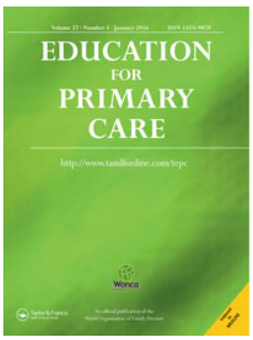

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LEADING ARTICLE

Education for rural practice in rural practice

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ABSTRACT

Despite the substantial differences between developing and developed countries, access is the major rural health issue. Studies in many countries have shown that the three factors most strongly associated with entering rural practice are: (1) a rural upbringing; (2) positive clinical and educational experiences in rural settings as part of undergraduate medical education; (3) targeted training for rural practice at the postgraduate level. This paper presents examples of successful rural primary care-based education in different parts of the world, then introduces the Wonca Rural Medical Education Guidebook which was launched at the 2014 Wonca Rural Health World Conference and concludes with a brief report of the 2015 conference held in Dubrovnik Croatia.

KEYWORDS

Rural practice; medical education; primary care

Introduction

Despite the substantial differences between developing and developed countries, the key themes in rural health are the same around the world. Access is the major rural health issue. Even in countries where the majority of the population lives in rural areas, the resources are concentrated in the cities. All countries have transport and communication difficulties between rural and urban settings, and they all face the challenge of shortages of healthcare providers in rural and remote areas,[1] particularly in primary care.

In this context, medical schools introduced rural clinical placements with the expectation that experience in rural settings would encourage a future interest in rural practice. Subsequently, research evidence demonstrated that this expectation was justified.[2–5] Studies in many countries have shown that the three factors most strongly associated with entering rural practice are: (1) a rural upbringing; (2) positive clinical and educational experiences in rural settings as part of undergraduate medical education; (3) targeted training for rural practice at the postgraduate level.[6]

Since the mid-1980s, research evidence has been accumulating describing the specific range of knowledge and skills required by rural practitioners. This has led to the inclusion of specific curriculum content on rural health and rural practice in undergraduate medical programmes and in rural-based family practice training programmes. When compared to their metropolitan counterparts, rural practitioners may be described as 'extended generalists'. They provide a wider range of services, sustain a heavier workload and carry a higher level of clinical responsibility in relative professional isolation.[7] These characteristics hold true for all rural practitioners whether they are doctors, nurses, pharmacists or other health professionals.

In 1992, 70 rural doctors from around the world held an ad hoc meeting at the World Organisation of Family Doctors (Wonca) conference in Vancouver which led to the establishment of the Wonca Working Party on Rural Practice (WWPRP). Members of the Working Party are practising rural doctors and others closely associated with rural practice from all parts of the world. The Working Party initiated Wonca Rural policies and Wonca Rural Health World Conferences from which conference declarations have provided additional impetus to the rural health movement around the world. In addition, the WWPRP has advocated for improving rural health worldwide through collaborations with the World Health Organization and other global agencies.[8]

The first Wonca Rural Policy on Training for Rural General Practice, approved in 1995, provided a framework for educational innovation and research, not only for Wonca and its constituents, but also for governments,

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non-government organisations and academic institutions. [9] Although there continue to be rural workforce shortages, much has been learned and many rural education and training initiatives are making a difference. This paper presents examples of successful rural primary care-based education in different parts of the world, then introduces the Wonca Rural Medical Education Guidebook which was launched at the 2014 Wonca Rural Health World Conference and concludes with a brief report of the 2015 conference held in Dubrovnik Croatia.

Canada

Memorial University of Newfoundland's Faculty of Medicine was established in 1967 in Canada's most rural province (currently 525,000 people spread over 400,000 km^2). The Faculty of Medicine has been successful in producing doctors needed for the province with Memorial graduates being 78% of the 818 fully licensed physicians in Newfoundland and Labrador in 2014. Most of the other 22% had completed postgraduate training at Memorial after medical school elsewhere.[10,11]

Given its geographic context, part of Memorial's social accountability mandate includes producing family physicians who can practise as rural generalist practitioners in communities where specialist care is often distant and difficult to access. Of the 305 Memorial graduates practising family practice in Newfoundland and Labrador, 36% practise in rural communities or towns. Memorial's family medicine residency training programme has been recognised numerous times by the Society for Rural Physicians of Canada, most recently with the 2013 Keith Award for the highest percentage of graduates (44%) in rural practice 10 years after graduation.

Memorial's success in producing rural family doctors is built on its 'pathways to rural practice approach'. This begins with a successful outreach 'MedQuest' programme for rural and Aboriginal youth; a rural friendly admissions process (35.2% of Memorial 2011–2014 graduates had predominantly rural backgrounds); an undergraduate curriculum that integrates rural health: 74% of year one; 55% of year two community placements; and 93% of year three family practice placements were in rural locations.

