AN ACCENT MODIFICATION INTERVENTION FOR NURSING AND ALLIED HEALTH STUDENTS

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AFRICA

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Sigma Theta Tau International

ACKNOWLEDGEMENTS

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- Texas Woman's University
  - Dr. Neely, Provost
  - Dr. Jennifer Martin, Sr. Associate Provost
  - Dr. Joshua Adams, Exec Director Pioneer Center of Student Excellence

STUDY RESEARCH TEAM

- Academic Nursing

- Clinical Nursing

- Education

- Occupational Therapy

- Psychology

- Library Science

- Information Technology

- Statistician

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OBJECTIVES

1) Discuss healthcare communication issues associated with accents.

2) Review study methodology.

3) Assess the study results.

4) Describe opportunities for sustainability of this program.

TEXAS MEDICAL CENTER

- Texas Woman's University is housed in the Texas Medical Center

  - Largest medical center in the world
  - 59 institutions
  - 90+ languages spoken
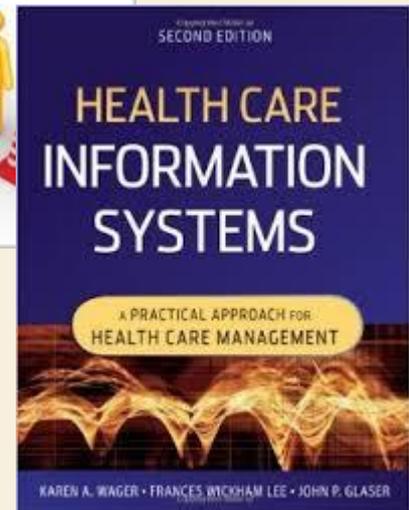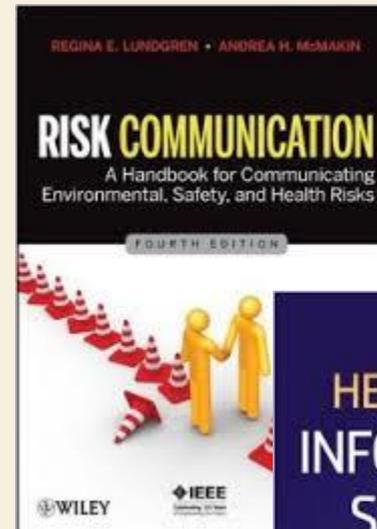 - Overcoming communication barriers is a key challenge

NEEDS ASSESSMENT
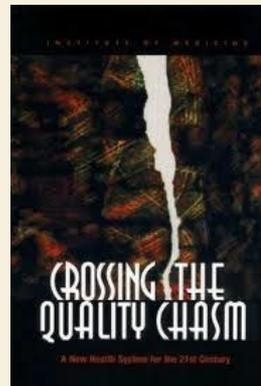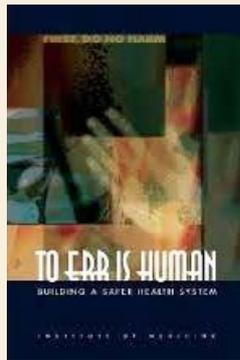
NEEDS ASSESSMENT

- Electronic Patient Records

- Social Media and Mobile Devices

- Translation Services

- Error Reporting

REGIONAL & FOREIGN ACCENTS

- Accents are problematic when other people cannot understand what is being said.

REGIONAL & FOREIGN ACCENTS

- Nurses & nursing students have been had difficulties communicating with:

    - Patients and family

    - Other members of the health care team

- These communication problems can occur:

    - 1:1

    - Shift report

    - Telephone

PSYCHOLOGICAL FALLOUT

Speakers who have an accent:

- Are asked to repeat themselves frequently.

- Feelings of

    - Being devalued.

    - Perceiving others see them as less intelligent

    - Being inferior.

- May avoid social interaction.

METHODS

STUDY DESIGN

➢ One group pretest-posttest

➢ Hypotheses: participants who have taken an accent modification program will report:

   ➢ a) decreased communication apprehension

   ➢ b) improved communication competence

   ➢ c) enhanced self-esteem

   ➢ d) improved spoken language skills.

➢ Study ran over three semesters (fall 2014, spring & fall, 2015)

STUDY DESIGN

➢ Post Program Focus groups:

➢ What are the lived experiences of students who participate in an accent modification program?

