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Improvement in Attitudes Toward the Elderly Following Traditional and Geriatric Mock Clinics for Physical Therapy Students

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Improvement in Attitudes Toward the Elderly Following Traditional and Geriatric Mock Clinics for Physical Therapy Students

*The purpose of this study was to determine whether the attitudes of students in a physical therapy education program toward the elderly could be influenced positively by (1) having classroom discussion led by an individual with expertise in geriatrics and (2) having only individuals aged 65 years or older participate in a specially designed geriatric mock clinic (GMC). Subjects were 47 first-year students divided into a control group (n=24) and an experimental group (n=23). Students in the control group participated in two 4-week clinical rotations. Students in the experimental group participated in one 5-week clinical rotation and in one 3-week GMC. Students in both groups were given a pretest and a posttest administration of the Kogan Old People Scale to assess their attitudes toward the elderly. No significant difference was found between the two groups' overall attitude scores on the pretest or the posttest results. Overall, positive attitude scores increased significantly for both groups, although the increase was greater for the experimental group than for the control group. Negative attitude scores decreased significantly for the experimental group, but did not change for the control group. We concluded that both traditional clinical rotations and a specially designed GMC influenced the students positively. Suggestions have been made for the Clinical Instructor who wishes to influence physical therapy students' attitudes to meet the increasing needs of the elderly patient population. [Brown DS, Gardner DL, Perritt L, Kelly DG. Improvement in attitudes toward the elderly following traditional and geriatric mock clinics for physical therapy students. *Phys Ther*. 1992;72:251-260.]*

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Key Words: Attitudes of health personnel; Education: physical therapist, clinical education; Geriatrics; Professional-patient relations.

The curricula of physical therapy education programs demand that students assimilate comprehensive levels of knowledge and demonstrate acceptable performance in psychomotor skills. We believe behaviors that convey appropriate attitudinal bases, however, are seldom directly addressed. In our view, role modeling by academic and clinical faculty and socialization into the profession are the primary avenues for either reinforcement of students' appropriate attitudes and behaviors or modification

of those attitudes and behaviors that are considered inappropriate. We consider these avenues reactive rather than proactive and therefore incongruent with physical therapy curricula that require students to have defined knowledge and skills.

Stereotypes of old people led to the now well-known term "ageism," a negative predisposition toward old people. This study was designed to determine whether instructional strategies could be introduced in the cur-

riculum to positively influence the attitudes of students toward older adults.

Literature Review

The influence of ageism on health care professionals in clinical decision making is a significant factor and has been the focus of several studies.¹⁻⁴ In a study by Baker,¹ 275 physicians, nurses, and social workers were given descriptions of two geriatric patients—patient A, with normal aging

symptoms, and patient B, with disease-related symptoms. Ninety-three percent of the study participants clearly identified the differences in the two patients' general health condition. Although they identified patient B to be in poorer physical condition than patient A, 60% of the participants indicated that they would prefer to work with this patient and predicted a greater sense of reward, although this patient was perceived by only 41% of the participants to have a better prognosis in 2 or 3 years as compared with patient A. Baker's study demonstrates how health care providers' attitudes may influence the care of geriatric patients who present symptoms associated with the normal aging process.

To determine whether students' stereotypes influenced their clinical decision making, Johnson et al² studied three consecutive first-year classes of medical students (N=349). Five simulated patients were presented on videotape, and the students attributed both positive and negative stereotypic characteristics (eg, openness versus rigidity, cooperativeness versus manipulativeness) to the patients. The sole elderly patient received ratings in

the bottom third of the rating scale for 8 of the 10 positive characteristics; he received ratings in the top third of the rating scale for 7 of the 10 negative characteristics.

Kvitek et al³ studied 127 physical therapists to determine, with identical patient descriptions except for ages, whether the age factor influenced their treatment goals. Results showed that the therapists set significantly less aggressive goals for a 78-year-old patient than for a 28-year-old patient. Therapists whose attitudes were more positive toward the elderly set significantly more aggressive goals for the older patient.

