International exchanges in primary care – Learning from thy neighbour – A systematic review

Article category – Systematic review

Bernadeta Bridgwood¹, John Park², Claire Hawcroft³, Natasha Kay⁴, Eugene Tang⁵.

1. Department of Health Sciences, University of Leicester, Leicester, UK.
2. Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, USA
3. School of Social and Community Medicine, University of Bristol, Bristol, UK.
4. The Royal Free Hospital, London, UK.
5. Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK.

Correspondence – Dr B Bridgwood, Department of Health Sciences, Centre for Medicine, University of Leicester, University road, Leicester, LE1 7RH, UK, b.bridgwood@nhs.net
Abstract

This systematic review describes how international exchange programmes in primary care have been received and evaluated.

Electronic databases (MEDLINE, Embase, PsycINFO, EBM reviews, CAB abstracts and PubMed) were searched to identify articles where the main focus of the study was exchanges undertaken in primary care/family medicine until March 2016. Articles were included if they a) discussed participant exchanges in primary care; b) presented associated outcome data – this included i) individual/group experience of exchange; ii) mechanism of exchange and iii) observations during the exchange. A narrative synthesis was performed of the heterogeneous data identified.

Twenty-nine studies were included. Exchange locations varied across the world with the largest number in Europe. Participants came from a range of backgrounds including medical students, nurses, General Practitioners (GP), GP trainees (GPTs) and visiting scholars/professors. Exchange duration ranged from three days to two years. Key themes were identified from analysis of the studies with illustrative quotes from the included studies provided. Four key areas were discussed in relation to exchange experience: learning opportunities and new knowledge; comparative observation; knowledge gained and translational learning.

Primary care international exchanges provide a rich source of cross-country learning. This review identified that exchange participants benefit both personally and professionally, equipping them with translatable skills to improve the care provided to their patients.

Key Words

International health; family health; primary care; continuing medical education; immigrant health; academic medicine; access to healthcare
**Introduction**

At the forefront of many healthcare systems are primary care/family physicians who provide the foundations of healthcare provision, offering continuity of care for their patients and families. In some settings, these physicians have the role of specialist generalists; in others they act as ‘gatekeepers’, allocating community resources, as well as referring patients as necessary for specialist management. Increasingly, there is a limitation of resources, aging populations and a larger emphasis on delivering care in the community [1]. Furthermore, the face of our population is changing – with our world today reflecting an interconnected multicultural society. It is important for healthcare professionals to have both knowledge and understanding of the varied cultural backgrounds and beliefs of the populations that they serve, to provide the best and most appropriate health care [1,3,4]. There is growing evidence that exposure to other healthcare systems enhances cultural understanding, empathy and communication [5,6].

The challenges provided by the changing face of healthcare demands innovation and change to provide improved efficiency and outcomes. Primary care/family physicians are positioned at the front line in this period of rapid change, and may have unique experience and perspectives [3]. One mechanism to enhance knowledge, which may help to inform and develop primary care, is that of exchange programs [1]. The concept of gaining a working insight into different healthcare systems has grown in popularity [7,8]. The notion of undertaking an exchange has shifted from an initial mindset of medical students enjoying an elective, to professionals of all levels seeking a learning opportunity for personal and professional development. What is not clear is how this type of experience has been specifically received and evaluated by participants undertaking exchanges within primary care/family medicine and we seek to address this within this systematic review.

**Objective**

The objective of this study was to conduct a systematic review of the literature relating to exchanges within primary care/family medicine. It aimed to identify who undertakes exchanges in primary care, what exchanges are undertaken and why, and the value of such exchanges in terms of learning outcomes and experience gained.
Methods

Article Identification

PRISMA guidelines were followed to identify articles where the main focus of the study was exchanges undertaken in primary care/family medicine (Figure 1). A search of electronic databases (MEDLINE, Embase, PsycINFO, EBM reviews, CAB abstracts and PubMed) was conducted using the following terms: *exchange*, *general practitioners/physicians*, *family physician*, *primary care*, *general practice*, *GP*, *family medicine*, *family practi* *, primary health care, primary care physician, family doctor, primary medical care*. The search was performed by a reviewer (ET) of all articles available until the search date of the 4th March 2016.

Inclusion criteria

Articles were included if they a) discussed participant exchanges in primary care; b) presented associated outcome data – this included i) individual/group experience of exchange; ii) mechanism of exchange and iii) observations during the exchange. All articles types were considered including non-English articles.

