## O R I G I N A L A R T I C L E

## Family medicine training in Hong Kong: similarities and differences between family and non-family doctors

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|--|--------------------------|--------------------------|---|
| TP Lam<br>KF Lam<br>Donald KT Li<br>KC Yin | 林大邦<br>林國輝<br>李國棟<br>葉嘉池 | Objective                | To study the local medical profession's opinions on the training<br>requirements for the specialty of family medicine. This was<br>to serve as a reference for future planning of the health care<br>system.  |
| Ne rip                                     |                          | Design                   | Cross-sectional study.  |
|  |                          | Participants and Setting | All registered doctors in Hong Kong.  |
|  |                          | Main outcome measures    | Doctors' ratings on the importance of vocational training, professional assessment, job nature, and experience to become suitably qualified as a family doctor, and their opinions on the length of necessary vocational training.  |
|  |                          | Results                  | A total of 2310 doctors (23% of doctors in the local register) responded. Professional assessment was mostly agreed as a qualification, followed by vocational training, clinical experience, and job nature. Over 70% agreed on a training period of 4 years or less. Non-family doctors were more likely to opt for professional assessment as the qualification and also opt for a longer training period. |
|  |                          | Conclusion               | Vocational training was considered important as a qualification<br>for the specialty of family medicine. The length of training was<br>mostly agreed to be 4 years or less, not the 6 years currently<br>required by the Hong Kong Academy of Medicine. The vocational<br>training programme for family medicine might require re-<br>examination.  |

## Introduction

Most specialties in the medical profession require mandatory vocational training for Membership/Fellowship. For example, doctors working in internal medicine,<sup>1</sup> surgery,<sup>2</sup> or paediatrics<sup>3</sup> must have completed supervised training before they can sit for professional examinations and to be admitted as Members/Fellows of their respective specialties. Family medicine/general practice, however, is an exception. In the year 2009 in the UK, the Royal College of General Practitioners was still running the Interim Membership by Assessment of Performance for "candidates working as independent General Practitioners". This was directed at doctors who had not obtained the Certificate of Completion of Training but had independent general practice experience for at least 2 years.<sup>4</sup> The Royal Australian College of General Practitioners conducts the Practice Based Assessment for doctors with 4-year full-time (or equivalent) general practice experience as an alternative pathway to Fellowship of the Australian College (FRACGP).<sup>5</sup>

In Hong Kong, doctors with 5-year experience in full-time general practice but without completion or any of the 4-year Hong Kong College of Family Physicians (HKCFP)– organised Basic Vocational Training programmes are eligible to sit for the FHKCFP/ FRACGP Conjoint Examination.<sup>6</sup> Those who pass the Examination are also recognised by the Royal Australian College of General Practitioners as competent family doctors to work independently. Thus both locally and abroad, many doctors obtain their qualification in Family Medicine without having gone through the formal vocational training programme. This is a distinct difference between family medicine and the other specialties.

Since the establishment of the Hong Kong Academy of Medicine (HKAM) in 1993, Family Medicine has been recognised as a specialty. The HKCFP is also one of the foundation Colleges of the HKAM. Only doctors who have completed the Basic Vocational Training and passed the HKCFP/RACGP Conjoint Examination can proceed to the 2-year

## Key words

Clinical competence; Family practice; Health services; Primary health care; Quality of health care

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## 家庭醫生與非家庭醫生對於香港家庭醫學專 科培訓所持意見的異同

- **目的** 探討本地醫生對家庭醫學專科培訓的意見,以作將來 規劃醫療體制的參考。
- 設計 橫斷面研究。
- **参與者及安排** 香港所有註冊醫生。
- **主要結果測量** 醫生對以下幾方面的評價:職業培訓的重要性、專業 評核、工作性質和成為家庭醫生所需經驗,以及他們 對於職業培訓所需年期的意見。
  - 結果 共2310位醫生完成問卷,佔本地醫生23%。最多醫生 同意專業評核應為資格認可的因素,其他依次為職業 培訓、臨床經驗及工作性質。七成以上受訪醫生認為 培訓期應為四年或以下。非家庭醫生大多選擇專業評 核作為資格認可的因素,他們亦傾向較長的培訓期。
  - 結論 職業培訓被認為是獲得家庭醫學專科資格的重要因素。大多數醫生認為培訓期應為四年或以下,而非香港醫學專科學院現時所訂立的六年期。因此,現時家庭醫學的職業培訓計劃或有檢討的需要。