Attitudes toward the elderly have been found to influence both medical and physical therapy students' decisions to work with the elderly subsequent to graduation.^{4,5} Studies by Green et al⁴ showed a more positive correlation by third-year medical students between their expressed interest in geriatrics and the quality of their previous contacts with older people. Coren et al⁵ developed a questionnaire that examined the influence of biographical, experiential,

perceived socioeconomic, and attitudinal factors on physical therapy students' decisions to work with elderly patients. Six of the seven attitudinal factors affected the students' decisions either to work or not to work with older adults. Students not intending to work with the elderly believed older adults were less motivated than other patients, treatment goals were less challenging, and older patients have numerous chronic pathological conditions, making them less desirable to work with.

Lack of knowledge about a particular population may result in negative attitudes. Numerous studies of nursing, occupational therapy, physician assistant, dental, and medical students have investigated the use of instructional strategies as an influence on students' interactions with and attitudes toward geriatric patients to improve communication between the health care provider and the patient.⁶⁻⁸ Downe-Wamboldt and Melanson⁶ conducted a study on the effect of gerontological content being integrated across the 3- and 4-year nursing curricula on the attitudes of 13 3-year program and 39 4-year program nursing students. The results showed that the integrated nursing program had a minimal effect in changing students' attitudes. Todd et al⁷ found that increased knowledge levels correlated positively with 162 occupational therapy students' positive attitudes toward the elderly. The students in this study were predominantly positive at the outset, perhaps because of professional ideology and professional socialization.⁷ Attitudes of other students (physician assistant, physical therapy, medical technology, and dietitian) were affected positively during a 4-week clerkship in a study by Gardner and Perritt,⁸ who attributed the increase to both increased knowledge and experiential learning.

If experience alone with the elderly population would result in increased knowledge and thus improved attitudes, perhaps physical therapists could more readily meet the needs of elderly patients. Physicians' contact in practice with a large number of elderly patients, however, does not cor-

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This study qualified for exempt status with the University of Kentucky's Institutional Review Board.

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relate with knowledge of geriatric medicine. Data from the first Certifying Examination in Geriatric Medicine (CEGM) showed a positive correlation between physicians' formal training in geriatric medicine and better performance on the CEGM, but did not show a positive correlation between test scores and the physicians' practice.⁹ If this is true with physical therapists as well as with physicians, just spending time with the elderly will not guarantee the acquisition of the knowledge and attitudes for appropriate geriatric care.

Despite the growing need from the geriatric segment of the population, the future plans of physical therapy students do not appear to be keeping pace. A study reported by Peach¹⁰ in 1978 surveyed students from eight physical therapy schools in Wales and England and demonstrated only 14% of the students were willing to give "very high" or "high" consideration to a career solely involving elderly patients. A 1986 survey of 326 physical therapy students in the United States by Coren et al⁵ revealed that only 24% of these students intended to work primarily with the elderly during the 5 years subsequent to graduation. Despite the greater percentage of students interested in working with the elderly in this more recent survey, the needs of the aged population are unlikely to be adequately served unless more students and physical therapists develop an interest in working with the older adult.

Study Background

Students at the University of Kentucky (Lexington, Ky) have little opportunity to get specific training in geriatrics. The geriatrics course, offered during the last academic semester of the professional program, was an optional course at the time of this study. Clinical training in geriatrics is provided, but varies from facility to facility. Our students' first possible exposure to geriatrics is during the first clerkship experience, which is scheduled one-half day per week during the spring semester of the first professional school year. All first-year physical

therapy students usually complete two traditional clinical rotations (4 hours per day, 1 day per week, for a 4-week period each). At the time of this study, the University of Kentucky had 25% fewer sites available for this clerkship experience than in previous years.

