Undergraduates Choosing Future Careers in General Practice

WINSTON CHURCHILL MEMORIAL TRUST

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Contents

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Author's biography

Maryanne Freer is a doctor, a psychiatrist and a GP educator, who graduated in 1987 from Newcastle upon Tyne, North England. In 1996, she gained a lectureship in primary care at Newcastle Medical School, and is now a course director for early General Practice courses on the Newcastle medical degree. In 2000, Maryanne started to train GP's in General Practice Mental Health. She has now trained GP's across England, Scotland and Wales supported by the Charlie Waller Memorial Trust, Royal College of General Practitioners and GP Training Deaneries. Maryanne also has a senior, General Practice advisory post in Northumberland, Tyne & Wear NHS Mental Health Trust.

Glossary

CFPC	College of Family Physicians of Canada
CSM.	Cummings Medical School, Calgary
FP	Canadian Family Practitioner
FMIG's	Family Medicine Interest Groups
GP	General Practitioner
UBC	University of British Columbia, Vancouver
UG	Undergraduate
UGFM	Undergraduate family medicine

Executive summary

Background

It is well recognised that in the future, with an ageing, multi morbid, UK population, a UK universal healthcare system will need more General Practitioners.

Canada has been working on influencing medical undergraduates to choose family practice as a career for some time with some measurable success. Whilst the Canadian medical education and family practice does differ to the UK, there are many similarities with lessons being able to be transferred.

Methods

A Fellowship was undertaken in order to collect examples of Canadian medical school good practice to share and promote discussion in UK medical schools. The Fellowship was limited to two medical schools in West Canada and a number of different types of Family Practices. No attempt has been made to collect a comprehensive set of good practice examples or evidence-based interventions. However, the report is informed by a key paper in this area: By Choice – not by chance (1). The stages of student learning described in this paper are used to map out the good practice in this report. This paper identifies the GP educator as key in influencing the medical undergraduates career choice. This finding is backed up anecdotally in both countries, and so to support the GP educator in this work, a checklist has been produced. This is a pragmatic tool to help a GP educator identify the areas they are contributing to and what areas they might like to contribute to further.

Findings

Taking these findings into account the recommendations made complement the recommendations in “By Choice- not by Chance” (1). They aim to be realistic and of high impact for participating medical schools.

1.Tensions at the primary- secondary care interface

Tensions at the primary- secondary care interface exist in both Canada and the UK. However, some Canadian medical schools have task groups, strategies, dedicated senior roles and targets relating specifically to recruiting more undergraduates into General Practice. It would seem that this has pushed these Canadian medical schools ahead of the UK in terms of success and examples of good practice.

2.A student’s prior experience before medical school

A student’s prior experience is important. Both Canada and the UK have included more GP’s and family practitioners (FP) in the medical student selection process with variable success. Some Canadian medical schools have prioritised the selection of students from FP underserved areas with health inequalities. These students then go onto have a larger conversion rate to Family Practice as a career.

3.The influence of the formal curriculum

The British medical degree structure is different to the Canadian medical degree structure. The British medical degree has considerably more student placement in General Practice. It is important to recognise that the pre-clinical years do influence early medical student views.

4.The influence of the informal curriculum

Both in Canada and the UK, it is still the frontline practitioner's role modelling of a generalist approach that stands out. Anecdotally, most consider this to be of most influence. Most of the family practitioners met recounted examples of inspiring family practitioners and the patents they had helped as being fundamental in making their choice to be a family practitioner. There were many innovative, unique initiatives by enthusiastic, dedicated, practising family practitioners. Being placed with a family practitioner over a long period was thought to be essential to allow a relationship to develop which instils family practice values, as well as teaches competencies. Longitudinal placements in family practice and community seem to be key, and to have data which demonstrate an increased undergraduate conversion rate to Family Practice.

5.Student expectations on graduation

Both the UK and Canada has GP/ FP student interest groups supported by the relevant college. However, in Canada, student family practice interest groups have more substantive activities and potential impact. The CCFP also makes awards in FP to students.

Conclusion

More medical students choosing General Practice as a career is critical to the future health of the British people. British General Practice has been inspiring medical students to enter into General practice for decades with many individual GP's being dedicated and supreme role models. From this Fellowship, it would seem that some Canadian medical schools have taken a large leap forward with this agenda by having strategic targets, metrics and dedicated roles to support the work, and well as initiatives such as longitudinal placements and student selection favouring underserved areas. "piggy backing" on the Canadian time and tested work, some UK medical schools could pilot such initiatives, resting assured of the impact and so their worth. In both countries role modelling by GP and FP educators remains highly influential. This role modelling needs to be fully supported.