Higher Training in Family Medicine. If they pass the Exit Examination, they are eligible to be admitted as Fellows of the HKAM and be registered as Specialists in Family Medicine<sup>7</sup> by the Medical Council of Hong Kong. A Specialist in Family Medicine is thus a statutory professional qualification with defined requirements, but there is no similar qualification requirement for a family doctor in Hong Kong. Any doctor registered with the Medical Council, irrespective of any postgraduate training that he/she may have received, can declare to be or be called a family doctor. It is therefore important to examine the profession's views on the qualification of a family doctor in order to promote the concept of family medicine to the Hong Kong general public.

There are studies on the relationship between vocational training in family medicine and the family doctors' patient care, specific skills, knowledge base, self-confidence and examination pass rates. A review of the studies on the outcomes of vocational

training ascertained that training led to various positive effects but none that were negative.<sup>8</sup> Given that vocational training produces positive effects but is not mandatory to be qualified as a family doctor, what importance does the medical profession attach to this state of affairs? How far do doctors support the need for vocational training in family medicine?

The length of family medicine vocational training programmes differs in different countries, being 2 years in Canada, 3 years in the US, Australia and the UK, 4 years in Saudi Arabia, 5 years in Sweden and New Zealand, and 6 years in Hong Kong. However, there is still controversy over the question: how long should vocational training last? Wide international variations suggest that there is no simple answer to the question.<sup>9-12</sup> Hong Kong is also unique in having the longest family medicine training (6 years). It was therefore of interest to explore what Hong Kong doctors think about the length of necessary vocational training for family medicine. In particular, do the family doctors differ from the non-family doctors in their views on family medicine training?

These questions are important not just for Family Medicine but also for our health care system. The latest consultative document, *Building a Healthy Tomorrow*, by the Health and Medical Development Advisory Committee recommends the promotion of Family Medicine as a key element of a future cost-effective health care system.<sup>13</sup> With a local population of over 7 million but fewer than 200 Family Medicine specialists in the Specialist Register (by the end of 2009), our health care system needs to seriously reconsider the qualification requirements for the training of family doctors. This study therefore aimed to examine the importance of training for the qualification of family doctors and the preferred length of training.

## Methods

The present study was part of a larger project which investigated the need to promote the Family Medicine concept in Hong Kong. The general public provided detailed information on how they

| The qualification of a family doctor includes   | Strongly disagree Stro |        |              | Strongly agree |   |
|---|------------------------|--------|--------------|----------------|---|
| a. Assessment by a professional organisation  | 1                      | 2      | 3            | 4              | 5 |
| <ul> <li>b. Years of community clinical experience even in the absence of family<br/>medicine training or assessment</li> </ul> | 1                      | 2      | 3            | 4              | 5 |
| c. Job nature even in the absence of family medicine training or assessment or experience                                       | 1                      | 2      | 3            | 4              | 5 |
| d. Structured family medicine training programme  | 1                      | 2      | 3            | 4              | 5 |
| e. The structured training program should last for year(s)  |                        | (Pleas | e select ONE | E only)        |   |
| 0 0 0 1 0 2 0 3 0 4 0 5 0 6   |                        |        |              |                |   |

#### BOX. Questions on training in the questionnaire

reported elsewhere.<sup>14</sup> We held seven focus group discussions with local doctors in 2007. Based on the themes covered by these focus groups and available literature, we developed a questionnaire on the concept of Family Medicine. It was pilot-tested on a group of practising doctors and revised after their comments. The questionnaire also asked whether the respondent was a family doctor, whether he/she was on the Specialist Register of the Medical Council, and whether he/she was in private or public practice. Questions were also directed at receipt of any vocational training in Family Medicine, possession of any secondary qualification by examination, and years after graduation. The relevant questions on training in the questionnaire are shown in the Box. Copies of the questionnaire were enclosed with a covering letter that was sent to all doctors registered with the Medical Council of Hong Kong in November 2007.

