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Late-life Mental Health Education for Workforce Development: Brain vs. Heart?

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Abstract

Purpose—There is a shortage of mental health professionals to care for a growing geriatric population. Though not mutually exclusive, clinical and didactic educational experiences promote cognition, while affective knowledge (attitude) is promoted through non-clinical exposure to seniors. This study evaluates the relative impact of cognition and attitude on career interests among healthcare students.

Methods—We developed thirteen interactive, video-documentary “lessons” on late-life mental health presenting didactic material along with stories of actual patients and families. Four of these lessons were viewed at one week intervals by forty-two students from medical school and graduate programs of social work, psychology, and nursing. Knowledge, attitudes, and inclinations towards working with seniors were assessed.

Results—Both cognition and attitudes towards seniors improved. Linear regression shows change in attitude, not cognition, predicts interest in working with seniors.

Conclusion—Educational experiences that promote affective learning may enhance interest in geriatric careers among healthcare students.

Keywords

Geriatric Education; Workforce development; Late-life mental health education

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Supplemental Digital Content:

#1. Curriculum, Lesson Directors and Contributors, URL linkage to view lessons

#2. Assessment Instruments

#3. Linear Regression Table

Previous Presentation: none

Objective

With the older adult population in the United States projected to double between 2005 and 2030, the number of geriatric psychiatrists, psychologists, nurses clinicians or practitioners, and social workers is not adequate to meet the projected mental health needs of the burgeoning senior population.¹ To address this problem further, the Institute of Medicine recently convened a task force to address the shortage of mental health professionals trained to care for seniors.

Among mental health specialists, only 2,400 psychiatrists, or less than 7%, have “added qualifications” in geriatrics, and the number of geriatric psychiatry fellows in training is declining.² Of the 76,000 psychologists in the US, 3% view older adults as their primary professional target,³ and only 1/3 of master degree social work programs offer a concentration in aging.⁴ Given the exposure of virtually all of these trainees to at least some geriatric mental health training, the lack of career interest in working with seniors warrants an examination of our educational approaches.

In his “taxonomy of learning”, Bloom describes three domains of learning. The cognitive domain refers to acquisition of facts and reasoning ability; the motor domain includes attaining physical or motor skills; and the affective domain shapes attitudes and values.⁵ For the most part, mental health education across disciplines emphasizes the cognitive domain, focusing on diagnostic and treatment approaches. Affective learning is typically a secondary or incidental outcome of clinical experiences and not systematically promoted or addressed.

We hypothesized that affective learning, more so than cognitive learning, will modify students’ inclinations towards geriatric careers.

METHODS

Thirteen web-based interactive video documentaries on mental health and aging were created with network television documentary film makers. Physicians, nurses, psychologists, and social workers recognized as academic and clinical leaders from seven academic medical centers across the U.S. provide the factual content, while documentary-style videos of patients and their families telling their “stories” provide an affective learning experience. Each lesson is 30 to 40 minutes in duration.

Learning objectives and multiple choice test questions are integrated into each lesson. The curriculum consists of the following lessons and series: 1) Successful Aging, 2) Psychopharmacology, Depression Series (3-8): 3) Diagnosis, 4) Medication Management 5) Psychotherapy 6) Suicide, 7) Bereavement, 8) Complicated Grief; Dementia Series (9-11): 9) Diagnosis, 10) Non-Pharmacological Treatments, 11) Caregiving, 12) Psychotic Disorders, and 13) Minorities and Mental Health. The curriculum description, lesson directors and faculty contributors, and URL linkage to access the video lessons can be viewed in the Supplemental Digital Content #1(SDC). Consent to videotape was obtained from all faculty, patients and family members.

To evaluate the relative impact of cognitive and affective learning on career preferences, 42 students in medical school and in graduate programs of nursing, social work, and clinical psychology at the University of Pittsburgh were recruited through posted flyers. To avoid recruitment bias, there was no indication that the study related to mental health or to aging. This research was approved by the IRB of the University of Pittsburgh, and participants were compensated \$80 for their time.

For this initial study, four lessons were selected from the curriculum to be viewed at one-week intervals in random order on the Internet using a unique log-on and password. The lessons included in this study were: Successful Aging, Complicated Grief, Minority Elders and Mental Health, and Suicide in Late-life.

All surveys were completed on-line prior to the first lesson, and again four weeks later following the final lesson. To assess attitudes (affective knowledge) towards older adults, the Aging Semantic Differential-modified (ASD-m), was used.⁶ Cognitive knowledge of each of the topics was assessed with four to six multiple choice questions associated with each of the lessons. Of note, all questions were removed from each lesson during the video viewing to avoid “priming”. Finally, the Geriatric Recruitment Issues Study Tool was modified to assess career interests in working with seniors among students from multiple disciplines.⁷ The survey instruments are accessible through the SDC #2.

