SPECIAL ARTICLE

Response of primary care doctors and geriatricians to the discussion paper on the future health service delivery model for residential care homes for the elderly: a local questionnaire survey

FHW Chan[1] MBBCh(Wales), MSc(Wales), FRCP(Ireland), FRCP(Glasg), FHKCP, FHKAM(Medicine), **JKH Luk**[2] MBBS(HK), MSc, FRCP(Edin), FRCP(Glasg), FHKCP, FHKAM(Medicine), **LW Chu**[2] MD(HK), MBBS(HK), FRCP(Edin), FRCP(Glasg), FHKCP, FHKAM(Medicine), **TCY Kwok**[3] MB.ChB., MD, FRCP (London), FHKCP, FHKAM (Medicine), **TP Lam**[4] MBBS (W. Aust.), MFM (Monash), PhD (Syd), MD (HK), FRACGP, FHKAM (Family Medicine)

[1] Department of Medicine and Geriatrics, Fung Yiu King Hospital
[2] Division of Geriatrics, University Department of Medicine, Queen Mary Hospital
[3] Department of Medicine, Prince of Wales Hospital
[4] Family Medicine Unit, Department of Medicine, The University of Hong Kong

ABSTRACT

Background. The Health, Welfare and Food Bureau's published a discussion paper on the future service delivery model for the health care system in July 2005. Various recommendations included revision of the code of practice for residential care home for the elderly (RCHE), the role of community geriatric assessment teams (CGATs), and responsibilities of primary care doctors.

Objective. To determine the views of primary care doctors with post-graduate geriatric qualifications, geriatricians, and doctors with visiting medical officer (VMO) experience on these recommendations.

Methods. Hong Kong territory-wide postal questionnaire survey.

Results. Of 404 questionnaires posted, 171 (42%) were returned (43% from primary care doctors, 42% from geriatricians). Almost all respondents agreed that VMOs should attend to basic medical needs of RCHE regularly. 95% agreed to revise the code of practice for RCHE to engage doctors in the care of medical needs of RCHE residents regularly. 73% were willing to devote time looking after RCHE residents; 75% could devote 1 to 3 hours per week; only 15% were willing to provide 24-hour support. Disagreement was noted between geriatricians and primary care doctors on whether geriatricians should focus more on hospital work rather than RCHE (64% of geriatricians disagreed vs 70.9% primary care doctors agreed, $p<0.001$). While 95% of primary care doctors were willing to act as gatekeepers, many geriatricians were not (43.2%) [$p<0.001$]. For VMOs to become gatekeepers in RCHEs, the factors in order of decreasing importance were: the time spent and frequency of visits, the financial returns, the experience of CGAT co-operation, and having a post-graduate geriatric qualification. 85% considered HK$500 to 1500 per hour as a reasonable financial return. The essential supports to VMOs were access to the Hospital Authority medical record system and referral rights to community nursing or allied health services.

Conclusion. This survey provided policy makers and service providers

practical information to facilitate establishment of a better health care delivery model for older people in Hong Kong.

Key words: Health care surveys; Homes for the aged; Housing for the elderly; Questionnaires

Correspondence to: Dr James KH Luk, Department of Medicine and Geriatrics, Fung Yiu King Hospital, 9 Sandy Bay Road, Hong Kong SAR, China. E-mail: jamesnoble@netvigator.com

BACKGROUND

The growing demand of health care for older population

As in many affluent societies, Hong Kong is facing an increase in the number of elderly people. The percentage of elderly people aged 65 years or above was 12.1% in 2005,[1] and is estimated to reach 25% by the year 2030. The increase in the number of elderly, especially the older-old (>75 years), has placed immense pressure on the already crowded and overburdened public hospital services. Patients aged >65 years account for nearly one half of patient-days in public hospitals.[2] Residential care home for the elderly (RCHE) consist of subvented (subsidised by government) and private old age homes. 28% of all acutely admitted elderly patients live in old age homes and nearly half of these were from private facilities.[2] The cumulative hospitalisation rate over 6 months in private old age homes was 50%.[3] In addition, readmission was more common for RCHE residents.[4] Indeed, private old age home residents are frail and frequent consumers of hospital services.[2-6] Hence, the demand of aged people for health care services in Hong Kong is enormous, especially those in private old age homes. It is projected that the hospital bed-days for elderly patients will increase by 35% by 2010.[7]