Data Extraction

Two independent reviewers (BB, JP) assessed the article titles and identified relevant articles. Any discrepancies were resolved by discussion with a third reviewer (ET). A structured data extraction form was used whereby categories were devised during the initial phase of the data extraction. This included exchange participant details; exchange details; participant experience; host details and participant exchange evaluation. Three reviewers (CH, NK, BB) independently evaluated full text articles, extracted and combined data. Due to the heterogeneity of the studies, results are presented as a narrative synthesis and no additional analysis was performed. Results are reported as – publication number, PN (level of training) and either ‘direct quote from a participant’ or an extract from the publication.

Data Analysis

Here narrative analysis was employed to describe the exchange demographics, exchange objectives, mechanisms of exchange and exchange outcomes [9]. The program NVivo 11 was used to aid the data assessment.
Results

Exchange Demographics

Twenty-nine papers were identified which fulfilled the search criteria (Figure 1). Table 1 summarises the characteristics of the participants, location of exchange, mechanism of exchange and duration. Exchange locations varied across the world with the largest number in Europe (PN 2, 4, 6, 8, 11, 12, 13, 14, 16, 18, 19, 20, 24, 26, 27, 29). Participants came from a range of backgrounds including medical students (PN 5, 12, 19, 25, 28) through to GP scholars/professors (PN 7). Exchange duration ranged from three days (PN 14) to two years (PN 15). One report discussed a one day exchange in a practice before attending a primary care conference (conference exchange, PN 16). The review identified a number of exchange programs including Hippokrates (PN 2, 4, 11, 13, 16, 18, 20, 26, 27) Erasmus exchanges (PN 12, 19), an Irish/Australian registrar exchange program (PN 1, 8), International Healthcare Fellowship, FM360 (Family Medicine 360, PN 10), SanteSud (PN 3) and international health fellowship (PN 5, 9). The remainder were either organised through universities/work-place (PN 14, 17, 25, 28) or were self organised (PN 6, 7, 15, 21-24).

Exchange Objectives

Exchange objectives appeared to focus on providing a broader intercultural and clinical learning experience. Participants discussed the opportunity to observe different healthcare systems and to potentially identify examples of best practice to translate into their own practice. Additionally, exchanges were seen to facilitate improving language and interpersonal skills and establishing personal and professional bonds.

PN 18 (GPT/GP) "...to encourage mobility and sharing of knowledge among young doctors across Europe".

PN 21 (GP) ...gaining varied experiences of the delivery of primary care, seeking knowledge to improve care, exchange of ideas.

Organising an Exchange

Exchanges were organised either through direct contact with potential hosts via adverts or through discussion. Alternatively exchanges were arranged through dedicated exchange programs or organisations. The success of establishing an exchange appeared to depend on the dedication and accessibility of a host and appeared easier when organisations offered ‘readily-available’ and willing hosts.

PN 6 (GP) “Successful exchanges seem to depend on a single dependable contact abroad, a language in common, and a coherent group.”
PN 10 (GPT/GP) Established structure - used ERASMUS guidance.

For exchanges based beyond Europe, participants discussed some difficulty regarding bureaucratic requirements of working and travelling abroad, such as obtaining visas.
PN 22 (GP) "It's multiple bureaucracies... time consuming".

Furthermore, UK trainees and those undertaking longer exchanges identified different levels of support in different training deaneries or parts of the NHS.
PN 15 (GPT) "Trainees face challenges at all stages ... from the planning and application process.... Across the UK, there is disparity in the level of deanery support for trainees wishing to take OOPE(Out of Program Exchange)...".

Exchange Evaluation and Experience

From the views of participants, it was clear that for many, exchanges were an opportunity to gain new knowledge in a new environment.
PN 3 (GP) "(exchange can)...stimulate reflection and inspire practice innovations (...) poorer countries can get useful insights on improving individual clinical care (...) richer countries can learn about their population and public health responsibilities".
PN 25 (MS) All trainees reported an increase in skills developed and medical knowledge. Furthermore, participants identified the exchange as an opportunity to extend their personal and professional networks.

Participants overwhelmingly compared their own home practice to their host practice. Comparisons were typically made of the structure of practice, duties of a GP, patient expectations and other multidisciplinary team members (MDT).
PN 2 (GPT/GP) "Overall, what struck me is the universal nature of GP. Despite notable differences, we all face similar challenges".
PN 17 (N) "...structural differences with nurses in New Zealand - more GPs see patients than nurses. UK has more scope to develop nurse role."
PN 1 (GPT) I was witness to new knowledge, a new way of doing things; then at times I felt very strongly how similar our issues and experiences of training are.
On completion of an exchange, there was reflection on learning outcomes. Participants discussed personal gains - including an improvement in networking skills, increased understanding of another culture, positive attitudes towards migrant health needs, language skills and augmented organisation and flexibility.

