

Improvement of Knowledge and Attitudes in Aging and Healthcare: Efficacy of an Integrative Undergraduate Geriatrics Education Program

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The research reported on this poster was supported by the D.W. Reynolds Foundation

Survey

Aging and Health Care: Medical Students' Perceptions

The following survey is about aging and the healthcare of older adults. This survey is being given to medical students at several other universities and will assist us in identifying ways to improve education

Please use the scale to indicate the degree to which you agree or disagree with each statemen (SA - Strongly Agree, A - Agree, N - Neither Agree or Disagree, D - Disagree, SD - Strongly Disagree

5. Older adults should be treated as equal partners in their own health care.....

16. I am comfortable talking with an older patient about their death...

24 Physicians need to understand issues of quality of life for an older adult

29. Physicians can improve the quality of life for their older patients....

31. It is important to listen to the stories of older adults even if they are

32. Loss of independence is the most important concern for the older adult.....

33. I would prefer not to provide medical care to older adults.....

35. The contacts I have had with older people have been positive..... 36. As adults become older, most become less attractive.....

38. Other health care professionals do not enjoy caring for older patients.....

40. Older adults primarily want reassurance from their health care provider.....

30. I have had a great deal of contact with older adults.....

27. I enjoy being around older adults ...

34. Increasing pain is a natural part of aging

overall curriculum......



Introduction

Entering medical students hold many misconceptions about aging¹. Although some geriatric educational interventions have shown positive and improved changes in students' perceptions of older adults^{2,3}, few models offer a competency-based integrative program across the undergraduate curriculum. Over the past 4 years, with UT-Southwestern Aging and Geriatrics Education Program (SAGE), 22,323 person-hours per year of geriatric content were added to our curriculum.

Our objective is to determine to what the extent the UT-SAGE curriculum influenced medical students' perceptions on aging and healthcare.

UT-Southwestern Aging & Geriatrics Curricula Components⁴

MS1 Geriatric Content:

"Your SAGE Cadaver" lecture in Anatomy; On-line Cell Biology modules showing normal aging in skin, blood vessels & immune system; "SAGE Tips" for Academic Colleges; Annual "Senior Mentor" experience; Interpersonal education session in Colleges with health professionals.



MS2 Geriatric Content:

Content in pharmacology related to aging; inclusion of experiences a long-term care facilities; SAGE Tips; Annual conference: "Aging for all the Specialties."

MS3 Geriatric Content:

FM clerkship added specific geriatric patient encounters & competencies to clinical passport: Students in IM clerkship rotated in "Eisenberg Service" a geriatric oriented inpatient; On-line modules for delirium, peripheral neuropathy & abnormal gait; 7 geriatric cases added to OSCEs.



MS4 Geriatric Content:

Ambulatory care rotation added geriatrics small transitions-of-care, palliative care; Web-based interactive

Methodology

Method and Participants

Using a longitudinal survey design, one class of medical students were tested at two different time periods in their training.130 first year medical students were administered a paper/pencil aging and healthcare perceptions survey at the beginning of their training (10/30/09). Three years later, (6/25/12) at the end of their third year of training, 212 students were re-administered the same survey.

The Survey Instrument

A new 40-item Likert survey: Aging & Healthcare: Medical Students Perceptions developed by the University of Arizona⁵ was used to capture changes in knowledge and attitudes on aging and healthcare over the course of three years of medical training.

group case-based discussions; Morning report for Sub-Internship included 8 hrs/mo focus on TOC module incorporated content related to hospital discharge (available POGOe).

Data Collection

- Paper surveys were scanned into an Excel file with Remark™ software.
- Excel file was imported into SPSS for analysis.

Analysis

An independent-samples t-Test was conducted on the mean score of 36 survey items at 1st year of training and the mean score of the same survey at the 3rd year of training.

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- Levene's Test for Equality of Variances was used to determine which t-Test for equality of means was valid.
- The effect size was calculated using Eta squared. Cohen's Effect size scale was used to determine the strength of the differences, (small = .01; moderate = .06; large = .14).

Results

Table 1. Comparing the change in Aging & Health Care Perceptions between 1st year and 3rd year of medical training 5 = Strongly Agree; 4 = Agree; 3 = Neural; 2 = Disagree; 1=Strongly Disagree

Survey Item on Aging & Health Care	Year 1 Mean 2009	Year 3 Mean 2012	P-value	Effect Size (Eta Squared)
Highly Significant Differences on Survey Items				
4. Medical Education needs expanded curriculum on how to care for older patients.	4.33	3.86	<.001	.100
6. I feel very comfortable around older adults.	3.88	4.23	<.001	.050
10. My fellow students truly respect older patients.	3.38	3.80	<.001	.070
15. Generally the physician knows what is best for their older patient.	3.52	3.22	<.001	.040
16. I am comfortable talking with an older patient about their death.	2.88	3.35	<.001	.050
17. My fellow students do NOT enjoy caring for older patients.	3.00	2.72	.001	.030
25. Learning about how to care for older patients should be a priority for people in Medicine	3.77	4.09	<.001	.040
26. I know a lot about growing older.	2.48	3.13	<.001	.140
27. I enjoy being around older adults.	2.26	3.84	.001	.030
30. I have had a great deal of contact with older adults.	3.17	3.63	<.001	.060
34. Increasing pain is a natural part of aging.	3.30	2.58	<.001	.133
38. Other health care professionals do NOT enjoy caring for older patients.	2.94	2.73	.009	.021
39. Education on treatment of older adults is NOT well integrated in the overall curriculum.	3.28	2.96	<.001	.040
Significant Differences in Survey Items				
Older adults should be treated as equal partners in their own health care.	4.32	4.45	.050	.010
As people grow older, most become more confused.	3.03	2.82	.044	.020
8. Taking a thorough medical history with an older adult is important even if it takes extra time to get the information.	4.52	4.39	.047	.010
11. As people become older, most become depressed.	2.77	2.53	.016	.020
21. Increasing dependency on others is a natural part of aging.	3.86	3.66	.027	.014

Limitations

- The survey was not administered to a different class of beginning medical students prior to the integration of the competency based geriatrics education undergraduate program.
- This comparison could identify mean differences in perceptions on aging and healthcare to students without geriatric training at our institution.

Conclusions

- Our findings are significant since prior work has shown that medical students can develop and maintain negative attitudes towards the care of the chronically ill and geriatric patient during medical school.
- The SAGE educational program increased exposure to older patients, **improved** knowledge and reduced negative attitudes in aging and healthcare.

Results

- 1. There were significant and highly significant differences on fifty percent (50%) of the 36 survey items for medical students between the beginning of training (2009) to the time our students were at the end of the MS3 training (2012).
- 2. The magnitude of the differences in means on these 18 survey items ranged from small (Eta squared = .01) to large (Eta squared = .14).
- 3. 15% of the highly significant survey items demonstrated a large effect size.

References

- 1. van Zuilen, M. et al. 2001. Gerontol & Geriatr Educ, 21(3): 31:29.
- 2. Shue, C., et al 2005. Acad Med, 80(10):S6-S9.
- 3. Gonzales, E., et al 2010 Gerontol & Geriatr Educ, 31(3)220-34.
- 5. Tomasa, L., Senf, J. 2012. Aging & Healthcare Survey: Medical Student Perceptions. UAriziona, Dept. Family & Community Medicine.