Data Analysis

Paired t-tests were used to evaluate changes from pre- to post-education assessments of cognition, attitudes and career interests. Correlations were used to assess relationship between cognitive and affective knowledge both prior to and following education. To determine whether changes in cognitive and/or affective domains predict interest in geriatric careers following education, linear regression models were computed that control for demographic variables, including discipline and years in the program, as well as pre-education knowledge, attitudes, and career interest in geriatrics.

RESULTS

The demographic characteristics are presented in Table 1. As shown in the table, there were significant improvements in both the cognitive and the affective knowledge domains, with no change in domain of career interest following education. However, one item of that domain, receptivity to “considering a geriatric career in the future”, increased significantly (mean change: 0.45; $t=2.5$; $p<0.01$).

The linear regression models are shown in SDC #3. In the complete model, including all variables, only pre-education interest in geriatrics ($\beta = .615$, $SE = 0.13$, $p < 0.0001$) and change in the affective domain ($\beta = .443$, $SE = 0.38$, $p < 0.003$) predict change in the domain of career interest in geriatrics following education. None of the other variables, including change in cognition, were significant in any of the models. Of note, initial scores for cognition and affective domains were not associated with career interest following the intervention. There were no significant correlations between cognitive and affective knowledge either pre- or post-education (pre: $r=0.07$, $p=0.63$; post: $r=-0.09$, $p=0.54$).

DISCUSSION

In this study, documentaries on late-life mental health providing both factual material as well as “human interest” stories from the viewpoints of the elderly patients and their families enhance both cognitive and affective domains of learning among students from various disciplines. Only the change in the affective domain is associated with enhanced career interest in geriatrics, with change in knowledge having little impact.

A recent review article suggests that clinical and didactic geriatric education enhances cognitive domains, but minimally affects students’ attitudes towards older adults, while “soft” or affective learning experiences, such as engaging with seniors in their communities or homes, typically yields positive changes in attitudes.⁸ Furthermore, students actively pursuing geriatric careers report more favorable attitudes toward older adults compared to

their lesser inclined colleagues, and positive personal experiences with seniors impact favorably on a selecting a career in geriatrics.⁹ Therefore, experiences within training programs that foster positive attitudes toward seniors may be a salient factor in modifying career interests.

A widely accepted axiom of marketing is that repetition of both message and interactions are critical for changing customers' attitudes and behaviors. As geriatric mental health educators, our goal should include further development of a well-trained workforce in addition to imparting clinical knowledge. Each educational encounter with students can be considered a marketing "touch", and an opportunity to further enhance cognitive, as well as affective domains of learning. To the extent that customers' (students') attitudes strongly predict behaviors,¹⁰ educational experiences that positively impact affective knowledge towards seniors is important for future workforce development. If attitudes are modified through multiple emotionally charged "touches", we may further stimulate students' interests in working with seniors as they consider their future career paths.

Promoting affective learning in geriatrics can be accomplished through a variety of approaches. In this study, video-documentaries of patients and their families were used to "touch the hearts" of the students, as well as their minds. Alternatively, students would benefit from exposure to seniors outside of clinics, such as home or senior center visits. These experiences will enable learners to appreciate concepts such as resilience and "successful aging", which are typically not the focus of clinical interactions, but will shape attitudes as well as knowledge. Furthermore, exploration of historical and cultural diversities among seniors in non-clinical settings will enrich both affective and cognitive learning experiences.

Limitations of this study include small sample size of each of the participating disciplines and restricting the study to four of the thirteen lessons. Furthermore, change in inclination to work with seniors during training may not parlay into future career choice. Further studies are planned with larger sample sizes using all thirteen lessons that will evaluate actual career decisions following training.

CONCLUSION

This preliminary study supports our initial hypothesis that affective learning, more than cognitive learning, impacts short-term career intentions across disciplines. Program and education directors who are interested in late-life mental health education as well as workforce development should consider the importance of integrating affective as well as cognitive learning into their curriculums.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Descriptive Characteristics and Key Constructs

	Nursing (n=9)	Med Student (n=11)	Soc Work (n=11)	Clin Psych (n=11)	All (n=42)
Age	Mean (Std. Dev)	33.0 (9.0)	26.0 (2.6)	31.3 (9.5)	29.1 (7.1)
Years in Program	Mean	2	2.3	1.5	2.5
Gender	Female	8	6	6	9
	Asian	0	4	0	4
	African- Am.	0	0	3	3
Race	White	9	6	7	35
Ethnicity	Hispanic / Latino	0	1	1	2
Descriptive Statistics of Key Constructs					
	Pre	Post	Difference*		
	Mean (SD)	Mean (SD)	Mean (SD)	t	df
Knowledge	14.1 (2.0)	16.8 (2.2)	2.7 (2.3)	7.52	41
Positive Attitudes Toward Aging	79.2 (9.2)	85.5 (11.8)	6.2 (9.6)	4.17	41
Career Intentions	6.5 (2.8)	6.9 (2.6)	0.4 (2.5)	1.04	41

* calculated as post scores – pre scores