Family Medicine and Community Health
ORIGINAL RESEARCH

General practice training in China: A multimodal experiential program provided by Australian educators

Grant Blashki[1], Hui Yang[2,3,4], Leon Piterman[3,4]

Abstract

Our small group of expert GP academic trainers from Monash University and the University of Melbourne have been collaborating over the last decade to develop a GP model training program based in Luohu, Shenzhen, that deeply engages Chinese GPs and seeks to provide personal and professional development of the GPs. The program is closely linked to continuing offshore GP education in Australia, with many trainees of the program having attended intensive training hosted by Monash University in Australia.

Keywords: General practice; primary care; China; training

Significance statement: Countries around the world are dealing with rising rates of chronic diseases and increasing health care costs, and China is no exception. Primary care, and especially general practice, provides a strong backbone for an effective health care system, is affordable and accessible, and is suited to managing complex illnesses over the long term. We describe an approach to GP training that has been developed in the Luohu district of Shenzhen and that focuses on clinical as well as leadership skills for the growing GP workforce.

1. Nossal Institute for Global Health and Melbourne Sustainable Society Institute, The University of Melbourne, Parkville, Victoria, Australia
2. Shenzhen International Primary Health Care Research Institute, Shenzhen, Guangdong, China
3. Department of General Practice, Monash University, Melbourne, Victoria, Australia
4. China GP Program, Monash Institute of Health and Clinical Education, Melbourne, Victoria, Australia

CORRESPONDING AUTHOR:
Grant Blashki
Nossal Institute for Global Health and Melbourne Sustainable Society Institute, The University of Melbourne, Parkville, Victoria, Australia
E-mail: gblashki@unimelb.edu.au

Received 3 September 2017;
Accepted 28 December 2017

Introduction

China faces major public health challenges in the coming decades [1], and building strong general practice [2] is likely to be one of the solutions to providing effective, accessible, acceptable, and affordable care for residents [3]. China has a growing and aging population [4], and, as many countries are also experiencing, China has rising levels of noncommunicable diseases [5], such as obesity, diabetes, cancers, smoking-related disorders, and mental health problems, all problems that are amenable to prevention and long-term management in primary care.

There has been increasing support from Chinese policy makers for a strong primary care workforce [6]. General practice in China has been a recent development, emerging in the last 20 years, and with small centers of training and sparse distribution of GPs [6]. An important milestone in the progress of general practice in China occurred in 2011, when at an executive meeting of the State Council of the People's Republic of China it was decided that the GP system should play a leading role in the health system [6]. Further support occurred in 2015 from the National Health and Family Planning Commission of China, which specified the urgency of training GP teachers/trainers and supported pilot plans for GPs to cover 680 counties in 19 provinces in China [6].

At the same time, the population's expectations for health care are shaped in part by a proud history of traditional Chinese medicine [7], and a growing middle class who have high expectations for modern Western medicine as well. It is also fair to say that the population is somewhat uncertain about the role general practice can play and is very accustomed to attending hospitals for health care [6].

Countries such as Australia have invested heavily in their primary care workforce [8], with GPs very much the cornerstone of the health care system. Studies have shown that those countries with stronger primary health care systems provide more efficient and better health outcomes at a population level [9]. This is not surprising as GPs (and their primary health care teams) are generally significantly cheaper than hospital specialists, and can provide more integrated care that spans physical and mental health problems, longitudinal care for chronic diseases over a lifetime, and strong engagement with local communities to implement health-promotion initiatives [10].

Today in China the quality and uptake of general practice differs between regions. There is not as yet a well established GP professional association that oversees training standards and clinical standards for the GP workforce, as exists in countries such as Australia, Canada, and the United Kingdom [2]. As such, there are pockets of GP training excellence, but not a national coordinated standard for training GPs. Indeed, many of the GPs now working in general practice are not specifically trained to be GPs or are hospital specialists who have moved into general practice [6].

In the coming decades, no doubt China will develop its own locally relevant version of general practice. It is likely that it will take some elements of Western general practice that fit well in China, whereas other elements will be adapted to incorporate the cultural and historical expectations and needs of patients in China. Importantly, it is likely there will be an emphasis on team care to manage the increasing prevalence of chronic diseases and aging populations.