Background to the project

Life will look very different for the next generation. As British citizens live longer with more complex, multiple health problems, we need to take great care of our healthcare resources in order for future generations' health to be as good as ours has been. General Practice is critical to this. General Practice takes a lower cost, health technology approach, and is able to treat patients with complex conditions across a board range of medical competencies (2).

The ageing population trend is already having an impact. Currently many people wait quite some time to see a GP; in some cases up to three weeks. With 11.2% GP vacancies (3), this wait time is set to worsen. This has been recognised by the British Government with the subsequent need for more GP's (4). Yet only 15-30% of recent medical graduates choose General Practice as a career (5). Canada has similar problems, but has been working on this issue for many years, and has reversed the medical undergraduate, career choice trend. In Canada, the percentage of residency positions filled in the national match in family medicine rose from 37% in 2007 to 43% in 2012 (6).

The Canadian context is notably different in a number of ways. Canada is a huge country hosting a significantly smaller population than the UK. Canadian medical students also enter the medical degree as graduates. Widely dispersed, Canadian family practitioners in rural areas take a "comprehensive" approach (including A & E, Obstetrics, practical procedures, doing their own on call). Canadians measure the number of undergraduate choosing FP as a career by the match" rate. This is the percentage of final year undergraduates choosing to enter into a FP residency immediately after graduation. In the UK we have different postgraduate training pathways and do not measure our undergraduate "conversion" rate as such.

However, both British General Practice and Canadian Family Practice have many things in common which makes the sharing of good practice relevant. Both Canada and the UK have an ageing population. Both countries have maintained a universal healthcare system with free of charge access. Both countries have, and will have, reducing tax generated, healthcare budgets. British General Practice and Canadian Family Practice share the same core values and competencies. Canadian Family Practitioners and British General Practitioners operate within similar business models. Both the family and general practitioner remain the "rationer" and "gateway" to specialist services. Both Canada and the UK has significant medical workforce shortages with many communities being underserved. For both countries, rural practice recruitment is an issue. Some remote Canadian and Scottish practices have a similar length of travel to larger hospitals (circa 3 hrs drive).

These similarities mean that examples of good practice in the field from Canada are transferable to the UK, and so the collection through a Fellowship would be beneficial.

Aims and objectives of the project

The aim of the project was to learn ways to increase the numbers of medical students choosing General Practice as a career.

The objectives of the project were to:

- Collect examples of good practice through site visits
- Introduce lesson learnt to the UK and develop further UK – Canadian networks

Purpose of the report

This report is written to contribute significantly to more medical undergraduates choosing General Practice as a career. It is written primarily for medical schools and the GP undergraduate educator. It presents examples of practice to stimulate discussion and subsequent action.

The approach used

This project was delivered through my 2 and ½ week, Churchill Fellowship to the University of Columbia (UBC), Vancouver and Cummings Medical School (CSC) the University of Calgary. The Fellowship was undertaken in September 2017.

The project collected views and examples of good practice from Canadian Family Practitioners and educators, medical students and residents. A number of practices were visited which included inner city, university, small town and remote rural locations. All of the Family Practitioners met had a considerable experience of medical undergraduate teaching, as well as "hands on" experience of supporting Canadian undergraduates to choose Family Practice as a career. The academic term had just started, so no medical students were available in the medical schools.

The examples of practice and views expressed are limited as the Fellowship was brief. The good practice examples are not published nor been collated UK or Canada wide. However, the practice examples reflect actual practice, which is do-able and realistic.

The success of this Fellowship lay in close work with Dr Martina Kelly, a Canadian, senior GP academic from Cummings Medical School, Calgary. Dr Kelly is deeply committed to the area. We worked closely together to develop the Fellowship's itinerary which involved much introduction to, and networking with Canadian Family Practice colleagues. Skype was the communication medium.

The report attempts to take an "easy read" format, so as to be accessible for "time poor" GP educators working under considerable clinical demand. Examples are under the sub headings of the student stages of learning laid out in "By choice not chance" (1), a seminal piece of work in this area both in the UK and in Canada.

Sharing the findings

The lessons learnt from the project have been disseminated to date through a number of means.

The GP educator checklist in the report was introduced at a workshop at Newcastle University GP lecturers meeting.

The GP educator checklist was introduced in a pop-up event at the July 2018 annual conference of the Association for the Study of Medical Educators. Dr Martina Kelly from CSM, Canada spoke of her work at this workshop through an introduction I made to UK colleagues. British – Canadian examples of good practice were shared at this workshop, as well as the further development of UK Canadian colleague relationships.

