



SCHOOL OF NURSING

Nursing Gerontology Course, Student Empathy and Interest in Working with Older Adults: A Phased Study



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Introduction

There has never been a more important time to prepare nurses to care for our aging population. The exponential increase in the global population > 65 years of age is creating a significant need for gerontological nursing expertise. Nursing education programs are challenged to prepare students to care for an aging population. A greater understanding of how nursing education affects nursing students' attitudes toward persons who are aged could guide future nursing curricula development to stimulate interest in caring for older adults. One especially vulnerable subgroup of the aging population is persons with dementia (neurocognitive disorder or NCD). Persons with NCD need for caregivers to be understanding and sensitive to what they are experiencing. Empathy is widely accepted as an essential nursing attribute, but little research has been done examining the relationship between caregiver empathy and persons with NCD nor what specific teaching/learning methods might be effective in enhancing perceptions of empathy.

Purpose

The purpose of this current phase of a larger planned study was to examine pre- to post-test effects on empathy of an undergraduate, pre-licensure, BSN curriculum Gerontology course (NURS 3580) at a large public university in Middle Tennessee, United States. This was done during Spring 2019 semester as Phase I because in the next subsequent semester (Fall 2019), we plan to add a “sensory immersion” NCD simulation experience into the Gero course syllabus/schedule, which will be Phase II of the study.

The research questions were: 1) In undergraduate, pre-licensure BSN student nurses (NURS 3580), is there a relationship between a didactic nursing Gerontology course and student empathy? 2) Is there a difference in student empathy between NURS students taking the Gero course and Nutrition students taking NFS 4305 Nutrition Coaching & Counseling Skills? NFS students volunteered to be a comparison interdisciplinary group.

Methods

Study Design – quasi-experimental, pre-test post-test, repeated measures with mixed methods

Sample – convenience sample, non-randomized. The study is IRB-approved.

N=34 NURS 3580 students took pre-test Kiersma-Chen Empathy survey (KCES) in January 2019 on first day of course. N=8 NFS 4305 also took KCES first day of course. N=20 NURS 3580 students took post-test KCES on last day of course. No NFS students completed the post-test KCES. There were 15 pairs NURS 3580 that were a match for pre-test to post-test.

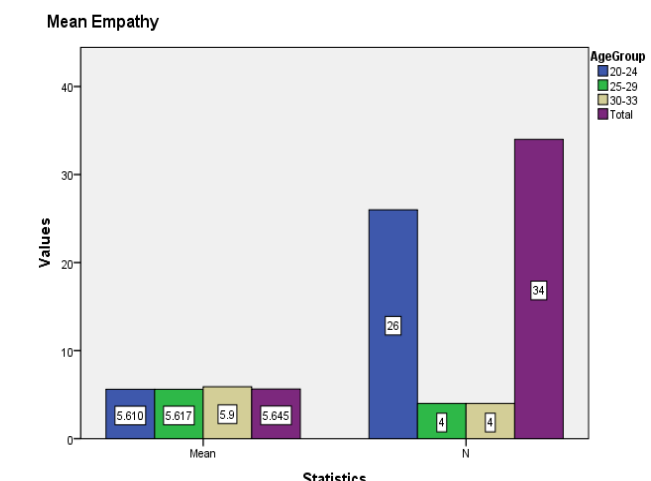
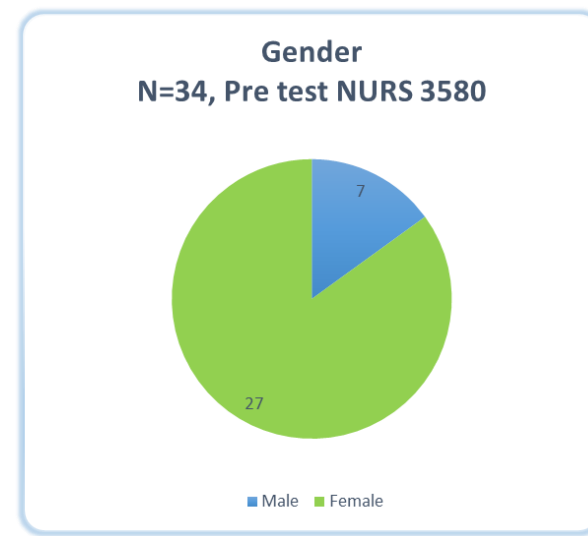
Instruments

Kiersma-Chen Empathy Scale (KCES) is a quantitative instrument which has 15 Likert-type questions, scale 1 – 7 going from “strongly disagree” to “strongly agree.” The higher the mean score, the greater the empathy. There are 4 reverse coded questions that must be taken into account during data analysis. PI has obtained permission to use the instrument.. See handout KCES survey. Cronbach's alpha coefficients for the current study are: Pre-test KCES data reliability = 0.855; post-test KCES data reliability = 0.833; pre-to-post matched pairs reliability = 0.856.