In this context, our small group of expert GP academic trainers from Monash University and the University of Melbourne have been collaborating over the last decade to develop a GP model training program based in Luohu, Shenzhen, that deeply engages Chinese GPs and seeks to provide personal and professional development of the GPs. The program is closely linked to continuing offshore GP education in Australia, with many trainees of the program having attended intensive training hosted by Monash University in Australia [11].

The program

Developing the Chinese general practice training program based in Luohu, Shenzhen, has been informed by several strands of clinical experience, evidence-based medical education principles, and an understanding of local conditions. We have collaborated closely with GPs and managers in Luohu to optimize the learning experience on the basis of real-time feedback from the participating physicians. We have distilled eight key elements of training discussed below that are underpinned by adult learning and experience-based medical education principles [12–14]:

1. Needs analysis
2. Online predisposing activities
3. Practice preparation and selection of patients
4. In-practice observation and supervision
5. Postconsultation discussion
6. Interdisciplinary teaching
7. Leadership development
8. Research skill development

Needs analysis

A needs analysis of Chinese physicians is essential because of the varied backgrounds of the physicians, their different training experiences, and the variable patient cohorts that present to the clinics. As outsiders from Australia, our gaining insight into what the physicians are interested in is a crucial step. This needs analysis can be done by speaking to clinical leaders in the medical practices, and paying close attention to the clinical themes that come up in ongoing online discussions in the WeChat discussion groups with participating physicians (WeChat is the largest social media platform in China). The physicians are also specifically asked in the WeChat discussions which clinical topics they would like covered in the training. The clinical observations in the practice also provide a great opportunity to identify gaps in clinical skills, knowledge, and the GPs' philosophical approach to general practice.

Online predisposing activities

In China, one quickly becomes aware that the population's strong engagement with social networking platforms, such as WeChat, is more intensive even than the level of engagement we see in Western countries such as Australia. This makes it an ideal platform to engage with the physicians before the face-to-face training commences. Before the commencement of the face-to-face training, physicians in training are encouraged to post the nominated clinical themes that are to be learnt during the training. Online posts include clinical descriptions, commentary from other physicians, readings, videos, and clinical pictures. The supervisors are very much part of this discussion, and it allows a window into the clinical perspectives of the GPs and the identification of the key clinical issues that most concern them. Using the online platform, the supervisors are very much the facilitators of the online discussion and also act as catalysts by presenting the groups with clinical case examples and clinical questions.

Practice preparation and selection of patients

Although real general practice involves a broad mix of patient types and conditions, a novel element of our training approach is to ask the clinics to recruit patients who have a particular condition for each practice visit. This is especially suitable for teaching about managing chronic diseases as many of the health care processes are the same for these patient groups. GPs also get a chance to explore in depth the spectrum of presentation of specific conditions, and the different patterns of clinical presentation, the rational use of investigations, and evidence-based treatment. So, for example, a scheduled planned clinic may be focused on patients with just the problem of diabetes, or perhaps postnatal depression or congestive cardiac failure. We have found that focusing in this way provides an opportunity for high-quality and well-targeted teaching of chronic disease management.

The key to making these practice sessions successful is preparation. GPs are asked to write short summaries of the patients' histories for supervisors the day before patients present to the clinic (see the case example in Box 1). This serves a number of purposes, including providing the clinical context for the supervisors so that the consultation is not spent just collecting background clinical information. It also provides an opportunity to translate the clinical history into English for non-Mandarin-speaking supervisors in advance. Setting up the clinical consultation room is also important so that all the basic clinical equipment is in place such as a sphygmomanometer, an otoscope, a torch and neurological examination equipment. Most recently we have trialed in-room video with a real-time remote feed of clinical cases so that many GPs can participate in observing the consultation without all of them being present in the consultation room, which can be a bit overwhelming for the patient.

In-practice observation

Sitting in on real general practice consultations provides teaching opportunities that are not possible in a face-to-face teaching setting. Much can be gleaned about the way in which the patients present, the clinical consulting skills of the GPs, and their communication and management approach to various general practice problems. It is a window into actual practice as compared with purely theoretical or idealized clinical scenarios.

An important element of these in-practice observations is role clarification and managing expectations. As a starting point, patients need to be clear about the process and provide informed consent to participate. A key point is that the patient understands that the GP is providing clinical care, while the role of the supervisors is as educators. We have found that having the supervisors sitting behind the patient works best so that the patient has the consultation directly with the GP, rather than being distracted by the supervisors.