The current health care structure for the elderly and its drawbacks

There is an over-reliance on the public health care system. The ageing population, early occurrence of chronic illness, advances in medical technology, and the availability of better but much more expensive drugs have over-stretched the public health care budget. Presently, the Hospital Authority (HA) has no spare resources to improve existing services to meet this immense demand. The Hong Kong Government is expected to spend more than half of all tax revenue on health care services by 2033.[8] In addition, manpower and wage cuts for front-line doctors have reduced the incentives for people to join the health professions.

The Community Geriatric Assessment Teams (CGATs) and Visiting Medical Officers (VMOs) provide medical services to RCHE residents.[9,10] The CGATs were established in 1994 and consist of geriatricians, nurses, physiotherapists, occupational therapists, and other allied health workers.[11] There are 11 CGATs serving different districts in Hong Kong. They provide specialist multidisciplinary outreach services to RCHE residents. The VMOs are usually private general practitioners or family doctors who visit the residential homes once or twice a week.[12] RCHE staff can also refer their residents to different out-patient clinics for the management of chronic diseases and to emergency departments for acute medical problems. Nonetheless, CGATs and VMOs seldom interact and partner with each other to care for patients[12]; relevant hospital records and investigation results may not be shared with the VMOs. In addition, many VMOs are inadequately trained in geriatric medicine. Recognising the needs of VMOs and primary care doctors, in September 2000 the Family Medicine Unit of the University of Hong Kong and the Hong Kong Geriatrics Society launched a one-year part-time Postgraduate Diploma in Community Geriatrics (PDCG).[13] The course was designed to train primary care doctors to better deal with elderly patients in the community and in RCHE. The same course was also provided by the Chinese University of Hong Kong.

Discussion paper on the future delivery model for our health care system

As a corollary to the ever-rising medical demand from our ageing population, in July 2005 the Health, Welfare and Food Bureau of the Hong Kong Special Administrative Region published a discussion paper on the future delivery model for our health care system—*Building a Healthy Tomorrow*.[8] The paper provides a framework for the future health care system in Hong Kong, including sections on the future of elderly services. The family doctor concept is promulgated and elderly care services are in the

boundary of district-based primary care in which family doctors and VMOs play important gatekeeper roles. The paper also recommends that CGATs concentrate on discharge planning and provide support to doctors engaged by RCHE through consultations and joint conferences. In addition, a revision of the code of practice by the Social Welfare Department advocates engaging primary care doctors to care for the regular medical needs of RCHE residents.

Objectives

Feedback from various medical societies and organisations was invited. Before responding to the discussion paper, the Hong Kong Geriatrics Society and the Family Medicine Unit of University of Hong Kong conducted a survey on primary care doctors with postgraduate qualifications in community geriatrics (such as PDCG or the Diploma in Geriatric Medicine [DGM]), geriatricians, and those with VMO experience. The survey collected views on the recommendations made in the discussion paper. The feasibility of engaging private primary care doctors into looking after the basic medical needs of RCHE residents on a regular basis was also explored.

METHODS

This study was approved by the Institutional Review Board of the University of Hong Kong and HA Hong Kong West Cluster. The study was conducted between July and September 2005. Questionnaires (written in English) were sent by post to three groups of doctors in Hong Kong: (1) primary care doctors who were PDCG holders (University of Hong Kong, Chinese University of Hong Kong or equivalent) or DGM holders (Royal College of Physicians of London, Royal College of Physicians and Surgeons of Glasgow or equivalent); (2) primary care doctors who had VMOs experience; (3) fellows in geriatric medicine with specialist registration in the Hong Kong Medical Council.