The need for geriatric training, coupled with fewer available clinical education sites, led us to explore alternative approaches to traditional clinical education. A geriatric mock clinic (GMC) was designed to provide students with the opportunity to practice application of didactic material on older adults and to improve the students' interactions with and attitudes toward geriatric patients. One half of the first-year class participated in this GMC.

An experimental study was designed to determine whether the physical therapy students' attitudes toward the elderly could be influenced positively by (1) having classroom discussion led by an individual with expertise in geriatrics and (2) having only individuals aged 65 years or older participate in the GMC as patients. The students' attitudes were evaluated by comparing the results of their pretest-posttest performance on the Kogan Old People Scale (OPS).¹¹ We expected the attitude scores of the students participating in the GMC to improve significantly over the attitude scores of the students who participated in traditional clinical rotations only.

Method

Subjects

Subjects were the 47 physical therapy students (first year, professional phase) in the University of Kentucky baccalaureate degree program. The students, 13 men and 34 women, ranged in age from 20 to 52 years.

Instrumentation

All students in the study received a pretest-posttest administration of the OPS¹¹ to assess their attitudes toward the elderly. Student identification numbers were used to ensure ano-

nymity. The pretest was administered to all students prior to the starting date of the first clerkship experience; the posttest was administered after completion of all clerkships. Because there was a 16-week interval between the pretest and posttest administration of the OPS, we believe there was a minimal effect of any pretest sensitization.

The OPS¹¹ is designed to measure attitudes toward old people and consists of 34 items; 17 items express negative perceptions of old people, and the remaining items reverse the content of these negative perceptions into positive perceptions.¹¹ Thus, there are 17 matched negative-positive pairs. For example, "most old people tend to let their homes become shabby and unattractive" and "most old people can generally be counted on to maintain a clean, attractive home" are a negative-positive item pair.

The positive and negative items are placed in random order on the instrument, and each item is rated on a six-point Likert-type scale, with response options ranging from "strongly agree" to "strongly disagree." The range of scores on the OPS is 17 to 102. For the positive scale, nonageist OPS scores range from 59.5 to 102, with the higher scores representing stronger agreement with the positive items. For the negative scale, nonageist OPS scores range from 17 to 59.5. The lower scores represent a stronger disagreement with the negative items.

The Kogan OPS items¹¹ have been broken down further into interaction, perception, and socioeconomic clusters by Gardner and Perritt⁸ in a study conducted with allied health students. The clusters met the criteria for face validity. The perception and socioeconomic clusters each contain six pairs of items, and the interaction cluster has five pairs. In the interaction cluster, a positive example is "most old people are relaxing to be with" and a negative example is "most old people are irritable, grouchy, and unpleasant." A positive example in the perception cluster is "when you think about it, old people have the same

faults as anybody else," and a negative example is "most old people get set in their ways and are unable to change." An example of a positive statement in the socioeconomic cluster is "you can count on finding a nice residential neighborhood when there is a sizeable number of old people living in it." A negative statement in this cluster is "most old people would prefer to quit work as soon as pensions or their children can support them."

The OPS was scored using the procedure outlined by Kogan,¹¹ comparing posttest OPS scores with the preclerkship OPS scores. This was done within the interaction, perception, and socioeconomic clusters⁸ as well as for the overall positive and negative scores. Kogan's procedure scores the positive and negative items separately, thus yielding two overall scores for each subject and six scores for each subject within the individual clusters.

The range of scores on the perception and socioeconomic clusters is 6 to 36, with the higher scores representing stronger agreement with the positive items. For these two clusters, nonageist scores on the positive subscale range from 21 to 36. Nonageist scores on the negative subscale range from 6 to 21. For the interaction cluster, the range of scores is 5 to 30, with higher scores representing stronger agreement with the positive items. Nonageist scores on the positive subscale are 17.5 to 30; nonageist scores on the negative subscale are 5 to 17.5.

