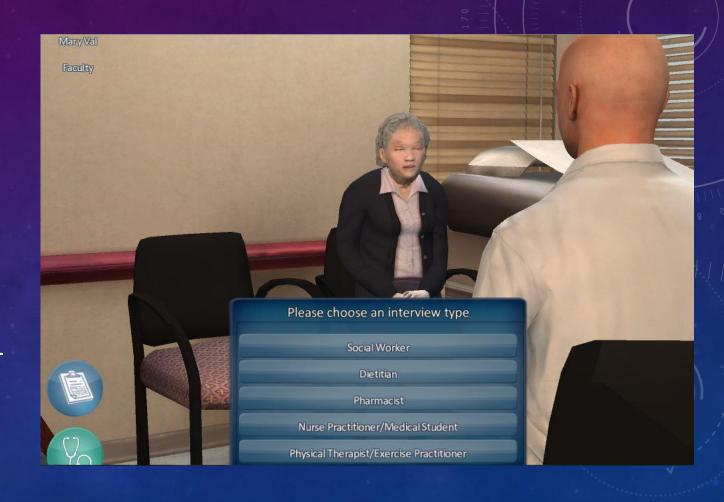
Choose the type of interview:

Social Worker

Dietitian/Speech Language Pathologist
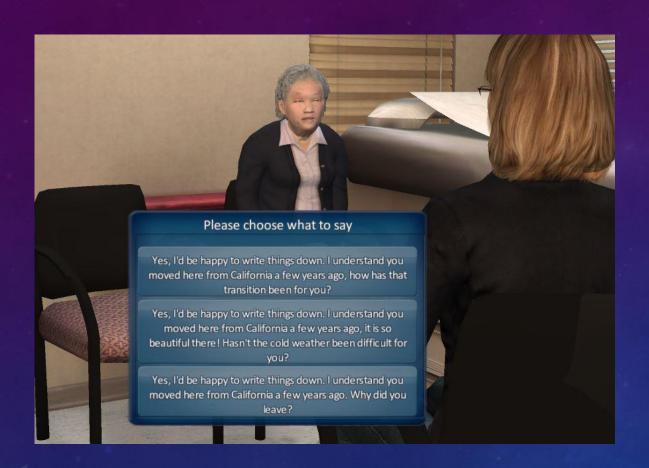
Pharmacist

NP/MD/DDS

Physical Therapist/Exercise Practitioner

METHODS – INTERVIEWING SKILLS

During the interview of Mrs. Kim, student must choose the questions that are:

- Culturally appropriate
- Open ended
- Jargon free
- Consistent with principles of Motivational Interviewing

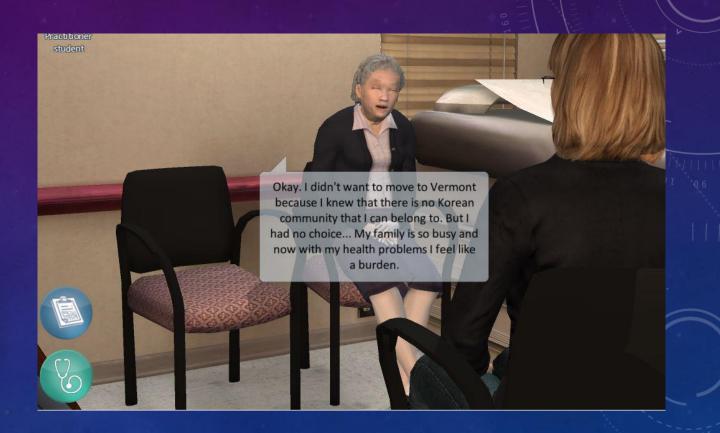Incorrect choices get instant feedback.

