

Junior Doctors' Attitudes Towards Older Adults and its Correlates in a Tertiary-care Public Hospital

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Abstract

Introduction: The medical community in Singapore is faced with a rapidly ageing demographic. This would result in an increase in the interaction between medical professionals and older adults. In anticipation of an increased exposure to elderly patients, we sought to determine the attitudes of our house officers (HO), medical officers (MO) and Registrars towards the elderly. **Materials and Methods:** A descriptive pilot study of junior doctors from the Division of Medicine carried out during a luncheon in the largest tertiary-care public hospital in Singapore. A validated self-administered structured questionnaire using Kogan's Old People (KOP) Scale was used to evaluate attitudes towards older adults and basic demographics and medical educational data were collected. **Results:** Fifty-one questionnaires were completed. The mean KOP score was 114.4, suggesting an overall positive attitude towards older people in this sample. The prevalence of negative attitude was 7.8%. There was no significant difference in attitudes among doctors with different designation, age, marital status, medical school attended, nationality, years in medical practice and living arrangement. Doctors who had previous exposure with a posting in Geriatric Medicine had higher KOP scores but were just out of significance ($P = 0.098$). Respondents who found treating older people unrewarding had significantly lower KOP score ($P < 0.001$). **Conclusion:** In this sample of junior doctors, overall attitudes towards older people as measured by the KOP scale were moderately positive. Exposure to a Geriatric Medicine posting during residency may positively influence a doctor's attitudes towards the older adults.

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Introduction

Singapore is a rapidly ageing society. The proportion of older persons above the age of 65 was 6.8% of the population in 1995 and is projected to increase to 20% by the year 2030.¹ The medical community is also faced with a similar problem in caring for an ageing population. Persons above the age of 70 years have the highest admission rates to hospitals in Singapore when compared to other age groups, the prevalence rates at 408.3 per 1000 population for men and 373.5 per 1000 population for women.²

It is important to identify the attitudes of healthcare professionals towards the elderly, especially in recognising negative attitudes towards ageing. Negative attitudes lead to ageism, a process of systematic stereotyping of, and discrimination against, people because they are old.³ Ageism generates and reinforces a fear of the ageing process and

legitimises the use of chronological age to classify people who may be systematically denied resources and opportunities.⁴ However, negative attitudes towards ageing is much less discussed and researched than our attitudes towards gender (sexism) or race (racism).

The estimated prevalence of ageism from various studies in the West was found to be at 20%.⁵ This is important as it has been found that negative attitudes may be amplified in healthcare professionals.^{6,7} Studies on nursing staff have demonstrated that care for the elderly was an unpopular choice for nursing specialisation.⁸ Another study done for healthcare professionals working in a Cancer Centre also reported an overall negative attitude among oncology healthcare professionals towards the elderly.³ However, to our knowledge, no studies have been done to estimate the prevalence of negative attitude towards older persons in

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Singapore and to find its correlates in our healthcare professionals.

Materials and Methods

This pilot study was conducted among junior doctors (HO, MO and Registrar) in the Division of Medicine, Singapore General Hospital (SGH). SGH is the largest tertiary-care public hospital in Singapore with 1500 beds and 29 clinical specialties.

Data Collection

Questionnaires were distributed opportunistically to junior doctors who attended a luncheon organised for the Division of Medicine. All participants were assured of confidentiality of data collected. The self-administered questionnaire took a maximum of 20 minutes to fill. Sixty-three questionnaires were distributed, and 54 (83.1%) were returned. Three questionnaires were excluded from analysis as the data was incomplete. The Division of Medicine had a total of 152 junior doctors at the time of the survey.

The self-administered questionnaire consists of the Kogan's Old People (KOP) scale and basic socio-demographic and medical education data. KOP consists of 17 paired statements, one of each pair positively framed and the other negatively framed.⁹ The stereotypes covered in the questionnaire include residential patterns, cognitive style, personal appearance, personality and discomfort with older people. Respondents were asked to indicate the level to which they agree or disagree using a 5-point Likert scale. The scores range from 34 (negative) to 170 (positive). This scale has been previously validated with positive items in the scale achieving correlation coefficients of 0.66-0.77 and the negative items 0.73-0.83. Concurrent validity has also been reported previously using measures of authoritarianism and anti-minority attitudes.⁹ The lower the KOP score, the more negative attitudes held towards elderly people with a neutral score of 102.

Questionnaire Assessment

Socio-demographic and medical education factors collected were age, marital status, country of birth, living arrangement, medical school attended, number of years of practice since graduation, job designation, and previous exposure to a Geriatric Medicine posting. For knowledge factors, respondents were asked to self assess their adequacy of knowledge gained from their medical schools on managing elderly care. They were also asked if they agreed or disagreed that their medical schools had equipped them with adequate knowledge in elderly care. Finally, the respondents were asked on what areas they perceived to be difficult in managing elderly patients with a semi-structured question, 'Where do you think is the difficulty in managing elderly patients?' and were given 5 choices and an option

for others. The respondents were able to choose more than one area if necessary.