Procedure

An expert advisory panel of four experienced Clinical Instructors (CIs) from the Lexington community who practice in geriatric settings had two 3-hour meetings with the authors and a Behavioral Science Fellow to reach consensus on the study design and implementation. The director of the university's Council on Aging was contacted for a list of volunteers, and an invitation to participate in the study was mailed to each volunteer who had previously received physical therapy. Twenty-six volunteers (10

men, 16 women), ranging in age from 67 to 94 years (mean age=72.5 years, SD=6.2 years) responded. The respondents reported having diagnoses that included cerebrovascular accident, rheumatoid arthritis, hip fracture, glenohumeral adhesive capsulitis, and Dupuytren's contracture. Seven to 12 volunteers participated in each mock clinic. All volunteers completed a brief written history and were interviewed by telephone by the course instructor. A patient folder was developed on each volunteer, which included a brief written history followed by one or more assignments for the students to carry out with the patients. These assignments included history taking, evaluation procedures, treatment techniques, and patient education or home program development.

In the University of Kentucky's physical therapy program, all first-year students are enrolled in Clinical Clerkship I (CCI). For this study, the CCI class was divided into a control group (n=24) and an experimental group (n=23). The group assignments were based on a preexisting random division of the class. The control group consisted of 6 men and 18 women ranging in age from 20 to 38 years (median age=21 years, mean age=23.7 years, SD=3.6 years). The experimental group consisted of 7 men and 16 women ranging in age from 20 to 51 years (median age=21 years, mean age=24.8 years, SD=3.8 years).

Control group. Prior to their clinical rotations, all students in the CCI class had 6 hours of introduction to problem solving and patient management. Following this introduction, students in the control group participated in the traditional clerkship experience (4 hours per day, 1 day per week, for 8 weeks) at two local facilities. At the end of the first and last 4-week periods, the control group met with the course instructor for debriefing (total time=8 hours).

The amount of actual hands-on patient care that students had during their traditional clinical rotations varied from facility to facility. In most

instances, students met with a CI on a one-to-one basis.

Experimental group. Prior to the traditional and mock clinical rotations, the experimental group students participated in two 4-hour sessions of mock clinic orientation and group discussion regarding attitudes toward and interaction with the elderly as well as the 6 hours of introduction to problem solving and patient management. The two 4-hour sessions were led by the course instructor and the second author, who has extensive experience and knowledge in geriatrics.

The experimental group participated in one traditional clerkship (4 hours per day, 1 day per week, for 5 weeks) and one mock clinic (4 hours per day, 1 day per week, for 3 weeks). Formal debriefing for the experimental group did not occur after completion of the traditional clerkship, but did occur during the last hour of each mock clinic session.

Each mock clinic session began with a 30-minute orientation. Students read the patient folders, familiarized themselves with the clinic setup, and prepared their respective treatment areas. The next 2½ hours was devoted to patient treatment. Each student had direct contact with three elderly patients during the mock clinic. In the first two mock clinic sessions, each student was assisted by a student partner; in the third mock clinic session, each student worked independently. Each student simulated the role of both a student-therapist and a student-CI once during the mock clinic. With the first patient, one student was the student-therapist, while the other student functioned as the student-CI. The students reversed roles with the second patient. For the final treatment session, each student treated a patient independently. During the mock clinic, supervision was provided at a ratio of 1:6 or better by two physical therapists, a Behavioral Science Fellow, and the second author. Feedback was provided, as appropriate, during treatment. In the last hour of each mock clinic session, the students were debriefed as a group

Control Group		Experimental Group
Week 1	Introduction to Problem Solving and Patient Management	
Week 2		
Week 3	Traditional Clerkship	Attitudes Toward the Elderly
Week 4		Interaction with the Elderly
Week 5		Traditional Clerkship
Week 6		
Week 7	Debriefing	
Week 8	Traditional Clerkship	Mock Clinic
Week 9		
Week 10		
Week 11		
Week 12	Debriefing	

Figure. Schedule of classroom and clinical learning experiences.

on the therapist-patient interactions and physical therapy skills observed by the course instructors. Students also asked questions and shared with the group their discoveries or the problems they had had with their patients during the debriefing sessions. The total experiential span for each group was 12 weeks and is summarized in the Figure.