Pre Test Results

Pre Test Descriptive and Bivariate, N = 34 nursing students

Demographics: Gender and Age Group		
Pre Test Spring 2019 (Before Gero course)		
Gender	N	Mean Empathy
Male	7	M=5.53, SD=.963
Female	27	M=5.67, SD=.633
Total	34	M=5.65, SD=.698
Age Group	N	Mean
20-24	26	M=5.61, SD=.782
25-29	4	M=5.62, SD=.227
30-33	4	M=5.90, SD=.338
Total	34	M=5.65, SD=.698



Comparisons in “mean empathy” and each covariate were conducted. As illustrated in the above graph of mean empathy and age group, there were no statistically significant differences between mean empathy and gender, age group, currently working in a direct care job, prior experience in direct care job, or previous degree. Response rate for the pre-test was 100% of the NURS 3580 class. Response rate for the pre-test was 73% of the NFS 4305 class.

Interdisciplinary

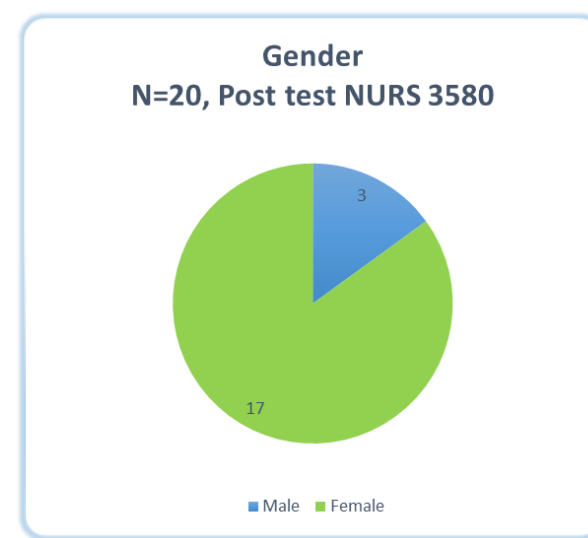
In addition to the pre-test empathy survey being completed by NURS 3580 Health and Gerontology course (N=34), it was also completed by NFS 4305 Nutrition Coaching & Counseling Skills students (N=8). The table below shows the mean empathy scores of the NFS 4305 students as compared to the Nursing students. No statistically significant difference. There were no NFS students who completed the post-test survey. This group served as a comparison group to NURS. It can be used as a baseline for future research.

	Mean Empathy	N
NURS 3580	M=5.65, SD=.698	34
NFS 4305	M=5.73, SD=.708	8

Post Test Results

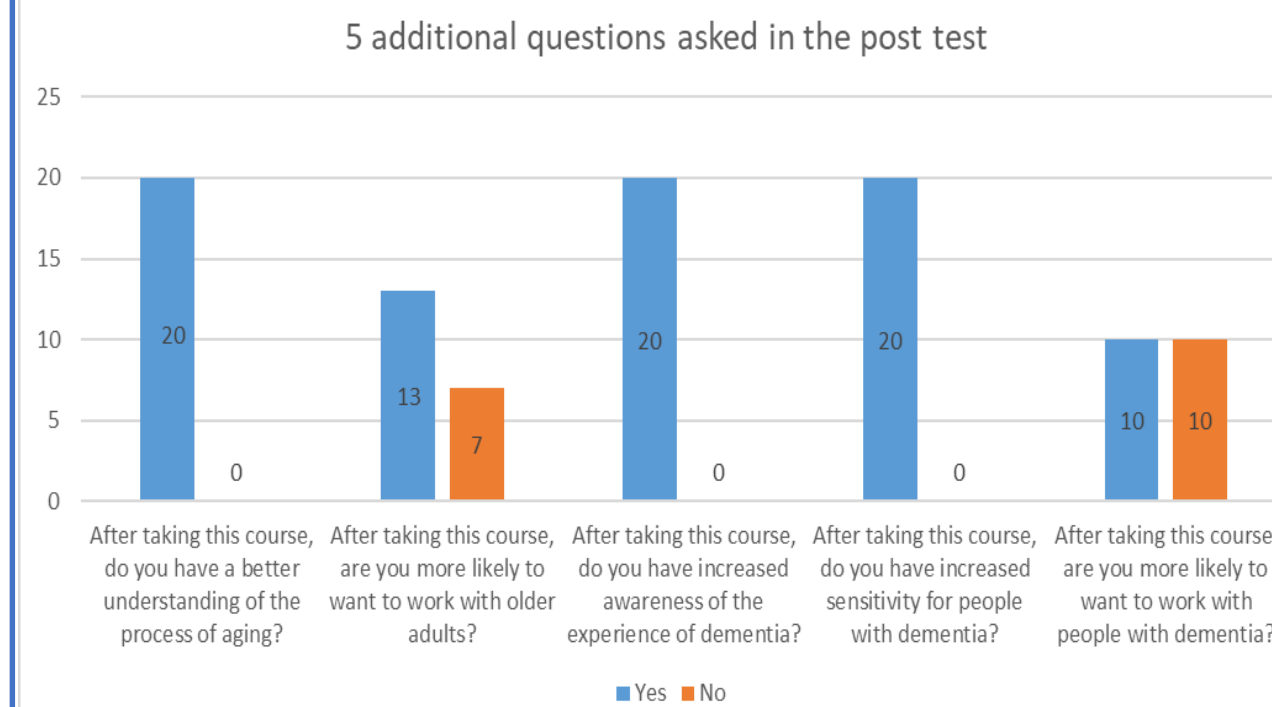
Post Test Descriptive and Bivariate, N = 20 nursing students