Postconsultation discussion

Immediately following the clinic consultation, feedback is provided to the GPs by the supervisors. As a first step, the GPs are asked how they think the consultation went, and about any difficulties that arose. The supervisors provide some feedback about the clinical consultation style, the content of the consultation, and any key questions that they think need to be addressed. The tone is respectful and is very much in the spirit of adult learning and peer-to-peer learning, with a strong appreciation that the GPs bring many years of experience to the consultation [13].

Box 1. Case example of teaching GPs to manage chronic diseases

Before the in-clinic teaching session, the GP prepared a summary of the case that was provided to the supervisors.

Mr. Chi is a 52-year-old shop owner who lives with his wife and teenage daughter in the apartment building where the clinic is based. He initially came to the clinic 3 months previously because his vision was blurry, and he was tired. The GP obtained his full history, performed a full examination, and arranged a number of tests, including a finger prick test for blood glucose, and found that his random blood glucose level was 16.3 mmol/L, and confirmed the diagnosis of diabetes. Mr. Chi brought in his wife to the next consultation, and together they talked about the importance of managing diabetes as a team to avoid long-term complications. The GP provided some excellent fact sheets about diabetes for Mr. Chi and his wife to read. The GP started the patient on metformin medication, and encouraged Mr. Chi to stop smoking and importantly to lose weight as his body mass index was 32 kg/m^2. The GP needed to spend a lot of time discussing Western medicine with Mr. Chi as he was very impressed with the role of traditional Chinese medicine and was not sure about whether he needed Western medicines.

Today the focus of consultation is putting in place a chronic disease management plan. The supervisors sit behind the patient and observe the consultation. In this consultation, the Chinese GP spends a lot of time explaining to the patient the importance of regularly visiting the GP. This is very often a new concept for the patient as generally he would go to the physician only if he had a specific medical problem.

The GP explains that he would like the patient to come in every month for the next few months so that they can work their way through various tests needed for diabetes. Together they will arrange an appointment at the hospital with a diabetes physician, referring the patient to have his eyes checked by an ophthalmologist and getting his feet checked by a podiatrist. In the longer term, the GP explains that he needs to see the patient every 3 months to check his hemoglobin A_{1c} level, to perform a urine test to assess his kidneys, and also to check his blood pressure. The GP gives the patient a written care plan with a schedule of appointments and check-ups over the next 12 months.

The supervisors and the GP discuss the case, and identify some very relevant and interesting themes, such as the patient's beliefs about traditional Chinese medicine, and his understanding of diabetes. One of the critical lessons in this case is the importance of establishing a good relationship with the patient and the patient's family and arranging scheduled consultations rather than just relying on reactive patient presentations. In this way, the GP is well placed to coordinate care, to monitor and prevent secondary problems related to the diabetes, and to educate the patient.

Following the in-clinic sessions, the GPs who have been undertaking the supervised consultations report back to a broader group of GPs. The GPs describe the cases of the patients who presented, the issues that arose, and discussions with the supervisors. In this way, a broader group of GPs gets to experience some of the in-practice learning. Subsequently, a more formal lecture-style presentation is given by the GPs to ensure the clinical topic is covered comprehensively.

Interdisciplinary teaching

A fundamental component of the teaching is interdisciplinary learning [14]. Chronic diseases by their very nature require health care from multiple health professionals: physicians, nurses, social workers, physiotherapists, and psychologists, to name just some members of the team. A key challenge in successfully managing chronic disease is ensuring that members of the team are coordinating care and communicating with each other. We have found that joint teaching has the added benefits of informing other professions what their colleagues can offer and what skills they bring to clinical care. The focus of the training for chronic disease management is setting up the organizational systems to ensure that patients are followed up and adhere to a schedule of health interventions over the long term, with each member of the team contributing their relevant skills.

Leadership development

The scale of the workforce development that is required in China means that leaders (in China terms such as *backbones*,

champions, *teachers*, and *supervisors* are also often used) of the profession are going to be critical. GP leadership encompasses vision, confidence, the capacity for mentorship, and community education about the role of GPs, as well as forming and managing the team, and leading changes. Over the coming decades as the discipline of general practice becomes increasingly important and well recognized in China, it will be confident and highly skilled GP leaders who will be instrumental in leading the profession. They will be well placed to develop a GP curriculum suitable for the Chinese context, to contribute to health care policy, and to assist the primary care clinics to develop the management and governance structures required for the successful management of chronic diseases. Therefore a significant component of the training is dedicated to professional leadership skills.