The questionnaires included six sections. Section A covered the demographics of the respondents. Section B asked about the experience of VMOs. Section C assessed the proportion of doctors willing to take up VMO duties and their commitment (frequency and time they were willing to contribute, and whether they were able to provide 24-hour support to RCHE). Section D explored the respondents' response to recommendations of the paper. Section E asked about the key success elements for primary care doctors to take up RCHE duties. Section F enquired about the support required for VMOs and who should pay for the consultation and drug fees.

Statistics

The Statistical Package for the Social Sciences (Windows version 10; SPSS, Chicago, US) was used for statistical analysis. Chi square and Fisher's exact tests were used to compare categorical variables. Statistical significance was inferred by a two-tailed p-value of 0.05 or less.

RESULTS

Of 404 questionnaires posted, 171 were returned. The overall response rate was 42%; the primary care doctors' response rate was 43% (113/265) and that of geriatricians was 42% (58/139). Of the 171 questionnaires returned, 34% were from geriatricians and 66% from primary care doctors. **Table 1** summarises the background and demographics of the respondents.

Experience of working as visiting medical officers

56% of respondents had been VMOs before. 61% of the primary care doctors had the experience of working with CGATs during their VMO service; 80% of them rated their cooperation with CGAT to be good or fairly good.

Willingness and commitment of taking up visiting medical officer's duty

73% were willing to devote time looking after RCHE residents, and 75% could devote 1 to 3 hour per week. Only 15% of respondents were willing to provide 24-hour support.

Views on recommendations made in the discussion paper

Almost all respondents agreed VMOs should attend to the basic medical needs of RCHE residents regularly. 95% agreed that the code of practice should be revised to engage doctors to care for medical needs of

Table 1
Background and demographics of the participants (n=171)

Demographics	No. (%)
Age (years)	
<30	15 (9)
30-39	65 (38)
40-49	36 (21)
50-59	28 (17)
≥60	10 (6)
Gender	
Male	137 (80)
Female	34 (20)
Basic medical education obtained from	
Hong Kong	132 (77)
UK	9 (5)
Australia	7 (4)
Mainland China	14 (8)
Canada	2 (1)
USA	1 (1)
Others	5 (3)
Years of practice	
<5	17 (10)
5-9	41 (24)
10-19	52 (31)
20-29	44 (26)
≥30	17 (10)
Affiliation	
Hospital Authority	63 (37)
Solo practice	71 (42)
Group practice	14 (8)
General outpatient clinic	12 (7)
Department of Health	2 (1)
Others	9 (5)
District of practice	
Hong Kong East (including outlying islands such as Cheung Chau, Lantau)	22 (13)
Hong Kong West	18 (11)
Kowloon East	25 (15)
Kowloon West	31 (18)
Kowloon Central	11 (6)
New Territories East	36 (21)
New Territories West	24 (14)
Others	3 (2)

RCHE residents regularly. Disagreement was noted between geriatricians and primary care doctors as to whether geriatricians should focus more on hospital or RCHE; 64% of geriatricians disagreed but 71% of primary care doctors agreed ($p<0.001$). When asked about whether CGAT should concentrate on discharge planning and provide support to doctors engaged by RCHE through consultations and joint

Table 2
The factors essential for visiting medical officers (VMOs) to be gatekeepers for residential care homes for the elderly (RCHEs) in order of decreasing importance

Time that the VMOs can spend in RCHEs for consultation on each visit
Frequency of VMOs' visit
VMOs' financial return from RCHE work
Experience of working with Community Geriatric Assessment Teams
Possession of Postgraduate Diploma in Community Geriatrics or Diploma in Geriatric Medicine

Table 3
The essential supports to visiting medical officers in order of decreasing importance

Access to Hospital Authority (HA) Computer Management System
Referral rights to HA community nursing and allied health services
Right to order investigations via HA laboratories
Right to prescribe through HA pharmacies
Right to admit patients to HA hospitals

conferences, 97% of primary care doctors agreed as opposed to only 19% of geriatricians ($p<0.01$). Although 95% of primary care doctors considered that they could act as gatekeepers, 44% of geriatricians disagreed ($p<0.001$). 77% of geriatricians considered the medical care given to RCHE residents had strong secondary care elements, whereas 45% of primary care doctors believed it was mainly primary care ($p<0.05$).