Data Analysis

The overall positive and negative attitude scores as well as the scores within the interactive, perceptive, and socioeconomic clusters⁹ from the posttest were compared with the preclerkship OPS scores.

Results

A Student's two-tailed *t* test for independent means was performed to determine any differences in the overall attitude scores of the two groups and any changes in OPS pretest and posttest administration. No significant difference was found between the two groups' overall attitude scores on the pretest or posttest results. Positive attitude scores increased significantly for both the experimental group ($P < .001$) and the control group ($P < .02$). Negative attitude scores decreased significantly for the experimental group ($P < .05$), but did not change for the control group. The means and standard deviations for both groups on the pretest and posttest administration of the OPS are presented in Table 1.

Comparisons also were made between the pretest and posttest positive and negative attitude scores of the interaction, perception, and socioeconomic clusters identified by Gardner and Perritt.⁸ The experimental group's positive scores increased and their negative scores decreased significantly in the interaction cluster ($P < .02$ and $P < .05$, respectively) and in the perception cluster ($P < .02$ and $P < .05$, respectively). There was no change in the socioeconomic scores (Tab. 2).

Individual cluster scores for the control group were nonsignificant for all positive and negative attitude scores within the three clusters, except for the positive items of the perception cluster, which increased significantly ($P < .01$). The means and standard deviations for both groups for the clusters are shown in Table 2.

Discussion

Our original expectation that the experimental group's overall attitude scores would improve significantly proved true. The control group's positive attitude scores also improved, leading us to believe some factors outside of the GMC and the orientation classes may have contributed to the overall improvement in positive attitudes toward the elderly.

External Factors

Three of four factors may have influenced both the experimental group and the control group—patient popu-

Table 1. Means and Standard Deviations of Kogan Old People Scale (OPS)¹¹ Pretest and Posttest

Group	Scale ^a									
	Positive ^b					Negative ^c				
	Pretest		Posttest		P	Pretest		Posttest		P
	\bar{X}	SD	\bar{X}	SD		\bar{X}	SD	\bar{X}	SD	
Experimental (n=23)	71.6	6.0	79.4	6.7	<.001	38.5	4.6	34.7	7.6	<.05
Control (n=24)	68.8	6.5	74.3	8.2	<.02	41.3	8.4	36.4	8.5	<.02

^aRange of OPS scores=17–102.

^bPositive nonageist scores=59.5–102. The higher the score, the more positive the attitude.

^cNegative nonageist scores=17–59.5. The lower the score, the less negative the attitude.

Table 2. Gardner/Perritt⁸ Old People Scale Clusters Pretest and Posttest Means and Standard Deviations for Control and Experimental Groups

Cluster		Group			
		Experimental (n=23)		Control (n=24)	
		\bar{X}	SD	\bar{X}	SD
Interaction					
Negative					
	Pretest	11.0	2.4	12.4	3.0
	Posttest	9.4	2.5 ^a	11.0	3.1
Positive					
	Pretest	20.3	3.8	19.8	3.0
	Posttest	23.4	4.3 ^b	21.5	3.3
Perception					
Negative					
	Pretest	16.5	2.9	15.9	3.2
	Posttest	14.4	3.4 ^a	14.3	3.9
Positive					
	Pretest	24.6	3.1	23.9	3.0
	Posttest	27.9	4.8 ^b	26.3	3.3 ^c
Socioeconomic					
Negative					
	Pretest	11.6	2.0	12.6	2.8
	Posttest	10.4	2.9	11.5	3.0
Positive					
	Pretest	25.7	2.1	25.2	2.7
	Posttest	27.2	3.4	26.8	5.7

^a $P < .05$.