As the main objective of this study was to investigate the local medical profession's opinions on the training requirements for the specialty of Family Medicine, we purposely did not define the term "family doctor". However, we grouped the selfdeclared family doctors into those with vocational training in Family Medicine (already completed or were still ongoing) and those without. We also grouped the non-family doctors into registered specialists (who had likely completed the vocational training in their own specialties) and the nonspecialists. In this way, we could analyse the opinions of those who had the experience of vocational training.

The differences between groups were analysed using the Pearson Chi squared ( $\chi^2$ ) test for discrete variables and the non-parametric Wilcoxon rank-sum test for continuous variables, taking a P value of 0.05 or less as the level of statistical significance.

#### Results

#### **Response rate**

Of 10 260 doctors on the register of the Medical Council of Hong Kong, 10 101 postal addresses were valid. Up to two reminders were sent to the non-respondents within 5 months. There were 2310 valid returns, making the response rate of 23%. Of these, 1380 (60%) were on the Specialist Register (representing 32% of all specialists on the Register) and 1285 (56%) worked in the public sector.

There were 681 respondents who declared that they were family doctors and 1456 stated they were not family doctors; 145 respondents answered that they were not sure if they were family doctors and there were 28 missing responses. Of the self-declared family doctors, after excluding missing responses to different questions, 62 (10%) were registered

chose their primary care doctors. This has been TABLE I. Characteristics of respondents who declared being family doctors and non-reported elsewhere.<sup>14</sup> We held seven focus group family doctors

| Characteristics                        | Family doctor<br>(n=681) | Non-family doctor<br>(n=1456) |
|--|--------------------------|-------------------------------|
| Years after graduation, mean $\pm$ SD* | 21.0 ± 13.27             | 19.5 ± 11.34                  |
|  | Freq                     | uency (%)†                    |
| Specialties                            |                          |                               |
| Anaesthesiology                        | 1 (1)                    | 79 (99)                       |
| Community medicine                     | 5 (14)                   | 30 (86)                       |
| Dental surgery                         | 0                        | 1 (100)                       |
| Emergency medicine                     | 1 (2)                    | 61 (98)                       |
| Family medicine                        | 157 (99)                 | 1 (1)                         |
| Medicine                               | 10 (3)                   | 298 (97)                      |
| Obstetrics and gynaecology             | 3 (3)                    | 108 (97)                      |
| Ophthalmology                          | 0                        | 50 (100)                      |
| Orthopaedic surgery                    | 1 (1)                    | 83 (99)                       |
| Otorhinolaryngology                    | 1 (3)                    | 32 (97)                       |
| Paediatrics                            | 29 (29)                  | 71 (71)                       |
| Pathology                              | 0                        | 40 (100)                      |
| Psychiatry                             | 2 (3)                    | 66 (97)                       |
| Radiology                              | 0                        | 60 (100)                      |
| Surgery                                | 9 (7)                    | 128 (93)                      |
| Not applicable <sup>‡</sup>            | 389 (57)                 | 299 (43)                      |
| Sub-total                              | 608 (30)                 | 1407 (70)                     |
| Missing                                | 73                       | 49                            |
| Practice setting                       |                          |                               |
| Hospital                               | 44 (4)                   | 1030 (96)                     |
| Community                              | 617 (63)                 | 366 (37)                      |
| Missing                                | 20                       | 60                            |
| Public or private service              |                          |                               |
| Public                                 | 182 (15)                 | 1062 (85)                     |
| Private                                | 487 (57)                 | 374 (43)                      |
| Missing                                | 12                       | 20                            |
| Solo or group practice                 |                          |                               |
| Solo                                   | 362 (58)                 | 265 (42)                      |
| Group                                  | 299 (26)                 | 867 (74)                      |
| Missing                                | 20                       | 324                           |
| Postgraduate qualification             |                          |                               |
| Yes                                    | 350 (22)                 | 1242 (78)                     |
| No                                     | 328 (61)                 | 207 (39)                      |
| Missing                                | 3                        | 7                             |
| Family medicine training               |                          |                               |
| Yes                                    | 310 (86)                 | 52 (14)                       |
| No                                     | 362 (21)                 | 1400 (79)                     |
| Missing                                | 9                        | 4                             |
| Diploma of Family Medicine             |                          |                               |
| Yes                                    | 277 (77)                 | 82 (23)                       |
| No                                     | 399 (23)                 | 1370 (77)                     |
| Missing                                | 5                        | 4                             |