Factors essential for visiting medical officers

Similar proportions of geriatricians and primary care doctors considered that possession of PDCG or DGM was a very important factor for a VMO success (14% vs 21%, $p>0.05$), as was income (21% vs 27%, $p>0.05$). More geriatricians than primary care doctors regarded the following to be very important for VMOs to succeed: experience with CGAT (39% vs 19%, $p<0.05$), time that VMOs could spend during each RCHE visit (46% vs 20%, $p<0.01$) and frequency of VMO visits (24% vs 19%, $p<0.01$). The factors essential for VMOs to be gatekeepers, in order of decreasing importance, are shown in **Table 2**. 75% considered that one to two VMO visits per week to a RCHE with 50 to 100 residents were appropriate; 56% preferred 1 to 2 hours per visit. 85% regarded HK$500 to 1500 per hour as a reasonable financial return.

Support required by visiting medical officers

Disparity was noted in this area between primary care doctors and geriatricians. More primary care doctors than geriatricians considered the following support to VMOs very important: access to HA Computer Management System (59% vs 40%, $p<0.05$), referral rights to HA Community Nursing Services and allied health services (57% vs 30%, $p<0.001$), right to prescribe through HA pharmacies (30% vs 23 %, $p<0.001$), right to order investigations via HA laboratories (39% vs 18%, $p<0.001$), and the right to admit patients to public hospitals (27% vs 21%, $p<0.01$). The essential supports to VMOs, in order of decreasing importance, are shown in **Table 3**.

With regard to who should pay for the VMO consultation fees, no consensus could be inferred; 31%, 21%, and 24% of respondents considered government, non-government organisations (NGOs), and patients should be responsible, respectively. As for drug fees, 43% considered that patients should be responsible for drug fees, whereas 25% and 12% believed that it was the responsibility of the government and NGOs, respectively.

DISCUSSION

Encouragingly, 73% of the respondents agreed to

spend time looking after the medical needs of RCHE residents on a regular basis and 75% could devote 1 to 2 hours per week, but only 15% were willing to give 24-hour medical support, because many private practitioners were in solo practices. It was doubted whether an effective gatekeeping role could be achieved by VMOs as RCHE residents could attend emergency departments after work hours.

80% of geriatricians disagreed with the discussion paper's recommendation that they should focus more on hospital work and that the CGAT should concentrate on discharge planning and provide support to doctors engaged by RCHE through consultation and conferences. Geriatricians considered themselves to have the knowledge and skills in providing specialist medical care to the elderly in the community or hospital setting. They were also capable of managing older people with several long-term conditions or common conditions affecting function, providing advice at times of transition, recognising the limitations of active interventions and the importance of palliation.[14] They also provided advice, education, and training to those who plan, commission, evaluate or provide health services to elderly people.