^b $P < .02$.

^c $P < .01$.

lation at the various clinical sites, the CIs' patient selection for the students, and the attitudes of the CIs. The motivational level of the control group students was the fourth potential influencing factor.

In view of the amount of time physical therapists spend with the elderly, students in each group probably had experiences with older adult patients while on the traditional clinical rotations. Adelman and Albert state that "the type of student contact with the elderly remains of primary importance [in improving students' attitudes toward the elderly]."^{12(p152)} Patients

selected for students to work with by CIs, especially for junior-level students, frequently tend to be the more agreeable, likeable patients with minimal problems. This specific selection of patients also may have contributed to the increased positive perception attitude in both groups. Positive attitudes of the CIs may also have influenced the students during the traditional clinical rotations.

Students in the control group also may have been motivated to show an improvement because they knew they were being compared with the experimental group students, as exhibited in the Hawthorne effect. The competitiveness of our physical therapy students was one aspect that was impossible for us to control. Although no formal sessions involving both the control group and the experimental group students occurred after the second week, the students of both groups attended other classes together. Thus, there were numerous opportunities for discussions between the two groups.

Interventions

Three interventions were used with the experimental group: the orientation, the GMC with actual patients, and the debriefing following each mock clinic session. We believe each of these interventions played a role in the experimental group's significant changes in positive and negative attitude scores.

The orientation included a great deal of discussion on the students' current attitudes toward the elderly. Negative attitudes addressed in an open, nonthreatening manner are more likely to change than attitudes that are never discussed or challenged.

The second intervention was perhaps the most important in affecting the experimental group's overall attitudes. Most of the patient volunteers were well-educated, interesting, active individuals who were involved in numerous community activities. A small percentage of our patient volunteers were considered difficult to work with

by the students. These patients included a few "talkers," a few "complainers," and a patient with Alzheimer's disease. The students' work with these individuals provided the impetus to discuss positive ways of dealing with "difficult" patients of any age during the debriefing.

We also think that the amount of interaction the students had with the patients had a positive influence on the students' attitudes. Woolliscroft et al¹³ state that medical students who interview elderly individuals living either independently or semi-independently develop significantly more positive attitudes toward the elderly in general. Each experimental group student had opportunities for interviewing patients during the GMC. A frequent assignment for the student-therapist during a mock clinic session was to take a complete physical therapy history from the patient. Much more interaction occurs during a history taking than might occur during a traditional clinical rotation, in which the student only performs a basic procedure on a patient who has already been evaluated.

The debriefings provided the opportunity for students to receive feedback about the quality of their interactions. Gershen¹⁴ recommended this mechanism as a means of influencing students' overall attitudes. An important feature of the debriefing was feedback from two physical therapists, a Behavioral Science Fellow, and the students themselves. The laboratory assistant for the GMC had had extensive experience in working with the elderly and interacted well with the students and patient volunteers alike. The Behavioral Science Fellow, whose specialty is geriatrics, provided considerable positive feedback to the students, based on her observations and the patient volunteers' comments to her regarding the students. The physical therapists' discussions about the students' clinical skills attempted to reinforce treatment based on the patient's movement dysfunction and not the age of the individual. Many misconceptions, such as "living with pain because of your age," were addressed and

hopefully dispelled. Students also discussed their observations made while working with their student partner.

Implications for Clinical Instructors

We believe that CIs may best use the knowledge gained in our study by increasing the amount of contact their students have with the elderly while on clinical rotations. Emphasis, we believe, should be not only on treatment procedures but on interaction with the elderly individual. An attempt to expose students to the independent, well elderly should precede contact with the sick elderly whenever possible so that more positive attitudes may be developed or reinforced. Discussion of attitudes toward the elderly both before and after treating an elderly patient may help students and CIs recognize or clarify ageist stereotypes that may influence overall patient management. An opening question to such a discussion could be, How would you manage a 28-year-old patient with the same physical therapy problem? Justification of patient management differences between a 28-year-old and an older adult will also reveal whether the student is basing management on perceived differences between the two patients or real physiological differences and needs.

