

Paper

Factors influencing final year medical students' choice of Foundation Programme

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Accepted 17 July 2013

INTRODUCTION

Since 2005, medical students apply through the UK Foundation Programme to obtain a 2-year Foundation Programme (FP) post. Each FP consists of placements in a combination of hospitals and specialties. Once allocated to a Foundation School, students then rank multiple FPs in order of preference.

Although there is some published literature regarding choice of Pre-Registration House Officer posts and North American Residency programmes, there is a paucity of research relating to choice of FP. This study aims to ascertain the factors influencing final year medical students' choice of FP. This has significance, not only for students, but for those co-ordinating both undergraduate medical education and post-graduate training.

METHODS

A mixed methods approach was utilised to determine which factors influence medical students' choice of FP. A student survey was combined with focus group discussions to obtain both qualitative and quantitative data.

Study participants were medical students in their final year of study at Queen's University Belfast Medical School during the academic year 2011-2012. Ethics approval was granted by the Research Ethics Committee of the School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast.

QUESTIONNAIRE

Following a literature review and discussion with Foundation doctors, a pilot questionnaire was formulated. A combination of open, closed, free-text and Likert scale questions were used to obtain demographic data and assess factors influencing choice of FY1 and FY2 placements. The questionnaire was disseminated to final year students present at a year-group lecture. Consent was considered implied via anonymous participation. Data were then transferred to spreadsheet format (Microsoft Excel© 2007, Microsoft, Redmond, Washington, USA). Analysis was then performed with the assistance of a medical statistician. Free-text answers were analysed for themes and responses then categorised accordingly.

FOCUS GROUPS

An initial focus group discussion was conducted after students had been allocated to a Foundation School and before submission of their FP choices. Ten final year medical students participated after providing written consent. These students then participated in a second focus group discussion after having been allocated to a 2-year FP commencing August 2012. Both sessions took place at Queen's University Belfast, Clinical Skills Education Centre and were audio-recorded to facilitate transcription.

RESULTS

Questionnaire

Of the 243 medical students in final year, 160 were in attendance at the lecture. With 149 completing the questionnaire, the response rate was 93% of attendees and 61% of the entire year group.

Ninety-four percent of respondents were aged under 25 years and 58% were female. One hundred and twenty-six (85%) respondents had placed the Northern Ireland Foundation School as their first choice.

Factors influencing choice of Foundation Programme

Eighty-four (56%) participants considered FY2 placements to be more influential in choosing a FP compared with FY1 placements (11%). Forty-eight (32%) students felt that FY1 and FY2 were equally influential. Tables 1a and 1b demonstrate the students' responses regarding the influence of various factors on the choice of both FY1 and FY2 placements.

Type and location of hospital

Sixty-seven (45%) respondents agreed or strongly agreed that they would like to work in a central teaching hospital during FY1. However, more (59%) wanted to work in a central teaching hospital during FY2. More students (54%) agreed or strongly agreed that they would like to work in a peripheral general hospital during their FY1 year than during FY2

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(36%). Eighty-four (57%) students agreed or strongly agreed that they would like to work close to home during their FY1 compared with 39% regarding FY2 placements.

Undergraduate experience

The majority of respondents indicated that they would like to work in a hospital where they had good undergraduate experience. One hundred and twenty-two (81%) respondents agreed or strongly agreed with this statement for their FY1 year and one hundred and eleven (75%) agreed or strongly agreed regarding their FY2 placements.

Postgraduate education & research opportunities

A good reputation for postgraduate education was an important factor for the majority of respondents. Eighty-two percent of students agreed or strongly agreed that they wanted their FY1 placements to be in a hospital with good postgraduate education. Regarding FY2 placements, 80% again agreed or strongly agreed with this statement.

Research opportunities were less influential, especially regarding FY1 placements. Just 24% agreed or strongly agreed that they would like to work in a hospital with good research opportunities.

Doctors' recommendations

One hundred and thirty (87%) respondents either agreed or strongly agreed that their choice of FY1 placement would be influenced by junior doctors' recommendations. Similarly, regarding FY2 choices, 109 (80%) students would be influenced by junior doctors' recommendations. Senior doctors' recommendations were also influential, although less than those of junior doctors. Ninety-seven (66%) of respondents agreed or strongly agreed that their FY1 choice would be influenced by senior doctors compared with 74% regarding FY2.

Career specialty plans, FY2 combinations & interviews

Seventy-four percent of respondents agreed or strongly agreed that their career specialty plans would influence their choice of FY1 placement. This was even more influential regarding choice of FY2 placement with 93% of students agreeing or strongly agreeing with this statement.