METHODS – INFORMATION GATHERING
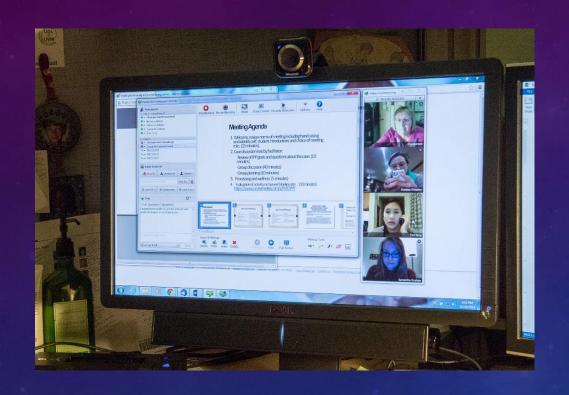
Students must:

- Listen to an interview at the pace of an elder

- Review the last primary care visit note, labs, and a recent Emergency Room note

- Physical exam not included in this visit

Okay. I didn't want to move to Vermont because I knew that there is no Korean community that I can belong to. But I had no choice... My family is so busy and now with my health problems I feel like a burden.

METHODS – IPP CASE CONFERENCING
VIDEO CONFERENCING VIA READYTALK®

Eleven interprofessional conferences (90 minutes in length) were conducted for students to collaboratively developed a plan of care for a frail elder.

EVALUATION METHODS

Data generated by the users (n=89) of an online educational game were analyzed using descriptive statistics.

A post conference survey utilized open-ended questions to provide qualitative data that further described the student experience and will be described in the next presentation.

Additionally, 14 questions scored on a Likert scale and related to IP Competency Domain Framework (IPEC,2011)

Values/Ethics

Roles/Responsibilities

Inter-professional communication

Teams/teamwork

These competencies provided a structure for the evaluation questions, and a review by faculty in each discipline also provided content validity.   Reliability of the survey instrument was not tested or established.

EVALUATION FINDINGS (N=89)

Nurse practitioner (NP=11)

Physical therapy (PT=22),

Pharmacy (Pharm=17),

Communication sciences (SLP=16),

Exercise science (ES=10),

Nutrition students (RD=7) were required to participant in the virtual clinic.

Medical (MD=3) and Social work (SW=3) students volunteered.

Participants were predominantly female (77%), white/Caucasian (83%).
Age : Mean - 27 years Range - 21 to 55 years

EVALUATION FINDINGS – TIME SPENT

- The 89 student participants conducted and finished 191 interviews in the virtual clinic with a Korean elder with multiple medical problems in preparation for a team video conference.

- Some students visited the virtual clinic multiple times to prepare for the video conference.

- There was evidence that three students did not complete the assignment.

- Physical therapy and exercise science had the highest number of users.

- The median time spent for all students was 16 minutes (range by discipline: 11.2 to 100.1 minutes).