POPULATION

- In semester one and two, student participants were recruited from all colleges and schools in Texas Woman's University, Houston:

  - Nursing, PT, OT, Dietary, and Health Care Administration

- In semester three, participants were recruited from Texas Woman's University (students, faculty, and staff) and from Hospitals in the Texas Medical Center

SAMPLE

- Convenience sampling

- Self-selection

  - Participants perceived they had an audible regional or foreign accent making it difficult for others to understand

- Minimum sample size needed for significance = 27

  - A priori power analysis significance with a desired level of power set at .80, an α-level at .05, and a moderate effect size of .25 (f) and .50 (dz).

IRB

Office of Research & Sponsored Programs

Institutional Review Board

- The greatest risk in the project was that students may feel the project conveyed prejudice or bias toward English as Second Language students.
  - Steps taken to minimize this risk was to invite all university students to self-select into the research program.
  - In addition, students who believed they had a regional accent were also invited.

INTERVENTION

- Accent modification taught by a licensed speech pathologist

- 12 weekly one hour classes

- Classes included

    - Role of Melody

    - Pronunciation of vowels and consonants

    - Pronunciation of words including heath care words

    - Class participation

    - Use of IPhone or other device to do self-videotaping of mouth movements.

- Homework encouraged for 10 minutes a day
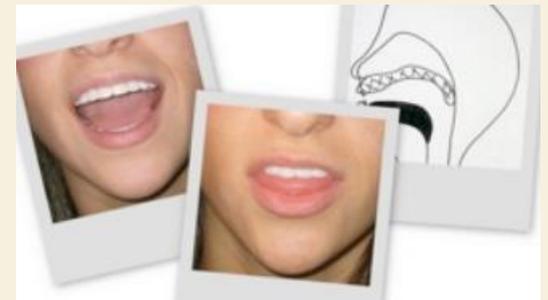
INSTRUMENTS

- All pre and post data collected via Surveymonkey.com

- Demographics
    - gender
    - marital status
    - ethnicity
    - race
    - education
    - field of study
    - country of origin
    - age when English first spoken

INSTRUMENTS

- Rosenberg Self-Esteem Scale
  - 10 Likert style items
- Personal Report of Communication Apprehension
  - 24 Likert style items
- Self-Perceived Communication Competence
  - 12 Likert style items

RESULTS

DEMOGRAPHIC STATISTICS

Participants (n=27) completing the program included:

- 18 nursing students
- 3 health care administration students
- 1 staff member
- 5 nurses from the Texas Medical Center (course offered for a fee)

DEMOGRAPHIC STATISTICS

Categorical demographic variable	n	%
Gender		
Female	24	88.9
Male	3	11.1
Marital Status		
Married	19	70.4
Single/Divorced	8	29.6
Ethnicity		
Not Hispanic or Latino	23	85.2
Hispanic or Latino	4	14.8
Race		
Asian	14	51.9
Black or African American	6	22.2
Other	7	25.9

DEMOGRAPHIC STATISTICS

Current Education Level

Greater Than or Equal to 2 Years of College	14	51.9
Bachelor's Degree	10	37.0
Graduate Degree	3	11.1

Country/Area of Origin

Asia	13	48.1
Africa	6	22.2
North/South America	2	7.4
Other	6	22.2

Age When English Speaking Began

As a child	3	11.1
Later on in life	24	88.9

DEMOGRAPHIC STATISTICS

Number of Years in a Country Where English is the Primary Language		
1 Year or Less	5	18.5
3 Years to 5 Years	4	14.8
More Than 5 Years	18	66.7
Age		
M	32.37	
SD	7.77	
Min	23	

RESULTS

Differences between Pre and Post Intervention Scores

Categories (x-axis): Self-Esteem *, Group Discussion (PRCA), Meeting (PRCA), Interpersonal Conversations (PRCA), Public Speaking (PCRA), Overall Communication..., Public (SPCC), Meeting (SPCC) *, Group (SPCC) *, Interpersonal (SPCC) **, Stranger **, Acquaintance *, Friend, Overall SPCC Score **