Research skill development

The development of general practice research in the Chinese context is essential for development of the GP profession. Unfortunately, general practice research around the world tends to have less prestige and financial support than specialist hospital research. However, general practice research takes account of the different characteristics of the patient population, the early and undifferentiated nature of clinical presentations, the high prevalence of chronic disease, and the clinical context in which GPs work. Building a thriving general practice research discipline in China will help build the credibility of general practice in the general population, assist specialist physicians to understand the general practice context, and help to support the development of GP leaders, who are so necessary for Chinese general practice. In our training, we teach research skills such as basic qualitative and quantitative research methods, and explore the logistical and practical issues of undertaking research in general practice settings. These skills will also be most helpful to assess the effectiveness of this type of training program in China.

Conclusion

Developing primary care general practice in China will be a gradual process representing coevolution of GP skills and at the same time community expectations of general practice. While some lessons and models can be taken from Western health systems such as those in Australia, a locally relevant primary care health system will continue to be developed in China. Locally relevant evaluation of the training approach will be necessary to gauge its effectiveness in achieving educational and clinical outcomes. This will be led by a critical mass of academically trained highly skilled Chinese GP leaders who continue to develop the clinical, educational, and research skills. The training process will also need to continue to be shaped by the unique needs of Chinese populations, and in particular prepare primary care health systems for managing chronic disease. In terms of the broader health system, the proper recognition of GPs and their integration into the broader system of hospitals and community workers will also be necessary. Our hope is that the training we have been developing with our partners in Luohu will help GP leaders develop the necessary clinical, educational, and leadership skills that they require to build strong general practice in China.

Acknowledgments

We thank the general practitioners and managers in Luohu, Shenzhen, for their strong collaboration and for participating in the training.

Conflict of interest

The authors declare no conflict of interest.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Author contributions

Grant Blashki and Hui Yang were responsible for conceptualization, wrote the first draft, and responded to reviewers with revisions. Leon Piterman commented on and developed the article especially in relation to GP education principles. All authors agreed that the article should be submitted.

References

1. The Lancet Editorial. Towards better health for people in China. Lancet 2013;381:1959.
2. The Economist. Shod, but still shoddy – China needs many more primary-care doctors – but memories of barefoot ones put

some people off seeing them. Economist 2017 [accessed 2018 Jan 1]. Available from: http://media.economist.com/printedition/2017-05-13.

3. The Lancet Editorial. China: health takes priority. Lancet 2016;388(10048):936.
4. Hou JW, Li K. The aging of the Chinese population and the cost of health care. Soc Sci J 2011;48(3):514–26.
5. Tang S, Ehiri J, Long Q. China's biggest, most neglected health challenge: non-communicable disease. Infect Dis Poverty 2013;2(1):7.
6. Li D. Doctors for primary care in China: transformation of general practice education. J Fam Med Prim Care 2016;5(1):1–2.
7. Linn YC. Evidence-based medicine for traditional Chinese medicine: exploring the evidence from a Western medicine perspective. Proc Singap Healthc 2011;20(1):12–9.
8. Australian Government Department of Health GP Statistics [accessed 2018 Jan 1]. Available from: http://www.health.gov.au/internet/main/publishing.nsf/content/General+Practice+Statistics-1.
9. Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank Q 2005;83:457–502.
10. Blashki G, Kidd M. What's up doc? The benefits of a good GP. In: Blashki G, Sykes H, editors. Life surfing life dancing. Albert Park: Future Leaders; 2013. pp. 205–14.
11. Piterman L, Yang H, Blashki G. Offshore teaching in chronic disease management: the Monash-Shenzhen experience. Fam Med Community Health 2018;6(1):10–3.
12. Knowles M. The modern practice of adult education: from pedagogy to andragogy. New York: Cambridge Adult Education; 1980.
13. Kolb DA. Experiential learning: experience as the source of learning and development. Englewood Cliffs: Prentice Hall; 1984.
14. Piterman L, Newton J, Canny BJ. Interprofessional education (IPE) for interprofessional practice (IPP). Does it make a difference? Med J Aust 2010;193(2):92–3.