Through this introduction to UK colleagues a number of Canadian UK research collaborations into this area are being considered.

The report's findings and recommendations are hoped to be shared with the Newcastle medical degree curriculum group. The recommendations have been shared with the Newcastle Medical School Sub Dean Primary care.

Findings

Checklist of good practice examples

The following checklist of good examples is designed to help examples of interest to be identified rapidly which may then promote further thought and consideration. The checklist can also be used by the UK GP educator to add in their own examples of good practice.

The good examples are grouped under the stages of student learning taken from "By choice – not by chance" (1).

The examples included are in the following case studies.

Context	**Aim**	**UK examples**	**Canadian examples**
Addressing tensions at primary secondary interface.	Enhance and ensure equity of learning across healthcare system	Review funding systems, processes and guidance	a. CSM, Calgary have a senior Family Practitioner academic post whose responsibility is to increase the number of students choosing family practice as a career. b. CSM , Calgary have a Board level task group, targets and strategy looking at increasing the number of under graduates choosing General Practice as a career. This task group including work looking at funding issues.
Stage of student journey	**Aim**	**UK examples**	**Canadian examples**
Addressing the student's prior experience of General Practice	The significant contribution of GP's to UG selection	Selectors to include GP's	a. CSM, Calgary have a target number of FP's to participate in medical student selection b. CSM, Calgary and UVC, Vancouver, prioritise the selection of students from underserved FP populations. **c.** UBC, Vancouver use medical student selection interview questions which are generated by the community.
Addressing the formal curriculum	To reflect the patient journey through the different healthcare settings		a. CSM, Calgary have reviewed the type of teaching FP do on the degree and aim to increase the number of lectures and patient presentations delivered by FP's b. CSM, Calgary have a longitudinal placement in FP over a year long period. c. UBC, Vancouver use curriculum cases which integrate community perspectives so as to provide real information about pathways and access to services
Addressing the informal curriculum	Increase in GP placements Prepare		a. Torfino and Bassino FP teach a large range of practical procedures as way to engage students in a FP career b. Torfino FP teach and demonstrate ways for a FP to tackle their patients' issues with delays to and lack of specialist treatment

	students to practice in wide range of community and institutional settings whilst providing the continuum of care Increase in GP's as role models Increase in student GP societies		c. UBC, Vancouver use student group, video clinical debriefs by a FP to reduce student isolation and increase role modelling d. UVC, Vancouver FP educators co-teach medical students and FP residents e. CSM, Calgary place students in regional teaching schools for over more than one year, so as to develop the FP teacher – student mentoring relationship f. Canadian medical schools each have a Family Medicine Interest Group for students which is supported by the Canadian College of FP (CCFP)
5.External influences	External recognition of scholarly activity		a. The College of Family Physicians Canada (CFPC) have annual awards for medical students who have demonstrated a commitment to a career in Family practice
6.Student expectations on graduation	Career advice re portfolio careers GP advocate career advocates		a. CSM, Calgary run FP workshops on FP careers in the first week on the first year for medical students

Case studies of good practice

The case studies are grouped under the stages of student learning taken from "By choice – not by chance" (1).

Case study 1. Addressing tensions at primary secondary interface

A senior family practitioner post responsible for increasing the number of undergraduates choosing family practice as a career.

Actions which may address tensions at the primary secondary interface include enhancement and ensuring equity of learning across healthcare system with a focus on reviewing funding systems, processes and guidance (1).

CSM was set up to train family physicians with an equal emphasis on graduating generalists and specialists (7). In response to a low number of undergraduates choosing family practice as a career, a Task Force on Family Medicine as a Career Choice was set up (8). The task group set the target of each year, half of graduating students' first choice would be to enter into family medicine. This goal was not achieved, though the numbers of undergraduates choosing family practice as a career increased. A new post was created, the Undergraduate Medical Education Director, a senior Family practitioner and senior clinical academic. The main responsibility of this position was to provide educational leadership to promote medical student engagement with family medicine within the undergraduate program. The responsibilities fall into 5 main areas:

1. Curriculum development, delivery and evaluation, including the formal and informal curriculum, and the development of community preceptors.
2. To build community by developing and monitoring a strategic plan for UGFM, to develop and report on key performance indicators and to align operations with university and community partners.
3. To develop systems, including managing budgets and providing an oversight for expenditure for Department of Family medicine Undergraduate activities.
4. The advancement of family medicine, including tracking outcome measures relevant to undergraduate family medicine initiatives and supporting family medicine interest groups.
5. To develop metrics, such as a contiguous dataset, to be used for calculating and benchmarking for annual reporting relative to the strategic plan and funders. This was considered to be essential in order to focus the work on a cost benefits analysis. The metrics CSM use may be found in Appendix 2.