\* SD denotes standard deviation

<sup>+</sup> The valid percentage is based on the sub-total of each row

\* "Not applicable" means "not registered specialist"

TABLE 2. Frequency of opinions on the necessary qualifications for a family doctor

| The qualification of a family doctor includes  | Likert scale*               |           |           |           |                          |    |
|--|-----------------------------|-----------|-----------|-----------|--------------------------|----|
|  | 1<br>(Strongly<br>disagree) | 2         | 3         | 4         | 5<br>(Strongly<br>agree) |    |
| Assessment by a professional organisation  | 84 (4%)                     | 81 (4%)   | 346 (15%) | 822 (36%) | 972 (42%)                | 5  |
| Structured family medicine training programme  | 80 (3%)                     | 122 (5%)  | 487 (21%) | 910 (40%) | 696 (30%)                | 15 |
| Years of community clinical experience even<br>in the absence of family medicine training or<br>assessment | 89 (4%)                     | 200 (9%)  | 507 (22%) | 946 (41%) | 560 (24%)                | 8  |
| Job nature even in the absence of family medicine training or assessment or experience                     | 112 (5%)                    | 246 (11%) | 539 (24%) | 891 (39%) | 504 (22%)                | 18 |

The percentages are shown on valid data across the rows of the table

them had postgraduate qualifications, but only 310 (46%) had had training in Family Medicine. Thus, selfdeclared family doctors were a heterogeneous group (Table 1).

#### Qualification of family doctors

Assessment by a professional organisation was agreed or strongly agreed by 78% of the respondents to be a necessary qualification for a family doctor, followed by a structured training programme (70%), clinical experience alone (65%), and the job nature alone (61%) [Table 2].

Non-family doctors were more likely than the family doctors to agree on professional assessment or vocational training as a qualification for family doctors (Table 3: 85% vs 68%, and 77% vs 57%, respectively; P<0.001). The family doctors, on the other hand, were more likely than the non-family doctors to agree on the job nature alone as a qualification (63% vs 58%, respectively; P=0.032).

The family doctors with vocational training shared the same opinions with the non-family doctor specialists who had completed vocational training in their own specialties. The family doctors without vocational training and non-family doctors who were also non-specialists both agreed the least on training as a qualification of family doctors, though most of these non-family doctors agreed with professional assessment.

#### Length of vocational training

Of 2201 respondents who answered the question on vocational training, 74 (3%) opted for no vocational training, 145 (7%) for 1 year, 393 (18%) for 2 years, 556 (25%) for 3 years, 406 (18%) for 4 years, 166 (8%) for 5 years, and 461 (21%) for 6 years. Overall, 53% opted for 3 years or less and only 29% agreed on a length longer than 4 years.

The non-family doctors were more likely to agree with a longer period of training than the family

specialists other than in Family Medicine, half of doctors (Table 4: Wilcoxon rank-sum test, P<0.001 with the medians being 4 and 3 years, respectively). Among the non-family doctors, there were 34% who agreed on 5 or 6 years as the training period, while only 21% of the family doctors did so.

> For the family doctors, the median responses of those with and without vocational training were 4 (interquartile range [IQR], 3-6) and 2 (1-4) years, respectively (P<0.001), ie those with vocational training opted for longer years of training. For the non-family doctors, the median responses of the specialists and non-specialists were 4 (IQR, 3-6) and 3 (2-5) years, respectively (P<0.001), ie the specialists also opted for longer years of training.

#### Discussion

This survey was the first of its kind to explore the local doctors' views on the qualification of a family doctor and the importance of training and professional assessment. Despite the fact that over 70% of the respondents agreed or strongly agreed on structured vocational training as a qualification for a family doctor (Table 2), there were wide variations in opinions about the length of the training. A larger proportion of the non-family doctors agreed to training as a necessary qualification and on a longer period of training.