Demographics: Gender and Age Group		
Post Test Spring 2019 (After Gero course)		
Gender	N	Mean Empathy
Male	3	M=5.622, SD=.214
Female	17	M=5.620, SD=.859
Total	20	M=5.620, SD=.791
Age Group	N	Mean
20-24	14	M=5.49, SD=.897
25-29	2	M=6.10, SD=.047
30-33	4	M=5.85, SD=.412
Total	20	M=5.62, SD=.791



As in the pre-test data, comparisons in “mean empathy” and each covariate were conducted. There were no statistically significant differences between mean empathy and gender, age group, currently working in a direct care job, prior experience in direct care job, or previous degree.

To explore whether or not the NURS 3580 Gerontology course influenced awareness and willingness to work with older adults and people with dementia, 5 additional questions were asked of this group. Response rate for the post test was 61% of the NURS 3580 class. **Encouraging results are evident. See below.**



Pre Test to Post Test Results and Discussion

Independent samples' T-test pre to post test Gero course NURS 3850				
	TEST	N	Mean	SD
Mean Empathy	Pre_test	34	5.6451	.69838
	Post_test	20	5.6200	.79091

No statistically significant difference pre-test group mean to post-test group mean. Post-test is slightly lower (!) but not significantly.

Paired Samples Statistics - Mean Empathy Pre to Post			
Matched pair	Pretest_mean	Mean	N
		5.542	15
	Posttest_mean	5.535	15
		.7184	.8822

No statistically significant difference pre-test mean to post-test mean for 15 matched NURS 3580 pairs.

Discussion

KCES items have excellent reliability demonstrated by Cronbach's alpha analyses. None of the demographic variables make a significant difference in mean empathy in any data sets.

Completion of NURS 3580 Gerontology course made no statistically significant difference in mean empathy. Fortunately, extra questions were asked in the post-test that indicate positive results from taking the course. 100% of the respondents reported increased understanding of the aging process, increased awareness of the experience of dementia, and increased sensitivity for people with dementia. 65% indicated that they would be more likely to want to work with older adults after taking this course. 50% said that they would be more likely to want to work with people with dementia after taking this course. This is very good news, as the population of adults over age 65 is ever-increasing and as the prevalence of dementia multiplies steadily.

A goal for healthy aging is to enhance quality of care and safety, and quality of life in general, in all settings pertinent to older adults. One way to assist with this goal is to interest more nurses in working with older adults, in particular the vulnerable group of persons who have dementia (neurocognitive disorder).

Next Steps

Purchase of Second Wind Dreams® organization's Virtual Dementia Tour® is planned for summer 2019 at the MTSU School of Nursing. Faculty require training in facilitation of the program and lab space. The Virtual Dementia Tour (VDT) is an immersion environmental simulation that briefly and intentionally, in a controlled setting, uses the sensory distortion of participants to enable them to feel what it is like to be “old” and have dementia. Our plan is to incorporate this simulation into the NURS 3580 course starting fall 2019.

The KCES will again be administered at the beginning and end of the course. But this time there will be a new teaching-learning exercise added to the course – the VDT. In addition to KCES pre and post tests as done in Phase I, there will be a short assessment of perceptions and attitudes immediately before and after the participant experiences the VDT. This assessment comes with the VDT program.

Many different data analyses will be possible. Of great importance is studying whether adding the VDT to the Gero course makes a difference in student empathy. Presuming that nursing students already possess a fairly high degree of empathy (as was demonstrated in the current study), there may not be much capacity for improvement. One lesson learned from the current study, however, is to ask the 5 questions that were added to the post-test in Phase I to the pre-test questions in Phase II as well, and consider using a Likert scale instead of dichotomous. Stimulating student interest in working with older adults in general and more specifically, persons with dementia, can potentially encourage future nurses' desire to work with this very vulnerable and growing population.

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