Longitudinal studies to assess the long-term effect of the GMC model on students' attitudes and future service to the elderly may provide more meaningful data than the conclusion that our students' attitudes improved over one semester. Testing the students after each intervention might also help to identify the intervention that results in the greatest change. Having a control group that does not experience any aspect of the study protocol would further demonstrate whether students' attitudes improve as

a part of this educational process. The use of such a control group was precluded, however, as it would have denied students a required component of their curriculum.

Conclusions

Students' attitudes toward the elderly can be improved. We believe the improvement in our students came as a result of the students' direct contact with positive elderly patients involved in our GMC. We also believe that the immediate feedback shared with all the students as well as the discussions during the original orientation contributed to their improved attitudes.

Traditional clerkship experiences also contributed to attitude improvement and can continue to do so by providing students with enjoyable elderly patients to work with, using CIs with positive attitudes toward the elderly, encouraging discussion of attitudes both before and after treating an elderly patient, and providing patient care that is pathology dependent and not age dependent.

Continued use of the GMC should result in a greater number of students, and ultimately physical therapists, who are able and willing to meet the needs of the older adult patient. The GMC model also provides an alternative for traditional clinical education and a controlled environment in which students can practice application of didactic material with actual patients.

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References

- 1 Baker R. Attitudes of health care providers toward elderly patients with normal aging and disease-related symptoms. *Gerontologist*. 1984;25:543-545.
- 2 Johnson SM, Kurtz ME, Tomlinson T, et al. Students' stereotypes of patients as barriers to clinical decision-making. *J Med Educ*. 1986;61:727-735.
- 3 Kvitek DS, Shaver BJ, Blood H, et al. Age bias: physical therapists and older patients. *J Gerontol*. 1986;41:706-709.
- 4 Green SK, Keith KJ, Pawlson LG. Medical students' attitudes toward the elderly. *J Am Geriatr Soc*. 1983;31:305-309.
- 5 Coren A, Andreassi A, Blood H, Kent B. Factors related to physical therapy students' decisions to work with elderly patients. *Phys Ther*. 1987;67:60-65.
- 6 Downe-Wamboldt BL, Melanson PM. Attitudes of baccalaureate student nurses toward aging and the aged: results of a longitudinal study. *Educ Gerontol*. 1990;16:49-59.
- 7 Todd AK, Rider BA, Page-Robin E. Attitudes of occupational therapy students toward older persons. *Physical and Occupational Therapy in Geriatrics*. 1986;5(2):71-81.
- 8 Gardner DL, Perritt LJ. A Gerontology Clerkship for Allied Health Students. Presented at the 13th International Congress of Gerontology; July 15, 1985; New York, NY.
- 9 Steel K, Norcini J, Brummel-Smith K, et al. The first Certifying Examination in Geriatric Medicine. *J Am Geriatr Soc*. 1989;37:1188-1191.
- 10 Peach H. Career plans of student physical therapists regarding geriatric medicine. *Age Ageing*. 1978;7:57-61.
- 11 Kogan N. Attitudes toward old people: the development of a scale and an examination of correlates. *J Abnorm Soc Psychol*. 1961;62:44-54.
- 12 Adelman RD, Albert RC. Medical students' attitudes toward the elderly: a critical review of the literature. *Gerontol & Geriatr Educ*. 1987;7(3/4):141-155.
- 13 Woolliscroft JO, Cahoun JG, Maxim BR, Wolf FM. Medical education in facilities for the elderly. *JAMA*. 1984;252:3382-3385.
- 14 Gershen JA. Use of experiential techniques in interpersonal skill training. *J Dent Educ*. 1983;47:72-74.

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