The medical education director post has been successful in many ways and certainly has provided a focus for UGFP at the strategic, financial and performance level. Whilst there is still more work to be done, the post has succeeded in improving the number of undergraduates choosing family practice as a career. A main hindrance has been a limited budget.

In the UK, no such post is not known of, nor medical school which sets goals for the number of undergraduates going into General Practice which are performance managed. The UK has not started to develop a set of metrics to measure the impact of interventions on career choice. Such a post with such a set of goals and metrics would seem essential in UK medical schools in order to make a stepped change in the area. Challenges to implementation of such a post would include the agreement of targets for undergraduate recruitment to family practice when none are set at the national level, the financing of such post in time of UK medical education financial constraint, and the development of a set of UK relevant metrics from a low starting index.

Case study 2. Addressing the student's prior experience of Family Practice

Actions which may address the student's prior experience of family practice include providing a realistic awareness of General Practice to pupils in school with Medical School outreach and widening participation programmes, improving access and quality of work experience in GP and the significant contribution of GP's to under graduate selection.

Research shows that specific attitudinal factors are strongly associated with choosing family medicine (8).

In 2009, the CSM Task Force made five recommendations regarding medical school admissions. This included that two members of the planning subcommittee come from a family medicine background, that one quarter of the selection subcommittee are family physicians, that at least one member of the multiple mini interview committee be a family physician and that each applicant's file be reviewed by at least one family physician. They also recommended that the list of faculty approved attributes include those that favour choosing a career in family medicine. This quota has not been taken up to date and the admissions policy for CSM is currently under review. It is not clear why these recommendations have not been taken up.

In the UK it is not known of any such quotas relating to GP's in medical school admissions processes. Whilst core UK academic GP's may perform medical student selection as part of their core role, the numbers are limited. For other GP teachers to be involved in medical student, multiple mini interview circuits, independent session payment would need to be found. The payment of GP teachers as such is a major barrier to GP involvement in medical student selection in the UK. Support to independently contracted GP teachers would need to be developed.

At UBC, Vancouver, community members are involved in the medical student selection process by each year the medical student selection questions being rewritten by members of the public and people from outside the faculty. This brings into the selection process the community views on their doctor.

In the UK it is not known of community members writing medical student selection questions. Indeed, the level of public engagement in the medical degree curriculum and processes is thought to be low. A UK medical school could trail the development of community written medical student selection questions. This would also further the public engagement strategies of medical schools.

UBC medical school have done some work which shows that not only a student's attitudes are important, but also a student's home background. In this work, one third of medical students choose FP as a career who came from a rural background (verbal communicate). The Northern Teaching Centre for UBC medical school in Prince George have their own medical student selection process which has increased weighting for local students from this traditionally, medically underserved community. More students from this programme convert to family practice as a career.

In the UK, this work could be relevant to areas underserved by GP's, which may include rural locations and inner city location with significant health in equalities. In the UK, most medical schools run local comprehensive school partnership programmes which support local students to gain local medical school entry. However, this is not as specific as the UBC example which specifically targets medically underserved populations. This approach could be explored in the UK focusing on the selection of medical students who reside in underserved GP populations.

Case example 3. Addressing the formal Curriculum

Actions which may be taken to address the formal curriculum include reflecting on the patient journey through different healthcare settings, a more integrated, less speciality organised approach and business elements of GP (1).

CSM, Calgary reviewed the curriculum delivery type by Family Medicine Faculty compared to overall delivery type across the degree programme. Family physicians largely delivered small group cases and clinical skills sessions. Student exposure to Family Practitioners through the higher status and larger audience methods of lectures and patient presentations were limited. CSM are having discussions to whether family physicians should deliver more lectures and patient presentations.

In the UK, GP educators, across the five years of the degree programme, mainly deliver individual/ pair student clinical teaching and small group teaching. Some lectures and student presentations in year 1 and 2 are delivered by GP teachers. More lectures and patient presentations in year 1 and 2 could and should be delivered by GP teachers.

UBC medical school review each teaching case, not only with a family medicine perspective, but also with a community perspective. The community perspective ensures that the care illustrated is current, accurate and reflects the reality for a community. For example, treatment in the case might be X, but this treatment is not available locally, with wait times are over a year in a distant health centre where people will need to travel. The cases include how a family practitioner may tackle such local healthcare patterns. A senior undergraduate medical student reviewed these cases, interviewing local people and local family practitioners from these areas and incorporating these real-life perspectives into the cases.