Also in Canada, Northern Ontario is geographically vast, has a chronic shortage of doctors and has culturally diverse populations with worse health status than Ontario as a whole. NOSM was established in 2005 with a social accountability mandate to contribute to improving the health of the people and communities of Northern Ontario [12] and developed Distributed Community Engaged Learning (DCEL) as its distinctive model of medical education and health research. Prior to the final year, the large majority of clinical teachers and role models are family doctors. 92% of all medical students come from Northern Ontario with the remaining 8% from remote rural parts of the rest of Canada. Sixty-two per cent of NOSM graduates have chosen family practice (predominantly rural) training with almost all the others (33%) training in other general specialties.[13] NOSM offers postgraduate training in family practice and in eight other major general specialties. 94% of the doctors who completed undergraduate and postgraduate education with NOSM are practising in Northern Ontario, including 33% in remote rural communities.

South Africa

In South Africa, the Collaboration for Health Equity through Education and Research (CHEER) was formed in 2003 to examine strategies that would increase the proportion of health professional graduates who choose to practise in rural and underserved areas. Consisting of eight researchers, one from each of the South African universities with a medical school, the group undertook a systematic review of the literature,[14] a qualitative study [15] and a case-control quantitative study [16] to address the original research question. Three series of peer reviews at each university addressing key issues of collective concern formed a central process in the collaboration.

The first round of peer reviews assessed each faculty in terms of 11 themes which could contribute to the preparation of graduates for service in rural and underserved areas.[17] There were noteworthy learnings. For example, at one Faculty, community members contribute not only to the recruitment and selection of medical students, but also to curriculum development and student assessment at community sites. The second round of peer reviews tackled the issue of the relationships between universities and their health service partners. A consistent challenge that many programmes face is balancing the need to provide health services to large numbers of patients in under-resourced situations with the simultaneous need to provide quality medical education and supervision of clinical placements for students. Finally, a third round of peer reviews aimed to measure the social accountability of medical schools, using an adaptation of THEnet Social Accountability Framework.[18]

As a group of peers inclusive of every medical school in the country, a common purpose developed in supporting one another to find better ways of making South African medical graduates more 'fit for purpose' in terms of the health needs of the country. Overall, CHEER stimulated a number of successful collaborative research projects which contributed to national policy development as well as routine accreditation criteria and procedures. In addition, the peer review approach was highly successful

in sharing common challenges, spreading innovative practices and stimulating new ideas.

Also in South Africa, it was decided in 2002 to develop a new cadre of health professional, then called medical assistants, to address the needs of the country, in the light of health professional shortages, particularly in rural areas.[19] The Faculty of Health Sciences of the University of the Witwatersrand (Wits) is one of three schools currently training these professionals, known as physician assistants in many other countries. Starting in 2009 with 25 students, the Bachelor of Clinical Medical Practice (BCMP) is an innovative 3-year degree programme, and has a current annual intake of about 60 students, selected mainly from rural and disadvantaged communities.

Distinctive features of the programme include integrated patient-based teaching, with pre-clinical and clinical sciences being taught concurrently based on patient and case scenarios, and early clinical exposure, with students seeing patients from the second month of their first year. Medical, clinical and behavioural sciences form the basis of learning and are integrated into the clinical teaching, to enable students to understand common medical conditions and management strategies, with emphasis on the development of skills needed to carry out clinical procedures. Training occurs mainly in district hospitals and primary care facilities, particularly in rural and underserved communities with clinical supervision by generalist clinicians with a few rotations completed in regional (level two) hospitals. From the outset, the students: work alongside doctors and other health professionals; are encouraged to take responsibility for their own learning; and 'learn how to learn'.

Graduates of the programme are judged to have very useful competencies in their work situations. They are appreciated for their good communication skills and relationship with patients, as well as their proficiency in carrying out common procedures. In many rural hospitals they have quickly become a backbone of the service, and the range of roles they are playing in primary care is steadily expanding.

