

Session 1

Language and Literacy in Healthcare: An Accent Modification Program

Dr. Wyona Freysteinson is an associate professor at the Nelda C. Stark College of Nursing at Texas Woman's University in Houston. She teaches undergraduate, masters, DNP, and PhD nursing students. Dr. Freysteinson's research trajectory is called "The Language of Clinical Scholarship". She is committed to improving clinical communication through research. The study she is presenting was her team project as a Sigma Theta Tau Nurse Faculty Leadership Scholar 2014-2015.

Dr. Sandra Cesario, the Coordinator of the DNP & PhD Programs and a tenured Professor in the College of Nursing at Texas Woman's University in Houston, is a woman's health specialist with 40 years of clinical, research, education, and policy development experience. She has provided care to women and newborns throughout the United States and internationally and was inducted as a Fellow in the American Academy of Nursing in 2008. Dr. Cesario was instrumental in the development and initiation of the Language of Scholarship project.

Language and Literacy in Healthcare: An Accent Modification Program

3RD ANNUAL CULTURAL INCLUSION INSTITUTE:
RELATING CULTURAL INCLUSIVENESS TO SOCIAL
DETERMINANTS OF HEALTH,
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Wyona M. Freysteinson, PhD, MN, Associate Professor,
Sandra Cesario PhD, RNC, FAAN, Professor
Nelda C. Stark College of Nursing, Texas Woman's University

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Texas Woman's University

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Karen Morin, PhD, RN, ANEF, FAAN



Multidisciplinary Team

- Academic Nursing
- Clinical Nursing
- Education
- Occupational Therapy
- Psychology
- Library Science
- Information Technology



Multidisciplinary Team



- Joshua Adams, Ed.D., Executive Director, Pioneer Center for Student Excellence, TWU
- Sandra Cesario PhD, RNC, FAAN, Professor, Nelda C. Stark College of Nursing, TWU
- Hanna A. Belay, PhD, RN-BC, Education Specialist, CHI St. Luke's Health Baylor St. Luke's Medical Center
- Patricia Bowyer, OTR, EdD, Professor/Associate Director, School of Occupational Therapy, TWU

Multidisciplinary Team



Paula Clutter, PhD, RN, CNL, CNE, CENP, Associate Professor, Nelda C. Stark College of Nursing, TWU

Jinlan (Iris) Du, BA, MS, Systems Engineer, ITS Department, TWU

Betty M. Duson, Ph.D., Licensed Psychologist and Health Service Provider, Counseling Center, TWU

Marilyn Goff, Librarian 11, TWU Library, Houston, TWU

Rachelle Nurse, PhD, RN, WHNP-BC, Assistant Professor, Nelda C. Stark College of Nursing, TWU

Objectives

1. Outline the need accent modification programs in health care.
2. Review the study.
3. Examine the findings.
4. Discuss implications for sustainability and research .

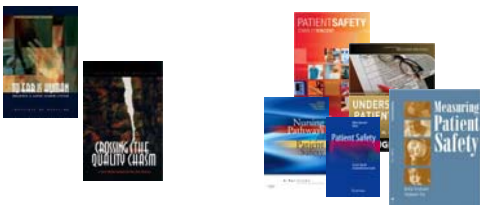
Texas Medical Center

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



The Elephant in the Room



Uncharted Territory



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



A magnifying glass with a black handle is positioned over a small globe of the Earth. The lens of the magnifying glass is focused on several colorful pushpins (red, yellow, green, blue) that are stuck into the top of the globe. The word "Methods" is written in a large, black, sans-serif font to the left of the magnifying glass.

Study Design



- One group pretest-posttest
- Hypotheses: participants who have taken an accent modification program will self-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)

A flowchart at the top of the slide shows three ovals in a row: a blue oval labeled "Pretest", a green oval labeled "Intervention", and an orange oval labeled "Posttest". Arrows point from "Pretest" to "Intervention" and from "Intervention" to "Posttest".

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).

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 health 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



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.

▪ One student who believed she had a regional accent that made it hard for others to understand her did take part in the study.

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) – 1 nurse from the TMC took the course but did not participant in the study.

Demographic Statistics

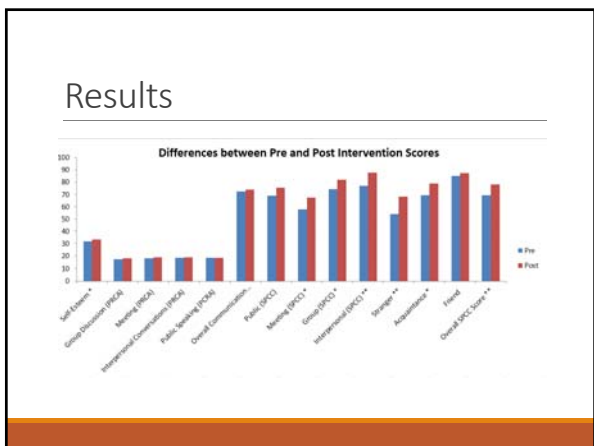
Categorical demographic variable	n	%
Gender		
Female	24	88.9
Male	3	11.1
Marital Status		
Married	19	70.4
Single/Divorced	8	29.6
Ethnicity		
Not Hispanic or Latino	23	85.2
Hispanic or Latino	4	14.8
Race		
Asian	14	51.9
Black or African American	6	22.2
Other	7	25.9

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		
1/2 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	
Max	47	



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 meetings 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 groups 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 strangers 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 acquaintances 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 interpersonal situations at posttest ($M = 87.98, SD = 13.66$) than at pretest ($M = 77.16, SD = 19.50$), $Z = -2.76, p = .006$.
- overall competence 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



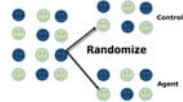
Sustainability

- We worked with the Texas Woman's University 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.



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



Discussion

- Would an accent modification program be appropriate for the environment where you work?



Thank you!

We can be reached at:

Dr. Freysteinson: Wfreysteinson@twu.edu

Dr. Cesario: Scesario@twu.edu

References available upon request