In the UK some medical schools have reviewed their teaching cases from a GP perspective. It's not known of any teaching case reviews including the community perspective. More teaching case reviews by GP's could be done. Community members input into teaching case reviews should be encouraged.

CSM, Yellow stone Regional Teaching Centre have a well-established longitudinal placement based in family practice. This is over a year and includes the students self-organising clinical experience with specialists and other healthcare providers in the local community. In essence, it is integrated longitudinal placement in a local community (as opposed to Family Practice or specialism). Its main value is said to be due to the year length of the placement which enables students to build a strong, continuous, relationship with their family practitioner educational supervisor which serves as role modelling. This placement has a high conversion rate of undergraduates choosing Family Practice as a career. Anecdotally, it is said that students from these placements have an increased rate of return to the locality to work medically when qualified. The challenges with such placements include the high cost and the high time consumption required to organise. It is interesting to note that despite the proven and established success rate of student conversion to family practice, this placement has not been rolled out to other teaching centres.

In the UK, many medical schools are considering longitudinal placements as part of curriculum reviews. These often are for short periods of time. The Yellowstone model could be trailed in some of the UK localities of underserved populations to evaluate if this has any impact on students from such placements retuning to work in such areas on qualification.

Case study 4. Addressing the informal Curriculum

Actions to address the informal curriculum include an increase in GP placements, the preparation of students to practice in wide range of community and institutional settings whilst providing the continuum of care, an increase in GP's as role models, an increase in teaching by GP teaching fellows and registrars and an Increase in student GP societies (1).

The Torfino Family Practitioners feel that it is essential for a student to experience the wide range of family practice in an "hands on" manner if they are to choose family practice as a career. Students on placement with this remote, rural practice "live in" and gain considerable experience of a broad range of small procedures which receive very positive student feedback. The Torfino Family Practitioner teach their medical students to take responsibility, not only for their patients, but for long term continuity of individual patient care, and proactively tacking local healthcare issues. An example given was a family practitioner solving the closure of their practice's A & E department by leading on gaining new monies for a new service. Medical students were inspired by this action. The students had been distressed and shocked by deaths linked to the A & E closure. The students saw family practitioners taking positive action which was explained in terms of a family practitioner's "community obligation" and "social accountability".

In all the teaching clinics I sat in on, medical students felt that being co-taught with family practitioner residents helped them understand what family practice would be like as a career. Seeing patients alone helped the student realise how much they did not know, and the need to gain a broad generalist knowledge which could be found in family practice. Role modelling by residents to medical residents was considered to be important to allow students to see how the early years of family practice could look.

To reduce student isolation (particularly if on a solo, residential family practice placement or in a rural setting), and to increase family practice role modelling, UBC, Vancouver use student group video conferencing for clinical de briefs with an experienced family practitioner. This is extremely popular with the students.

In the UK there are similar opportunities for students to be inspired by real GP practice and GP role models. In both counties, this relies on the frontline GP and GP educator's commitment to generalist patient care. This positive role modelling continues in the UK despite hugely increasing patient care demands meaning time is scarce. This role modelling also continues despite a lower level of reimbursement for education over patient care. Role modelling is possibly still the most significant influence on UK medical student selection of General Practice as a career, particularly in the context of the low level of UK medical school strategic initiatives. To increase the GP educator role modelling, reimbursement in line with clinical care needs to be done valuing and protecting GP education time. Appropriate, remote teaching technology would need to be supported in practices.

Both UBC and CSM both consider the time in a local community learning from both generalists and specialists is important. Students are placed in regional teaching centres over a number of years. This allows long term relationships to be developed with each doctor in that local community, a far more individualised relationship with the leaner and increased family practice role modelling. At CSM, all students have to do a mandatory placement in a rural Family Practice which is underserved. This is highly rated by students and opens the student's horizons to future career settings.

In the UK, placements in dispersed regional teaching centres tend not to be over a number of years. Longer term placements in underserved locality teaching set ups could be trailed. The barriers to this would be student views, as often being placed in a more remote teaching set up is less popular.

In the early 2000s, supported by the Collage of Family Physicians of Canada (CFPC) Family Medicine Interest Groups (FMIG's) were set up in each Canadian medical school. The groups are run by medical students and family medicine champions. A FMIG aims to a) increase the number of students choosing family medicine as their speciality; b) increase students understanding of the breadth and depth of family practice; c) improve the positive collegiate environment of family practitioners (9). FMIG's run several initiatives including a conceptual framework to increase interaction between medical students and family physicians. The FMIG lessons learnt and tips for setting up groups are published. (10) It was not possible to gain student views on FMIG as the term had not started properly on the dates of the Fellowship. GP academics supporting the groups did not seem to have a close involvement. The FMIG is a student run group which may explain why. However, the lack of close FP academic involvement might make the impact on career choice less.