It must be noted that a substantial percentage of doctors (nearly 80%) agreed or strongly agreed to professional assessment, more than those agreeing to structured vocational training, and far more than those agreeing to experience or the job nature as the qualification for a family doctor. Albeit all assessments have drawbacks, doctors seemed to be more confident of assessment as a measure of quality assurance for a specialty.<sup>15,16</sup>

There were significant differences in opinions on structured vocational training as the gualification of a family doctor between those who declared themselves to be family doctors and those who did not (Table 3). Relatively more non-family doctors agreed on structured vocational training than the TABLE 3. Frequency of doctors who agreed on the qualifications necessary for a family doctor\*

| Qualification           | Family doctors   |   |  |                      | Non-family doctors |                                      |                               |                      |
|-------------------------|------------------|---|--|----------------------|--------------------|--------------------------------------|-------------------------------|----------------------|
|                         | Total<br>(n=672) | With<br>vocational<br>training<br>(n=310) | Without<br>vocational<br>training<br>(n=362) | P value <sup>†</sup> | Total<br>(n=1407)  | Registered<br>specialist<br>(n=1108) | Non-<br>specialist<br>(n=299) | P value <sup>†</sup> |
| Professional assessment | 457<br>(68%)     | 248 (80%)                                 | 209 (58%)                                    | <0.001               | 1194<br>(85%)      | 986 (89%)                            | 208 (70%)                     | <0.001               |
| Vocational training     | 385<br>(57%)     | 221 (71%)                                 | 164 (45%)                                    | <0.001               | 1087<br>(77%)      | 905 (82%)                            | 182 (61%)                     | <0.001               |
| Clinical experience     | 439<br>(65%)     | 164 (53%)                                 | 275 (76%)                                    | <0.001               | 902<br>(64%)       | 704 (64%)                            | 198 (66%)                     | 0.132                |
| Job nature              | 426<br>(63%)     | 157 (51%)                                 | 269 (74%)                                    | <0.001               | 821<br>(58%)       | 635 (57%)                            | 186 (62%)                     | 0.023                |

\* The denominator of the percentage is the number of doctors in the table column

<sup>+</sup> Pearson χ<sup>2</sup> test comparing the sub-groups of doctors (vocational training vs no vocational training, and specialist vs non-specialist)

TABLE 4. Comparing family doctors and non-family doctors regarding opinions on the length of vocational training in family medicine (some respondents did not state whether they were family doctors or did not answer the question on the length of vocational training)<sup>\*</sup>

| Length of                         |                  | Family doctors                   |                                   | Non-family doctors |                                   |                           |  |
|-----------------------------------|------------------|----------------------------------|-----------------------------------|--------------------|-----------------------------------|---------------------------|--|
| vocational training —<br>in years | Total<br>(n=631) | With vocational training (n=296) | No vocational<br>training (n=335) | Total<br>(n=1354)  | Registered<br>specialist (n=1071) | Non-specialist<br>(n=283) |  |
| 0                                 | 43 (7%)          | 6 (2%)                           | 37 (11%)                          | 15 (1%)            | 5 (0.5%)                          | 10 (4%)                   |  |
| 1                                 | 70 (11%)         | 12 (4%)                          | 58 (17%)                          | 50 (4%)            | 30 (3%)                           | 20 (7%)                   |  |
| 2                                 | 133 (21%)        | 48 (16%)                         | 85 (25%)                          | 205 (15%)          | 150 (14%)                         | 55 (19%)                  |  |
| 3                                 | 124 (20%)        | 53 (18%)                         | 71 (21%)                          | 379 (28%)          | 310 (29%)                         | 69 (24%)                  |  |
| 4                                 | 128 (20%)        | 93 (31%)                         | 35 (10%)                          | 248 (18%)          | 191 (18%)                         | 57 (20%)                  |  |
| 5                                 | 29 (5%)          | 10 (3%)                          | 19 (6%)                           | 122 (9%)           | 110 (10%)                         | 12 (4%)                   |  |
| 6                                 | 104 (16%)        | 74 (25%)                         | 30 (9%)                           | 335 (25%)          | 275 (26%)                         | 60 (21%)                  |  |

\* The denominator of the percentage is the number of doctors in the table column

family doctors. Regarding family doctors, while they agreed most on assessment as a qualification (68%), they agreed least on structured vocational training (57%). In contrast, 77% of the non-family doctors agreed on vocational training as a necessary qualification of family doctors. The discrepancy in opinions is best illustrated in Table 4. While about 18% of family doctors opted for no training or 1 year of training, only about 5% of the non-family doctors did so. Thus, most specialists outside family medicine preferred assessment and vocational training as a prerequisite to qualification as a family doctor.