Legend: Pre (blue), Post (red)
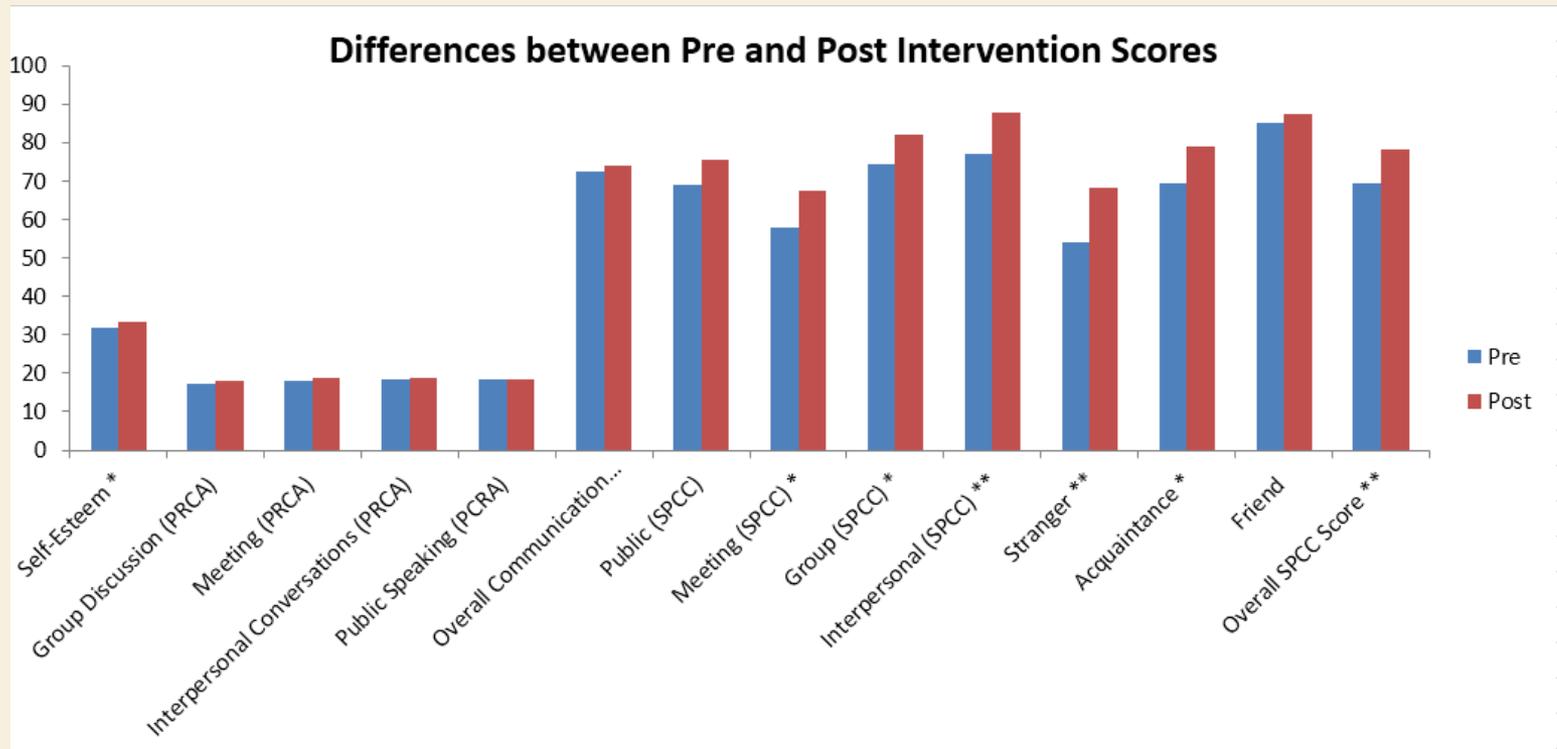
SELF-ESTEEM

- Participants had significantly higher self-esteem scores at posttest

- (*M* = 33.48, *SD* = 5.42) than at pretest (*M* = 31.89, *SD* = 5.47), *Z* = -2.03, *p* = .043.

COMMUNICATION

- Significantly higher (better) scores in:

▪ competence communicating in <u>meetings</u> scores at posttest (*M* = 67.46, *SD* = 24.01) than at pretest (*M* = 57.84, *SD* = 27.44), *Z* = -2.56, *p* = .011.

▪ competence communicating in <u>groups</u> at posttest (*M* = 82.23, *SD* = 14.72) than at pretest (*M* = 74.36, *SD* = 22.86), *Z* = -2.15, *p* = .032.

