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Late-Life Mental Health Education for Workforce Development: Brain Versus Heart?

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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, whereas affective knowledge (attitude) is promoted through nonclinical exposure to seniors. This study evaluates the relative impact of cognition and attitude on career interests among healthcare students.* **Methods:** *We developed 13 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 1-week intervals by 42 students from medical school and graduate programs of social work, psychology, and nursing. Knowledge, attitudes, and inclinations toward working with seniors were assessed.* **Results:** *Both cognition and attitudes toward seniors improved. Linear regression shows that 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.* (Am J Geriatr Psychiatry 2013; 21:1164–1167)

Key Words: Geriatric education, late-life mental health education, workforce development

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 United States, 3% view older adults as their primary professional target,[3] and only one-third 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[5] 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.

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We hypothesized that affective learning, more so than cognitive learning, will modify students' inclinations toward 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 United States provide the factual content, whereas documentary-style videos of patients and their families telling their "stories" provide an affective learning experience. Each lesson is 30–40 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; available online. 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 institutional review board 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 1-week intervals in random order on the Internet using a unique logon 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 online prior to the first lesson, and again 4 weeks later following the final lesson. To assess attitudes (affective knowledge) toward older adults, the Aging Semantic Differential-modified 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 Supplemental Digital Content 2 (available online).

Data Analysis

Paired *t*-tests were used to evaluate changes from pre- to posteducation assessments of cognition, attitudes, and career interests. Correlations were used to assess the 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 preeducation 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 the 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 Supplemental Digital Content 3 (available online). In the complete model, including all variables, only preeducation interest in geriatrics ($\beta = 0.615$, SE = 0.13, $p < 0.0001$) and change in the affective domain

TABLE 1. Descriptive Characteristics and Key Constructs

	Nursing (n = 9)	Medical Student (n = 11)	Social Work (n = 11)	Clinical Psychology (n = 11)	All (N = 42)
Age, mean (SD), years	33.0 (9.0)	26.0 (2.6)	31.3 (9.5)	27.0 (2.8)	29.1 (7.1)
Years in program, mean	2	2.3	1.5	4.4	2.5
Gender, women	8	6	6	9	29
Race					
Asian	0	4	0	0	4
African American	0	0	3	0	3
White	9	6	7	11	35
Ethnicity, Hispanic/Latino	0	1	1	0	2

Descriptive Statistics of Key Constructs

				Student's *t-T*est		
	Pre	Post	Difference[a]	*t*	p	*df*
Knowledge, mean (SD)	14.1 (2.0)	16.8 (2.2)	2.7 (2.3)	7.52	0.001	41
Positive attitudes toward aging, mean (SD)	79.2 (9.2)	85.5 (11.8)	6.2 (9.6)	4.17	0.001	41
Career intentions, mean (SD)	6.5 (2.8)	6.9 (2.6)	0.4 (2.5)	1.04	0.3	41

[a]Calculated as postscores − prescores.

($\beta = 0.443$, 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 posteducation (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 and "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 toward older adults, whereas "soft" or affective learning experiences, such as engaging with seniors in their communities or homes, typically yield positive changes in attitudes.[8] Furthermore, students actively pursuing geriatric careers report more favorable attitudes toward older adults than their lesser inclined colleagues, and positive personal experiences with seniors impact favorably on 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 is 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 toward 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 nonclinical 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 4 of the 13 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 13 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 curricula.

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Previous presentation: none.

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