ARE THE 21ST CENTURY DOCTORS GEARED FOR GERIATRIC HEALTH CARE IN THE UAE

ELSHEBA MATHEW*
RIZWANA B. SHEIKH*
AFRAH M. RAFIQUE**
RASANGI S.C. SURAWEERA***
HUSSEIN KHAN****

SUMMARY: Rising geriatric population poses special challenges for 21st century health providers. The present study assessed the knowledge of medical students about health of the older adults and determinants in the development of attitude towards them, and career preference.

58 first and 35 fifth year medical students of Gulf Medical University, Ajman, were surveyed using self administered questionnaires (a) quiz on old people health and (b) relevant socio- demographic information, and career preference. Curriculum content was analyzed from student manual and through personal interviews with faculty and fresh graduates.

The present pilot study found significant improvement in medical students' knowledge on physical health by fifth year (P<0.005), but not on mental and social health. Parental attitude, childhood experience with older adults and religious education influenced most 75.3%, 55.9% and 60.2% respectively in the development of attitude towards older adults. 40% of the final year students reported an influence of medical education. Only 2% opted for a career among older adults. The geriatric health and aging topics were scattered in the curriculum and not as a comprehensive unit. Neither the faculty nor the graduates perceived that geriatric medicine was included in the curriculum.

The study emphasizes the importance of enhancing geriatric training and experience in undergraduate medical program.

Key word: Geriatric health.

INTRODUCTION

The world's population aged 60 and over is 600 million, and WHO forecast it to reach 2 billion by 2050 (1). It reflects improving global health but it poses special challenges for 21st century health care providers. 1% of United Arab Emirates' total population was 65 and older, in 2000. But Department of Family Medicine at the Faculty of Medicine and Health Sciences, Al Ain reported in 2003 "With a predicted average annual growth rate in the UAE for those aged 65-plus staying at 10.3 per cent (1999-2025), addressing the future needs of the aging population of the UAE is becoming more urgent" (2). The geriatric population in UAE is likely to be mainly nationals since after retirement most of the expatriates return to their country of origin.

*From Department of Community Medicine, College of Medicine, Gulf Medical University, Ajman, UAE.
**65 Buxton Road, North Chingford, London, E47DP, United Kingdom.
***16/12 Munasinghe Mawatha, Galawilawatta, Homagama, Colombo, Sri Lanka.
****8 South 231 Dunham Drive, Naperville IL, 60540.

During the past twenty years, research on the aging process has contributed to the realization that aging need not be equated with inevitable decline and disease. Many age-related diseases and syndromes can now be ameliorated and in some cases even cured, offering healthy, fulfilling and productive life. However the experience in US as Chiang comments is that the number of physicians opting to be trained and certified as geriatricians is inadequate and it is projected to decrease during the next 30 years (3). Reuben *et al.* and Penn *et al.* aptly point out that in such a situation, much of the care of older adults will be provided by physicians with or without adequate training in the primary care, rehabilitation, long-term care, and postoperative needs of older adults (4-5).

According to Gallagher *et al.* considerable variations in the quality of care of older adults may depend on the attitude of the caregivers (6). Palmore reports that 'Ageism' involves prejudice and discrimination, stereotypes and attitudes and thus both cognitive and affective processes and it is quite prevalent (7-8). The studies by Lotian and Philip, Courtney *et al.*, and Haight *et al.* have found negative attitude towards elderly among health professionals (9-11).

Fitzgerald *et al.* state in the review that most medical students have little knowledge and moderate attitude towards elderly and have low interest in geriatric medicine as their career (12). Opinions vary regarding the influence of medical education. According to Fitzgerald *et al.*, Kishimoto *et al.* and Cankurtaran *et al.* an increase in knowledge about aging occurs with medical education; however the attitude is influenced mostly by their own experience with the elderly (12-14). Kishimoto *et al.* reported in an American study that the first years showed more favorable attitude towards elderly than advanced students (13). Fitzgerald *et al.* suggests that the need for positively influencing learner's attitude before and during medical school through meaningful experiences in caring for older adults as knowledge alone may not improve interest in geriatrics as a career (12).

From a world-wide study conducted by WHO on ageing issues in the medical curriculum in 72 countries, Keller *et al.* reported that it was evident that only 41% the curricula mention geriatrics in some way and only 24% had independent unit for geriatric medicine (15). In other medical schools geriatric issues are divided and various aspects of geriatric medicine are taught by various departments. Comparing the data of 36 countries, the authors conclude that nations are not prepared for geriatric care even though there is a steep increase in the older population predicted for the next 25 years. WHO strongly advocates that all future medical doctors need to be well trained in an interdisciplinary care of older persons, since most future doctors will see increasing numbers of older persons in daily practice.