Statistical Analysis

The assumption of normality for KOP was assessed using Q-Q plots, if the assumption was met, *t*-tests and ANOVA were conducted to compare mean KOP by the demographic factors; otherwise, non-parametric methods were to be used. Statistical analysis was conducted on Stata 9.1 (StataCorp LP, Texas) with the level of significance established at $P < 0.05$.

Results

A total of 51 questionnaires were collected. Medical officers accounted for almost half the total number of respondents (47.1%) while one-third of the respondents were house officers and about one-fifth were medical registrars.

Two-thirds of the respondents were graduates from the National University of Singapore (NUS) while one-third were graduates from various non-local universities in the United Kingdom, Australia, India, Philippines and Myanmar. Only 10% of respondents had reported previous exposure to a Geriatric Medicine posting. The basic socio-demographic and medical educational data are summarised in Table 1.

The KOP scores ranged between 92 and 137 and the mean KOP score was 114.4 ± 9.0 ; this is significantly different to the neutral score of 102 ($P < 0.0001$). This suggests an overall positive attitude towards old people in this sample of resident doctors. The prevalence of negative attitude was 7.8%.

There was no statistical difference in KOP scores among residents of different job designation, age, marital status, medical school attended, nationality, years of practice and living arrangement. Residents who had previous posting in a Geriatric Medicine had higher scores but these were not significant ($P = 0.098$). The data are summarised in Table 2.

Knowledge of Elderly Care

The majority of residents (68%) was either neutral or felt that the knowledge gained from medical schools was inadequate. Only a third of respondents felt that the knowledge gained in medical schools enables them to manage the elderly adequately. All 51 respondents had reported one or more areas of perceived difficulty in managing elderly patients. The majority (76%) of the respondents reported that multiple medical problems affecting the elderly patients was the most common difficult problem faced followed by vague problems (65%) and psychosocial issues (49%). Forty-seven per cent of the

Table 1. Characteristics of Participants

Characteristic (# missing)	n (%)	Characteristic (# missing)	n (%)
Job designation		Medical school	
House Officer	17 (33)	National University of Singapore	32 (63)
Medical Officer/Fellow/Clinical Associate	24 (47)	Foreign	19 (37)
Registrar	10 (20)		
Age (y) (1)		Years of practice since graduation	
20-24	12 (24)	<1	16 (31)
25-29	22 (44)	1	3 (6)
30-35	14 (28)	2	4 (8)
>35	2 (4)	3	9 (18)
		4	3 (6)
		5	2 (4)
		6	6 (12)
		7 and above	8 (16)
Marital status (3)			
Single	37 (77)	Geriatric Medicine residency posting (1)	
Married	11 (23)	Yes	5 (10)
Divorced	0 (-)	No	45 (90)
Nationality			
Singaporean	30 (59)	Received adequate knowledge to manage elderly problems during medical school (1)	
Singapore PR	8 (16)	Strongly agree	1 (2)
Malaysian	6 (12)	Agree	15 (30)
Others	7 (14)	Neutral	22 (44)
		Disagree	12 (24)
		Strongly disagree	0 (0)
Living arrangement (1)			
Alone	11 (22)		
With spouse and children (if any) only	8 (16)		
With parents only	21 (42)		
With parents, spouse and children (if any)	4 (8)		
Others	6 (12)		

Percentage of non-missing data; due to rounding percentage totals may not be equal to 100

respondents found difficulties in communicating with the elderly patients. The complete list is summarised in Table 3. Among the list of perceived difficulty, the respondents who reported managing elderly patients was unrewarding had a significantly lower score than those who did not ($P < 0.001$).

Discussion

In this pilot study, there was a moderate overall positive attitude, as measured on the KOP scale, towards older people in this cohort of junior doctors and that there were few independent socio-demographic and medical education predictors of a more positive attitudes score. Socio-demographic factors, years of practice, undergraduate education and self-reported adequacy of Geriatric knowledge had no significant difference in their mean scores. A similar study done on medical students in the University of California also found few socio-demographic and educational predictors of favourable attitudes for the elderly using the different attitude scale; the Aging Semantic Differential and Maxwell-Sullivan Attitude Scale.¹⁰ We found that junior doctors who found treating older adults to be unrewarding had a more negative score ($P < 0.001$). While doctors who had a posting in Geriatric Medicine had a higher score, at $P = 0.098$, it was just out of significance.