In the UK the RCGP has pushed hard for each medical schools have GP interest groups run by students. A small amount of funding is available. In the UK, the building of the student – GP educator relationship should be furthered. Student interest groups should also be actively involved in new curriculum design and act as a student voice for the curriculum.

Case study 5. External influences

Actions to address external influences include the external recognition of scholarly activity (1).
The CFPC support two medical student scholarships a year at each Canadian medical school. These recognise and reward commitment and leadership in Family Practice. The scholarships are for $10,000, a significant sum, and as each Canadian medical school has 2 scholarships, they have considerable influence and spread (9).
In the UK, the RCGP do have the Inspiring the Future Awards which medical students may apply for. However, this award may also be applied for by foundation doctors and members of the RCGP. It is not specific enough and potentially too competitive for the medical student. The RCGP should consider specific medical student awards.

Case study 6. Addressing student expectations on graduation

Actions to address student expectations on graduation eternal influences include career advice regarding portfolio careers and GP advocate career advocates (1).

CSM, Calgary run a programme called Med Zero which introduces incoming medical students to family medicine at the start of the degree. The programmes include presentations on "My Life as a Family Doctor" and workshops. Med Zero is highly rated by medical students. Students do ask why other specialties are not featured however. The costs for the day are high.
In the UK, such programmes are not known to the author. Zero cost versions could be trailed.

Conclusion

In this report, it has been described the need for more medical students to choose General Practice as a career. It has been established that this is critical to the future health of the British people. UK General Practice has been inspiring medical students to enter into General Practice for decades with many individual GP's being dedicated and supreme role models. However, often this work is piece meal, and not supported by a strategic approach. The strategic approach it would seem, has enabled some medical schools in Canada to make step up changes in the number of undergraduates choosing Family Practice as a career. This would include strategic targets, metrics and dedicated roles to support the work. In addition, there are some initiatives of interest, such as longitudinal placements and student selection favouring underserved areas. UK medical schools could "piggy back" onto such time-tested work and pilot such initiatives resting assured of the impact and so their worth. In both countries role modelling by GP and FP educators remains highly influential. This role modelling needs to be fully supported including the equitable pay between GP care and educator delivery. Recommendations are made which can be taken up whole heartedly by a medical school, or piece meal by GP educators.

Recommendations

Tensions at the primary secondary care interface

Recommendation 1.

Individual UK medical schools to set up a task group and support or appoint a senior GP academic to take responsibility for increasing the number of undergraduates choosing General Practice as a career. The evaluation of such to be measured.

Lead responsibility: Individual Medical Schools.

Supported by: Medical School Council, Heath Education England, NHS England

Outcome measure: One UK medical school to set up a Board level, funded, strategic approach by the start of the 19/20 academic year with an evaluation of impact to be shared across medical schools.

Recommendation 2.

The development of a set of metrics to be used to measure which interventions have the most impact in UK medical schools on undergraduates choosing General practice as a career.

Lead responsibility: Heath Education England.

Supported by: Medical Schools, Medical School Council, NHS England, Society of Primary Care Educators.

Outcome measure: By the start of the 19/20 academic year, a cross UK medical school research project set up to develop a set of parameters.

A student's prior experience before medical school entry.

Recommendation 3

Individual medical schools to set a target for the numbers of GP's involved in the medical student selection process with GP educators being adequately funded.

Lead responsibility: Medical Schools

Supported by: Medical School Council, Heath Education England.

Outcome measure: For 19/20 academic year, a UK medical school audit of the numbers of GP's involved in the medical student selections

Recommendation 4.

A longitudinal research project into the impact of selecting students from a GP underserved locality on student return rate after graduation

Lead responsibility: Heath Education England

Supported by: Medical Schools, Heath Education England, Medical School Council, Society of Primary Care Educators

Outcome measure: For the 19/20 academic year, the setup of a longitudinal research project into the impact of selecting students from a GP underserved locality on student return rate after graduation

The influence of the formal curriculum

Recommendation 5

Individual medical schools to have increased targets set for GP lectures and patient presentations in year 1 and year 2.

Lead responsibility: Medical Schools

Supported by: Society of Primary Care Educators.

By the start of the 19/20 academic year, at least 4 UK medical schools to have increased the amount of year 1 and year 2 GP teaching.

The influence of the informal curriculum

Recommendation 6

The rates of reimbursement for GP educators to have parity with GP clinical rates

Lead responsibility: Medical School Council.

