Faculty Extender Program: Implications for Global Clinical Education

Patricia Vermeersch, PhD, GNP-BC

Associate Professor

Wright State University College of Nursing and Health

Debi Sampsel, MSN, RN

Executive Director, Robot Research Principal Investigator and Executive Director

Wright State University Nursing Institute of West Central Ohio and Living Laboratory Smart Technology House

Problem

- **Faculty shortage**
- **Aging faculty and/or faculty relocating**
- **Technology being developed but not tested in nursing education**

Research Purpose

- To explore application of the robot faculty extender program (RFEP) to roles beyond but including the role of the teacher in terms of:
  - Usefulness
  - Acceptability
  - Impact

Method

- **Embedded single case design**
  - Questionnaires
  - Field notes
  - Robot data
- **Setting**
- **Sample**

Setting: Living Laboratory Smart Technology House

WRIGHT STATE UNIVERSITY

PRACTICE · RESEARCH · EDUCATION

Nursing Institute
OF WEST CENTRAL OHIO

The Living Laboratory is located on a 100 acre, Continuum Care Retirement Village, home to 800 Older adults.

Lab Opened Nov. 2009

1 of 5 METI 2010 International Simulation Innovator and Educator of the Year special recognitions at the annual METI conference, Orlando, Florida.

Telehealth Remote Presence Endpoint (RPE)

WRIGHT STATE UNIVERSITY

To date: 19 projects have been completed.

Five proposals to other countries.

2007 Nursing Institute launched the first in the world academic telehealth remote presence robot research study with eight programs of nursing faculty and students.

"Some of the Techy" family members who participate in remote presence robot studies involving students, professional and other families.

Procedure

- **Geriatric home care simulation**
- **Course coordinator "attended" each session via RPE**
- **Students and clinical faculty completed questionnaires**
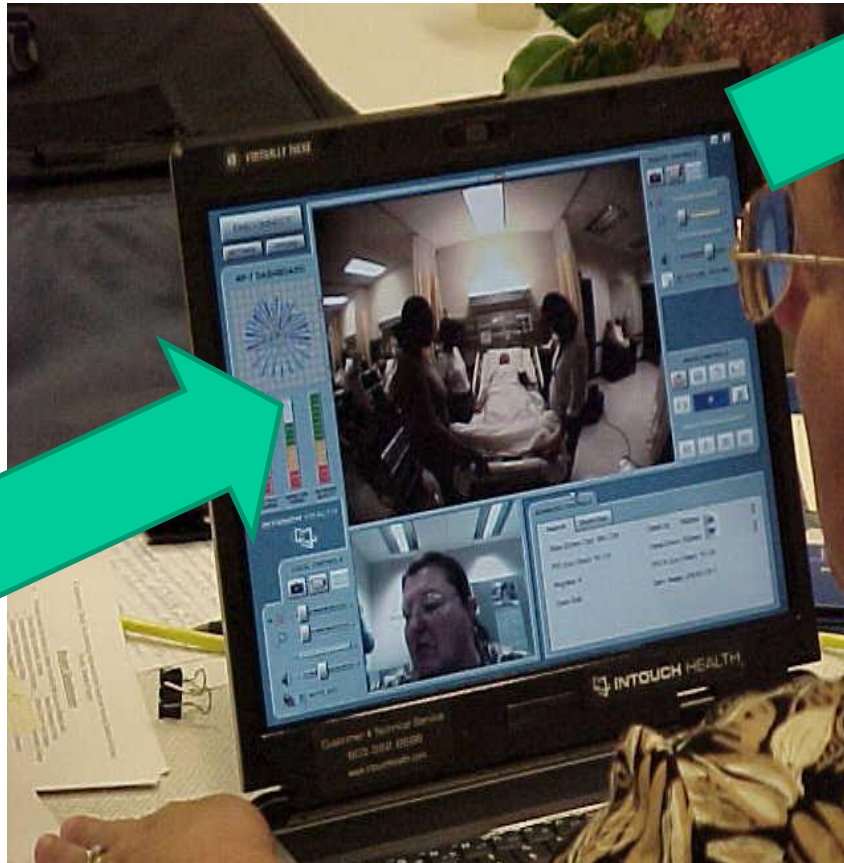- **Course coordinator kept field notes**

Remote Presence Robot Control Station

Robot control station components:

Camera
Computer
Joy Stick
Wireless
Connection
Human
operator

Dr. Vermeersch working with students, clinical instructor, while mentoring graduate student in Living Laboratory setting.

Extending the research of a seasoned faculty member from over 300 miles away from the university.

Tools Used

- **Questionnaires**
  (7 items, closed and open ended)
  - Student 80% response (n=66)
  - Faculty 100% response (n=9)
- **Field Notes** (4 days, 9 groups)
- **RPE data** (estimated)
  - Total connect time ~32 hrs
  - Lost connectivity time ~ 4 hrs

Questionnaire

- **Most students (89%) had *no* prior exposure to robots**
  - but most (56%) faculty did
- **General response to the robot was mixed for students and faculty.**

Overall response		
Positive	16	4
Negative	20	2
Mixed/Unsure	20	3

Questionnaire

- **Most students and faculty felt the robot could be useful as a faculty extender, primarily as**
  - Educational source
  - Provide immediate interaction
  - Provide healthcare collaboration

Questionnaire

- **Effectiveness could be improved by**
  - Eliminating technical difficulties
  - Enhancements to the robot
  - Better student and faculty preparation

Field Note Themes

- **Usefulness**
  - Work productivity
  - Functionality of the technology
- **Acceptability**
  - Degree and type of interaction
- **Impact**
  - On nursing process, learning
  - On use of the technology

Limitations

- **Small sample**
- **Timeframe too short to evaluate impact**
- **Confounded results by using *with* simulation**

Conclusions

Results of this study support the potential use of the remote presence endpoint (aka robot) as a faculty extender.

Implications

- **Potential to access nursing experts around the world in real time**
- **Potential to extend the "work life" of experienced faculty with disabilities or who move**
- **Much more research needed**
  - Cost/benefit
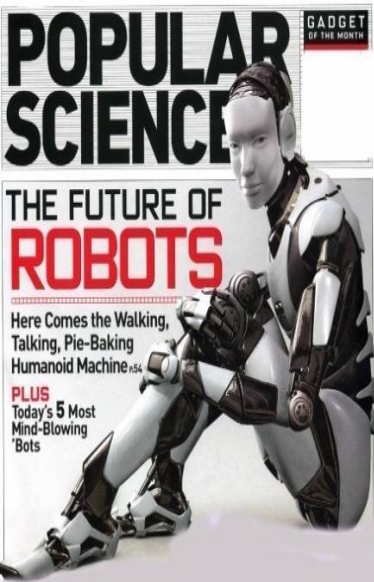
Questions

Dr. Patricia Vermeersch, PhD, GNP, Associate Professor
Kent State University
pvermeer@kent.edu
330-672-8817

and

Debi Sampsel, MSN, RN
Executive Director, Nursing Institute
Wright State University
College of Nursing and Health
Dayton, Ohio
937-775-3940
Debi.sampsel@wright.edu