COMMUNICATION

- competence communicating with <u>strangers</u> at posttest (*M* = 68.27, *SD* = 21.00) than at pretest (*M* = 54.10, *SD* = 31.99), *Z* = -2.68, *p* = .007.
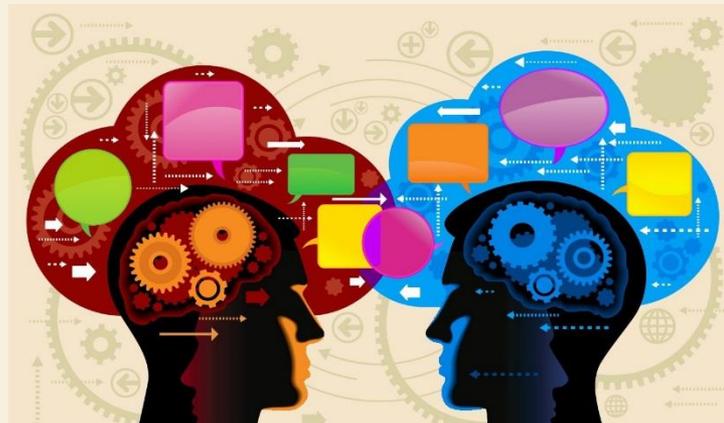
COMMUNICATION

- competence communicating with <u>acquaintances</u> at posttest (M = 79.08, SD = 17.13) than at pretest (M = 69.47, SD = 25.11), Z = -2.45, p = .014.

- competence communicating in <u>interpersonal situations</u> at posttest (M = 87.98, SD = 13.66) than at pretest (M = 77.16, SD = 19.50), Z = -2.76, p = .006.

- <u>overall competence</u> communication scores at posttest (M = 78.31, SD = 15.11) than at pretest (M = 69.59, SD = 20.91), Z = -2.80, p = .005.

FOCUS GROUP RESULTS

- Surprise finding

  - Students indicated they understood what others were saying better!

DISCUSSION

RELATED LITERATURE

- Accent modification studies have begun to emerge in the literature:
  - 13 nursing students
    - Improved clarity of communication
  - 82 medical internists and researchers
    - Improved pronunciation, intonation, and fluency of speech

RELATED LITERATURE

- One qualitative study was uncovered which discussed the experience of an accent modification program

- 14 nurses

  - Six qualitative themes 1) equipped to overcome accent 2) confident that I can be understood, 3) I talk with purpose 4) I want to be engaged 5) My accent is part of me and 6) I am not antisocial.

INSIGHT

- This study provided new evidence suggesting that accent modification programs may improve self-esteem and self-perceived communication abilities.

LIMITATIONS

Weakness of a one group pretest posttest design:

- History: Events outside of the intervention or participants may affect the measurement (i.e. making friends)

- Maturation: Change within the participants which may affect the measurement (i.e. effect of taking classes over time)

- Testing: When the testing itself affects the participants

SUSTAINABILITY

- Private accent modification classes

- Free online iTunes programs

- Fee based Online programs

- University programs – For example
  - University of Missouri
  - San Diego State University
  - Emory University
 - University of Houston

SUSTAINABILITY

- This study was done in the TWU Pioneer Center for Student Excellence. We are currently transitioning the program to this Center.

- The course was offered free to students, staff, and faculty.

- The course was offered to individuals in the Texas Medical Center for an affordable fee.

Pioneer Center for Student Excellence

IMPLICATIONS FOR RESEARCH
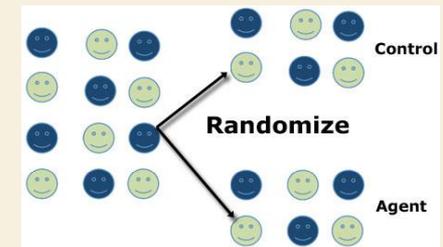
- Randomized control trial studies
    - Pre and post testing of speech patterns and intelligibility
    - Long-term studies on psychological indicators
    - Is there increased understanding of what others are saying?

- Hospital and other health care organization studies on the effect of an accent modification program on the following indicators:
    - Patient satisfaction
    - Patient safety

THANK YOU!

- Dr. Freysteinson: Wfreysteinson@twu.edu

References available upon request