Supported by: Medical Schools, RCGP.

Outcome: By the start of the 19/20 academic year, a UK wide audit of the rates of reimbursement of GP educators compared to GP clinical rates.

Recommendation 7

Regular sharing of good practice in GP role modelling at key GP educator conferences.

Lead responsibility: Society of Primary Care Educators

Supported by: Medical Schools, RCGP, Medical Schools Council

Outcome: By the start of the 19/20 academic year, 2 good practice workshops at 2 of the major GP educators' conferences.

Appendix One

Itinerary of the trip

31/8/17: Tonquin Clinic: Sit in on surgery. Meet with FP partners. Visit A & E.

4/9/17, 5/9/17, 7/9/17, 8/9/17: Department of Family Medicine, University of British Columbia: Meetings with FP academics

6/9/17: UBC student health service: Sit in on surgery. Meet with FP teachers, FP residents and 3rd year medical students

11/9/17: Bassano Medical Centre. Sit in on surgery. Meet with FP teacher, FP residents and 3rd year medical students. Visit A & E.

12/9/17 to 15/9/17: Cummings Medical School, Calgary. Meetings with FP academics

Organisations visited

1.Tonquin Clinic, Torfino, Vancouver Island, British Columbia
https://www.canpages.ca/page/BC/tofino/tonquin-medical-clinic/1595204 (cited 11.9.18)

2.Department of Family Practice, University of British Columbia (UBC), Vancouver, British Columbia
https://www.familymed.ubc.ca/ (cited 11.9.18)

3.UBC student health service, Vancouver**.** https://students.ubc.ca/health-wellness/student-health-service (cited 11.9.18)

4.Bassano Medical Centre, Alberta
https://www.albertahealthservices.ca/findhealth/facility.aspx?id=1000731 (cited 11.9.18)

5.Department of Family Medicine, Cummings Medical School, University of Calgary, Alberta
https://www.ualberta.ca/medicine/departments/family-medicine/ (cited 11.9.18)

6.University of Calgary Health Services
https://www.ucalgary.ca/wellnesscentre/services/health-services (cited 11.9.18)

Details of the visits

Tonquin Clinic, Torfino, Vancouver Island, British Columbia

Torquin clinic is a small, rural teaching practice with the University of British Columbia, Vancouver. The clinic is in Torfino, a remote, small town where the nearest hospital is circa 3 hours' drive away (equitable distance for some Scottish Highlands practices). The patient population was young to middle aged, and largely self-reliant. Older people with multi morbidity tended to move away to be near town and city's hospital and residential homes. The Family Practitioners were established partners in the practice

I was hosted by a senior partner of the practice. I sat in on her clinic and then met with other senior partners afterwards. I could not meet the final year medical student placed with the practice as he was working at another branch some distance away. In the afternoon I visited the FP run, A and E department and small, cottage hospital.

The Torfino family practitioners explained that they took a comprehensive approach. This included running the town's A & E unit, obstetrics, as well as performing many practical procedures. The students were given a "comprehensive" range of clinical experience with much patient contact and support to do practical procedures. This was considered to be critical to influencing the student to choose FP. The practice was inspiring in the way the FP's took responsibility, for not only their patients' healthcare, but their family's and the community's healthcare too. Students and FPs took their own patients on call. The FP's were extremely involved in developing local health services and involved the students in this too. Due to the rural setting, final year medical students stayed locally on what was a type of longitudinal placement. The practice was an extremely popular placement for medical students. The practice had no Family Practitioner recruitment issues with many applicants for the occasional vacancy.

University of British Columbia (UBC), Vancouver, British Columbia

The Medical School of the University of British Columbia (UBC) is a large medical school covering a huge geographical area, taking a dispersed teaching centre approach. Much clinical teaching is through a number of regional teaching centres, a considerable distance from the main campus.

I was hosted by a senior Family Practitioner academic, and also met with the regional Family Practitioner Directors. FP academics told me how UBC has a high number of undergraduates choosing Family Practice as a residency, with a match rate of 41% in 2016. However, all of the region had Family Practitioner recruitment problems, whether inner city or rural. This was illustrated by the majority of the Family Practitioner teaching staff and medical residents interviewed not being able to register with a Family practitioner due to lack of availability. Much work had been done about recruiting regionally and there was strong support for local students studying locally, as well as longitudinal placements. UBC Family Practice had a strong community perspective which was proactively used in their teaching.