- Median minutes by discipline were: RD (100.1), Pharm (21.2), NP (20.6), EX (18.0), MD (13.8), SLP (13.4), SW(12.4), and PT (11.2).
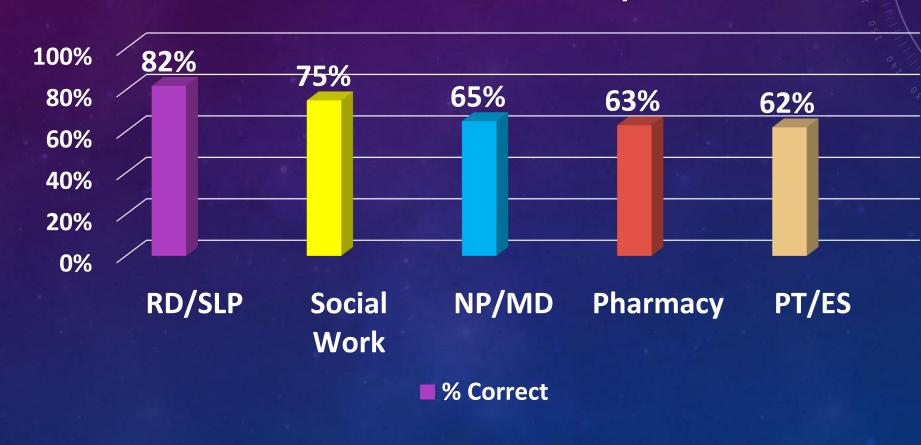
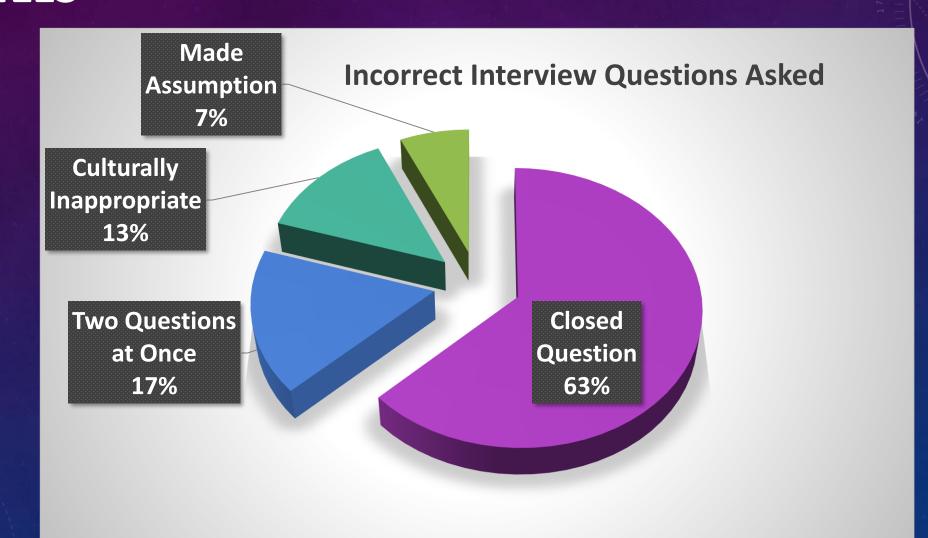# EVALUATION FINDINGS – INTERVIEWING SKILLS

Incorrect Interview Questions Asked

- Made Assumption 7%
- Culturally Inappropriate 13%
- Two Questions at Once 17%
- Closed Question 63%

EVALUATION FINDINGS – QUALITATIVE ANALYSIS

- Some appreciated practicing interview techniques in a place that was *"free of judgement".*

- Some *expressed frustrations* about the interview questions posed or the pace of speech of the Korean elder.

- Some *appreciated the feedback* on open ended questioning .

- Some appreciated *viewing the interviews of other disciplines.*
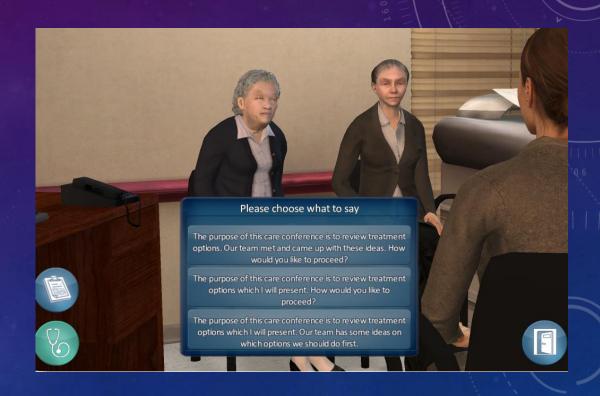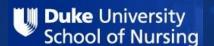

Family care planning meeting

DISCUSSION/CONCLUSIONS

- Most students *spent less than 30 minutes* in the interview and did receive feedback on culturally appropriate interviewing technique.

- The cultural learning was made possible by Mrs. Kim's answers *that highlighted the Korean culture* that is not common to the study setting.

- With the virtual clinic as a preparation for the interprofessional video conference, the students were able to *bring unique information from their interview* to share with others.