PN 7 (P) (...participants) reported improved knowledge and skills, and increased awareness of health issues in another country. Moreover, they learned about cultural differences and had an opportunity to reflect and grow personally as doctors.

PN 26 (GPT/GP) “It has broadened my perspective of general practice, opened doors of opportunity and, most importantly, enabled me to make some wonderful friends for life”.

Evidence of improved professional skills included enhanced communication and consulting skills, a range of practical clinical skills, understanding and utilisation of resources - particularly of resource limitations - and enhanced intercultural medical professionalism.

PN 15 (GPT) It was felt that trainees returned with a broader exposure to clinical presentations and greater confidence in their UK practice.

PN 28 (MS) “The project (...) allowed us to perceive health care in a different setting ripe with challenges for growth and development; to highlight the importance of primary care in assuring the health of a population.”

Benefits of Exchange

As participants identified the opportunity to discuss and share experience and practice with both their host and home organisations, this conferred the potential to share areas of best practice, including teaching practice.

PN 4 (GPT/GP) “there is much to be learned from observing another system and comparing this to our NHS. I feel the NHS could be improved by focusing on health promotion and health education... A growing international community provides a forum to discuss and share experiences, and consider how we can improve”.

PN 12 (MS) A further benefit of the exchange programme lies in the transfer of teaching innovations between universities.

PN 29 (GP) We learned about each other’s habits and cultures but also about each other’s incertitude and fears.

Moreover, research and education networks were formed, upon which strong foundations for future exchanges were established.
PN 28 (MS) Strong educational links have resulted from this sojourn: a resident from the CEMIC has (already) completed 3 months of family medicine at McGill University.

Importantly, participants described that they intended to translate their new knowledge and skills into their own practice within their home countries.

PN 24 (GP) “I returned to Canada feeling quite humbled and took back with me ideas and concepts that should effectively help our group to reorganize its efforts to deliver better community first-contact health care.”

PN 9 (GPT) All trainees reported an increase in skills development and medical knowledge as a result of the (...exchange). Trainees stated that they became less reliant on diagnostic tests and placed stronger emphasis on history taking and physical examination.

**Discussion**

This review aimed to evaluate the objectives and experiences of undertaking an exchange in primary care in addition to identifying the individual and organisational benefits. Our review supports the theory that, for any activity with educational value, the importance of setting learning objectives and evaluating attainment is important [9,10,11]. There is evidence that exchange participants aimed to understand global healthcare and share knowledge [11]. However, to facilitate positive learning outcomes, adequate preparation and supervision are key elements in addition to pastoral support such as adjusting to the local culture [12]. Evaluating the exchange experience in primary care highlighted four key areas – learning opportunities; comparative observation; knowledge gained and translational learning.

International exchanges are well established in the medical student population [13,14], however have filtrated through all MDT roles and levels of experience [15,16,17]. International exchanges in primary care have evolved from curiosity between individual practitioners [14,16,17], to established networks such as the Vasco da Gama Movement (VdGM) [7,18,19]. There is obvious scope for sharing good practice in a coordinated manner to reduce duplication of organisational effort and resource [20]. Indeed, there are forums for sharing exchange experiences on an international level during the World Organisation for Family Medicine (WONCA) Conference [7,21]. Engaging in a global health partnership would actively seek to make better connections and promote learning and improve global healthcare standards.
Primary care operates within multi-cultural populations, however problems with basic concepts such as communication are widespread [22,23,24]. The importance of improving skills and knowledge in global health is being increasingly discussed within medical schools, and even in family medicine training, to ensure that graduates are appropriately prepared to work in an international world [24,25]. International student exchanges across disciplines have evidenced benefits such as developing professionalism; broadening subject knowledge, cultural awareness and personal skills [18,27,28]. Within this review, exchange participants evidenced educational gains offering potential benefits to both the primary care system of the exchange participant and the host. Participants acknowledged an increased confidence and gain in clinical skills, while simultaneously developing communication skills and an appreciation of varied cultural etiquette [1,6,29,30]. Importantly, exchange participants identified an increased cultural understanding and discussed a deeper empathy towards their patients [1]. This is driven by the individual’s requirement to personally engage with a different culture and engage in the learning process to adequately acquire an intercultural identity and develop competencies such as communication [30,31].