Although 97% of primary care doctors considered that they can act as gatekeepers, 44% of geriatricians disagreed. Primary care doctors as gatekeepers for specialists has been experimented in the Scandinavian countries, United States of America and United Kingdom.[15-18] The term gatekeeping refers to the prior approval of referrals to specialists, hospital and other expensive services by a primary care physician.[15-18] It is intended to reduce costs while maintaining or improving the quality of care. Whether gatekeeping is useful remains controversial. It is suggested that gatekeepers contribute to cost control by reducing unnecessary interventions or admissions. In addition, secondary care is used more efficiently as family doctors can give expert advice to patients as to whether specialty or hospital services can benefit the patients.[15-18] Primary care doctors in Hong Kong consider gatekeeping as a role that they are able to provide on a regular basis. They would be responsible for giving primary consultations to all the RCHE residents and decide whether specialist referral was needed. They would also be called to see the RCHE residents, preferably 24 hours a day, for urgent medical problems so that attendance of hospital emergency department and subsequent hospital admission can be reduced. Nonetheless, geriatricians have doubts on whether it is feasible to employ private practitioners to provide 24-hour support to RCHE residents in the capacity of effective gatekeepers for emergency departments attendances and hospital admissions. Geriatricians believe that instead of just focusing on gatekeeping, high quality and responsive health care for residents must be the common goals, which should be achieved through effective partnership with a range of disciplines, professions and departments. Further understanding of their respective roles in the Hong Kong health care architecture is needed.

The most important factor for the success of VMOs as gatekeepers was the time and frequency devoted to RCHE care. Financial return came second; 85% regarded HK$500 to 1500 per hour a reasonable charge. Therefore, to attract more primary care doctors to become VMOs, a more attractive financial return is needed. In addition, the discussion paper's proposal on employing medical personnel for RCHE is good in theory but financial considerations might limit its application.

Possession of a PDCG/DGM qualification was only fifth in importance, with regard to success in acting as a VMO. The development of PDCG courses in Hong Kong is to promote the practice of geriatric medicine among primary care doctors and to equip them with the knowledge, skills and confidence to take care of elderly people.[13] Despite the success and popularity of the PDGC program, a proportion of primary care doctors still do not believe that special geriatric knowledge is very important for the success of VMOs. For years, VMOs have been asked to see minor ailments (pains and common colds) and perform yearly physical examination.[12] They may not have the knowledge and skill in assessing and managing complicated geriatric patients in RCHE.[13] The RCHE staff tends to refer cases with more complicated geriatric problems to the CGAT rather than to the VMOs. In more urgent situations, the elderly are sent directly to the emergency department. Hence, there is a need to improve the knowledge of VMOs to care for complicated geriatric patients and to change RCHE staff attitudes towards VMOs.[12] We believe that acquiring a PDCG/DGM qualification can facilitate primary care doctor's practices as VMOs and gatekeepers. Further education and

promulgation in this area is needed among primary care doctors.

The HA Computer Management System is a powerful electronic patient record system in which patient information including medical diagnosis, admission, discharge and follow-up records, investigation results and drug prescription can be shared across all HA hospitals and clinics. The Computer Management System partnership programme enables primary care doctors to access to HA medical record system. Other supports for VMOs (rights to refer patients to HA Community Nursing and allied health services, prescribe via HA pharmacies, order investigations via HA laboratories, and admit patients to public hospitals) involve many logistic, administrative and financial issues. Further discussions among different parties are needed. This survey shows what the VMOs need to function better and hence paves the way for further discussion of the development.

There are certain limitations to this study. Although the overall response rate was not low (43%) considering it was a postal questionnaire study, the views of the remaining 57% of the doctors were not obtained. The respondents were a reasonable representation of the group of doctors we intended to survey, because (1) the response rate of the primary care doctors and geriatricians was similar (43% vs 42%) and (2) the profile of the doctors was similar with about half of them being aged 30 to 49 years, half of them working in the public sector, 77% being Hong Kong graduates, and 80% being male (**Table 1**). Nevertheless, the public doctors in this survey were mainly geriatricians and general out-patient clinic doctors, so the views of non-geriatricians working in the public sector were not represented. The primary care doctors were also a selected group with an interest in care for the elderly and their views might not be representative of most primary care doctors in Hong Kong. We have only looked at residential-based long-term care in this survey. In future, the development of the community-based long-term care for the elderly in Hong Kong should also be conducted.

In conclusion, this survey provides viewpoints from both the geriatricians and primary care doctors concerning several aspects of the future geriatric care model laid down in the discussion paper. It provides policy makers and service providers practical information to facilitate establishment of a better health care delivery model for older people in Hong Kong.

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