Various universities have incorporated geriatric training programs into undergraduate medical curriculum and improved the knowledge, skills, positive attitude, and interest in caring for older patients as reported by Huber and Roberts *et al.* (16-17). The region has already recognized Geriatrics as a 'hot topic' of the time as is evident from the Abdulrahman's report (18). But in his analysis of the undergraduate medical curricula in 19 medical colleges in Gulf Cooperation Council Countries, only one reported that Geriatrics was a separate required course as one of the 'hot topics', seven did not have it; and eight had it as a part of required course. Though UAE currently has a low geriatric population, it is on the rise and health problems attributed to aging like non-communicable diseases are now seen earlier in the life span. Moreover the general practitioners enter primary care after their undergraduate studies. So it is important to equip them with geriatric training during their undergraduate years.

This is the first study ever in the UAE aimed at assessing the knowledge, attitude development and career choice of the medical students towards the elderly. This pilot study in a multicultural student group may be valuable in planning for need based curriculum geared to equip graduates in the care of the older people, for the 21st century requirements regionally and world-wide.

The study aimed at (a) assessing the knowledge about the health of the old people among medical students at entry and exit points in their medical education; (b) identifying factors influencing the development of attitude towards older adults; (c) assessing the proportion of students having a preference for career among the older adults.

MATERIALS AND METHODS

In this pilot study, a survey was conducted among 58 first year and 35 final year MB, BS students of Gulf Medical College,

Ajman. All the students available in the class at the time of study were included. The aim of the study was explained to the students and consent obtained prior to the study. Anonymity was maintained by not including name or roll number in the questionnaire.

A. Survey was conducted using two self administered questionnaires.

(1) Quiz on Old people's Health

It was developed by the investigators considering medical practice and referring to the various quizzes already in use. The content validity was established using Delphi method. A physiologist, geriatrician, physical therapist, pharmacologist and psychiatrist were involved in considering the various aspects. The quiz in its final form comprises of 26 questions with yes or no answers, 12 regarding the physical health, six on mental and eight on social health.

(2) Questionnaire on relevant socio-demographic factors: Other than age, gender, nationality, closeness of contact with older adults, determinants of attitude, and career preference were also included. The investigators collected the data personally, during the period January - February 2008. It was entered into Excel, and analyzed using SPSS (Statistical package for Social Sciences)

B. The content analysis of the curriculum was done using three sources (a) A careful study of the student curriculum manual (b) Personal discussion with the heads of all basic science and clinical departments (c) Personal discussion with a group of graduates awaiting internship.

RESULTS

Analysis of data obtained from the quiz, socio-demographic details and the curriculum analysis are being presented in this report.

58 students from first year and 35 from final year participated in the study. The mean age of first year students was 19.91 ± 1.67 SD and that of the final years 23.34 ± 1.11 SD. Of the total of 93 students 43% were males and 57 % females; 43% from Indian subcontinent, 36.5% from Arab countries, the rest from African and western regions.

The students' knowledge on Old People's Health at entry level and in the final year of their medical studies was assessed using the 26 questions, with 12 questions on physical health, six on mental health and eight on social health.

Mann-Whitney Test was done to see if there was difference in the knowledge base between entry level and final year graduates in the three components of health. Results in Table 1 showed that when compared to the entry level graduates the final year students had significantly better knowledge about physical health of older adults but not the mental and social health (p value 0.001).

Table 1: Knowledge about physical, mental and social health of older adults by year of study.

Variables	First year MBBS n=58 Mean rank	Final year MBBS n=35 Mean rank	P value
Physical health	38.89	60.44	<0.001
Mental health	45.66	49.21	NS
Social health	45.53	49.44	NS

We wanted to see if closeness to older adults had an influence on knowledge about Old People's Health. As seen in Table 2 closeness to older adults had no significant effect on the knowledge on physical and mental health. It was interesting to note that those who were not close had significantly more knowledge on social health when compared to those who are close. However, 'close' was a heterogeneous group including those who have contact by mail and telephone also, not necessarily only those staying together. The small number in this group was also a limitation.

There was no significant difference in the knowledge on Old People's Health between males and females and different nationalities.

Table 2: Knowledge about physical, mental and social health of older adults by closeness of contact with older adults in the family.

Variables	Close n=79 Mean rank	Not Close n=13 Mean rank	P value
Physical health	45.06	55.23	0.196
Mental health	46.96	43.69	0.672
Social health	44.35	59.54	0.050

Table 3: Distribution of responses on factors influencing attitude towards older adults.