Implications for practice

An increased demand on resources within primary care has placed an emphasis on the transformation of existing models of care. Moreover, social and economic migration has resulted in a culturally diverse population that requires practitioners to have a broader perspective on the communication and care provided [2,21,22,28]. General practitioners need to be clinically competent and have a cultural understanding of both their patients and work teams. This enables practitioners to adapt to different social settings and provide high standard, holistic care in multiethnic teams and environments. [6,19,29,30,34,35]. Primary care is a relatively new speciality in some countries and well established in others. There are an enormous number of valuable insights, procedures, structures and mechanisms practised within primary care globally, which are available to observe and evaluate [9,21]. International exchanges provide a route to allow exposure to global healthcare practice, finding similarities, common challenges and possible solutions [1,13].

Strengths and Limitations

This is the first review of publications concerned with international exchange in primary care. We were able to identify the range of professional positions/training levels who undertake exchanges, identify available exchange opportunities and discuss the potential value of the exchanges in terms of personal and professional
benefits. Participants were able to compare practice in home and host organisations and identify areas of practice which may conceivably be implemented into their own practice. Some of the practicalities of organising an exchange – including potential problems – are discussed. This gives potential participants realistic expectations of undertaking such an activity. To mitigate any researcher bias during data analysis, the study employed a pre-defined extraction template and narrative synthesis to describe the data and ensure reproducibility.

**Conclusion**

Primary care physicians are often the initial contact patients have with the healthcare system and are under pressure to provide patient-centred, community focused care with reducing resources. How primary care is delivered worldwide varies in terms of information systems, team structures, payment incentives and guidelines. Exchanges provide a rich source of cross-country learning by which healthcare physicians can experience alternative practice and consider methods to improve best practice and develop improved models of care. By providing a global perspective, this review has identified that exchange participants benefit both personally and professionally equipping them with translatable skills to improve the care provided to their patients. It is urged that international exchange opportunities are promoted – and organisational challenges reduced - at every stage of physician training to enable more primary care physicians to participate in this great learning experience for the benefit of our primary care community and our patients.

To learn more about how you can contact these exchange organisations and participant in an exchange, please see Table 2.

**Ethics** – not applicable

**Funding** – Bernadeta Bridgwood and Claire Hawcroft are supported by the NIHR as Academic Clinical Fellows. Eugene Tang is supported by a NIHR Doctoral Research Fellowship (DRF-2015-08-006).

**Conflict of Interest** - No conflict of interest

**Acknowledgements** – To the Junior International Committee (JIC) a subcommittee of the RCGP who provided pastoral support.
References