DISCUSSION/CONCLUSIONS

- Evaluation data from online educational gaming is plentiful but *can be challenging to analyze.*

- "**Gamers**" use terms such as *sessions, users, visits, time stamps, and total nodes* which need to be translated into meaningful evaluation for educators.

- The process might be appropriate for a one time game evaluations rather than after each use by faculty.
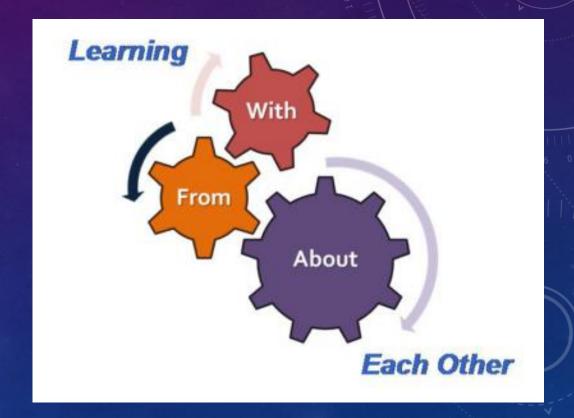
YOUNG GAMERS ROCKIN' OLD COLOGNE AT GAMESCOM 2012

DISCUSSION/CONCLUSIONS

- A virtual clinic and video conferencing can be used to *offset the logistical difficulties* of scheduling students from 8 professions in one place.

- "Serious gaming" is an *acceptable learning platform* for most students.

- Students highly value IPE opportunities and are *curious about their role in IPP*

DISCUSSION/CONCLUSIONS

- Opportunities to meet other students in-person are also highly valued by students.

- Opportunities to observe real IP team in action must be cultivated.

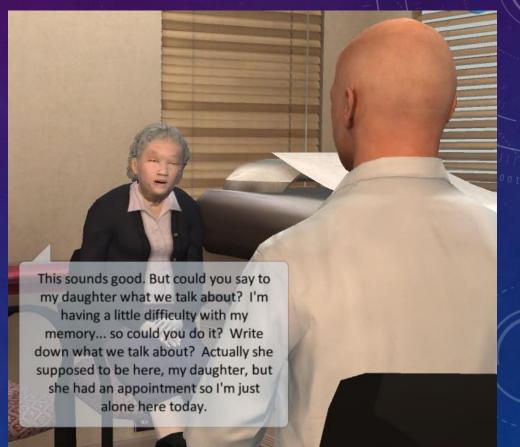- Meeting facilitation must be taught and practiced.

DISCUSSION/CONCLUSION

Creation of a virtual patient requires:

1. Resources (grant funding)

2. IP Faculty collaboration and support of effort

3. Technical expertise

4. Cultural expert consultation and actors with appropriate accents

DISCUSSION/CONCLUSION

Creation of a virtual patient has advantages:

1. IP Faculty collaboration

2. Tailored interview questions to reinforce Motivational Interviewing, cultural competency, and specific interview skills

3. Ability to adjust based on evaluations

Can an Interprofessional "Virtual Clinic" Teach Culturally Appropriate Interviewing Techniques? – YES!

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CONCLUSION/ LIMITATIONS

Small sample size

Lacking in diversity

"Gamer" data

FUTURE RESEARCH

Further research involving IP educational pedagogy and the use of distance technologies is needed.

- Compare uses of virtual clinic with larger, more diverse student groups

- Follow up with participating students regarding perceptions of interprofessional practice application in their clinical education.

FUTURE RESEARCH

- Compare uses of virtual clinic with other learning strategies (e.g., standardized patient) and evaluate their cost-effectiveness

- Faculty acceptance or resistance on the use of virtual clinic

QUESTIONS ??

Mary Val Palumbo DNP APRN GNP-BC
University of Vermont, Burlington
Vermont, USA
Mary.palumbo@med.uvm.edu