UBC student health practice, Vancouver

UBC run an inner city, family practice for their students which is also a teaching practice. I sat in on a clinic where the patient group presenting were mainly young adults and families. Hospital services are nearby and include Walk In Centres. The final year medical students and Family Practitioner residents were taught at the same time by a Family Practitioner. This was an interesting set up as all patients were seen by the medical students or residents under live video supervision by a Family Practitioner based in a team office. The Family Practitioner rarely saw a patient directly. The medical students were also taught by residents. As well as meeting with the Family Practitioners in the clinic, I met a number of the residents and medical students. All learners were highly enthusiastic about Family Practice as a career and felt their Family Practice teachers in the clinic were inspiring role models. All learners had concerns about the future health provision and how it was to meet the needs of a community. The leaners met took an ethical stance.

Bassano Medical Centre, Alberta

Bassano medical centre is a small, rural practice in a small town 90 minutes away from a larger hospital and town. The main stay of the practice is an experienced GP, who had been there for many years and practices comprehensive family practice.

The practice run the A & E unit, deliver babies and do practical procedures, though they do have more access to specialist services than Torfino, being 90 minutes' drive away from a larger hospital (equitable distance practice to hospital for some UK rural practices too). The practice population is stable and has more elderly patients with more chronic disease. I talked to the Family Practitioner, medical students and residents. The FP told me that final year medical students live on site with Family Practitioner residents and get highly involved with all aspects of the practice. Medical students are co-taught with residents. Leaners are given a wide range of hands on practice and are very involved. Medical students and residents found their Family Practitioner teacher an awe-inspiring role model, particularly his competence as a comprehensive practitioner. The students there had actively chosen a small town FP placement, and wished to return to such a set up. They were not keen to practice at a greater distance from a hospital.

Cummings Medical School, University of Calgary, Alberta

Cummings is a medical school which was set up to have a Family Practice focus. I met with senior Family Practitioner academics, as well as Family Practice teachers. The medical school is a dispersed medical school covering a huge geographical area with regional teaching bases, some a large distance

from Calgary in remote areas. The central medical school is located in an inner city. The school has a dedicated, academic job focusing on the undergraduate choice of Family Practice as a career. The school also has a related strategy. They have done a lot of work with Family Practice longitudinal placements. The school is developing metrics to measure the impact of their interventions on FP choice.

Student Lead for the Canadian College of Family Practitioners (CCFP)

This role is taken by one of the senior FP academics at Calgary, so meeting was easy whilst on site. The CCFP has a dedicated role and undergraduate recruitment strategy. Historically their work in this area has focused on marketing FP to students based on the positives of a FP life style. They want to move to a more value-based approach and are researching student attitudes.

Cummings medical school teaching family practice

This is an inner city practice with a mixed practice population with some mobility. Hospital services are nearby. There are a range of local voluntary organisations to refer to. I met with students and a FP teacher and sat in on clinics. Students and residents are taught together under supervision of experienced family practitioners. The Family Practitioner teachers sees patients directly. I met Family Practitioner residents at the clinic who were enthused with Family Practice and wanted to remain in it. The residents felt their FP teacher was a strong role model. The residents felt that prior personality attributes were essential for choosing Family Practice as a career.

Appendix 2

CSIM, Calgary Key Performance Indicators for Undergraduate Family Medicine, 2018

Overarching KPI: Percentage of U of T undergraduate medical students choosing FM in the first iteration

Formal Curriculum
Number of family medicine courses and duration in 0.5 days

Teaching
Overall number of teaching hours
- Number of classroom-based teaching hours by lecture
- Number of classroom-based teaching hours by small group
- Number of clinic teaching hours (by course)

Teaching sites
Number of teaching sites
Number of teaching sites urban
Number of teaching sites rural
Number of students in Central teaching clinics (by course)

Rural – number of students taking rural placement by course
Teachers
Number of teachers total
Number of teachers by AMHSP category (esp FTA)
Number of first time teachers
Number of sessional teachers
Number of returning teachers
Number of retired clinicians teaching
Number of teachers in Course chairs
Number of teachers on course committees

Formal curriculum evaluation
Overall student course rating (by course)
Overall rating per teaching activity lectures / small group
Number of students failing (by course)
Number of appeals (by course)
Number of preceptors satisfied with teaching
Number of preceptor awards (student nominated)

Build community
Number of UG specific faculty events
Attendance / event

Informal curriculum (students)
Number of events
Attendance / event
Preceptor engagement

Scholarship

Faculty number of posters, presentations, at local (e.g. ASA), national (FMF, CCME) and international meetings (STFM, NAPCRG)number of articles submitted and published
Students support to present posters, presentations, at local, national and international meetings

Administrative time
Number of UG faculty hours at Dept, UME, Faculty, National meetings

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