Figure 1 – PRISMA flow diagram of information through the different phases of the systematic review.
<table>
<thead>
<tr>
<th>Publication No</th>
<th>Stage of Training</th>
<th>Location</th>
<th>Duration</th>
<th>Type of Exchange (self organised/organised and program)</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GPT</td>
<td>Donegal, Ireland</td>
<td>3 months</td>
<td>Organised - Irish Registrar Exchange Program</td>
<td>Wearne E. Aust fam physician. 2008;37(3)158.</td>
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<tr>
<td>3</td>
<td>GP</td>
<td>Mali</td>
<td>2 weeks</td>
<td>Organised - Sante-Sud</td>
<td>Van Dormael. Inter Fam Med Ed. 2008;40(3)211.</td>
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<tr>
<td>4</td>
<td>GP</td>
<td>England</td>
<td>1 week</td>
<td>RCGP/APM-CG</td>
<td>Jelley D.EJGP. 2002;8(2)75.</td>
</tr>
<tr>
<td>5</td>
<td>MS</td>
<td>Ghana and Nigeria</td>
<td>8 months</td>
<td>Organised - International Health Fellowship</td>
<td>Smilkstein G. Acad med. 1990;65(12)781.</td>
</tr>
<tr>
<td>6</td>
<td>GP</td>
<td>France, Czech Republic</td>
<td>1 week</td>
<td>Organised - GP network</td>
<td>Cembrowicz S. BJGP. 2002;52(474)78.</td>
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<tr>
<td>7</td>
<td>P</td>
<td>Venezuela</td>
<td>18 months</td>
<td>Self-organised</td>
<td>Ventres W. Fam pract. 1995;12(3)324.</td>
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<tr>
<td>8</td>
<td>GPT</td>
<td>Ireland</td>
<td>2-3 months</td>
<td>Organised - Irish Registrar Exchange Program</td>
<td>Kinsella P. Aust Fam Physician. 2008;37(9)739.</td>
</tr>
<tr>
<td>9</td>
<td>GPT</td>
<td>Malawi and Australia</td>
<td>4 month</td>
<td>Organised - International Health Fellowship</td>
<td>Dowling S. Educ Prim Care 2015;26(6)388.</td>
</tr>
<tr>
<td>12</td>
<td>MS</td>
<td>Europe</td>
<td>not given</td>
<td>Organised - EU Socrates Programme</td>
<td>van Weel C EJGP. 2005;11(3-4)122.</td>
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<tr>
<td>15</td>
<td>GPT</td>
<td>Worldwide</td>
<td>1-2 years</td>
<td>self organised</td>
<td>Munir S. Educ Prim Care.2013;24(5)303</td>
</tr>
<tr>
<td>16</td>
<td>GPT</td>
<td>United Kingdom (UK)</td>
<td>1 day pre-conference</td>
<td>Organised - Hippokrates VdGM</td>
<td>Villanueva T. Innovai. 2010;3(1)697.</td>
</tr>
<tr>
<td>19</td>
<td>MS</td>
<td>Slovenia</td>
<td>7 weeks</td>
<td>Erasmus through Ljubljana medical school</td>
<td>Rotar-Pavlic D. Acta Med Acad. 2012;41(1)47.</td>
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<tr>
<td>21</td>
<td>GP</td>
<td>Australia</td>
<td>4 months</td>
<td>Self organised</td>
<td>Rhodes C. J RCGP. 1979;29(202)302.</td>
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<tr>
<td>22</td>
<td>GP</td>
<td>Australia</td>
<td>N/A</td>
<td>Self organised</td>
<td>Pearce C. Aus J Rural health. 2000;8(4)218.</td>
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<tr>
<td>24</td>
<td>GP</td>
<td>UK</td>
<td>5 months</td>
<td>Self organised</td>
<td>Sweeney G. BMJ. 1971;1(5744)33.</td>
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<tr>
<td>25</td>
<td>MS</td>
<td>United States of America and (USA) 'others'</td>
<td>1 year</td>
<td>Organised - ministry of health, labor and welfare</td>
<td>Kitamura K. Fam Med. 2002;34(10)761.</td>
</tr>
<tr>
<td>27</td>
<td>GPT/GP</td>
<td>Europe</td>
<td>2 weeks</td>
<td>Organised - Hippokrates VdGM</td>
<td>Rigon S.EJGP. 2014;20(1)58</td>
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<tr>
<td>28</td>
<td>MS</td>
<td>Argentina</td>
<td>6 weeks</td>
<td>Organised - McGill medical student incentive</td>
<td>Trop I. Can Fam Physician 1993;39:2600</td>
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<tr>
<td>29</td>
<td>GP</td>
<td>Turkey</td>
<td>Not given</td>
<td>Organised - VdGM</td>
<td>Van Hoorick, J Fam Med Prim Care. 2016;5(2)220.</td>
</tr>
</tbody>
</table>

Summary – Africa (3) Australasia (4) Canada (1) Ireland (2) Europe (12) S America (2) UK (3) USA (1) Worldwide (2)

Table 1 – A summary of the information extracted from the publications segregated into publication number; Stage of Training – General practitioner/family doctor (GP), General Practitioner Trainers (T), GPs in training (GTP), medical students (MS), Nurses (N) Professor (P); Country/continent visited; Duration of exchange and type of exchange
<table>
<thead>
<tr>
<th>Exchange Organisation</th>
<th>Website Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hippokrates exchange</td>
<td><a href="http://vdgm.woncaeurope.org/content/exchanges">http://vdgm.woncaeurope.org/content/exchanges</a></td>
</tr>
<tr>
<td>Family medicine 360</td>
<td><a href="http://www.vdgm.woncaeurope.org">http://www.vdgm.woncaeurope.org</a></td>
</tr>
<tr>
<td>Sante Sud</td>
<td><a href="http://www.santesud.org/">http://www.santesud.org/</a></td>
</tr>
<tr>
<td>Global health fellowship</td>
<td><a href="https://gp-recruitment.hee.nhs.uk/Recruitment/GHF">https://gp-recruitment.hee.nhs.uk/Recruitment/GHF</a></td>
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<tr>
<td>McGill university</td>
<td></td>
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<tr>
<td>Erasmus plus exchanges</td>
<td><a href="http://www.rcgp.org.uk/jic">http://www.rcgp.org.uk/jic</a></td>
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<td></td>
<td><a href="https://www.cfhi.org">https://www.cfhi.org</a></td>
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</table>

**Table 2** List of current opportunities for international exchanges