The fact that overseas family medicine academic organisations, like those in the UK and Australia, assess experienced doctors without structured vocational training for Membership or Fellowship status, shows that they recognise the significant contribution of general practice experience to the training of primary care doctors. However, these countries also spend substantial resources on vocational training and the majority of family doctors have gone through structured vocational training, such that the generation of family doctors qualified by experience alone was gradually phasing out.

During its development process, family medicine in these countries essentially changed its qualification requirements from clinical experience to vocational training. In Hong Kong, perhaps family medicine has not yet reached a similar degree of maturity. Our finding that vocational training was the leastagreed qualification by family doctors in this survey suggested that a considerable proportion of the local primary care doctors had not received family medicine training.

The lack of a consensus over the length of training revealed by this survey reflects international differences on this issue. It is probably a territorial decision based on many factors including administrative and political considerations. There are very few countries where structured vocational training for family medicine is longer than 4 years. In our survey, 79% of family doctors agreed on 4 years or less while 66% of the non-family doctors did so. Thus, the majority of our respondents, be they family doctors or not, thought the length of structured vocational training for Family Medicine should not be more than 4 years. This clearly differed from the current 6-year requirement, which is the same as for vocational training of all specialty Colleges of the HKAM. This survey clearly raises questions as to whether the current local requirement of a 6-year structured vocational training programme for Family Medicine is appropriate. It also questions whether there should be an elite class of "Specialists in Family Medicine" that might be considered superior to the majority of family doctors who also serve the citizens of Hong Kong.

When the respondents were grouped according to whether they had had vocational training or not, distinct differences in opinions emerged. The family doctors with training shared the same preference as non-family doctor specialists regarding the necessary qualifications of family doctors. In descending order of frequency they preferred: professional assessment, vocational training, experience, and the job nature. The doctors without vocational training, be they family doctors or non-family doctors, were least likely to agree on vocational training as a qualification. Moreover, doctors with vocational training were more likely than those without to opt for a longer period of training.

Arguably respondents of a survey express their own personal interests and our respondents might have done the same. The opinions of those with vocational training, however, could well be their evaluation of training and should not be readily dismissed.

Despite the seemingly low response rate of 23% in this survey, it was comparable to rates achieved in most surveys of the medical profession in Hong Kong. The Harvard Report in 1998 achieved a response rate of 16% on its Hong Kong Private Practice Survey.<sup>17</sup> Leung et al,<sup>18</sup> using cash incentives, attained a 20% response rate on mailed surveys to local doctors in 2002. In 2006, the response rates were 6% for Hong Kong Doctors' Union on the Questionnaire on Health Maintenance Organisation,<sup>19</sup> and 26% for the Hong Kong Medical Association's survey on Physicians' Fees.<sup>20</sup>

Another limitation was the relatively high proportion of specialists who responded, representing 32% of the doctors on the Specialist Register. A large proportion of the non-specialists working in primary care who did not respond were most probably among the group of family doctors without vocational training. Nevertheless, for the purpose of promoting family medicine in the health care system, it is important to know the views of the profession outside family medicine; an efficient primary-secondary care interface requires mutual understanding of both parties. The present study can contribute to the future planning of our health care system by providing useful and up-todate information about local doctors' views on the qualification and family medicine training.

## Conclusion

Vocational training was considered important as a qualification for the specialty of Family Medicine. The length of training was mostly agreed to be 4 years or less, not the 6 years currently required by the HKAM. Among family doctors without vocational training experience and also non-specialists among non-family doctors, vocational training was the least agreed on as a qualification, even less than clinical experience alone or the job nature alone.

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