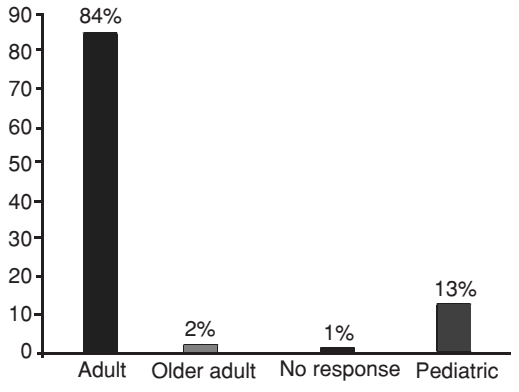
Factors influencing attitudes	Frequency	%
Childhood experiences with older adults	56 (n=93)	60.2
Parental attitude	70 (n=93)	75.3
Moral science classes in school	13 (n=93)	14.0
Religious/spiritual education in school	52 (n=93)	55.9
Medical education	*14 (n=35)	40
Voluntary social activity with older adults	14 (n=93)	15.1

* Medical education was available only to the 35 final year students

Table 3 revealed the various factors that influenced students' attitude towards older adults. A multiple response analysis shows that parental attitude contributed to the development of their own attitude to older adults in 75.3% of the students, childhood experience in 60.2%, and religious education in school in 55.9%. Considering that medical education was available only to the final year students (n=35), it appears to have influenced 40% of the students in their attitude toward older adults.

A question was asked on the career preference of the students. As seen in Figure 1 only 2% aspired for a career among older adults. Majority (84%) preferred adult age group.

Figure 1: Career preference of the students.



Content analysis of curriculum showed that there was no comprehensive unit on geriatric health or aging, and neither the graduates nor faculty felt they covered geriatric medicine. However on examination of the curriculum manual it was observed that many of the geriatric issues were being taught by various departments at various levels of the undergraduate medical curriculum.

DISCUSSION

The entry year students have no information about diseases and no contact with patients. So data from them may be considered to be baseline data on the current youngsters with science background. The significantly improved knowledge on physical health of the final year students may be attributed to the medical education. Kishimoto *et al.* found that knowledge on health of elderly increased with medical education whereas previous experience in caring for elderly was associated with positive attitude and choice of geriatric career (13). The present study only showed improvement in the knowledge regarding the physical health. This may be pointing to the perceived importance to physical health in the curriculum. There has been no study found dividing the knowledge content into physical, mental and social health. In a study in the University of Texas Alford *et al.* found that awareness on physical deterioration increased with a program in first year but not career aspirations (19).

The present study did not show any association between closeness of contact with older adults and the knowledge or career choice. This may be because students in this study group have their older adults in their home country. The low proportion of students preferring a career in geriatrics is similar to what other studies have reported (12). However, the number was very small for any further analysis. Huber in a similar context points out the need to emphasize the role of older citizens in the community, and facilitate the contacts of medical students with older people who have successfully aged as they do not get to know the older people in their nuclear family and see only frail old in their medical training (16). The analysis of the curriculum content highlights the need for incorporating appropriate geriatric training to undergraduate medical education. The students report that their attitude was dependent on the parental attitude, childhood experience and religious education rather than from formal education system, similar to the report of Kishimoto *et al.* (13) whereas Cankurtaran *et al.* (14) attributed the attitude of medical students to knowledge and experience from medical school.

Fitzgerald *et al.* suggest admission of students with interest in geriatric care or providing the experience in the school to increase the number of physicians who would care for elderly to meet the requirement of the century (12). Doctor Ousseynou Ka in Senegal underlines the necessity to launch a communication campaign about the nutritional, health and social needs of the elderly similar to that for women and children. Universities have tried new curricular modules, geriatric cases, symposia, home visit programs, teaching and evaluative exercises employing standardized patients, and activities that link medical students with well elders in the community (senior mentor program) in the medical curriculum and have found a positive change in the students' attitude (20).

CONCLUSION

Since the number of geriatric physicians is low and geriatric units rare, all physicians of any specialty will continue to serve the elderly in the coming years also. Therefore it is suggested that the curriculum be tailored to provide required knowledge and appropriate experience in the undergraduate medical curriculum for the present medical students, to enable them to acquire the necessary knowledge as well as the attitude. This will help in developing future health professionals with positive attitude towards older people, professionals making career choice among older adults and thus well equipped for the 21st century geriatric health care needs worldwide.

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Correspondence:
Elsheba Mathew
Department of Community Medicine,
College of Medicine,
Gulf Medical University, Ajman, UAE.
e-mail: elsheba.mathew@gmail.com