Most students (82%) either agreed or strongly agreed that their choice of FY2 placement would be influenced by the combination of specialties available. Students were also asked to indicate whether the timing of Core Training interviews would influence their choice of FY2 placements. Thirty-eight percent either agreed or strongly agreed with this and a further 38% had no strong view.

Shift and rota patterns

Similar numbers of respondents either agreed (27%) or disagreed (30%) that shift or rota patterns would influence their choice of FY1 placements. Forty-three percent had no strong view which was similar to the number of students

(49%) who had no strong view regarding FY2 placements. Again, only 29% agreed or strongly agreed that shift and rota patterns would influence their FY2 placements.

Most influential factor

Students were asked to indicate the most influential factor in their choice of FP [Figure 1]. One hundred and twenty-eight (86%) students responded. Specialty factors accounted for 57% of responses in total. Location was the next most influential factor (17%).

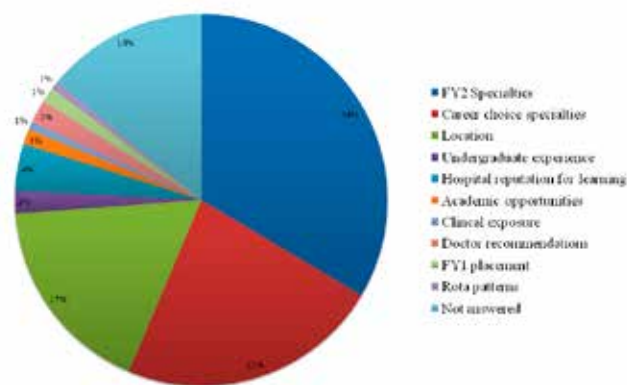


Fig 1. Single most influential factor in choice of Foundation Programme

Focus Group Discussions

Ten (5 male) final year medical students participated and all were aged less than 25 years, from Northern Ireland and a white ethnic background. Seven students had been matched to the Northern Ireland Foundation School, 2 to the Scottish Foundation School and 1 to the South Thames Deanery Foundation School. The following themes emerged on transcript analysis:

FY2 Specialties

All students emphasised the importance of the combination of FY2 specialties in ranking their choices of FP and most stated that this was the most influential factor. Those having chosen a specific career specialty focussed on FPs containing these specialties. If their specialty was not available at FY2 level then they chose allied specialties with similar skill-sets. Some wanted to gain experience in their intended specialty before applying and interviewing for Core or Specialty Training.

Hospital Factors

Influential factors included positive undergraduate experience, junior and senior doctors' recommendations, working patterns, quality of clinical experience and postgraduate teaching. Salary and hospital accommodation issues were not considered influential in ranking choices.

Location & Personal / Social factors

Location emerged as another major influence. Reasons included: proximity of residence, family and personal reasons,

TABLE 1A
Factors influencing choice of FY1 and FY2 placements (Percentage of respondents)

	Strongly Agree		Agree		No Strong view		Disagree		Strongly Disagree		Not Answered	
	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2
I would like to work in a hospital.....												
which is a central teaching hospital	9	13	36	46	38	32	15	6	2	1	-	2
which is a peripheral general hospital	17	6	37	30	36	46	8	15	2	1	-	2
which is close to my home	20	10	37	29	26	40	11	15	6	4	-	2
where I've had good undergraduate experience	40	24	41	51	13	18	5	3	1	1	-	3
with a good reputation for postgraduate education	37	34	45	46	15	14	2	2	1	1	-	3
with good opportunities for research	5	11	19	28	43	37	29	18	4	3	-	3
where my friends will also be working	5	4	23	25	52	52	17	13	3	3	-	3

local amenities, and moving to obtain experience in another region.

Some students chose Foundation Schools and FPs that enabled them to retain proximity to partners, family and friends. Maintaining links with fellow medical students was also considered an important factor in continuing longstanding friendships and support during their first postgraduate years.

Primary influential factor

Most students ultimately ranked their top choices according to the combination of FY2 specialties available. These posts contained a specialty/specialties which they were considering as a long-term career. One student's primary aim was to get good experience in his first Foundation (FY1) year with FY2 specialties being the next most important factor.