Australia

Although a developed country, Australia is a vast continent with nearly 400 small hospitals,[20] many of which are hundreds of kilometres apart. Doctors in these towns often provide the medical services at the local hospital as well as in their own family practices. The famous Royal Flying Doctor Service (RFDS) transports only a small percentage of critically ill patients which means that there is a need for the extended generalist practitioners in remote rural communities.[21] Many groups have agreed on a description of the rural generalist as a doctor who can: provide unsupervised, un-referred community or primary care for individuals, families and communities; work unsupervised to provide in-patient and emergency care in a hospital or related setting such as a remote health centre, multipurpose health service; provide extended specialised service in at least one approved medical discipline required to sustain comprehensive health care services in regional, rural and remote communities; provide services across the continuum of care in a range of settings and service delivery models including outreach where required (providing a dispersed specialist service such as community paediatrics, palliative care as examples) and apply a population health approach with relevance to the community in which they practise.[22]

The need for these doctors prompted the state of Queensland to convene a meeting 10 years ago to develop the Roma Agreement.[23] The Rural Generalist Pathway (RGP) that arose from this was established and trains to standards of the Australian College of Rural and Remote Medicine (ACCRM) and recognises the Fellowship of the Royal Australian College of General Practitioners with its rural Fellowship (FRACGP/FARGP). It is inextricably linked with General Practice training.[24] This pathway has so far produced trained registrars with formally recognised advanced skills in Anaesthetics (69), Obstetrics (40), Emergency Medicine (29), Surgery (3), Internal Medicine (6), Paediatrics (3) and Indigenous health (4) 28 Trainees and Fellows are currently completing/have completed their second advanced skill.[25] The intake now into the 4-year programme is 80 per annum. A key feature is the flexible and adaptive construct of the pathway which allows tailoring of training to community needs. The success of the pathway has resulted in a steady decline in rural medical workforce shortages and has been shown to produce efficient and effective delivery of workforce to rural towns.[26]

Europe

Europe is a continent with diverse health needs, cultures and social challenges. Many countries have surprisingly large rural populations especially those to the north and the east. Within Europe, rural practice and rural demography differs from country to country and region to region. In the past, traditional medical curricula have been inflexible and urban-centric and Europe has generally lagged behind other world regions in developing rural medical education. However, initiatives are springing up across the continent. The rural recruitment and retention crisis that became the catalyst for change in other parts of the world has now materialised in Europe and is forcing governments and professional bodies to look at innovative programmes to introduce medical students to rural practice and train potential rural doctors for future practice. The growth in

the numbers of medical students and an understanding that general practice offers an excellent learning environment for medical students to learn skills and knowledge has forced medical schools to place students in rural practices which in the past were overlooked as ideal training opportunities. EURIPA (European Rural and Isolated Practitioner's Association) was established in 1997 and is now one of the core networks in Wonca Europe. EURIPA has been at the forefront of promoting the importance of rural placements and rural training in Europe.[27]

The medical school at the University of Tromso in Northern Norway was established in 1973 to improve the access to health care in Northern Norway. The success of the medical school has become a beacon for the whole of Europe.[28] Specific rural medical schools are still a rarity in Europe but rural programmes can be found in a number of countries. Examples of these rural programmes include: Keele University School of Medicine in the UK has developed The South Shropshire Rural Campus in the market town of Ludlow.[29] Forty per cent of the students will have the opportunity to spend either 4 weeks (year 4) or 15 weeks (year 5) immersed in rural practice. The students travel out daily to rural practices in the surrounding county of Shropshire and North Hereford. Year 5 students undertake a community-based advocacy project during their placement working with local voluntary organisations with a rural focus. Local GPs tutors provide weekly cluster sessions, which include rural awareness sessions.[30] Swansea University School of Medicine which places students in hospitals and general practices across Mid and West Wales has developed a rural track where students can opt to undertake much of their clinical training in rural placements.

Conclusion

Growing worldwide recognition of the importance of rural medical education led the Wonca Working Party Practice to develop the Wonca Guidebook on Rural Medical Education which was launched in 2014 at the 12th Wonca Rural Health World Conference in Gramado Brazil. There were over 70 contributors to this open source Guidebook which is published and accessible online through the Wonca website at: http://globalfamilydoctor.com/groups/WorkingParties/RuralPractice/ruralguidebook.aspx.

Dubrovnik was the location of the 13th Wonca Rural Health World Conference. The conference, involving over 1100 participants from 25 countries, focused on the theme 'Breaking Down Barriers: Bringing People Together'. As in previous Wonca Rural Health Conferences, there was a great sense of camaraderie and common purpose amongst the rural physician participants who shared their experiences in a wide variety of sessions. This conference occurred in the week following the 2nd World Summit on Rural Generalist Medicine, held in Montreal, Canada. The Summit concluded with a commitment to: an expanded research strategy; development of evidence based toolkits to facilitate generalist services which meet rural community needs; and partnerships and collaborations across the world towards achieving health equity for rural communities through accessible, high-quality health care. The next rural health world conference and generalism summit will be 30 April–3 May 2017 in Cairns, Australia.

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