Few studies have examined negative attitudes in healthcare professionals. However, in studies involving medical students, Rueban and colleagues found that medical students have already formed unfavourable attitudes and stereotypes towards the elderly early in their medical education. They suggested that attempts at attitudinal change must rely on curricular change during medical school and residency training.^{10,11} In our study, all 51 junior doctors had reported difficulties in managing elderly patients, especially older adults with complex multiple medical problems, vague complaints and psychosocial issues. Sixty-eight per cent of junior doctors were neutral or felt that knowledge gained during medical school was inadequate for them to manage elderly patients. In addition, we found that doctors who have had an exposure in their posting to Geriatric Medicine had a more positive attitude score. Similarly, a study done at the Christchurch School of Medicine showed a significant improvement in the medical students' attitudes to the elderly at the end of a 5-week clinical attachment in healthcare of the elderly.¹² Hence, it would be interesting to see whether a prospective intervention to expose junior doctors to Geriatric-oriented physicians through experiences in the care of older patients would influence them to have a more positive attitude towards older adults.

Table 2. Univariate Comparison of Kogan Scores by Participant Characteristics

Characteristic	Category	n	Mean (SD)	P
Job designation	House Officer	17	115.9 (9.8)	0.11*
	Medical Officer	24	115.6 (8.7)	
	Registrar	10	109.1 (7.0)	
Age (y)	20-29	34	114.4 (9.3)	0.97
	30+	16	114.3 (8.9)	
Marital status	Single	37	113.2 (8.7)	0.33
	Married	11	116.3 (10.1)	
Nationality	Singaporean	30	115.0 (9.2)	0.57
	PR/Others	21	113.6 (8.9)	
Living arrangement	With parents (only or with others)	25	115.2 (9.6)	0.42
	Without parents	25	113.1 (8.0)	
Medical school	National University of Singapore	32	114.3 (9.7)	0.85
	Foreign	19	114.7 (7.9)	
Years of practice since graduation	<1	16	116.1 (10.0)	0.41*
	1-4	19	113.5 (7.6)	
	5 or more	16	113.9 (9.7)	
Geriatric Medicine residency posting	Yes	5	117.2 (2.8)	0.098**
	No	45	113.9 (9.4)	
Adequate knowledge	Strongly agree/ agree	16	114.1 (12.5)	0.88
	Neutral/ disagree	34	114.5 (7.1)	

*from ANOVA overall F-test; ** two-sample *t*-test with unequal variance

Table 3. Perceived Difficulty in Managing Elderly Patients

Problem area	n (%)	Kogan score [Mean (SD)]	P
Communication			
Yes	24 (47)	115.3 (10.0)	0.55
No	27 (53)	113.7 (8.2)	
Multiple medical problems			
Yes	39 (76)	114.9 (9.4)	0.51
No	12 (24)	112.9 (7.7)	
Unrewarding			
Yes	5 (10)	101.8 (8.4)	<0.001
No	46 (90)	115.8 (8.0)	
Vague problems			
Yes	33 (65)	114.4 (8.4)	0.97
No	18 (35)	114.5 (10.2)	
Psychological issues			
Yes	25 (49)	113.8 (9.1)	0.52
No	26 (51)	115.0 (9.0)	

It is important to address negative attitudes among healthcare professionals as it has important clinical implications. Studies have found that negative attitudes to ageing may influence treatment options and care for the elderly. A review by Jacobson¹³ showed that negative attitude bias among physicians led to non-prescription of statins to elderly patients who required it, despite several randomised controlled trials confirming its efficacy, safety and tolerability in patients aged 65 years and older. In the United Kingdom National Lung Cancer Study, negative attitudes towards older adults were postulated as a possible cause for the large age-related differences in management and survival in-patients with lung cancer.¹⁴

The prevalence of negative attitude in this cohort was low at 7.8%. To our knowledge, this is the first study in Singapore to estimate the prevalence of negative attitudes towards ageing in the medical community. In the West, prevalence rates of ageism have been estimated to be 20%. It has been commonly assumed that age-related stereotypes are more positive in East Asian cultures compared to Western cultures. However, results of studies done comparing Americans in the United States

and the Chinese in China indicate that age-related beliefs regarding the elderly are similar across Chinese and Western cultures and a positive bias for old age in East Asia is absent.¹⁵

The low prevalence rate of negative attitudes among this cohort may be due to the opportunistic methodology and convenience sampling of junior doctors during a luncheon. They are more likely to be self-selected. The study also did not include doctors from the Division of Surgery and Ambulatory Medicine and other Allied healthcare professionals such as physiotherapists, nurses and radiology staff. However, the study contributed to the understanding of attitudes in junior doctors in the utility of the KOP scale and finding correlates of negative attitude towards the elderly. It is also important to identify ageism in healthcare professionals, as negative attitudes are amenable to change.¹⁶

While negative age-related stereotypes have been widely reported throughout society, it has been postulated that healthcare professionals maybe particularly vulnerable because of their increased exposure to frail and functionally dependent elderly with complicated needs.³ This is a pilot study with a limited sample size and methodology, hence further research should be done to elucidate the generalisability of these findings. Better estimates of negative attitudes among healthcare professionals are vital as this will impact on healthcare provision of a rapidly ageing population such as Singapore.

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