DISCUSSION

Since the introduction of the UK Foundation Programme in 2005, thousands of UK medical students have applied for FP posts. The aim of this study was to determine what factors influence medical students' choice of FP. Analysis of the questionnaire and focus group results show that many factors influence this choice to varying degrees. The most influential factors include:

- Specialty choice
- Location
- Educational factors

Specialty choice

Having considered their likely career specialty, most questionnaire respondents (57%) regarded choice of specialty as the most influential factor. FPs which included this specialty were ranked more highly. Participants in the focus group discussions also cited their specialty choice as either the predominant or one of the most important influences. Students wanted Foundation experience in their chosen specialty before making a career commitment and thus prioritised FPs which included this specialty.

Location

With each FP involving a minimum of 2 hospitals, location was an important influence for many students. Most students nominated the Northern Ireland Foundation School as their first choice. Northern Ireland is a relatively small geographical region and the majority of hospitals are located either in or within a commutable distance of Belfast. This is also the base for the majority of medical students and many

TABLE 1B

Factors influencing choice of FY1 and FY2 placements (Percentage of respondents).

* Specialty combinations and Core Training interviews are not applicable to FY1 year.

My choice of placement will be influenced by.....	Strongly Agree		Agree		No Strong View		Disagree		Strongly Disagree		Not Answered	
	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2
junior doctors' recommendations	31	30	56	50	8	11	4	6	1	1	-	2
senior doctors' recommendations	12	20	54	54	26	15	7	8	1	1	-	2
my career specialty plans	30	56	44	37	14	4	11	-	1	1	-	2
shift and rota patterns	4	5	23	24	43	49	25	17	5	3	-	2
the combination of specialties*	N/A	55	N/A	27	N/A	2	N/A	14	N/A	-	-	2
the timing of Core Training interviews*	N/A	13	N/A	25	N/A	38	N/A	15	N/A	7	-	2

wanted to remain in the Greater Belfast area during their FY2 year in particular. The availability of more specialties may also explain why many preferred FPs with a FY2 rotation in central teaching hospitals. Proximity to their primary residence, family, partners and friends (particularly during FY1) also influenced choice of FP. Most students indicated that they would prefer to work in peripheral general hospitals during their FY1 year. This was due to perceived better clinical experience during this first postgraduate year and recommendations from Foundation doctors.

Educational factors

Students were more likely to choose FPs which included hospitals in which they had experienced good undergraduate education. They were less likely to choose FPs involving hospitals in which they either had a negative experience or none at all.

The quality of postgraduate training appeared even more influential and this influence was largely based on incumbent FY1 and FY2 doctors' recommendations.

The results of this study lend support to the findings of the only published study concerning the factors influencing students' choice of FP. Patel et al surveyed 46 final year students across 3 UK medical schools and reported geographical location to be the most influential factor followed by specialty combination, quality of teaching and hospital/programme. Our study demonstrates specialty combination to be the most important factor although, overall, the most influential factors were broadly similar¹.

During the Pre-Registration House Officer era, McKeown and

Boohan found that location, undergraduate teaching, friendly atmosphere, perceived clinical experience and postgraduate teaching were the main factors². These results are again borne out in this study; however, the main difference between application for a PRHO post and a FP is that medical students now have to consider a 2-year rotation which includes a combination of several specialties. This now appears to be the main discriminator between choices.

US and Canadian medical students apply via national matching programmes for postgraduate residencies. Applicants will have already decided their career specialty and apply to a specialised rather than generic rotation. Having eliminated specialty as a factor in the choice of residency, and although location also ranks highly, North American medical students seem to place more emphasis on the quality of the education and academic opportunities of the hospital or programme. The most influential factors in US and Canadian studies include: 'education programme', 'quality of teaching', 'quality of educational curriculum and training' and 'academic reputation of program'³⁻⁶. Although 80% of our survey respondents agreed that they would like to work in a hospital with a good reputation for postgraduate education, just 4% cited 'hospital reputation for learning' as the single most influential factor. The 'quality of residents in programme' and the 'morale of current residents' were important factors in recent US and Canadian applicant surveys.[5,6] The influence of these factors was also evident in our study as many students sought advice from 'in-programme' Foundation doctors and over 80% agreed that their FP choices would be influenced by junior doctors' recommendations.

CONCLUSIONS

This mixed-methods study has demonstrated the factors which influence medical students' choice of FP. The more influential factors include: choice of specialty, location, and quality of education/training. Specialty choice (and, therefore, the combination of FY2 specialties) is the most influential factor for most students. Although this study provides valid conclusions for the Northern Ireland medical student population, its findings may not be wholly applicable to the entire United Kingdom.

A national Foundation applicant survey would provide additional valuable information regarding the factors influencing students' choice of FP. This could be utilised by UK Foundation Schools to formulate programmes that accurately reflect career aspirations and training needs.

The authors have no conflict of interest.

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